AER Category Analysis RIN

Powercor Australia Ltd

Basis of Preparation documents

PART A

Year ended 31 December 2015

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2.1 Expenditure Summary

Tab name: 2.1 Expenditure summary and reconciliation	
Table name: 2.1.1 - Standard control services capex - capcons	
BOP ID	CAPAL2.1BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

2. RECONCILIATION AND SUMMARY TABLES

2.1 Powercor must calculate the expenditure for each capex and opex category reported in regulatory templates 2.2 to 2.10 and 4.1 to 4.4 and report these amounts in the corresponding rows in tables 2.1.1 to 2.1.6.

2.2 The total expenditure for the capex and opex for each service classification in Regulatory Template 2.1 must be mutually exclusive and collectively exhaustive. Total expenditure for capex must be reported on an "as-incurred" basis.

2.3 Powercor must report an amount that reconciles total capex and opex with the sum of the capex and opex line items in the "balancing item" row in each table in Regulatory Template 2.1. For the avoidance of doubt this means that the sum of each of the capex and opex line items in each of the tables in Regulatory Template 2.1 minus the balancing item must equal the total capex or opex line item in these tables. To do this the balancing item must:
(a) Include the amount of capex and opex reported where these expenditures have been reported more than once within the Regulatory Templates 2.2 to 2.10, and 4.1 to 4.4; and
(b) Account for any differences arising due to the reporting of capex on a basis other than the "as-incurred" basis.

2.4 Powercor must provide an excel spread sheet that contains the calculation of balancing items reported in Regulatory Template 2.1. At a minimum, this spread sheet must:
(a) for each instance where an expenditure item is reported more than once (i.e. Double counted), identify:
(i) where that instance is reflected in expenditure included in the Regulatory Templates
(ii) the value of that expenditure in each Regulatory Template
(b) identify each instance where the Notice requires Powercor to report capex not on an "as-incurred" basis in Regulatory Templates 2.2 to 2.10 and, for the relevant expenditure item, list its corresponding value when expressed on an "as incurred" basis.

2.5 Powercor must provide a reconciliation between the total capital and operating expenditure provided in the Regulatory Template 2.1 to the capital and operating expenditure recorded

Please provide a Response in this box:
The data for the customer contributions expenditure for the years 2009-2015 has been reported on an 'as incurred basis and is consistent with that reported in the annual RIN's for those years. Note that contributions have been stated excluding gifted assets in accordance with the requirements of this RIN.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL[1] data green; and ESTIMATED[2]/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: The data for the customer contributions expenditure for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The SAP financial system is used to extract the information required to state the DNSP customer contribution information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. Information presented in this table excludes gifted assets and relates to standard control services only.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

[1] ''Actual Information" is defined as: "Information presented in response to the Notice whose presentation is Materially dependent on information recorded in Powercor historical accounting records or other records used in the normal course of business, and whose presentation for the purposes of the Notice is not contingent on judgments and assumptions for which there are valid alternatives, which could lead to a Materially different presentation in the response to the Notice.
'Accounting records' include trial balances, the general ledger, subsidiary accounting ledgers, journal entries and documentation to support journal entries. Actual financial information may include accounting estimates, such as accruals and provisions, and any adjustments made to the accounting records to populate Powercor's regulatory accounts and responses to the Notice. 'Records used in the normal course of business', for the purposes of non-financial information, includes asset registers, geographical information systems, outage analysis systems, and so on."

[2] "Estimated Information" is defined as "Information presented in response to the Notice whose presentation is not Materially dependent on information recorded in Powercor historical accounting records or other records used in the normal course of business, and whose presentation for the purposes of the Notice is contingent on judgments and assumptions for which there are valid alternatives, which could lead to a Materially different presentation in the response to the Notice."

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

Not applicable

Tab name: 2.1 Expenditure summary and reconciliation	
Table name: 2.1.5 - Dual function assets capex - all 2.1.6 - Dual function assets opex - all	
BOP ID	CAPAL2.1BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

2. RECONCILIATION AND SUMMARY TABLES

2.1 Powercor must calculate the expenditure for each capex and opex category reported in regulatory templates 2.2 to 2.10 and 4.1 to 4.4 and report these amounts in the corresponding rows in tables 2.1.1 to 2.1.6.

2.2 The total expenditure for the capex and opex for each service classification in Regulatory Template 2.1 must be mutually exclusive and collectively exhaustive. Total expenditure for capex must be reported on an "as-incurred" basis.

2.3 Powercor must report an amount that reconciles total capex and opex with the sum of the capex and opex line items in the "balancing item" row in each table in Regulatory Template 2.1. For the avoidance of doubt this means that the sum of each of the capex and opex line items in each of the tables in Regulatory Template 2.1 minus the balancing item must equal the total capex or opex line item in these tables. To do this the balancing item must:
(a) Include the amount of capex and opex reported where these expenditures have been reported more than once within the Regulatory Templates 2.2 to 2.10, and 4.1 to 4.4; and
(b) Account for any differences arising due to the reporting of capex on a basis other than the "as-incurred" basis.

2.4 Powercor must provide an excel spread sheet that contains the calculation of balancing items reported in Regulatory Template 2.1. At a minimum, this spread sheet must:
(a) for each instance where an expenditure item is reported more than once (i.e. Double counted), identify:
(i) where that instance is reflected in expenditure included in the Regulatory Templates
(ii) the value of that expenditure in each Regulatory Template
(b) identify each instance where the Notice requires Powercor to report capex not on an "as-incurred" basis in Regulatory Templates 2.2 to 2.10 and, for the relevant expenditure item, list its corresponding value when expressed on an "as incurred" basis.

2.5 Powercor must provide a reconciliation between the total capital and operating expenditure provided in the Regulatory Template 2.1 to the capital and operating expenditure recorded

Please provide a Response in this box:
The definition of a dual function asset is 'an asset which operate between 66 kV and 220 kV and which operate in parallel, and provide support, to the higher voltage transmission network'.
Powercor does not own such dual function assets.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: The definition of a dual function asset is 'an asset which operate between 66 kV and 220 kV and which operate in parallel, and provide support, to the higher voltage transmission network'.
Powercor does not own such dual function assets.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Powercor does not own such dual function assets.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

2.2 Repex

Tab name: 2.2 Repex	
Table name: 2.2.1 - COST METRICS BY ASSET CATEGORY (Expenditure & Asset Replacement) 2.2.2 - DESCRIPTOR METRICS (Asset Replacement)	
Asset Group	**Asset Category**
Expenditire & Asset replacements	Poles Pole Top Structures Overhead Conductors Service Lines Switchgear (HV Fuses and Surge Diverters)
BOP ID	CAPAL2.2BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

REPLACEMENT CAPITAL EXPENDITURE

5.1 Table 2.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear Regulatory Information Notice under Division 4 of Part 3 of the National Electricity Law 22 indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the sub-categorisation provisions set out in (a) do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions. Powercor must ensure that the sum of the individual asset categories, including any additional subcategory, additional other asset category or asset refurbishment/ life extension asset category expenditure reconciles to the total expenditure of the asset group.

(d) Powercor must ensure that the replacement volumes by asset group are equal to the applicable replacement volume data provided in table 2.2.2.

(e) Powercor must ensure that the sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.

(f) If Powercor has provided estimated expenditure data on the basis of historical data that has included works across asset groups Powercor must provide the asset age profile data in regulatory template 5.2 against the most elementary asset category. For example, where Powercor replaces pole-mounted switchgear in conjunction with a pole-top structure it must report the asset age profile data against the relevant switchgear asset category. Powercor must

provide documentation of instances where backcast unit costs generated have involved allocations of historical records that include expenditure across asset groups.
5.2 Table 2.2.2 instructions:
(a) Powercor must provide total volume of assets currently in commission and replacement volumes of certain asset groups by specified aggregated metrics. In instances where this information is estimated Powercor must explain how it has determined the volumes, detailing the process and assumptions used to allocate asset volumes to the aggregated metrics.

Please provide a Response in this box:
The physical and financial data for Poles, Pole Top Structures, Overhead Conductors, and Service Lines have been provided in the requested categories.

A sub-category was created under switchgear called "Distribution Fuse / Surge Diverter units" as this expenditure did not fit within the existing sub-categories. Age profile data has been provided in table 5.2 for this new sub-category.

Table 2.2.2 Asset replacement volumes by feeder category do not equal those in table 2.2.1 as feeder categories do not include sub-transmission assets. By the definitions provided to assign feeder categories for assets on distribution feeders, sub-transmission assets do not meet these criteria and are therefore not able to be classified as Urban, Short Rural & Long Rural.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

The following sub category expenditure has been estimated, Poles (excluding staking), Pole Top Structures (excluding zero values), Overhead Conductors as costs are not captured at these sub-category levels. Service Line circuit length was estimated as this information is not captured at all.

2009	2010	2011	2012	2013	2014	2015

The remaining category and subcategory information is based on actual data

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

- All Physical and financial data have been sourced from Powercor's SAP system
- Table 2.2.2 – Feeder Categories have been sourced from Powercor's OMS system

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Table 2.2.1 – Asset Replacement Data** All replacement data was sourced directly from SAP. • **Alignment to Category Analysis highest voltage by material: (Poles)** SAP does not specify the voltage of the pole that requires attention, for this reason the pole voltages were derived from the highest voltage attached to the pole.

- **Alignment to Category Analysis Customer Type and Connection complexity : (Service Lines)**

The customer type or connection complexity is not stored in the SAP notification, it is anticipated that the majority of replacements are residential, for this reason it was assumed that all Service Line replacements were residential simple.

- **Alignment to Category Analysis circuit length: (Service Lines)**

The length of a service line replaced is not captured in any system. An average service length was calculated (22m) from the total km installed provided in table 5.2.1 – Asset Age Profile divided by the number of Service lines recorded in SAP. To estimate the circuit length of the Service Lines replaced, this figure was then multiplied by the number of service lines replaced from SAP.

Table 2.2.1 – Expenditure Data

Expenditure is captured at project level, a project may contain 1 item or a mix of different items, and therefore it is not possible to report accurately on the cost of individual items.
Bottom up site estimates and actual overall expenditure were used to derive sub-category expenditure for Poles (excluding staking) and Pole Top Structures respectively.

Based on the estimators experience the following assumptions were applied:

- Bottom up estimate contains site based direct costs only, materials, labour and contract costs.
- These rates include an estimated design time allowance but do not include for any project management time. All design costs assumed to be internal design resources. There is no allowance for travel time, risk, or overheads.
- All prices are for replacement tasks, using SAP technical standards and standard labour data, where possible live line rates have been used.

Estimated Expenditure: (Poles)

Based on the estimators experience the following assumptions were applied:

- Poles are replaced like for like in same location,
- 70% of new poles would be Wood, the remaining 30% Concrete,
- 70% of the new structures would be inter/angles, the remaining 30% strain/termination structures,
- 20% of pole replacements would require stay wire replacement
- There is no allowance for any rock excavation.
- Assumed that Steel Pole (<=1 KV)'s unit cost is the same as the unit cost for Wood Pole (<=1 KV).
- The AG Pole unit cost has been assumed to be Single-Wire Earth Return (SWER).

Estimated Expenditure: (Pole Top Structures)

Based on the estimators experience the following assumptions were applied:

- 1 in 10 LV pole top structure replacements include fuse/isolator replacement,
- 1 in 15 HV pole top structure replacements include a switch replacement.
- Single circuit for all voltages of pole top structure replacement,
- 1 in 100 66kV pole top structure replacements include an isolator replacement.

Estimated Expenditure: (Overhead Conductors)

Expenditure for minor works which are carried out in conjunction with other maintenance are captured at project level, a project may contain 1 item or a mix of different items, and therefore it is not possible to report accurately on the cost of individual items. Major augmentation works are issued in individual projects.

- Overhead conductor costs for 2009-2011, and 2013 were based on the major project expenditure from SAP.
- Overhead conductor costs for 2012 were derived by proportioning the expenditure on minor works across the sub-categories in the same proportions as the major projects that were undertaken.
- Overhead conductor costs from 2014 were derived by proportioning the expenditure on minor works across the sub-categories in the same proportions as the major projects that were completed.
- Overhead conductor costs from 2015 were derived by proportioning the expenditure on minor works across the sub-categories in the same proportions as the major projects that were completed.

	Actual Expenditure • Service Line expenditure is sourced directly from SAP FC152 and FC153 **Table 2.2.2 – Asset Replacement Data** All replacement data was sourced directly from SAP. • **Alignment to Category Analysis Poles by Feeder Type: (Poles)** SAP does not specify the Feeder Type of the pole that requires attention, for this reason the OMS feeder types were used to derive the poles by feeder category. • **Alignment to Category Analysis Poles by Feeder Type: (Pole top Structures)** SAP does not record whether the Pole Top Replacement in the AER categories '> 1 KV & < = 11 KV' and '> 11 KV & < = 22 KV' are single phase or three phase for this reason their unit costs have been assumed to be the average of the unit cost for a single phase pole top and a three phase pole top.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why was an estimate required, including why it is not possible to use actual data;
2009	**Table 2.2.1 – Reason for estimate – Expenditure Data** **Poles by Highest Voltage & material:** • Expenditure is captured at project level, a project may contain 1 item or a mix of different items, and therefore it is not possible to report accurately on the cost of individual items. • Pole replacement costs are not captured by material and/or voltage within the SAP system. **Pole Top Structures by complexity:** • Expenditure is captured at project level, a project may contain 1 item or a mix of different items, and therefore it is not possible to report accurately on the cost of individual items. • Pole Top Structure replacement costs are not captured by material and/or voltage within the SAP system **Overhead Conductors by highest operating voltage and number of phases:** • Not all expenditure in this area is captured at a single project level, some projects may contain a mix of different defect items, and therefore it is not possible to report accurately on the cost of individual items. • Between 2009 and 2011 Overhead conductor replacement costs are mixed with U/G cable replacement costs. **Table 2.2.1 – Reason for estimate – Physical Data** **Service Lines by connection voltage, customer type, and connection complexity:** • cct length of Service Lines replaced is not captured within SAP, neither SAP or GIS record the actual Service line length of individual services.
2010	Refer 2009

Year	1. why was an estimate required, including why it is not possible to use actual data;
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**Table 2.2.1 – Basis for estimate – Expenditure Data** **Poles by Highest Voltage & material:** Using the known physicals by voltage and material, the total expenditure, and a bottom up estimate of a site cost per unit by voltage and material the expenditure per category was derived. The Wood Pole (<1KV) is anticipated to be the closest equivalent to the Steel Pole (<=1KV) The Single-Wire Earth Return (SWER) pole is anticipated to be the closest equivalent to the AG Pole **Pole Top Structures by complexity:** Using the known physicals by voltage and material, the total expenditure, and a bottom up estimate of a site cost per unit by voltage and material the expenditure per category was derived. Single rates for the AER categories '> 1 KV & < = 11 KV' and '> 11 KV & < = 22 KV' were derived using an average of the bottom up estimate for single and three phase units. **Overhead Conductors by highest operating voltage and number of phases:** Using known physicals and costs from certain projects the expenditure per category was derived. **Table 2.2.1 – Basis for estimate – Physical Data** **Service Lines by connection voltage, customer type, and connection complexity:** It is anticipated that the majority of replacements are residential, for this reason it was assumed that all Service Line replacements were residential simple. An average service length was derived using the total route length of service cable installed divided by number of Aerial Services installed.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	**Table 2.2.1 – Reason for selected approach – Expenditure Data** **Poles by Highest Voltage & material, and Pole Top Structures by complexity** The approach used allows a site cost estimate to be developed, by using this as a base, along with the actual physicals and actual expenditure an average cost can be calculated which allows other costs such as travel etc. to be averaged across each pole

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
	Overhead Conductors by highest operating voltage and number of phases: Is actual project costs **Table 2.2.1 – Reason for selected approach – Physical Data** **Service Lines by connection voltage, customer type, and connection complexity:** Given that the length of service line replaced is not captured in any system, multiplying the number of service lines replaced by the average service line length will provide the most appropriate answer.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.2 Repex	
Table name: 2.2.1 - Replacement Expenditure, Volumes, and Asset Failures by Asset Category	
Asset Group	**Asset**
Asset Failures	Poles Pole Top Structures Overhead Conductors & Underground Cables Transformers (All Pole Mounted, all Kiosk Mounted and all Ground Outdoor/Indoor >=22kV & <=33kV & <=15MVA) Service Lines - <= 11kV; RESIDENTIAL; SIMPLE TYPE Switchgear (HV Fuses and Surge Diverters)
BOP ID	CAPAL2.2BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

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The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

APPENDIX E: PRINCIPLES AND REQUIREMENTS

5. REPLACEMENT CAPITAL EXPENDITURE

5.1 Table 2.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear Regulatory Information Notice under Division 4 of Part 3 of the National Electricity Law 22 indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

APPENDIX F: DEFINITIONS

Asset failure (Repex)
The failure of an asset to perform its intended function safely and in compliance with jurisdictional regulations, not as a result of external impacts such as:

- Extreme or atypical weather events; or
- Third party interference, such as traffic accidents and vandalism; or
- Wildlife interference, but only where the wildlife interference directly, clearly and unambiguously influenced asset performance; or
- Vegetation interference, but only where the vegetation interference directly, clearly and unambiguously influenced asset performance.
- Excludes planned interruptions.

Poles
These are vertically oriented assets that provide load bearing structural support for overhead conductors or other lines assets.

- This also includes associated pole top structures, such as cross-arms and insulators where these are replaced in conjunction with a pole replacement project
- It excludes other pole mounted assets that are included in any other asset group, notably pole mounted substations and pole mounted switchgear such as links, fuses, air break switches etc.

Pole top structures

These are horizontally oriented structures and the attached components that provide support for overhead conductors and related assets to be supported on a pole and provide adequate clearances.

- This relates to expenditure incurred when a pole top structure is replaced independently of the pole it is located on.
- This includes cross-arms and insulators.
- It excludes any pole mounted assets that are included in any other asset group, notably pole mounted substations and pole mounted switchgear such as links, fuses, air break switches etc.

Overhead conductors

These assets have the primary function of distributing power, above ground, within the distribution network.

- It excludes any pole mounted assets that are included in any other asset group.

Underground cables

These assets have the primary function of distributing power, below ground, within the distribution network.

- This includes cable ends, joints, terminations and associated hardware and equipment (e.g. surge diverters, etc.), cable tunnels, ducts, pipes, pits.

Service lines

Includes assets that provide a physical link and associated assets between the distribution network and a customer's premises

- It excludes any pole mounted assets and meters that are included in any other asset group.

➢ **Overhead service wire**
  - A length of overhead conductor that runs from a distribution pole to a distribution customer's, excluding customer which are other network service providers, connection point.

➢ **Underground connection**
  - A physical link between the distribution system and a customer's premises running underground from a pole or service pit to the customer's premises.

Fuse

A device used in distribution networks that can break electrical connection of a load from a supply when current exceeds specified value and duration.

- For the purpose of replacement expenditure classification, switches that incorporate a fuse (fuse switches) are classified as switch.

Please provide a Response in this box:

The description of the assets below relate to asset subcategories in Table 2.2.1, which has been reconciled to the relevant higher level asset categories, as well as having clearly indicated which asset category each sub-category relates to. Powercor defines an asset failure as the state whereby the physical asset is no longer able to perform its function to a level of performance that is acceptable to the business. This reconciles to the RIN definition which refers to an asset failure existing when an asset is no longer able to perform its intended function safely.

- Powercor believes this aligns with the definition stated in APPENDIX F: DEFINITIONS

- Reported pole failure quantities are for unassisted pole failures only. It excludes failures resulting from external factors (eg: lightning, vehicle impact, human agency, aircraft, floods, fires, falling trees, flying debris and winds in excess of design loading.)

- Reported Pole-top structure failure quantities include failed cross-arms, insulators, as well as conductor ties. It excludes failures resulting from external factors.

- Reported overhead conductor failure quantities include the failure of conductor terminations and conductor joints. It excludes failures resulting from external factors

- Reported Service Lines - <= 11kV; RESIDENTIAL; SIMPLE TYPE failure quantities includes both underground service cable failures and overhead service cable failures.

- Underground service cable failure quantities have been provided in accordance with the AER Category RIN definition of an underground service cable.
- Overhead service cable failure quantities have been provided in accordance with the AER Category RIN definition of an overhead service cable.

- Reported High Voltage fuse failure quantities exclude normal fuse operations and failures associated with damage caused by external factors.

- Reported surge diverter failure quantities exclude failures associated with damage caused by external factors or incorrect installation

This methodology meets the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Poles	2009	2010	2011	2012	2013	2014	2015
Pole top structures	2009	2010	2011	2012	2013	2014	2015
O/H conductors & U/G cable	2009	2010	2011	2012	2013	2014	2015
Service Lines - <= 11kV; RESIDENTIAL; SIMPLE TYPE	2009	2010	2011	2012	2013	2014	2015
HV fuses and surge diverters	2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

For Pole, Pole-top Structure, Overhead Conductor, Underground Cable, Underground LV Service, HV Fuse and Surge Diverter failures, the failure data was obtained from the Powercor SAP Asset Failure Database (AFDB).

a. This database is the source for both internal and external asset failure reporting for key asset categories.

b. The data is stored within the 'OA' (Outage Advice) type Notification created in SAP for the individual incident.

For Overhead Service Cables, the failure data was sourced from the Powercor Outage Management System (OMS), as this data is not available in the Powercor SAP Asset Failure Database.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2013
2010	As per 2013
2011	As per 2013
2012	As per 2013
2013	**Pole failures** Pole failures are recorded in the SAP Asset Failure Database • The reported quantities exclude Priority 1 Maintenance defects, as well as external causes such as lightning, vehicle impact, human agency, aircraft, floods, fires, falling trees, flying debris and winds in excess of design loading; where the asset is the victim and not the cause.

Pole-top structures

Cross-arm failures are recorded in the SAP Asset Failure Database,

- The reported quantities exclude those related to external factors and cross-arm/pole top fires.
- The reported quantities include insulator failures recorded in the SAP Asset Failure Database, which exclude those related to external factors.

  The reported quantities include conductor tie failures recorded in the SAP Asset Failure Database, which exclude those related to external factors

Overhead conductors

Conductors that have failed are recorded in the SAP Asset Failure Database.

- The reported quantities include failures associated with Low Voltage & High Voltage Aerial Bundled Cable and covered conductor.
- The reported quantities include failures of conductor terminations and joints that are under tension.
- The reported quantities exclude failures related to an external factors; conductor stranding and non-tensioned sections (e.g. bridges).
- Only numbers of failures are recorded in the SAP Asset Failure Database.
  - In order to provide kilometres of failed conductor it is assumed that, on average, one span of conductor was involved in each failure.
  - The number of failures was converted to km's using a factor calculated from the average of the span lengths (obtained from Powercor's Geographical Information System, GIS).

Table 2.2.1 REPEX Overhead Conductor Categories	**Average Span Length (km)**
<= 1KV	0.04
>1KV & <= 11KV	0.05
>11KV & <=22KV ; SWER	0.27
>11KV & <=22KV ; SINGLE-PHASE	0.13
>11KV & <=22KV ; MULTIPLE-PHASE	0.13
> 22KV & <= 66 KV	0.13
> 66KV & <= 132 KV	0
> 132 KV	0
PUBLIC LIGHTING CONDUCTOR	0.04

Underground cables (HV & LV)

The reported quantities include all underground cable failures recorded in the SAP Asset Failure Database

- Only numbers of failures are recorded in the SAP Asset Failure Database
- The number of failures was converted to km's by multiplying by:
  - **0.006** which reflects the average repair length of **6 metres** (obtained from expert knowledge) for **LV** and other underground cables
  - **0.007** which reflects the average repair length of **7 metres** (obtained from expert knowledge) for **HV** underground cables

Service Lines - <= 11kV; RESIDENTIAL; SIMPLE TYPE

The reported quantities include both overhead service cable failures and underground service cable failures. The customer type or connection complexity is not stored in the SAP notification, it is anticipated that the majority of failures are residential, for this reason it was assumed that all Service Line failures were residential simple.

Overhead service cables

The reported quantities include all service cables failures recorded in the Powercor Outage Management System (OMS), except if the OMS record contains any one, or more, of the following items:

- Cause equal to
  - 'Non-network outage'
  - 'Planned Outage'
- Sub-cause equal to:
  - 'False Call'
  - 'OK on arrival'
  - 'Other Auth asset'
  - 'Other Auth asset (Optus etc)'
- Repair Action equal to:
  - 'Inspected OK'
  - 'No Action'
  - 'No Attendance'
  - 'Ok On Arrival'
  - 'Refer on customer'
  - 'Refer on inspection'
  - 'Refer on investigation'
  - 'Refer on Other Authority Asset'
  - 'Referred On'
  - 'Referred PCS'
- Damage equal to:
  - 'Hazard on line'
  - 'OK on arrival'
  - 'Lack of clearance from structure'
  - 'Lack of Ground Clearance'
  - 'Tight'
- Root cause (all external factors), equal to:
  - 'Animal'
  - 'Bark'
  - 'Bird'
  - 'HV Injection'
  - 'Lightning'
  - 'Other Authority Asset'
  - 'Third party'
  - 'Tree'
  - 'Vandalism'
  - 'Vehicle impact'
  - 'Weather'

Only numbers of failures are recorded in OMS.

- In order to provide kilometres of failed overhead service cable it is assumed that, on average, one span of service cable was involved in each failure.
- The number of failures was converted to km's by multiplying by **0.015** which reflects the average overhead service span length of **15 metres** (obtained from Powercor's GIS).

Underground service cables

The reported quantities include all underground service cables failures recorded in the SAP Asset Failure Database

- Only numbers of failures are recorded in the SAP Asset Failure Database
- The number of failures was converted to km's by multiplying by **0.02** which reflects the average underground service cable length of **20 metres** (obtained from Powercor's GIS)

	Transformers The reported quantities include all Pole Mounted, all Kiosk Mounted and all Ground Outdoor/Indoor >=22kV & <=33kV & <=15MVA transformer failures, that are recorded in the SAP Asset Failure database • The reported failures quantities exclude any Priority 1 Maintenance defects. • Failure details, for all other transformer types, are not covered in this document **HV Fuses** The reported quantities include all High Voltage fuse failures that are recorded in the SAP Asset Failure database • The reported failures quantities exclude any Priority 1 Maintenance defects. **Surge Diverters** The reported quantities include all Surge Diverter failures that are recorded in the SAP Asset Failure database, except those related to external factors, and incorrect installation)
2014	As per 2013
2015	As per 2013

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2013
2010	As per 2013
2011	As per 2013
2012	As per 2013
2013	Only numbers of instances of overhead conductor, overhead service and underground cable failures are recorded in the SAP Asset Failure Database.
2014	As per 2013
2015	As per 2013

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2013
2010	As per 2013
2011	As per 2013
2012	As per 2013
2013	**Overhead Conductors & Service Cables** In order to provide kilometres of failed conductor and cable it is assumed that one span of conductor or an average length of service cable was involved in each failure. The number of failures was converted to km's using a factor calculated from average span or service cable lengths obtained from Powercor's Geographical Information System (GIS). **Underground cables** In order to provide kilometres of failed cable an average replacement length was estimated, using expert knowledge. The number of failures was converted to km's using average replacement lengths.
2014	As per 2013
2015	As per 2013

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	As per 2013
2010	As per 2013
2011	As per 2013
2012	As per 2013

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2013	The use of average conductor and cables lengths was the only method available to convert failure numbers into quantities of conductor and cable replaced due to asset failures.
2014	As per 2013
2015	As per 2013

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

Data has been provided for all the years requested

Tab name: 2.2 Repex	
Table name: 2.2.1 – Replacement expenditure, volumes and asset failures by asset category	
Asset Group 2.2.1	**Asset Category**
Underground Cables	(ALL data for Expenditure)
Transformers	(ALL data for Expenditure)
Switchgear	(ALL data for Expenditure except HV fuses and surge diverters)
Other	Major zone substation replacement works
Other	Plant & stations miscellaneous
BOP ID	CAPAL2.2BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

Asset failure (Repex) - The failure of an asset to perform its intended function safely and in compliance with jurisdictional regulations, not as a result of external impacts such as:
• extreme or atypical weather events; or
• third party interference, such as traffic accidents and vandalism; or
• wildlife interference, but only where the wildlife interference directly, clearly and unambiguously influenced asset performance; or
• vegetation interference, but only where the vegetation interference directly, clearly and unambiguously influenced asset performance.
Excludes planned interruptions.

Replacement Capital expenditure —'Repex' - The non-demand driven capex to replace an asset with its modern equivalent where the asset has reached the end of its economic life. Capex has a primary driver of replacement expenditure if the factor determining the expenditure is the existing asset's inability to efficiently maintain its service performance requirement.

REPLACEMENT CAPITAL EXPENDITURE
5.1 Table 2.2.1 instructions:
(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear Regulatory Information Notice under Division 4 of Part 3 of the National Electricity Law 22 indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.
(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the sub-categorisation provisions set out in (a) do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions. Powercor must ensure that the sum of the individual asset categories, including any additional subcategory, additional other asset category or asset refurbishment/ life extension asset category expenditure reconciles to the total expenditure of the asset group.
(d) Powercor must ensure that the replacement volumes by asset group is equal to the applicable replacement volume data provided in table 2.2.2.
(e) Powercor must ensure that the sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.
(f) If Powercor has provided estimated expenditure data on the basis of historical data that has included works across asset groups Powercor must provide the asset age profile data in regulatory template 5.2 against the most elementary asset category. For example, where Powercor replaces pole-mounted switchgear in conjunction with a pole-top structure it must report the asset age profile data against the relevant switchgear asset category. Powercor must provide documentation of instances where backcast unit costs generated have involved allocations of historical records that include expenditure across asset groups.

Please provide a Response in this box:
This BOP conforms to the requirements and definitions of the CAT RIN as defined in the box above.

Table 2.2.1:
(a) No sub categories were used.
(b) Expenditure associated with asset refurbishments/life extension capex has been included in a row at the bottom of the table. Corresponding age profile data has been provided in regulatory template 5.2
(c) Additional rows have been added where required to describe a specific asset category
(d) Replacement volumes by asset group is equal to the applicable replacement volume data provided in table 2.2.2.
(e) The sum of the asset group replacement expenditure is equal to the total replacement expenditure contained in regulatory template 2.1.
(f) The categories covered by this BOP do not cross asset categories

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
1. Top level Summary Function Code information was sourced from the regulatory reporting accounts. The relevant function codes that relate to this analysis are those managed by the Plant and Stations group:
    - FC 143: High voltage switch replacement
    - FC 144: Transformer and S/STN enclosure replacement
    - FC 150: Underground line replacement
    - FC 154: Unplanned asset replacement – primary plant and secondary assets
    - FC 157: Zone substation primary plant replacement

2. To determine individual Category RIN Asset line allocations from this function code information, SAP Business Intelligence (BI) reports were utilised to extract Work Breakdown Structure (WBS) / project definition expenditure from within the function codes.

Financial accounting CAPEX report "**F262 CAP PAL Netw Direct CAPEX**" was used for the Powercor extraction.

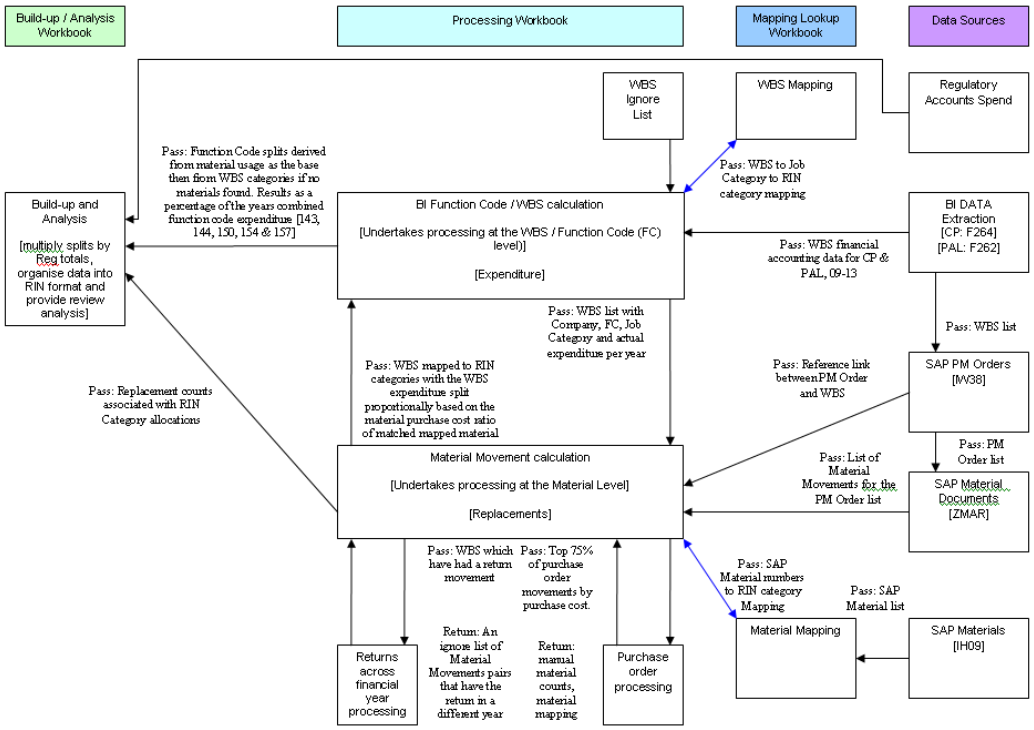
The data was extracted for each year individually. Data was extracted with WBS and Order detail available.

Note that the two data sources will not balance due to differing general ledger accounts being applied to the regulatory accounts and the CitiPower/Powercor internal direct CAPEX reports. The BI extractions are used as a % proxy of the Regulatory Reporting totals as the regulatory totals are at the summary function code level only and do not provide sufficient data to allow mapping of expenditure to the AER RIN categories and classes. The costs provided by the BI reports against individual projects/orders are converted to a percentage of the function code total for the given year. At the conclusion of the cost allocation algorithm these percentages are then multiplied by the regulatory account totals to determine the actual expenditure.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The purpose of this methodology is to describe the process undertaken to allocate plant replacement expenditure from CitiPower/Powercor data structures into the data structures required by the AER. The Regulatory Reporting Accounts provided function code account summaries for each of the function codes. These totals were dispersed to the AER Asset Categories via the SAP BI reporting data. The SAP BI reporting data for each company and each year, obtained in (c) above was merged into a single excel workbook. This work book combines, matches and sorts the project descriptions (WBS's) and allocates RIN category Groups/Classes and splits the WBS expenditure across the appropriate year. It passes this information to the Material movement worksheet, which searches for material movements and maps them to RIN category Groups. This material information is utilised for the WBS split analysis where material items were found. The process reverts back to the original WBS allocations where no material items were identified. The work book then combines the two WBS allocations to present them as RIN category Groups/Classes and proportionally allocates a percentage of the Regulatory expenditure in that year (note only function codes 143, 144, 150, 154 & 157 are included) The combined results are passed into the Build-up worksheet, for final multiplication by expenditure totals, formatting and analysis. The process chart below describes the transfer of information, reading from right to left.

	
2010	As 2009
2011	As 2009
2012	As 2009
2013	As 2009
2014	As 2009
2015	As 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimation is required in this instance: • In order to bridge the differences in definitions between CitiPower / Powercor Function Code accounts and the Regulatory Category Asset Classes. ○ CitiPower / Powercor function code definitions, for function codes 143,144,150,154 and 157, are broader than the Category Asset Classes and, in some cases, the Category Asset Groups. For expenditure to be allocated to an Asset Class the definition gap must be bridged.
2010	As 2009
2011	As 2009
2012	As 2009
2013	As 2009
2014	As 2009
2015	As 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimation is based on: • The manual allocation of a job category to each project cost collector (WBS). This allocation takes into

account the description of the WBS, familiarisation with particular projects and technical knowledge of the CitiPower / Powercor Distributions Networks (i.e. voltage levels and equipment utilisations etc.).

- The additional allocation of a Category Asset Group and Class to each job category. This allocation takes into account the description of the WBS, familiarisation with particular projects and technical knowledge of the CitiPower / Powercor Distributions Networks (i.e. voltage levels and equipment utilisations etc.).
- From this categorisation the % allocation of expenditure to each Category Asset Class can be determined and multiplied by the total regulatory spend in each year. This will provide a cost breakdown to the Category Asset Class level.
- This estimation technique does not result in a completely successful mapping. There is a residual that cannot be mapped due to inappropriate classifications (i.e. financial accruals at the function code level) or insufficient information in the WBS description to make a reasonable assumption. The residual is also influenced by plant and equipment for which age profiles are not available. Examples of this include but are not limited to:
    - Financial Accrual / Transfers
    - Plumbing and Backflow Prevention
    - Fence Replacement Zone Subs
    - Fire System replacement
    - Lighting Systems Replacement Zone Subs
    - Other ZSS Roof replacement
    - Roof Replacement TF bays (concrete roofs)
    - Roof Replacement Zone Sub Switchroom
    - Sub Façade Replacement
    - ZSS Building Redevelopment
    - Air Conditioner Replacement
    - Cable Duct Replacement Zone Sub Yards
    - Fibre comms facilities
    - Flexible Earths Replacement
    - Flood Mitigation
    - HV Earth Repair /Replacement (Reg 27)
    - Surge Arrester Replacement

  The two residual categories introduced to the template by this analysis are:

Asset Group	Asset Category
OTHER BY: DSP DEFINED	Plant & Stations Miscellaneous
OTHER BY: DSP DEFINED	Major Zone Substation Building Replacement Works

  The expenditure against these items by their nature is very variable in scope and driver, not of a homogenous nature across any stated asset sub-category, and so while there is expenditure for these activities, there are no consistent physicals or unit costs to report. By definition therefore, the expenditure against each activity is not related to any stated asset sub-category and hence an age profile dataset is **not** provided for these activities on table 5.2.1.

- The Underground Cable By: Voltage < = 1kV category allocations include those associated with LV underground Service cable and Public Lighting U/G Cable as these values could not be distinguished in this process.

2010	As 2009
2011	As 2009
2012	As 2009
2013	As 2009
2014	As 2009
2015	As 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This method was selected as: • It provided a more accurate result than a percentage split of function codes based on unfounded estimation. • Further investigation of individual hard copy project documentation was not expected to significantly increase accuracy do to the unavailability of project files and variance in content. • There is no system based classification of projects other than by function code.
2010	As 2009
2011	As 2009
2012	As 2009
2013	As 2009
2014	As 2009
2015	As 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

- There are no replacements, failures or age profile reported against the plant and station residual categories as they are financial balances only. (Refer E.2 above for further information)

Tab name: 2.2 Repex	
Table name: 2.2.1 – Replacement expenditure, volumes and asset failures by asset category	
Asset Group 2.2.1	**Asset Category**
Underground Cables	(ALL data for Replacements)
Transformers	(ALL data for Replacements)
Switchgear	(ALL data for Replacements except HV fuses and surge diverters)
Other	Major zone substation replacement works
Other	Plant & stations miscellaneous
BOP ID	CAPAL2.2BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

Asset failure (Repex) The failure of an asset to perform its intended function safely and in compliance with jurisdictional regulations, not as a result of external impacts such as:
• extreme or atypical weather events; or
• third party interference, such as traffic accidents and vandalism; or
• wildlife interference, but only where the wildlife interference directly, clearly and unambiguously influenced asset performance; or
• vegetation interference, but only where the vegetation interference directly, clearly and unambiguously influenced asset performance.
Excludes planned interruptions.

Replacement Capital expenditure —'Repex' - The non-demand driven capex to replace an asset with its modern equivalent where the asset has reached the end of its economic life.. Capex has a primary driver of replacement expenditure if the factor determining the expenditure is the existing asset's inability to efficiently maintain its service performance requirement.

REPLACEMENT CAPITAL EXPENDITURE
5.1 Table 2.2.1 instructions:
(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.
(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.
(c) In instances where Powercor considers that both the prescribed asset group categories and the sub-categorisation provisions set out in (a) do not account for an asset on Powercor's distribution system, Powercor must insert

additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions. Powercor must ensure that the sum of the individual asset categories, including any additional subcategory, additional other asset category or asset refurbishment/ life extension asset category expenditure reconciles to the total expenditure of the asset group.
(d) Powercor must ensure that the replacement volumes by asset group are equal to the applicable replacement volume data provided in table 2.2.2.
(e) Powercor must ensure that the sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.
(f) If Powercor has provided estimated expenditure data on the basis of historical data that has included works across asset groups Powercor must provide the asset age profile data in regulatory template 5.2 against the most elementary asset category. For example, where Powercor replaces pole-mounted switchgear in conjunction with a pole-top structure it must report the asset age profile data against the relevant switchgear asset category. Powercor must provide documentation of instances where backcast unit costs generated have involved allocations of historical records that include expenditure across asset groups.

Please provide a Response in this box:

This BoP conforms to the requirements and definitions of the CAT RIN as defined in the box above.

Table 2.2.1:
(g) No sub categories were used.
(h) Expenditure associated with asset refurbishments/life extension capex has been included in a row at the bottom of the table. Corresponding age profile data has been provided in regulatory template 5.2
(i) Additional rows have been added where required to describe a specific asset category
(j) Replacement volumes by asset group is equal to the applicable replacement volume data provided in table 2.2.2.
(k) The sum of the asset group replacement expenditure is equal to the total replacement expenditure contained in regulatory template 2.1.
(l) The categories covered by this BOP do not cross asset categories

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

1. The list of project work breakdown structures(WBS) was obtained from SAP Business Intelligence (BI) reports for the function codes managed by the Plant and stations group:
   - FC 143: High voltage switch replacement
   - FC 144: Transformer and S/STN enclosure replacement
   - FC 150: Underground line replacement
   - FC 154: Unplanned asset replacement – primary plant and secondary assets
   - FC 157: Zone substation primary plant replacement

   Financial Accounting CAPEX report "**F262 CAP PAL Netw Direct CAPEX**" was used for the Powercor extraction.

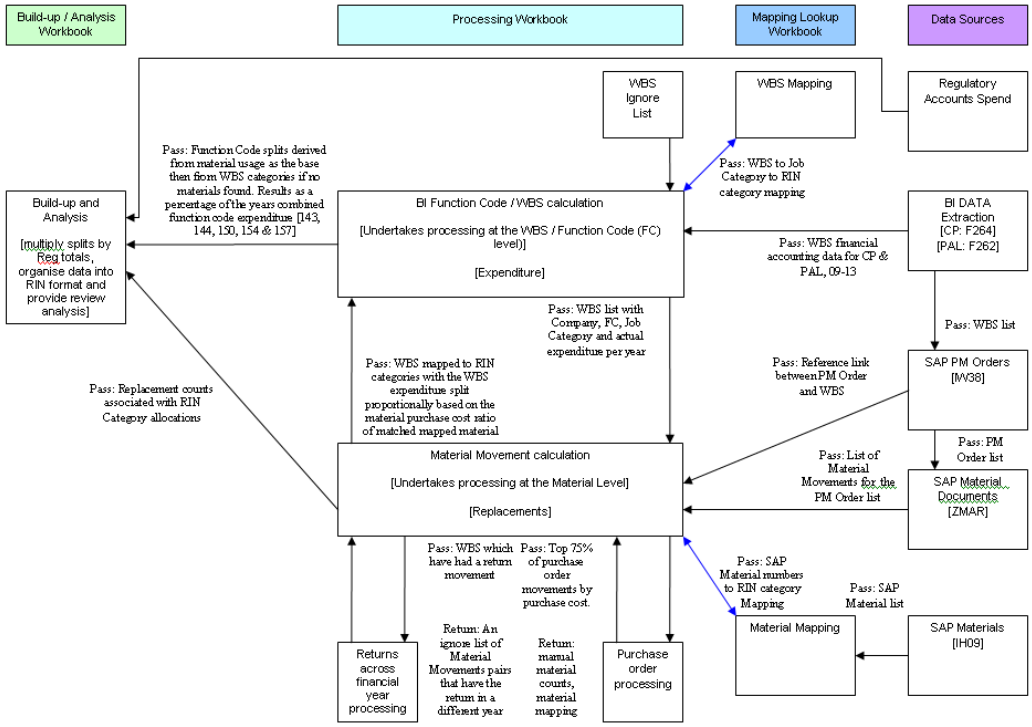
   The data was extracted for each year individually. Data was extracted with WBS, Order and cost element detail available.
2. The WBS data was then used to produce a list of Plant Maintenance Orders (PM orders) used and attached to the same WBS elements via the SAP transaction IW38 (change PM orders).

3. This list of PM Orders was then input into SAP transaction ZMAR (display material movements) to produce a list of material transactions associated with those PM Orders.
4. A full list of the SAP materials library was extracted from SAP via transaction IH09 (display material list).

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The purpose of this methodology is to describe the process undertaken to allocate plant replacement physicals from CitiPower/Powercor data structures into the data structures required by the AER. The SAP BI Financial Reporting Accounts provided function code account summaries for each of the function codes. This included project WBS's which could be used to identify the SAP PMOrders used by those projects. In turn the material movement transactions within those PMOrders could be obtained. The Material movement worksheet, searches for material movements and maps them to RIN category Groups. It achieves this by two methods, the first utilises a mapping of the SAP material library to the relevant RIN Category Groups/Classes. The second delves into material purchase orders that do not use a material number transaction to further identify and define material purchases. This second method particularly applies to major plant purchases which are contract based. For WBS's that obtain a material match the WBS (project) relative expenditure is split based on the proportionality of the material costs within that project and the year it occurred. This information is passed back to BI Function code / WBS calculator workbook. The BI Function code / WBS calculator worksheet workbook also identifies and ignores material transactions that have a negating return in a following year. This is required as these transactions can have major consequences on WBS proportionality particularly if the movement cost is large in comparison to the final (net) WBS expenditure. Lastly, the replacement numbers for the RIN Category Groups/Classes are also passed to the Build up workbook, for formatting, analysis and summation. The process chart below describes the transfer of information, reading from right to left.

Year	Methodology & Assumptions
	
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimation is required in this instance: • There is no direct system link between SAP project modules and SAP data modules for the plant and stations assets. For equipment added to the SAP Asset Management system there is no link to the project that initiated the asset creation and hence, no link to the function code. A material transaction from the logistics system is used as a proxy from replacements as the function code portfolio are all replacement spends., •
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimation is based on: • The use of materials purchased as a proxy for equipment installed The WBS project definition provides a direct link via PMOrders to material transactions. Specific material purchases can be assumed to represent replacements. • This estimation requires that a material transaction ideally utilises a material number. The estimation requires the mapping of material order descriptions to Category Groups and Classes via a manual

<table>
<tr><th>Year</th><th>2. the basis for the estimate, including the approach used, options considered and assumptions made; and</th></tr>
<tr><td></td><td>process. This allocation takes into account the description of the material, familiarisation with particular naming conventions and technical knowledge of the CitiPower / Powercor Distribution Networks (ie voltage levels and equipment utilisations ect).
• There are purchasing transactions that do not utilise material numbers, such as materials requisitions via purchase order. In these instances the material proxy algorithm cannot be used and manual intervention is required to allocate a proxy material number and quantities. This is typical of major plant purchases such as zone substation transforms or switchboard replacements.
• Where multiple allocations are found under a single WBS the full cost of the WBS material purchase is used as a proxy of Full WBS cost via a percentage allocation based on the proportionality of the materials mapped to RIN classes.
• There are no replacements reported against the plant and station residual categories as they are financial balances only.

The two residual categories referenced are:

<table><tr><th>Asset Group</th><th>Asset Category</th></tr><tr><td>OTHER BY: DSP DEFINED</td><td>Plant & Stations Miscellaneous</td></tr><tr><td>OTHER BY: DSP DEFINED</td><td>Major Zone Substation Building Replacement Works</td></tr></table>
The expenditure against these items by their nature is very variable in scope and driver, not of a homogenous nature across any stated asset sub-category, and so while there is expenditure for these activities, there are no consistent physicals or unit costs to report. By definition therefore, the expenditure against each activity is not related to any stated asset sub-category and hence an age profile dataset is <u>not</u> provided for these activities on table 5.2.1.

• The Underground Cable By: Voltage < = 1kV category allocations include those associated with LV underground Service cable and Public Lighting U/G Cable as these values could not be distinguished in this process.</td></tr>
<tr><td>2010</td><td>As per 2009</td></tr>
<tr><td>2011</td><td>As per 2009</td></tr>
<tr><td>2012</td><td>As per 2009</td></tr>
<tr><td>2013</td><td>As per 2009</td></tr>
<tr><td>2014</td><td>As per 2009</td></tr>
<tr><td>2015</td><td>As per 2009</td></tr>
</table>

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This method was selected as: • It provided a more accurate result than a percentage split of function codes based on qualities expectations. • Further investigation of individual hard copy project documentation was not expected to significantly increase accuracy do to the unavailability of project files and variance in content. • There is no system based classification of projects other than by function code.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

- There are no replacements, failures or age profile reported against the plant and station residual categories as they are financial balances only. (Refer E.2 above for further information)

Tab name: 2.2 Repex	
Table name: 2.2.1 - Replacement Expenditure, Volumes & Asset Failures by Asset Category	
Asset Group	**Asset**
Asset Failures	Service Lines (No records)
BOP ID	CAPAL2.2BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

APPENDIX E: PRINCIPLES AND REQUIREMENTS

5. REPLACEMENT CAPITAL EXPENDITURE

5.1 Table 2.2.1 instructions:
(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear Regulatory Information Notice under Division 4 of Part 3 of the National Electricity Law 22 indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

APPENDIX F: DEFINITIONS

Asset failure (Repex)
The failure of an asset to perform its intended function safely and in compliance with jurisdictional regulations, not as a result of external impacts such as:

- Extreme or atypical weather events; or
- Third party interference, such as traffic accidents and vandalism; or
- Wildlife interference, but only where the wildlife interference directly, clearly and unambiguously influenced asset performance; or
- Vegetation interference, but only where the vegetation interference directly, clearly and unambiguously influenced asset performance.
- Excludes planned interruptions.

Service lines
Includes assets that provide a physical link and associated assets between the distribution network and a customer's premises

- It excludes any pole mounted assets and meters that are included in any other asset group.

Please provide a Response in this box:

No asset quantities are reported by Powercor for the categories in Table 1, below, because the Powercor network asset information systems do not provide, or has no records of, assets in these categories. Table 1 sourced from Table 2.2.1 per the template provided by the AER.

ASSET CATEGORY	VARIABLE NAME
SERVICE LINES BY: CONNECTION VOLTAGE; CUSTOMER TYPE; CONNECTION COMPLEXITY	<= 11 kV ; COMMERCIAL & INDUSTRIAL ; SIMPLE TYPE <= 11 kV ; RESIDENTIAL ; COMPLEX TYPE <= 11 kV ; COMMERCIAL & INDUSTRIAL ; COMPLEX TYPE <= 11 kV ; SUBDIVISION ; COMPLEX TYPE > 11 kV & < = 22 kV ; COMMERCIAL & INDUSTRIAL > 11 kV & <= 22 kV ; SUBDIVISION > 22 kV & <= 33 kV ; COMMERCIAL & INDUSTRIAL > 22 kV & <= 33 kV ; SUBDIVISION > 33 kV & <= 66 kV ; COMMERCIAL & INDUSTRIAL > 33 kV & <= 66 kV ; SUBDIVISION > 66 kV & <= 132 kV ; COMMERCIAL & INDUSTRIAL > 66 kV & <= 132 kV ; SUBDIVISION > 132 kV ; COMMERCIAL & INDUSTRIAL > 132 kV ; SUBDIVISION SERVICING REPLACEMENTS

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

No asset quantities are reported by Powercor for the categories in Table 1, above, because the Powercor network asset information systems do not provide, or has no records of, assets in these categories.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	No asset quantities are reported by Powercor for the categories listed in Table 1, above, because the Powercor network asset information systems do not provide, or have no records of, assets in these categories.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

No asset quantities are reported by Powercor for the categories listed in Table 1, above, because the Powercor network asset information systems do not provide, or have no records of, assets in these categories. Table 1 sourced from Table 2.2.1 per the template provided by the AER.

Tab name: 2.2 Repex	
Table name: 2.2.1 – Replacement expenditure, volumes and asset failures by asset category	
Asset Group 2.2.1	**Asset Category**
Switchgear	(ALL data for Failures except HV fuses and surge diverters)
Transformers	• GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > = 22 kV & < = 33 kV ; < = 15 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > = 22 kV & < = 33 kV ; > 15 MVA AND < = 40 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > = 22 kV & < = 33 kV ; > 40 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 33 kV & < = 66 kV ; < = 15 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 33 kV & < = 66 kV ; > 15 MVA AND < = 40 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 33 kV & < = 66 kV ; > 40 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 66 kV & < = 132 kV ; < = 100 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 66 kV & < = 132 kV ; > 100 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 132 kV ; < = 100 MVA • GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 132 kV ; > 100 MVA
Other	• Major zone substation replacement works • Plant & stations miscellaneous
BOP ID	CAPAL2.2BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Asset failure (Repex) The failure of an asset to perform its intended function safely and in compliance with jurisdictional regulations, not as a result of external impacts such as:
• extreme or atypical weather events; or
• third party interference, such as traffic accidents and vandalism; or
• wildlife interference, but only where the wildlife interference directly, clearly and unambiguously influenced asset performance; or
• vegetation interference, but only where the vegetation interference directly, clearly and unambiguously influenced asset performance.
Excludes planned interruptions.

Replacement Capital expenditure —'Repex' - The non-demand driven capex to replace an asset with its modern equivalent where the asset has reached the end of its economic life.. Capex has a primary driver of replacement expenditure if the factor determining the expenditure is the existing asset's inability to efficiently maintain its service performance requirement.

REPLACEMENT CAPITAL EXPENDITURE

5.1 Table 2.2.1 instructions:
(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.
(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.
(c) In instances where Powercor considers that both the prescribed asset group categories and the sub-categorisation provisions set out in (a) do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions. Powercor must ensure that the sum of the individual asset categories, including any additional subcategory, additional other asset category or asset refurbishment/ life extension asset category expenditure reconciles to the total expenditure of the asset group.
(d) Powercor must ensure that the replacement volumes by asset group are equal to the applicable replacement volume data provided in table 2.2.2.
(e) Powercor must ensure that the sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.
(f) If Powercor has provided estimated expenditure data on the basis of historical data that has included works across asset groups Powercor must provide the asset age profile data in regulatory template 5.2 against the most elementary asset category. For example, where Powercor replaces pole-mounted switchgear in conjunction with a pole-top structure it must report the asset age profile data against the relevant switchgear asset category. Powercor must provide documentation of instances where backcast unit costs generated have involved allocations of historical records that include expenditure across asset groups.

Please provide a Response in this box:
This BoP conforms to the requirements and definitions of the CAT RIN as defined in the box above.

5.1 Table 2.2.1:
(a) No sub categories were used.
(b) Expenditure associated with asset refurbishments/ life extensions capex has been included in a row at the bottom of the table. Age profiles are not relevant to this category.
(c) Additional rows have been added where required to describe a specific asset category.
(d) Replacement volumes by asset group is equal to the applicable replacement volume data provided in table 2.2.2.
(e) The sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.
(f) The categories covered by this BOP do not cross asset categories.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Equipment data was extracted from CitiPower/Powercor enterprise management system, SAP, using SAP transaction IH08.

SAP maintenance notification data was extracted from SAP using transaction IW69

Further equipment technical class data was extracted from GIS. This data was linked to the SAP data by the SAP Equipment Number.

Substation data was extracted from SAP using transaction IH06. This data was linked to the GIS Substation data.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The purpose of this methodology is to describe the process undertaken to allocate asset failures from CitiPower/Powercor data structures into the data structures required by the AER. The SAP notification data was linked to both GIS and SAP equipment data sources in order map failures to the AER Asset Categories. First all the SAP equipment data extracted in C 1 above was consolidated into one database with different columns for each of the specific asset SAP class properties. Then The GIS data that matched the equipment numbers was also added to t the data base. All SAP IH06 substation data was matched via Equipment Numbers the relevant GIS 'Substation' data via 'Name Plate' (SAP) and 'Description' (GIS). This data was consolidated. These data tables were then mapped to the notification data via SAP equipment numbers so that technical asset information could be obtained and mapped into the AER data groups and classes.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimation is required in this instance: • There is no formal asset failure data base available to provide this information. • CitiPower/Powercor Outage Management System (OMS) outages are only recorded for assets which are mapped into the OMS database which is not all assets ie zone substations and sub transmission assets are not mapped. • The business definition of failure via OMS is a supply interruption with customers off supply, not a functional failure of equipment. When OMS is used to capture outage information the related OMS order is generally linked to a high level

	functional location and not at the failed equipment as this system captures the protection device that interrupted supply, not the device that caused the failure, in order to determine the impacted customers.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
009	Estimation is based on: • Notifications with priorities P1 or with the breakdown box selected are considered failures. • Notifications can only be counted if they are directly linked to equipment, not functional locations. • There are no failures reported against the plant and station residual categories as they are financial balances only. The two residual categories referenced are: **Asset Group** / **Asset Category** OTHER BY: DSP DEFINED / Plant & Stations Miscellaneous OTHER BY: DSP DEFINED / Major Zone Substation Building Replacement Works
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This method was selected as • It was considered the most feasible option to produce a result for the complete data request. Although the likelihood of successful mapping was expected to be low and significantly underestimate the actual number of failures.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

No data is being provided for the categories:

- GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > = 22 kV & < = 33 kV ; < = 15 MVA
- GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > = 22 kV & < = 33 kV ; > 15 MVA AND < = 40 MVA
- GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > = 22 kV & < = 33 kV ; > 40 MVA
- GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 33 kV & < = 66 kV ; > 40 MVA
- GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 66 kV & < = 132 kV ; < = 100 MVA
- GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 66 kV & < = 132 kV ; > 100 MVA
- GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 132 kV ; < = 100 MVA
- GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 132 kV ; > 100 MVA

Powercor does not utilise these asset categories.

Tab name: 2.2 Repex	
Table name: 2.2.1 – Replacement expenditure, volumes and asset failures by asset category	
Asset Group	**Asset Category**
Public Lighting	(ALL)
BOP ID	CAPAL2.2BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

5. REPLACEMENT CAPITAL EXPENDITURE

5.1 Table 2.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the sub-categorisation provisions set out in (a) do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions. Powercor must ensure that the sum of the individual asset categories, including any additional subcategory, additional other asset category or asset refurbishment/ life extension asset category expenditure reconciles to the total expenditure of the asset group.

(d) Powercor must ensure that the replacement volumes by asset group is equal to the applicable replacement volume data provided in table 2.2.2.

(e) Powercor must ensure that the sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.

(f) If Powercor has provided estimated expenditure data on the basis of historical data that has included works across asset groups Powercor must provide the asset age profile data in regulatory template 5.2 against the most elementary asset category. For example, where Powercor replaces pole-mounted switchgear in conjunction with a pole-top structure it must report the asset age profile data against the relevant switchgear asset category. Powercor must provide documentation of instances where backcast unit costs generated have involved allocations of historical records that include expenditure across asset groups.

Definitions

Major road: Roads on which the visual requirements of motorists are dominant (e.g. traffic routes). Typically the responsibility of a state or territory road authority.

Minor road: Roads on which the visual requirements of pedestrians are dominant (e.g. local roads and lighting that is applicable to areas other than roads outdoor public areas, e.g. outdoor shopping). Typically the responsibility of a local Government authority.

Replacement Capital expenditure —'Repex': The non-demand driven capex to replace an asset with its modern equivalent where the asset has reached the end of its economic life.. Capex has a primary driver of replacement expenditure if the factor determining the expenditure is the existing asset's inability to efficiently maintain its service performance requirement.

Asset failure (Repex): The failure of an asset to perform its intended function safely and in compliance with jurisdictional regulations, not as a result of external impacts such as:
• extreme or atypical weather events; or
• third party interference, such as traffic accidents and vandalism; or
• wildlife interference, but only where the wildlife interference directly, clearly and unambiguously influenced asset performance; or
• vegetation interference, but only where the vegetation interference directly, clearly and unambiguously influenced asset performance.
Excludes planned interruptions.

Light replacement: The cost of replacement on a major or minor road of any of the following public lighting assets:
· Luminaires
· Brackets
· Lamps
· Poles dedicated to public lighting services; and
· Underground or overhead cabling dedicated to public lighting services.
Light replacement should be estimated as the replacement of public lighting assets with their modern equivalent, where the public lighting assets have reached the end of their economic life.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 2.2.1 Cost Metrics by asset category for Public Lighting. We have provided data that complies with the instructions and definitions specified in the requirements as follows:
5.1
(a) We have provided asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1.
(b) not applicable
(c) not applicable
(d) not applicable
(e) We have ensured that the sum of the public lighting asset group replacement expenditure is contained in regulatory template 2.1
(f) not applicable

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Expenditure ($000's): 2009-2014: The source data relating to financial costs were extracted from SAP Finance. Segregation of data into various asset groups was sourced from Public Light Fault Management System (PLFMS).

ASSET REPLACEMENTS (000's): 2009-2014 The source data relating to asset replacements was based on an extract from SAP. This report lists all steel poles replaced as part of a maintenance (replacement) activity.

ASSET FAILURES (000's): 2009-2014 Segregation of data into various asset groups was sourced from Public Light Fault Management System (PLFMS) a report known as PLFMS_Special_List listing all tasks completed for reported faults on the last day of the reportable year. Pole / Column data was unavailable. Limited data available from spreadsheet used to manage contractor invoices for 2012-2013 that counted poles / columns replaced >7m and =< 7m.

Expenditure ($000's): 2015: The source data relating to financial costs were extracted from SAP Finance. Segregation of data into various asset groups was sourced from Streetlight Manager (Salesforce)

ASSET REPLACEMENTS (000's): 2015: The source data relating to asset replacements was based on an extract from SAP. This report lists all steel poles replaced as part of a maintenance (replacement) activity.

ASSET FAILURES (000'S): 2015: Segregation of data into various asset groups was sourced from Streetlight Manager (Salesforce) listing all tasks completed for reported faults on the last day of the reportable year.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**EXPENDITURE ($000's) :** **METHODOLOGY** • Per definition, for expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. • Actual volumes of asset replacements and failures (where available) are extracted from PLFMS and are used to allocate to Finance figures which are extracted from SAP. This allocation is done so through an average cost method to determine cost allocation for asset sub-categories. The following assumptions show a breakdown of the component costs of individual asset sub-categories. **ASSUMPTIONS** Luminaires : • Major Road >125W, Minor Road =<125W. (Cost Sharing detail not available on report available) • Assumption that only one luminaire is required for each Pole / Column : Major & Minor Replacements.(No detail available of bracket or bracket type available) • No allowance for luminaires replaced as part of other pole replacements (non-steel). (Only steel poles are recorded for Maintenance (Replacement) purposes) • No allowance for non-standard luminaires as part of asset failures. (Non-standard luminaire materials are provided by the public lighting customer) Brackets : • Major Road – Assumption that brackets required for all Poles / Columns: Major Road replacements & failures. (Bracket data is not retained by the business as an identifiable asset) • Minor Road – Assumption that brackets required for half of Poles / Columns : Minor Road replacements (Brackets are only required on some new poles, however no bracket data is retained by the business as an identifiable asset and unable to be verified) Lamps • Major Road – Assumption that lamp is inclusive to the luminaire. • Minor Road – Assumption that lamp is inclusive to the luminaire. Poles / Columns • Allocation of asset category was completed using Asset Failures – Pole / Column percentage allocation. (No detail was available for actual replacements to determine Major Road / Minor Road • Steel poles are dedicated to Public Lighting with regard to replacements. (Other poles dedicated to

Year	Methodology & Assumptions
	public lighting were unable to be identified) • No allowance for non-standard poles as part of asset replacements. (Unable to quantify volume of replacements, material supplied by public lighting customer) **ASSET REPLACEMENTS (000'S)** **METHODOLOGY** Luminaires : • Per definition, of replacement capital expenditure (Repex) only public lighting assets that were in service and billable have been included. • The split for asset failures –Pole/column was used to determine the major/minor road split for asset replacements Brackets : • No actual detail is available regarding brackets as the business does not separately identify this sub-category. • Major Road - Estimation used where pole/column was replaced a bracket would also be required • Minor Road – Estimation used where pole/column was replaced, half of these replacements would require a bracket to be installed. • The split for asset failures –Pole/column was used to determine the major/minor road split for asset replacements Lamps • Per definition, lamps are replacement capital expenditure (Repex), however they are inclusive to the total luminaire replacement and are not separately identified. Poles / Columns • The split for asset failures –Pole/column was used to determine the major/minor road split for asset replacements • No allowance for non-standard poles as part of asset replacements. (unable to quantify) **ASSUMPTIONS** Luminaires : • Actual cost of luminaire replacement is not historically available and has been calculated by assuming that only one luminaire is required for each Pole / Column : Major & Minor Replacements. • Allowance made for luminaires replaced as part of other pole replacements (non steel). Brackets : • Major Road – Assumption that brackets required for Poles / Columns : Major Road replacements • Minor Road – Assumption that brackets required for half of Poles / Columns : Minor Road replacements (there is a mixture of poles that would not require a bracket and those that would, Bracket data is not retained by the business) Lamps • Major Road – Assumption that lamp is inclusive to the luminaire. • Minor Road – Assumption that lamp is inclusive to the luminaire. Poles / Columns • Unable to determine Major Road / Minor Road split. Split for Asset Failures – Pole / Column used to determine Major Road / Minor Road. • Assumption that only steel poles are dedicated to Public Lighting with regard to replacements. (Other poles dedicated to public lighting were unable to be identified.) **ASSET FAILURES (000'S)** **METHODOLOGY** Luminaires : • Per definition,of replacement capital expenditure (Repex) only public lighting assets that were in service and billable have been included. • Volumes were extracted from PLFMS to determine the total number of luminaires replaced. Luminaires were allocated to Major Road / Minor Road based on actual split available for Asset Failures Brackets : • Per definition of replacement capital expenditure (Repex) only public lighting assets that were in service and billable have been included. • Unable to determine Major Road / Minor Road split. Split for Asset Failures – Pole / Column used to determine Major Road / Minor Road.

Year	Methodology & Assumptions
	Lamps : • Per definition, lamps are replacement capital expenditure (Repex), however they are inclusive to the total luminaire replacement and are not separately identified. Poles / Columns • Per definition of replacement capital expenditure, major road / minor road split for asset failures was determined by the pole/column used. (major road > 7m, minor road =< 7m. • No allowance for non-standard poles as part of asset replacements. (unable to quantify) • Based on source data provided for managing contractor invoices 2012-2013. (Business has not previously retained this level detail and was only required for contractor invoicing verification .) **ASSUMPTIONS** Luminaires : • Major Road >125W, Minor Road =<125W. • No allowance for non-standard luminaires as part of asset failures. Brackets : • Major Road – Assumption that brackets required for Poles / Columns : Major Road Failures • Minor Road – Assumption that brackets not required (Bracket data is not retained by the business) Lamps • Major Road – Assumption that lamp is inclusive to the luminaire. • Minor Road – Assumption that lamp is inclusive to the luminaire. Poles / Columns • Major Road >7m, Minor Road =<7m • Allowance for non-standard poles as part of asset failures. • Pole / Column data was unavailable via PLFMS reporting. Limited data available from spreadsheet used to manage contractor invoices for 2012-2013 that counted poles / columns replaced >7m and =< 7m. • Allowance for non-standard poles as part of asset failures
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**EXPENDITURE ($000's) :** **METHODOLOGY** • Per definition, for expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. • Actual volumes of asset replacements and failures (where available) are extracted from Streetlight Manager and are used to allocate to Finance figures which are extracted from SAP. • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. **ASSUMPTIONS** Luminaires : • Cost Shared = Major Road, Full Cost = Minor Road • Assumption that only one luminaire is required for each Pole / Column : Major & Minor Replacements.(No detail available of bracket or bracket type available) • No allowance for non-standard luminaires as part of asset failures. (Non-standard luminaire materials are provided by the public lighting customer) Brackets : • Major Road – Assumption that brackets required for all Poles / Columns: Major Road replacements & failures. (Bracket data is not retained by the business as an identifiable asset) • Minor Road – Assumption that brackets required for half of Poles / Columns : Minor Road replacements (Brackets are only required on some new poles, however no bracket data is retained by the business as an identifiable asset and unable to be verified Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. Lamps • Major Road – Assumption that lamp is inclusive to the luminaire.

Year	Methodology & Assumptions
	• Minor Road – Assumption that lamp is inclusive to the luminaire. Poles / Columns • Allocation of asset category was completed using Asset Failures – Pole / Column percentage allocation. (No detail was available for actual replacements to determine Major Road / Minor Road • No allowance for non-standard poles as part of asset replacements. (Unable to quantify volume of replacements, material supplied by public lighting customer) **ASSET REPLACEMENTS (000'S)** **METHODOLOGY** Luminaires : • Per definition, of replacement capital expenditure (Repex) only public lighting assets that were in service and billable have been included. • The split for asset failures –Pole/column was used to determine the major/minor road split for asset replacements Brackets : • No actual detail is available regarding brackets as the business does not separately identify this sub-category. • Major Road - Estimation used where pole/column was replaced a bracket would also be required • Minor Road – Estimation used where pole/column was replaced, half of these replacements would require a bracket to be installed. • The split for asset failures –Pole/column was used to determine the major/minor road split for asset replacements Lamps • Per definition, lamps are replacement capital expenditure (Repex), however they are inclusive to the total luminaire replacement and are not separately identified. Poles / Columns • The split for asset failures –Pole/column was used to determine the major/minor road split for asset replacements • No allowance for non-standard poles as part of asset replacements. (unable to quantify) **ASSUMPTIONS** Luminaires : • Actual cost of luminaire replacement is not historically available and has been calculated by assuming that only one luminaire is required for each Pole / Column : Major & Minor Replacements. • Allowance made for luminaires replaced as part of other pole replacements (non steel). Brackets : • Major Road – Assumption that brackets required for Poles / Columns : Major Road replacements • Minor Road – Assumption that brackets required for half of Poles / Columns : Minor Road replacements (there is a mixture of poles that would not require a bracket and those that would, Bracket data is not retained by the business) Lamps • Major Road – Assumption that lamp is inclusive to the luminaire. • Minor Road – Assumption that lamp is inclusive to the luminaire. Poles / Columns • Unable to determine Major Road / Minor Road split. Split for Asset Failures – Pole / Column used to determine Major Road / Minor Road. • Assumption that only steel poles are dedicated to Public Lighting with regard to replacements. (Other poles dedicated to public lighting were unable to be identified.) **ASSET FAILURES (000'S)** **METHODOLOGY** Luminaires : • Per the definition, of replacement capital expenditure (Repex) only public lighting assets that were in service and billable have been included. • Volumes were extracted from Streetlight Manager to determine the total number of luminaires replaced. Luminaires were allocated to Major Road / Minor Road based on actual split available for Asset Failures • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. Brackets : • Per definition of replacement capital expenditure (Repex) only public lighting assets that were in

Year	Methodology & Assumptions
	service and billable have been included. • Unable to determine Major Road / Minor Road split. Split for Asset Failures – Pole / Column used to determine Major Road / Minor Road. • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. Lamps : • Per definition, lamps are replacement capital expenditure (Repex), however they are inclusive to the total luminaire replacement and are not separately identified. Poles / Columns • Per definition of replacement capital expenditure, major road / minor road split for asset failures was determined by the pole/column used. (major road > 7m, minor road =< 7m. • No allowance for non-standard poles as part of asset replacements. (unable to quantify) • Based on source data provided for managing contractor invoices 2012-2013. (Business has not previously retained this level detail and was only required for contractor invoicing verification.) • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. **ASSUMPTIONS** Luminaires : • Major Road >125W, Minor Road =<125W. • No allowance for non-standard luminaires as part of asset failures. Brackets : • Major Road – Assumption that brackets required for Poles / Columns : Major Road Failures • Minor Road – Assumption that brackets not required (Bracket data is not retained by the business) Lamps • Major Road – Assumption that lamp is inclusive to the luminaire. • Minor Road – Assumption that lamp is inclusive to the luminaire. Poles / Columns • Major Road >7m, Minor Road =<7m • Allowance for non-standard poles as part of asset failures. • Pole / Column data was unavailable via PLFMS reporting. Limited data available from spreadsheet used to manage contractor invoices for 2012-2013 that counted poles / columns replaced >7m and =< 7m. • Allowance for non-standard poles as part of asset failures

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**EXPENDITURE ($000'S) :** • Per definition, total expenditure for asset category was available however actual costs for sub-categories were not available. • Business does not retain detail of asset replacements, cost allocation is completed historically by a percentage allocation to asset category with little or no detail of sub-categories. • Business does retain some detail of asset failures pertaining to volumes however this in not on a per unit basis. Cost allocation is completed historically to asset category with limited detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately between asset replacements and asset failures. **ASSET REPLACEMENTS** • Business does not retain detail of asset replacements on a per unit basis. Replacements are generally bundled with other maintenance activities. As mentioned above cost allocation was completed historically to asset category, not asset sub-categories. Collating the information would require a significant time commitment and we would be unable to achieve reporting deadlines. • Due to the lack of detail, allocation to sub-categories could only be done by estimation.

Year	1. why is an estimate was required, including why it is not possible to use actual data;
	ASSET FAILURES • Business retains some information of asset failures by asset categories and this was used where available. Estimations were required for pole/column failures as this detail was not available. • Allocation to major road / minor road was not retained historically. Allocation was completed using cost sharing,(full cost & cost shared) as the best fit to the RIN definition.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**EXPENDITURE ($000'S) :** **Approach used:** • Based on total expenditure for asset category, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements, cost allocation is completed historically to asset category with little or no detail of sub-categories. • Business does retain some detail of asset failures pertaining to volumes however this in not on a per unit basis. Cost allocation is completed historically to asset category with limited detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately between asset replacements and asset failures. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for asset replacements • Limited volumes were available for asset failures and this was used were possible. **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads'. • Total expenditure has been allocated across sub-categories as no other further allocation was possible. **ASSET REPLACEMENTS** **Approach used:** • Business does not retain detail of asset replacements, volumes could only be estimated by assuming that with each pole/column change a new bracket and luminaire would also be required. In the case of minor roads, it was estimated that brackets would only be required on half of poles replaced (other half would be inclusive with the pole). • Business does retain some detail of asset failures pertaining to volumes however this in not on a per unit basis. Cost allocation is completed historically to asset category with limited detail of sub-categories. • Using estimate ensured that volumes were allocated appropriately between asset replacements and asset failures. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for asset replacements **Assumptions made:**

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
	• The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads' • Where cost sharing of luminaires was unavailable on reports, pole length (ie. major road >7m) or wattage (ie. major road >125W) were used to determine allocation to sub-category. • Business does not retain detail of asset replacements on a per unit basis. Replacements are generally bundled with other maintenance activities. As mentioned above cost allocation was completed historically to asset category, not asset sub-categories. Collating the information would require a significant time commitment and we would be unable to achieve reporting deadlines. • Due to the lack of detail, allocation to sub-categories could only be done by estimation. **ASSET FAILURES** **Approach used:** • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Business does retain some detail of asset failures pertaining to volumes however this in not on a per unit basis. Cost allocation is completed historically to asset category with limited detail of sub-categories. • Using estimate ensured that volumes were allocated appropriately between asset replacements and asset failures. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Some volumes were available for asset failures, however pole/column failures could not be identified. **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads. • Business retains some information of asset failures by asset categories and this was used where available. Estimations were required for pole/column failures as this detail was not available. • Allocation to major road / minor road was not retained historically. Allocation was completed using cost sharing,(full cost & cost shared) as the best fit to the RIN definition.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**EXPENDITURE ($000'S) :** **Approach used:** • Based on total expenditure for asset category, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements, cost allocation is completed historically to asset category with little or no detail of sub-categories. • Business does retain some detail of asset failures pertaining to volumes however this in not on a per unit basis. Cost allocation is completed historically to asset category with limited detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately between asset replacements and asset failures. • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for asset replacements • Limited volumes were available for asset failures and this was used were possible.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
	Assumptions made: • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads'. • Total expenditure has been allocated across sub-categories as no other further allocation was possible. **ASSET REPLACEMENTS** **Approach used:** • Business does not retain detail of asset replacements, volumes could only be estimated by assuming that with each pole/column change a new bracket and luminaire would also be required. In the case of minor roads, it was estimated that brackets would only be required on half of poles replaced (other half would be inclusive with the pole). • Business does retain some detail of asset failures pertaining to volumes however this in not on a per unit basis. Cost allocation is completed historically to asset category with limited detail of sub-categories. • Using estimate ensured that volumes were allocated appropriately between asset replacements and asset failures. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for asset replacements **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads' • Where cost sharing of luminaires was unavailable on reports, pole length (ie. major road >7m) or wattage (ie. major road >125W) were used to determine allocation to sub-category. • Business does not retain detail of asset replacements on a per unit basis. Replacements are generally bundled with other maintenance activities. As mentioned above cost allocation was completed historically to asset category, not asset sub-categories. Collating the information would require a significant time commitment and we would be unable to achieve reporting deadlines. • Due to the lack of detail, allocation to sub-categories could only be done by estimation. **ASSET FAILURES** **Approach used:** • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Business does retain some detail of asset failures pertaining to volumes however this in not on a per unit basis. Cost allocation is completed historically to asset category with limited detail of sub-categories. • Using estimate ensured that volumes were allocated appropriately between asset replacements and asset failures. • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Some volumes were available for asset failures, however pole/column failures could not be identified. **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads. • Business retains some information of asset failures by asset categories and this was used where available. Estimations were required for pole/column failures as this detail was not available. • Allocation to major road / minor road was not retained historically. Allocation was completed using cost sharing,(full cost & cost shared) as the best fit to the RIN definition.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other reliable data is available for the period required.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.2 Repex	
Table name: 2.2.1 - REPLACEMENT EXPENDITURE, VOLUMES AND ASSET FAILURES BY ASSET CATEGORY	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	ZONE SUBSTATION RELAYS
BOP ID	CAPAL2.2BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

REPLACEMENT CAPITAL EXPENDITURE

5.1 Table 2.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in *regulatory template* 5.2 as per its respective instructions.

Field devices (Repex) This includes old fashioned electromechanical relays and modern digital relays that incorporate many functions. This includes field devices such as relays, Remote Terminal Unit, Program Logic Controllers, Data storage, communication interfaces, and local master stations.

Response: There is a need to clearly distinguish equipment types within the Field device category. 'Scada, Network Control and Protection Systems' exists within the prescribed asset categories in 2.2.1. Field Devices relates to a sub-category and so as per the RIN an additional row has been inserted to indicate this. Furthermore this sub asset category also has been specified to capture all relays at 'Zone Substation Relays.' Expenditure and Asset replacement / failure volumes have been reconciled to the higher level asset category and corresponding age profile data exists in Template 5.2

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: Data is Sourced from the Relay Setting Information System (RESIS) by running a query that provides data on all applied settings for the 12 month period.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The data is based on a report of 'applied settings' in RESIS. This applied settings report is manually filtered for all occurrences of changes in relays. This is required as many applied settings may be an update of an existing relay and therefore not relating to Repex data. Known relay augmentations (new protection schemes) are also removed to establish replacement quantities.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable.

Tab name: 2.2 Repex	
Table name: 2.2.1 – Replacement expenditure, volumes and asset failures by asset category	
Asset Group	**Asset Category**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS BY: FUNCTION	(ALL data for Failures)
BOP ID	CAPAL2.2BOP10

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

Asset failure (Repex) The failure of an asset to perform its intended function safely and in compliance with jurisdictional regulations, not as a result of external impacts such as:

• extreme or atypical weather events; or

• third party interference, such as traffic accidents and vandalism; or

• wildlife interference, but only where the wildlife interference directly, clearly and unambiguously influenced asset performance; or

• vegetation interference, but only where the vegetation interference directly, clearly and unambiguously influenced asset performance.

Excludes planned interruptions.

Replacement Capital expenditure —'Repex'

The non-demand driven capex to replace an asset with its modern equivalent where the asset has reached the end of its economic life. Capex has a primary driver of replacement expenditure if the factor determining the expenditure is the existing asset's inability to efficiently maintain its service performance requirement.

REPLACEMENT CAPITAL EXPENDITURE

5.1 Table 2.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear Regulatory Information Notice under Division 4 of Part 3 of the National Electricity Law 22 indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the sub-categorisation provisions set out in (a) do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions. Powercor must ensure that the sum of the individual asset categories, including any additional subcategory, additional other asset category or asset refurbishment/ life extension asset category expenditure reconciles to the total expenditure of the asset group.

(d) Powercor must ensure that the replacement volume by asset group is equal to the applicable replacement volume data provided in table 2.2.2.
(e) Powercor must ensure that the sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.
(f) If Powercor has provided estimated expenditure data on the basis of historical data that has included works across asset groups Powercor must provide the asset age profile data in regulatory template 5.2 against the most elementary asset category. For example, where Powercor replaces pole-mounted switchgear in conjunction with a pole-top structure it must report the asset age profile data against the relevant switchgear asset category. Powercor must provide documentation of instances where back cast unit costs generated have involved allocations of historical records that include expenditure across asset groups.

Please provide a Response in this box:
REPLACEMENT CAPITAL EXPENDITURE
5.1 Table 2.2.1 instructions:

(a) Sub categories have not been used. However additional categories have been added. (refer (c))
(b) There has been minor refurbishment expenditure however it is not identifiable in the data and has been included with the replacement costs. As such no "REFURBISHED" additional lines have been added.
(c) Additional categories have been included. Expenditure and replacement data have been provided for this information. Asset Group expenditure is accurate.
(d) Not applicable
(e) Not applicable
(f) Powercor has provided estimated data which coincides with the provision of the related aged profile data in regulatory template 5.2.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Equipment data was extracted from Powercor enterprise management system, SAP. SAP maintenance notification data was also extracted.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The purpose of this methodology is to describe the process undertaken to allocate asset failures from Powercor data structures into the data structures required by the AER. Scada Asset failure notification data is extracted from SAP and manually linked to SAP equipment information as it is originally linked via location instead of equipment. This enables Powercor to map relevant notification data to fulfil AER RIN category requirements. Notification data which is labelled as a high priority is considered

Year	Methodology & Assumptions
	a failure.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimation is required in this instance: • There is no formal asset failure data base available to directly extract asset failure information that is in line with the RIN. • Powercor Outage Management System (OMS) outages are only recorded for assets which are mapped into the OMS database which is not all assets i.e. zone substations and sub transmission assets are not mapped • The business definition of failure via OMS is a supply interruption with customers off supply, not a functional failure of equipment. • When OMS is used to capture outage information the related OMS order is generally linked to a high level functional location and not at the failed equipment.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Notification data extracted from SAP is manually linked to equipment data also extracted from SAP.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This method was selected as it was considered the most feasible option to produce a result for the complete data request. Although the likelihood of successful mapping was expected to be low and significantly underestimate the actual number of failures.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

Not applicable

Tab name: 2.2 Repex	
Table name: 2.2.1 - REPLACEMENT EXPENDITURE, VOLUMES AND ASSET FAILURES BY ASSET CATEGORY	
Table name: 5.2.1 - ASSET AGE PROFILE	
ASSET GROUP	**ASSET CATEGORY**
OTHER	Recoverable Works Faults Expenditure
OTHER	TV Interference Related Expenditure
OTHER	Environmental Related Replacement Expenditure
OTHER	Bushfire Mitigation Related Expenditure
OTHER	Lines Miscellaneous
OTHER	Pole Chemical Treatment
BOP ID	CAPAL2.2BOP11

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Table 2.2.1 instructions:
(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in *regulatory template* 5.2 as per its respective instructions.
(b) In instances where Powercor is reporting expenditure associated with *asset refurbishments/ life extensions capex* it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding age profile data in *regulatory template* 5.2 as per its respective instructions.
(c) In instances where Powercor considers that both the prescribed asset group categories and the sub-categorisation provisions set out in (a) do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template* 5.2 as per its respective instructions. Powercor must ensure that the sum of the individual asset categories, including any additional subcategory, additional other asset category or asset refurbishment/ life extension asset category expenditure reconciles to the total expenditure of the asset group.
(d) Powercor must ensure that the replacement volume by asset group is equal to the applicable replacement volume data provided in table 2.2.2.
(e) Powercor must ensure that the sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.
(f) If Powercor has provided estimated expenditure data on the basis of historical data that has included works across asset groups Powercor must provide the asset age profile data in *regulatory template 5.2* against the most elementary asset category. For example, where Powercor replaces pole-mounted switchgear in conjunction with a pole-top structure it must report the asset age profile data against the relevant switchgear asset category. Powercor must provide documentation of instances where backcast unit costs generated have involved allocations of historical records that include expenditure across asset groups.

Please provide a Response in this box:
Responses against each clause:
(a) Not applicable, as this expenditure is not being recorded against the asset sub-categories.
(b) Not applicable, as this expenditure does not relate to *asset refurbishments*.
(c) Not applicable, as Powercor is not adding additional an additional asset group.
(d) Not applicable, as this information does not include replacement volume data
(e) The sum of the expenditure across the entire Table 2.2.2 is equal to the replacement expenditure contained in regulatory template 2.1, as the source of the financial data was the same report from SAP.
(f) Not applicable, as Actual expenditure data has been used.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Expenditure: Financial data obtained directly from SAP.

Asset Replacements: Poles Chemical Treatment – volumes obtained directly from SAP.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The costs were obtained directly from the Electricity Networks Business Unit Function Code Expenditure for that year. The expenditure against these items by their nature is very variable in scope and driver, not of a homogenous nature across any stated asset sub-category, and so while there is expenditure for these activities, there are no consistent physicals or unit costs to report. By definition therefore, the expenditure against each Function Code is not related to any stated asset sub-category age profile dataset. The expenditure is being reported in the Repex Table as these Function Codes were previously reported in the Environment, Safety & Legal, or in the Reliability & Quality Maintained categories in the Annual RIN Submissions. Each item has the following Function Code (F/C): • Recoverable Works Faults Expenditure (F/C 146) This F/C covers works to replace a variety of assets as a result of third party damage, and not driven by any specific asset sub-category, and therefore no related asset age profile data. • TV Interference Related Expenditure (F/C 159) This F/C covers miscellaneous works on a range of assets to ensure all connections do not cause TV/Radio interference, and there is no related asset age profile data. • Environmental Related Replacement Expenditure (F/C 163) This F/C covers works related to the establishment of environmental protection measures across the network and associated sites, and there is no related asset age profile data. • Bushfire Mitigation Related Expenditure (F/C 164) This F/C covers miscellaneous 're-arrangement' works to avoid the need for on-going vegetation clearance,

Year	Methodology & Assumptions
	and there is no related asset age profile data. • Lines Miscellaneous - F/C 172.This F/C covers miscellaneous items to help prevent or track fault locations. - F/C 165. This F/C covers works necessary to establish Low Voltage Reticulation via an interconnected Common Multiple Earth Neutral. - F/C 174. This F/C covers works associated with Pole Fire Mitigation. - Residual of F/C 158, This F/C covers works of planned overhead conductor replacement, but the residual relates to miscellaneous line works not related to the overhead conductor projects. • Pole Chemical Treatment (F/C 147) - This F/C covers the procurement and implementation of 'pole saver' rods, to retard wood deterioration.
2010	As for 2009
2011	The methodology from 2011 onward is identical except that costs associated with Recoverable Works Faults Expenditure have moved to being reported against Quoted Opex from 2011 onwards. From 2011 these costs are reported in the Cat A RIN Table 4.4.1, Quoted Services.
2012	As for 2011
2013	As for 2011
2014	As for 2011
2015	As for 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

Volumes for the number of poles treated have been entered into Repex Table 2.2.1 in the category 'other' under pole chemical treatment. However, there are no physical assets related to an asset age profile (Template 5.2) for this expenditure category, so no data has been entered.

The expenditure against these items by their nature is very variable in scope and driver, not of a homogenous nature across any stated asset sub-category, and so while there is expenditure for these activities, there are no consistent physicals or unit costs to report

Tab name: 2.2 Repex	
Table name: 2.2.2 - Selected Asset Characteristics	
Asset Group	**Asset**
Asset Volumes Currently in Commission – Current Year	Poles by Reliability Feeder Type Overhead Conductor by Reliability Feeder Type Overhead Conductor by Material Type
BOP ID	CAPAL2.2BOP12

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

APPENDIX E: PRINCIPLES AND REQUIREMENTS

3. BASIS OF PREPARATION

3.1 Powercor must explain, for all information in the regulatory templates, the basis upon which Powercor prepared information to populate the input cells (basis of preparation).
3.2 The basis of preparation must be a separate document (or documents) that Powercor submits with its completed regulatory templates.
3.3 The basis of preparation must follow a logical structure that enables auditors, assurance practitioners and the AER to clearly understand how Powercor has complied with the requirements of this Notice.
3.4 At a minimum, the basis of preparation must:
(a) demonstrate how the information provided is consistent with the requirements of the Notice;
(b) explain the source from which Powercor obtained the information provided;
(c) explain the methodology Powercor used to provide the required information, including any assumptions Powercor made; and
(d) explain circumstances where Powercor cannot provide input for a variable using actual information, and therefore must provide estimated information:
(i) why an estimate was required, including why it was not possible for Powercor to use actual information;
(ii) the basis for the estimate, including the approach used, assumptions made and reasons why the estimate is Powercor's best estimate, given the information sought in the Notice.

5.2 Table 2.2.2 instructions:

(a) Powercor must provide total volume of assets currently in commission and replacement volumes of certain asset groups by specified aggregated metrics. In instances where this information is estimated Powercor must explain how it has determined the volumes, detailing the process and assumptions used to allocate asset volumes to the aggregated metrics.

APPENDIX F: DEFINITIONS

Installed assets – quantity currently in commission by year
The number of assets currently in commission and the year they were installed.

Poles
These are vertically oriented assets that provide load bearing structural support for overhead conductors or other lines assets.

- This also includes associated pole top structures, such as cross-arms and insulators where these are replaced in conjunction with a pole replacement project.
- It excludes other pole mounted assets that are included in any other asset group, notably pole mounted substations and pole mounted switchgear such as links, fuses, air break switches etc.

Overhead conductors
These assets have the primary function of distributing power, above ground, within the distribution network. It excludes any pole mounted assets that are included in any other asset group.

Please provide a Response in this box:
As consistent with 5.2 Table 2.2.2, Powercor has provided total volume of assets currently in commission. Although the below methodology does not use the suggested Route Length methodology it does deliver the network circuit length using the criteria specified in this Information Notice.

These methodologies meet the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
For Powercor, GIS is the originating data source (i.e. from where the data is obtained).

For 2015 the data from GIS is made available to Powercor through a new BI (Business Intelligence) report called the "Asset Installation Report".

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	NOT APPLICABLE
2010	NOT APPLICABLE
2011	NOT APPLICABLE
2012	NOT APPLICABLE
2013	**Poles by Feeder Type** For the year 2013 the data was obtained utilising a GIS (Geographical Information System) query that traces the in-service network connectivity model in GIS, to determine the poles located within the Powercor service territory. The information obtained from GIS enables categorisation of poles by Feeder Type. • Sub-transmission poles were excluded • Stay Poles were excluded • Public Lighting Poles were excluded • Any other pole that could not be classified as either CBD, Urban, Rural Short, or Rural Long was excluded

	Overhead conductors by Feeder Type For the year 2013 the data was obtained utilising a GIS query that traces the in-service network connectivity model in GIS, to determine the circuit line length, which includes all spurs. Each circuit element was evaluated in its own right, for example: • SWER lines, single-phase lines, and three-phase lines counted as one line • Double circuit lines counted as two lines Notes:- • Although this methodology does not use the suggested Route Length methodology it does deliver the network circuit length using the criteria specified in this Information Notice. • Overhead elements associated with communication, protection & control and unmetered loads were excluded • Overhead elements in the DNSP's area that are owned by another DNSP were excluded The information obtained from GIS enables categorisation of overhead conductors by Feeder Type. • Sub-transmission conductors were excluded • LV Overhead Service conductors were excluded • Overhead Public Lighting conductors were excluded • Any other conductor that could not be classified as either CBD, Urban, Rural Short, or Rural Long was excluded **Overhead conductors by Material** For the year 2013 the data was obtained utilising the same GIS query used for Overhead conductors by Feeder Type. The information obtained from GIS enables categorisation of overhead conductors by Material. • LV Overhead Service conductors of all materials/types were excluded
2014	**Poles by Feeder Type** For the year 2014 the data was obtained utilising a BI (Business Intelligence) report that provides data from GIS (Geographical Information System) that traces the in-service network connectivity model in GIS, to determine the poles located within the Powercor service territory. The information obtained from GIS enables categorisation of poles by Feeder Type. • Sub-transmission poles were excluded • Stay Poles were excluded • Public Lighting Poles were excluded • Any other pole that could not be classified as either CBD, Urban, Rural Short, or Rural Long was excluded **Overhead conductors by Feeder Type** For the year 2014 the data was obtained utilising a GIS query that traces the in-service network connectivity model in GIS, to determine the circuit line length, which includes all spurs. Each circuit element was evaluated in its own right, for example: • SWER lines, single-phase lines, and three-phase lines counted as one line • Double circuit lines counted as two lines Notes:- • Although this methodology does not use the suggested Route Length methodology it does deliver the network circuit length using the criteria specified in this Information Notice. • Overhead elements associated with communication, protection & control and unmetered loads were excluded The information obtained from GIS enables categorisation of overhead conductors by Feeder Type. • Sub-transmission conductors were excluded • LV Overhead Service conductors were excluded

	• Overhead Public Lighting conductors were excluded • Any other conductor that could not be classified as either CBD, Urban, Rural Short, or Rural Long was excluded **Overhead conductors by Material** For the year 2014 the data was obtained utilising the same GIS query used for Overhead conductors by Feeder Type. The information obtained from GIS enables categorisation of overhead conductors by Material. LV Overhead Service conductors of all materials/types were excluded
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	NOT APPLICABLE
2010	NOT APPLICABLE
2011	NOT APPLICABLE
2012	NOT APPLICABLE
2013	No estimation or derivation was used
2014	No estimation or derivation was used
2015	No estimation or derivation was used

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	NOT APPLICABLE
2010	NOT APPLICABLE
2011	NOT APPLICABLE
2012	NOT APPLICABLE
2013	No estimation or derivation was used
2014	No estimation or derivation was used
2015	No estimation or derivation was used

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	NOT APPLICABLE
2010	NOT APPLICABLE
2011	NOT APPLICABLE
2012	NOT APPLICABLE
2013	No estimation or derivation was used
2014	No estimation or derivation was used
2015	No estimation or derivation was used

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

Data has not been provided for the period 2009-2012 as this was not reported and stored as results at a point in time.

Data has been provided for all years since 2013 as requested.

Tab name: 2.2 Repex	
Table name: 2.2.2 – Selected Asset Characteristics	
Asset Group	**Asset Category**
Underground Cables	(ALL data)
Transformers	(ALL data)
BOP ID	CAPAL2.2BOP13

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

Asset failure (Repex) The failure of an asset to perform its intended function safely and in compliance with jurisdictional regulations, not as a result of external impacts such as:
• extreme or atypical weather events; or
• third party interference, such as traffic accidents and vandalism; or
• wildlife interference, but only where the wildlife interference directly, clearly and unambiguously influenced asset performance; or
• vegetation interference, but only where the vegetation interference directly, clearly and unambiguously influenced asset performance.
Excludes planned interruptions.

Replacement Capital expenditure —'Repex' - The non-demand driven capex to replace an asset with its modern equivalent where the asset has reached the end of its economic life.. Capex has a primary driver of replacement expenditure if the factor determining the expenditure is the existing asset's inability to efficiently maintain its service performance requirement.

REPLACEMENT CAPITAL EXPENDITURE
5.2 table 2.2.2 instructions:
(a) Powercor must provide total volume assets currently in commission and replacement volumes of certain asset groups by specified aggregated metrics. In instances where this information is estimated Powercor must explain how it has determined the volumes, detailing the process and assumptions used to allocate asset volumes to aggregated metrics.

APPENDIX F: DEFINITIONS

Installed assets – quantity currently in commission by year
The number of assets currently in commission and the year they were installed

Underground cables
These assets have the primary function of distributing power, below ground, within the distribution network. This includes cable ends, joints, terminations and associated hardware and equipment (e.g. surge diverters, etc.), cable tunnels, ducts, pipes, pits and pillars. It excludes any pole mounted assets that are included in any other asset group.

Transformers
These are assets used to transform between voltage levels within the network

This includes all its components such as the cooling systems and tap changing equipment (where installed)
It excludes any pole mounted assets that are included in any other asset group.
For the avoidance of doubt, this does not include instrument transformers as defined in the National Electricity Rules.
It also does not include auxiliary transformers.

Please provide a Response in this box:
This BoP conforms to the requirements and definitions of the CAT RIN as defined in the box above.

5.2 Table 2.2.2:
(a) As consistent with 5.2 Table 2.2.2, Powercor has provided total volume of assets currently in commission and replacement volumes of certain asset groups by specified aggregated metrics

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
1. Transformer replacement quantities were obtained from the replacement quantities provided to the AER in table 2.2.1
2. Underground cable replacement quantities were obtained from the replacement quantities provided to the AER in table 2.2.1
3. Asset volumes currently in commission were obtained from the Powercor **RIN: Asset Instillations** Business Intelligence report executed for the reporting year.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	A. The purpose of this methodology is to describe the process undertaken to allocate transformer MVA replacement quantities as requested by the AER. • The replacement counts against each AER transformer class were multiplied by the largest transformer size purchased by Powercor in the class bounds. These resultant values were then summated. B. The purpose of this methodology is to describe the process undertaken to allocate transformer MVA retirement quantities as requested by the AER. • The replacement counts determined in A. above were estimated to be 90% of the replacement quantity based on a qualitative data estimation derived after discussion with logistics and technical standards. C. The purpose of this methodology is to describe the process undertaken to allocate underground cable feeder type quantities as requested by the AER. • The replacement counts against each AER underground cable class were multiplied by the network metric ratios obtained from the RIN Asset Instillations reports.
2010	As 2009
2011	As 2009
2012	As 2009
2013	As 2009

2014	As 2009
2015	As 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimation is required in this instance: A. The original replacement quantities are estimates based on material purchases and as such the values provided here are estimates. B. The original replacement quantities are estimates and as such the values provided here are estimates. In addition disposals and refurbishment quantities are not measured. C. The original replacement quantities are estimates based on material purchases and as such the values provided here are estimates.
2010	As 2009
2011	As 2009
2012	As 2009
2013	As 2009
2014	As 2009
2015	As 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Assumptions were required in this instance: A. This method assumes that the largest purchased size is an appropriate representation of the replacement population B. This method assumes that the selected retirement rate is an accurate representation of reality. CitiPower/Powercor refurbishment practices were considered as part of this assessment. C. This method assumes that the replacement cable metrics are proportional to that of the installed network for the given year.
2010	As 2009
2011	As 2009
2012	As 2009
2013	As 2009
2014	As 2009
2015	As 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This method was selected as: A. Data was not available to provide a more accurate response B. Data was not available to provide a more accurate response C. Data was not available to provide a more accurate response
2010	As 2009
2011	As 2009
2012	As 2009
2013	As 2009
2014	As 2009
2015	As 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 2.2 Repex	
Table name: 2.2.1 - COST METRICS BY ASSET CATEGORY	
Asset Group	**Asset**
Asset Failures (Note: This BOP cover the allocation of Faults expenditure from Faults Replacement Expenditure F/C and Maintenance Related Faults F/C into expenditure and physicals, that were added to the Planned Replacement costs and physicals in Repex Table 2.2.1 & 2.2.2.)	Poles Pole Top Structures Overhead Conductors Underground Cables Overhead LV Service Lines Public lighting Transformers Switchgear (HV Fuses and Surge Diverters)
BOP ID	CAPAL2.2BOP14

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

UNPLANNED ASSET REPLACEMENT:
5. REPLACEMENT CAPITAL EXPENDITURE
5.1 Table 2.2.1 instructions:
(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions

(c) In instances where Powercor considers that both the prescribed asset group categories and the sub-categorisation provisions set out in (a) do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 5.2 as per its respective instructions. Powercor must ensure that the sum of the individual asset categories, including any additional subcategory, additional other asset category or asset refurbishment/ life extension asset category expenditure reconciles to the total expenditure of the asset group.

(d) Powercor must ensure that the replacement volumes by asset group is equal to the applicable replacement volume data provided in table 2.2.2

(e) Powercor must ensure that the sum of the asset group replacement expenditures is equal to the total replacement expenditure contained in regulatory template 2.1.

(f) If Powercor has provided estimated expenditure data on the basis of historical data that has included works across asset groups Powercor must provide the asset age profile data in regulatory template 5.2 against the most elementary asset category. For example, where Powercor replaces pole-mounted switchgear in conjunction with a pole-top structure it must report the asset age profile data against the relevant switchgear asset category. Powercor must provide documentation of instances where backcast unit costs generated have involved allocations of historical records that include expenditure across asset groups.

Please provide a Response in this box:

Unplanned Asset Replacements:

5.1 Table 2.2.1

(a) Unplanned Asset Replacement costs and volumes for asset categories are provided in table 2.2.1.

(b) NOT APPLICABLE

(c) Additional asset subcategories have been included as required.

(d) The allocation of replacement assets in table 2.2.2 has been assigned provided based on the percentage allocation of asset replacement in these asset categories that were not replaced under fault conditions, as volumes for these categories are not captured through the Unplanned Replacement of assets process. Table 2.2.2 Asset replacement volumes by feeder category do not equal those in table 2.2.1 as feeder categories do not include sub-transmission assets. By the definitions provided to assign feeder categories for assets on distribution feeders, sub-transmission assets do not meet these criteria and are therefore not able to be classified as Urban, Short Rural and Long Rural

(e) Powercor has ensured that the total replacement expenditure in Template 2.2 is equal to the total replacement expenditure in Template 2.1

(f) Powercor has provided all asset age profile data in Template 5.2

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Unplanned Asset Replacement PM Orders are allocated into two specific function codes that distinguish between:

- assets that were replaced as unplanned due to its failure outside of the network's maintenance strategies (maintenance related), and
- assets that were replaced as unplanned for other reasons (non-maintenance related, such as weather, not recoverable third party damage, etc).

This data has been summated for the purpose of this Analysis.

Expenditure:

The total Unplanned Asset Replacement Expenditure for each year is provided by Regulatory Accounting group from data obtained from SAP for both maintenance related fault capital and non-maintenance related fault capital expenditure.

Asset Volumes:

The Unplanned Asset Replacement Volume data was obtained from the materials booked in PM Order detail as recorded in SAP, and allocated according to each asset category and sub-category.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Table 2.2.1** **– Methodology & Assumptions – Unplanned Asset Replacement Expenditure Data** Asset replacement costs by material and voltage were derived using bottom up estimates and actual overall expenditure. **– Methodology & Assumptions – Unplanned Asset Replacement Volumes Data** Unplanned Asset Replacement Volume data has been populated by obtaining the material data for each PM Order, grouping the numbers for each asset sub category and aligning to the relevant Category Analysis definition, and summating each category's volume data. This was undertaken for each year as required. **Table 2.2.2** **– Methodology & Assumptions – Unplanned Asset Replacement Volumes Data** The total volumes are sourced as above for 2.2.1. As volumes for these categories are not captured through the Unplanned Replacement of assets process, an allocation against the categories was made based on the volumes and percentage splits across the categories in table 2.2.2 that were replacement volumes under non fault conditions
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why was an estimate required, including why it is not possible to use actual data;
2009	**Table 2.2.1 – Reason for estimate – Expenditure Data** While total costs for Unplanned Asset Replacement are captured in SAP, the cost based on asset category is estimated because each PM Order may contain 1 item or a mix of different items, and therefore it is not possible to report accurately on the cost of individual items. **Table 2.2.1 – Reason for estimate – Volume Data** **Overhead Conductors, Underground Cables:** Overhead conductor and underground cable lengths are captured in the PM Orders in SAP, with the specific voltage categories estimated based on our classification being broadly assigned as LV or HV. **Service Lines:** The Circuit lengths of Service Lines are not captured within the PM Orders for Unplanned Asset Replacement recorded in SAP. **Table 2.2.2** Asset replacement volumes against these categories are not captured through the Unplanned Replacement of

	assets process
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**Table 2.2.1 – Basis for estimate – Expenditure Data** Total costs for Unplanned Asset Replacement are captured using PM Orders under specific Function Codes. Using the known physicals by voltage and material, a bottom up estimate for each asset category is derived from the total expenditure. The following steps are used to calculate the cost of asset replacement by category: • Gross cost of asset category = asset volumes X average unit rate of asset replacement historical data. • % of each asset category = gross cost of each category / sum of gross costs of asset categories. • Final cost of asset category = % of each asset category X total year expenditure of unplanned asset replacement. **Table 2.2.1 – Basis for estimate – Volume Data** **Overhead Conductors, Underground Cables** Overhead conductor and underground cables captured in the PM Orders in SAP have a Technical Standards material group designation as LV or HV and OH or UG, and have been assigned to each asset category based on this designation. **Service Lines:** An average service length of 30m is used for calculating a unit rate for overhead service replacement jobs. Using the total number of overhead service replacement jobs multiplied by 30m was used to derive the volume figure for service lines. 30m service per replacement job is based on historical data and professional judgement for building up the unit rate. **Transformers:** SWER transformers have been included in asset category “single phase”. **Table 2.2.2** An allocation against the categories was made based on the volumes and percentage splits across the categories in table 2.2.2 that were replacement volumes under non fault conditions
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	**Table 2.2.1 – Reason for selected approach – Expenditure Data** The selected approach was considered the best estimate, as the data was derived using actuals as the base. **Table 2.2.1 – Reason for selected approach – Physical Data**

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
	Overhead Conductors, Underground Cables The selected approach was considered the best estimate, as the data was derived using actuals as the base. **Service Lines:** The selected approach was considered the best estimate, as the data was derived using actuals as the base. **Table 2.2.2** The selected approach was considered the best estimate as it was based on the known portion of asset replacement across categories for non-faults asset replacements
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.2 Replacement	
Table name: 2.2.1 Replacement Expenditure, Volumes and Asset Failures by Asset Category	
Asset Group	**Asset Category**
Other	VBRC SWER ACRs
BOP ID	CAPAL2.2BOP15

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

There are no specific requirements defined for Victorian Bushfire Royal Commission (VBRC) expenditure.
Guidance was provided from AER as to treatment from VBRC expenditure on 20th May (Lawrence Irlam).
The AER guidance required SWER ACRs expenditure to be categorised as "Replacement".

AER guidance email 20th May inserted stated the following;

"The definitions for both encompass compliance-driven works as well as the basic nature of the activity, namely adding new equipment or replacing it. As you've pointed out, "augmentation" has the NER definition but also includes works to "improve the quality of the network" (we consider improvements include reducing the risk of bushfires). "Replacement" would cover ACRs that no longer meet the "service performance requirement" (i.e. this includes safety requirements). Given your concerns about the treatment of these costs in a benchmarking sense (of which we are appreciative), we would expect these items to be listed separately in the templates and/ or in the basis of preparation".

Please provide a Response in this box:
Powercor has complied with the advice provided by Mr Irlam and listed VBRC SWER ACRS expenditure as "Replacement".

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The financial data for the expenditure categories and cost allocations for 2015 has been sourced from the 2015 audited RIN section 27 Safety & Bushfire.

Volume
From the 2015 audited RIN section 27 Safety & Bushfire

Cost
From the 2015 audited RIN section 27 Safety & Bushfire

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	NOT APPLICABLE
2010	NOT APPLICABLE
2011	NOT APPLICABLE
2012	**Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor/CitiPower, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **Volumes** The program to replace the 178 SWER ACR units occurred over 2 financial years and so these physicals need to be apportioned over this time. Physicals were allocated approximately into either year (2012/13) by calculating the projects average price (e.g. $7599.5M + $550.4M = $8149.9M divided by 178 units equals $.04579M per unit). Expenditure in 2012 was $7499.5M and therefore physical allocation was calculated by $7599.5M divided by $0.04579M SWER ACR Unit price which approximately equals 168 units.
2013	As per 2012
2014	**Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor/CitiPower, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **Volumes** The program to replace the 178 SWER ACR units occurred in 2012 and 2013. There were no replacements in 2014 as the initial phase was completed in the prior year
2015	**Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor/CitiPower, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **Volumes** No units were replaced in 2015. There was expenditure for 120 SWER ACR's which will be replaced in 2016

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	NOT APPLICABLE
2010	NOT APPLICABLE
2011	NOT APPLICABLE
2012	**Expenditure** An estimate was required as overheads needed to be allocated to the direct cost margins which were pulled from the audited RIN. **Volumes** Work was not undertaken on the basis of unit prices and costs occurred over multiply years
2013	As per 2012
2014	NOT APPLICABLE
2015	**Expenditure** An estimate was required as overheads needed to be allocated to the direct cost margins which were pulled from the audited RIN.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	NOT APPLICABLE
2010	NOT APPLICABLE
2011	NOT APPLICABLE
2012	**Volumes** Physicals were allocated approximately into either year (2012/13) by calculating the projects average price (e.g. $7599.5M + $550.4M = $8149.9M divided by 178 units equals $.04579M per unit). Expenditure in 2012 was $7499.5M and therefore physical allocation was calculated by $7599.5M divided by $0.04579M SWER ACR Unit price which approximately equals 168 units. **Expenditure** In comparison to the 2013 audited RIN expenditure additional cost elements (635000 NS Margin, 635001 EN NS Margin and 637000 NS Contract O/Hs) were calculated to sum at $1,168. These additional cost elements were apportioned as a percentage of the overall EN direct VBRC F/C expenditure 17,440. (1,186/17,440 = 6.8%) An additional 1.068 was added to the EN direct VBRC F/C project classification (project) expenditure.
2013	As per 2012
2014	NOT APPLICABLE
2015	**Volumes** Not applicable **Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	NOT APPLICABLE
2010	NOT APPLICABLE
2011	NOT APPLICABLE

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2012	**Expenditure** This was the easiest and most accurate approach to allocating overheads to the direct expenditure **Volumes** The selected approach is a more equitable way to allocate physicals completed rather than actual completion date. Other options such actual completion dates would have resulted in unequable unit prices.
2013	As per 2012
2014	NOT APPLICABLE
2015	**Volumes** Not applicable **Expenditure** This was the easiest and most accurate approach to allocating overheads to the direct expenditure"

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

2.3 Augex

Tab name: 2.3 Augex	
Table name: 2.3.1 - AUGEX ASSET DATA - SUBTRANSMISSION SUBSTATIONS, SWITCHING STATIONS AND ZONE SUBSTATIONS	
Asset Group	**Asset Category**
ALL Categories	ALL Categories
BOP ID	CAPAL2.3BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Appendix E - 7.2 Table 2.3.1 (*on regulatory template 2.3*) instructions:
(a) For projects with a total cumulative expenditure over the life of the project of greater than or equal to $5 million (nominal):
(i) insert a row for each augmentation project on a subtransmission substation, switching station and zone substation owned and operated by Powercor where project close occurred at any time in the years specified; and
(ii) input the required details.

(b) For projects with a total cumulative expenditure over the life of the project less than $5 million (nominal) (non-material projects):
(i) input the total expenditure for all non-material augmentation projects on a subtransmission substation, switching station and zone substation owned and operated by Powercor where project close occurred in the years specified in the penultimate row in the table, as indicated.

(c) Record all expenditure data on a project close basis in real dollars ($2012–13).
Powercor must not include data for augmentation works where project close occurs after the years specified but incurs expenditure prior to this date.
(i) Powercor must provide any calculations used to convert real to nominal dollars or nominal to real dollars for this purpose.

(d) For the avoidance of doubt, this includes augmentation works on any substation in Powercor 's network, including those which are notionally operating at transmission voltages. In such cases, choose 'Other - specify' in the 'Substation type' category and describe the type of substation in the basis of preparation.

(e) Each row must represent data for an augmentation project for an individual substation.
(i) If an augmentation project applies to two substations, for example, Powercor must enter data for the two substations in two rows.

(f) Where a substation augmentation project in this table is related to other projects
(including those in other tables in regulatory template 2.3), describe this relationship in the basis of preparation.

(g) Where Powercor chooses 'Other - specify' in a drop down list, it must provide details in the basis of preparation.

(h) For 'Substation ID' and 'Project ID', input Powercor's identifier for the substation and project, respectively. This may be the substation/project name, location and/or code.

(i) For 'Project trigger', choose the primary trigger for the project from the drop down list. Describe secondary triggers in the basis of preparation. Where there is no primary trigger (among multiple triggers), choose 'Other – specify' and describe the triggers in the basis of preparation.

(j) For substation voltages, enter voltages in the format xx/xx, reflecting the primary and secondary voltages. For example, a transformer may have its voltage recorded as 500/275, where 500kV is the primary voltage and 275kV is the secondary voltage.

(i) Where a tertiary voltage is applicable, enter voltages in the format xx/xx/xx. For example, a transformer may have its voltage recorded as 220/110/33, where 220kV, 110kV and 33kV are the primary, secondary and tertiary voltages, respectively.

(k) For substation ratings, 'Pre' refers to the relevant characteristic prior to the augmentation work; 'Post' refers to the relevant characteristic after the augmentation work. Where a rating metric does not undergo any change, or where the project relates to the establishment of a new substation, input the metric only in the 'Post' column.

(l) Under 'Total expenditure' for transformers, switchgear, capacitors, and other plant items, include only the procurement costs of the equipment. This must not include installation costs.

(m) Expenditure inputted under the 'Land and easements' columns is mutually exclusive from expenditure that appears in the columns that sum to the 'Total direct expenditure' column. In other words, the 'Total direct expenditure' for a particular project must not include expenditure inputted into the 'Land and easements' columns.

(n) If Powercor records land and easement projects and/or expenditures as separate line items for regulatory purposes, select 'Other – specify' and note 'Land/easement expenditure' in the basis of preparation.

(i) Powercor must input expenditure directly attributable to the land purchase or easement compensation payments in the 'Land purchases' and 'Easements' columns, respectively. These costs include legal, stamp duties and cost of purchase or easement compensation payments.

(ii) Powercor must input other expenditure attributable to land purchases and easements in the 'Other expenditure – Other direct' column.

(o) Insert additional rows as required.

(p) Definitions: Other plant item

(i) All equipment involved in utilising or transmitting electrical energy that are not transformers, switchgear, or capacitors.

Please provide a Response in this box:
The information in table 2.3.1 is consistent with the requirements stated in the CA RIN notice.

Powercor has reported on augmentation type subtransmission substation, switching station and zone substation projects, provided project description data which includes standard internal ratings and how they were derived, and extracted project expenditure into the appropriate plant, contract, easement or other expenditure type formats.

Individual projects have been reported on that had both a direct expenditure over $2 million (nominal) and a project close that occurred between 2009-2015. A non-material project row contains all other augmentation type subtransmission substation, switching station and zone substation expenditure that occurred between 2009-2015.

Individual project expenditure had been provided in real $2013 dollars and the calculation factors to convert from nominal to real $2013 dollars have been provided in this Basis of Preparation for projects between 2009-2013. Individual project expenditure had been provided in real $2014 dollars for projects in 2014 and the calculation factors to convert from nominal to real $2014 dollars have been provided in this Basis of Preparation. Individual project expenditure had been provided in real $2015 dollars for projects in 2015 and the calculation factors to convert from nominal to real $2015 dollars have been provided in this Basis of Preparation.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data Type	Source
Project Description and Changes	Project SAP network and 2008-2015 Distribution System Planning Reports
Plant and Equipment Expenditure and Volume - Expenditures	SAP financial reporting (ZF21 transaction)
Plant and Equipment Expenditure and Volume – Transformers – Units Added & MVA Added	Project SAP network
Plant and Equipment Expenditure and Volume – Switchgear – Units Added	Project SAP network
Plant and Equipment Expenditure and Volume – Capacitors – MVAR Added	Project SAP network
Plant and Equipment Expenditure and Volume – Installation (Labour) – Volume	SAP financial reporting (CN48N transaction)
Other Expenditure – Civil Works & Other Direct Expenditures	SAP financial reporting (ZF21 transaction)
Total Direct Expenditure ($000'S)	SAP financial reporting (ZF21 transaction)
Years Incurred	SAP financial reporting (ZF21 transaction)
Contracts – Expenditure	SAP financial reporting (ZF21 transaction)
Easements	SAP financial reporting (ZF21 transaction)

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Project Description and Changes** *Methodology* Zone Substation projects over the $5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220) and internal network planning augmentation projects lists. Projects over $2 million direct expenditure were reported on individually to give the AER more information on Powercor's subtransmission substation, switching station and zone substation expenditure between 2009-2013. The Project Type and Project Trigger types were manually obtained from the scope documents of each project. Scope documents were extracted from either SAP Networks (CN23 transaction) or internal network planning drives. Substation Rating values were taken from previous Distribution System Planning Reports (DSPR) over the period of 2008 to 2012. The Normal Cyclic values were taken from the nameplate values of the transformers, as that is the rating specified by the manufacturer for continuous operation at a normal rate of wear. The N-1 Emergency values were taken from the Cyclic N-1 Rating values in the DSPRs. They are the rating Powercor is willing to accept the risk for, understanding that an accelerated rate of wear will occur, under conditions where the loss of another transformer at the station has occurred. *Assumptions* Manual identification performed by staff who are specialists in identifying the projects that require work on Subtransmission Substations, Switching Stations and Zone Substations. **Plant and Equipment Expenditure and Volume** *Methodology* For Plant and Equipment expenditure, SAP financial reporting (ZF21 transaction) was used to extract costs for the different categories of plant (transformers, switchgear, capacitors, other plant items and installation). Large items of plant were validated against the actual contract documents. As specified in Appendix E - 7.2 - Table 2.3.1 (c) of the Regulatory Information Notice, the following escalation factors were used to convert expenditure from nominal dollars to real $2013 dollars: Year - Factor

2008 – 16.30%
2009 – 12.10%
2010 – 9.50%
2011 – 5.80%
2012 – 2.60%
2013 – 0.00%

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency.

Transformer Units Added, Transformer MVA Added, Switchgear Units Added and Capacitor MVAR Added values were identified by manually going through the materials list in the project's SAP network. These figures for items of plant were also validated against project scopes.

The volume figure of the installation (labour) component is the total manhours Powercor employees spent on the project, which was extracted using SAP reporting (CN48N transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying figures for projects that contain Transformer, Switchgear or Capacitor works.
Manual identification performed by staff who are specialists in splitting material costs for projects between Transformer, Switchgear, Capacitors or Other Plant Items and also determining Installation (Labour) costs.

Other Expenditure
Methodology
Expenditure values were extracted using SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for civil works and any other direct expenditure from a project.

Total Direct Expenditure
Methodology
The Total Direct Expenditure Category for each individual project was obtained using SAP financial reporting (ZF21 transaction) and an excel spreadsheet template, which was used to exclude any Powercor overheads, any land purchase or easement costs, and provide a direct expenditure value.

The Non-Material Projects Total Direct Expenditure was calculated by subtracting the overall actual augmentation expenditure for subtransmission substations, switching stations and zone substations between the 2009 to 2013 period by the addition of the total direct expenditure of the individual projects that were reported on. Any individual projects reported on that contained actual expenditure before 2009 had those costs removed. Any land purchase or easement expenditure was also excluded from all total direct expenditure values.

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for the total direct expenditure from a project.

Years Incurred
Methodology
The Years Incurred column was calculated using the expenditure periods obtained in the SAP financial reporting (ZF21 transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying the years a project incurs cost in.

Contracts
Methodology
The All Non Related Party Contracts expenditure was calculated by adding all contract and material

	expenditure, excluding labour, as all materials are purchased by Powercor using contracts with individual manufacturers or suppliers. These values were taken from SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with Contracts and splitting them between the Related Party Margins and All Non Related Party Contract categories. **Easements** *Methodology* Land purchase expenditure was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases. Easement expenditure was extracted using the same SAP financial report against Powercor's internal cost code for easement expenditure. All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with either Easement or Land Purchases.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	**Project Description and Changes** *Methodology* Zone Substation projects over the $5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220) and internal network planning augmentation projects lists. Projects over $2 million direct expenditure were reported on individually to give the AER more information on Powercor's subtransmission substation, switching station and zone substation expenditure in 2014. The Project Type and Project Trigger types were manually obtained from the scope documents of each project. Scope documents were extracted from either SAP Networks (CN23 transaction) or internal network planning drives. Substation Rating values were taken from previous Distribution System Planning Reports (DSPR) over the period of 2008 to 2013. The Normal Cyclic values were taken from the nameplate values of the transformers, as that is the rating specified by the manufacturer for continuous operation at a normal rate of wear. The N-1 Emergency values were taken from the Cyclic N-1 Rating values in the DSPRs. They are the rating Powercor is willing to accept the risk for, understanding that an accelerated rate of wear will occur, under conditions where the loss of another transformer at the station has occurred. *Assumptions* Manual identification performed by staff who are specialists in identifying the projects that require work on Subtransmission Substations, Switching Stations and Zone Substations. **Plant and Equipment Expenditure and Volume** *Methodology* For Plant and Equipment expenditure, SAP financial reporting (ZF21 transaction) was used to extract costs for the different categories of plant (transformers, switchgear, capacitors, other plant items and installation). Large items of plant were validated against the actual contract documents. As specified in Appendix E - 7.2 - Table 2.3.1 (c) of the Regulatory Information Notice, the following escalation factors were used to convert expenditure from nominal dollars to real $2014 dollars: Year - Factor 2008 – 20.20% 2009 – 15.40%

2010 – 12.70%
2011 – 8.90%
2012 – 5.60%
2013 – 3.00%
2014 – 0.00%

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency.

Transformer Units Added, Transformer MVA Added, Switchgear Units Added and Capacitor MVAR Added values were identified by manually going through the materials list in the project's SAP network. These figures for items of plant were also validated against project scopes.

The volume figure of the installation (labour) component is the total manhours Powercor employees spent on the project, which was extracted using SAP reporting (CN48N transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying figures for projects that contain Transformer, Switchgear or Capacitor works.
Manual identification performed by staff who are specialists in splitting material costs for projects between Transformer, Switchgear, Capacitors or Other Plant Items and also determining Installation (Labour) costs.

Other Expenditure
Methodology
Expenditure values were extracted using SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for civil works and any other direct expenditure from a project.

Total Direct Expenditure
Methodology
The Total Direct Expenditure Category for each individual project was obtained using SAP financial reporting (ZF21 transaction) and an excel spreadsheet template, which was used to exclude any Powercor overheads, any land purchase or easement costs, and provide a direct expenditure value.

The Non-Material Projects Total Direct Expenditure was calculated by subtracting the overall actual augmentation expenditure for subtransmission substations, switching stations and zone substations for the 2014 period by the addition of the total direct expenditure of the individual projects that were reported on. Any land purchase or easement expenditure was also excluded from all total direct expenditure values.

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for the total direct expenditure from a project.

Years Incurred
Methodology
The Years Incurred column was calculated using the expenditure periods obtained in the SAP financial reporting (ZF21 transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying the years a project incurs cost in.

Contracts
Methodology
The All Non Related Party Contracts expenditure was calculated by adding all contract and material expenditure, excluding labour, as all materials are purchased by Powercor using contracts with individual manufacturers or suppliers. These values were taken from SAP financial reporting (ZF21 transaction).

	All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with Contracts and splitting them between the Related Party Margins and All Non Related Party Contract categories. **Easements** *Methodology* Land purchase expenditure was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases. Easement expenditure was extracted using the same SAP financial report against Powercor's internal cost code for easement expenditure. All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with either Easement or Land Purchases.
2015	**Project Description and Changes** *Methodology* Zone Substation projects over the $5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220) and internal network planning augmentation projects lists. Projects over $2 million direct expenditure were reported on individually to give the AER more information on Powercor's subtransmission substation, switching station and zone substation expenditure in 2015. The Project Type and Project Trigger types were manually obtained from the scope documents of each project. Scope documents were extracted from either SAP Networks (CN23 transaction) or internal network planning drives. Substation Rating values were taken from previous Distribution System Planning Reports (DSPR) over the period of 2008 to 2015. The Normal Cyclic values were taken from the nameplate values of the transformers, as that is the rating specified by the manufacturer for continuous operation at a normal rate of wear. The N-1 Emergency values were taken from the Cyclic N-1 Rating values in the DSPRs. They are the rating Powercor is willing to accept the risk for, understanding that an accelerated rate of wear will occur, under conditions where the loss of another transformer at the station has occurred. *Assumptions* Manual identification performed by staff who are specialists in identifying the projects that require work on Subtransmission Substations, Switching Stations and Zone Substations. **Plant and Equipment Expenditure and Volume** *Methodology* For Plant and Equipment expenditure, SAP financial reporting (ZF21 transaction) was used to extract costs for the different categories of plant (transformers, switchgear, capacitors, other plant items and installation). Large items of plant were validated against the actual contract documents. As specified in Appendix E - 7.2 - Table 2.3.1 (c) of the Regulatory Information Notice, the following escalation factors were used to convert expenditure from nominal dollars to real $2015 dollars: Year - Factor 2008 – 20.60% 2009 – 14.87% 2010 – 13.44% 2011 – 10.37% 2012 – 6.61% 2013 – 4.52% 2014 – 2.31% 2015 – 0.00%

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency.

Transformer Units Added, Transformer MVA Added, Switchgear Units Added and Capacitor MVAR Added values were identified by manually going through the materials list in the project's SAP network. These figures for items of plant were also validated against project scopes.

The volume figure of the installation (labour) component is the total manhours Powercor employees spent on the project, which was extracted using SAP reporting (CN48N transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying figures for projects that contain Transformer, Switchgear or Capacitor works.
Manual identification performed by staff who are specialists in splitting material costs for projects between Transformer, Switchgear, Capacitors or Other Plant Items and also determining Installation (Labour) costs.

Other Expenditure
Methodology
Expenditure values were extracted using SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for civil works and any other direct expenditure from a project.

Total Direct Expenditure
Methodology
The Total Direct Expenditure Category for each individual project was obtained using SAP financial reporting (ZF21 transaction) and an excel spreadsheet template, which was used to exclude any Powercor overheads, any land purchase or easement costs, and provide a direct expenditure value.

The Non-Material Projects Total Direct Expenditure was calculated by subtracting the overall actual augmentation expenditure for subtransmission substations, switching stations and zone substations for the 2015 period by the addition of the total direct expenditure of the individual projects that were reported on (material projects over two million dollars direct cost). Any land purchase or easement expenditure was also excluded from all total direct expenditure values.

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for the total direct expenditure from a project.

Years Incurred
Methodology
The Years Incurred column was calculated using the expenditure periods obtained in the SAP financial reporting (ZF21 transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying the years a project incurs cost in.

Contracts
Methodology
The All Non Related Party Contracts expenditure was calculated by adding all contract and material expenditure, excluding labour, as all materials are purchased by Powercor using contracts with individual manufacturers or suppliers. These values were taken from SAP financial reporting (ZF21 transaction).

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency.

Assumptions
Manual identification performed by staff who are specialists in identifying costs within a project associated with

	Contracts and splitting them between the Related Party Margins and All Non Related Party Contract categories. **Easements** *Methodology* Land purchase expenditure was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases. Easement expenditure was extracted using the same SAP financial report against Powercor's internal cost code for easement expenditure. All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with either Easement or Land Purchases.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As specified in Appendix E - 7.2 - Table 2.3.1 (c) of the Regulatory Information Notice, expenditure is to be recorded in real $2013 dollars, which meant a conversion needed to be applied as the SAP financial reporting used only had expenditure in nominal dollars.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As specified in Appendix E - 7.2 - Table 2.3.1 (c) of the Regulatory Information Notice, expenditure is to be recorded in real dollars, which meant a conversion needed to be applied as the SAP financial reporting used only had expenditure in nominal dollars.
2015	As specified in Appendix E - 7.2 - Table 2.3.1 (c) of the Regulatory Information Notice, expenditure is to be recorded in real dollars, which meant a conversion needed to be applied as the SAP financial reporting used only had expenditure in nominal dollars.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	To convert from nominal dollars to real $2013 dollars escalation factors were applied. They are stated below: Year - Factor 2008 – 16.30% 2009 – 12.10% 2010 – 9.50% 2011 – 5.80% 2012 – 2.60% 2013 – 0.00%
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	To convert from nominal dollars to real $2014 dollars escalation factors were applied. They are stated below: Year - Factor 2008 – 20.20% 2009 – 15.40% 2010 – 12.70% 2011 – 8.90% 2012 – 5.60%

	2013 – 3.00% 2014 – 0.00%
2015	To convert from nominal dollars to real $2015 dollars escalation factors were applied. They are stated below: Year - Factor 2008 – 20.60% 2009 – 14.87% 2010 – 13.44% 2011 – 10.37% 2012 – 6.61% 2013 – 4.52% 2014 – 2.31% 2015 – 0.00%

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	To convert to $2013 dollars a conversion needs to be applied. When converting between different dollar rates the best practice is to apply an escalation or conversion factor.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	To convert to $2014 dollars a conversion needs to be applied. When converting between different dollar rates the best practice is to apply an escalation or conversion factor.
2015	To convert to $2015 dollars a conversion needs to be applied. When converting between different dollar rates the best practice is to apply an escalation or conversion factor.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.3 Augex	
Table name: 2.3.2 - AUGEX ASSET DATA - SUBTRANSMISSION LINES	
Asset Group	**Asset Category**
ALL Categories	ALL Categories
BOP ID	CAPAL2.3BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Appendix E - 7.3 Table 2.3.2 (*on regulatory template 2.3*) instructions:
(a) For projects with a total cumulative expenditure over the life of the project of greater than or equal to $5 million (nominal):
(i) insert a row for each augmentation project on a subtransmission line owned and operated by Powercor where project close occurred at any time during the years specified; and
(ii) input the required details.

(b) For projects with a total cumulative expenditure over the life of the project less than $5 million (nominal) (non-material projects):
(i) input the total expenditure for all non-material augmentation projects on subtransmission lines owned and operated by Powercor where project close occurred in the years specified in the penultimate row in the table, as indicated.

(c) Record all expenditure data on a project close basis in real dollars ($2012–13). Hence, Powercor must not include data for augmentation works where project close occurs after the years specified but incurs expenditure prior to this date.
(i) Powercor must provide any calculations used to convert real to nominal dollars or nominal to real dollars for this purpose.

(d) For the avoidance of doubt, this includes augmentation works on any subtransmission line in Powercor's network. If Powercor owns and operates any lines or cables notionally operating at transmission voltages, record any augmentation expenditure relating to such lines or cables in this table.

(e) Each row should represent data for all circuits of a given voltage subject to augmentation works under the Project ID.
(i) If an augmentation project applies to two circuits of the same voltage, for example, Powercor must enter data for the two circuits in one row.
(ii) If an augmentation project applies to two circuits of different voltages, for example, Powercor must enter data for the two circuits in two rows

(f) Where a subtransmission lines augmentation project in this table is related to other projects (including those in other tables in regulatory template 2.3), describe this relationship in the basis of preparation.

(g) Where Powercor chooses 'Other - specify' in a drop down list, provide details in the basis of preparation.

(h) For 'Line ID', input Powercor's identifier for the circuit(s) subject to augmentation works under the Project ID. This may be the circuit name(s), location and/or code.

(i) For 'Project ID', input Powercor's identifier for the project. This may be the project name, location and/or code.

(j) For 'Project trigger', choose the primary trigger for the project from the drop down list. Describe secondary triggers in the basis of preparation. Where there is no primary trigger (among multiple triggers), choose 'Other – specify' and describe the triggers in the basis of preparation.

(k) For length metrics, 'km added' refers to the gross addition of the relevant length measure resulting from the augmentation work.

(i) This must not be net of line or cable removal. If the augmentation project includes line or cable removal, describe the amount in basis of preparation.

(l) Under 'Total expenditure' for poles/towers, include the procurement costs of the equipment and civil works. This must not include installation costs.

(m) Under 'Total expenditure' for lines, cables and 'other plant item', respectively, include only the procurement costs of the equipment. This must not include installation costs.

(n) Under 'Total expenditure' for civil works, do not include civil works expenditure related to poles/towers. As a guide, expenditure Powercor may input under 'Other expenditure – Civil works' includes (but is not limited to) construction of access tracks, construction pads and vegetation clearance.

(o) Expenditure inputted under the 'Land and easements' columns is mutually exclusive from expenditure that appear in the columns that sum to the 'Total direct expenditure' column. In other words, the 'Total direct expenditure' for a particular project must not include expenditure inputted into the 'Land and easements' columns.

(p) If Powercor records land and easement projects and/or expenditures as separate line items for regulatory purposes, select 'Other – specify' and note 'Land/easement expenditure' in the basis of preparation.

(i) Powercor must input expenditure directly attributable to the land purchase or easement compensation payments in the 'Land purchases' and 'Easements' columns, respectively. These costs include legal, stamp duties and cost of purchase or easement compensation payments.

(q) Powercor must input other expenditure attributable to land purchases and easements in the 'Other expenditure – Other direct' column.

(r) Insert additional rows as required.

(s) Definitions: Other plant item

(i) All equipment involved in utilising or transmitting electrical energy that are not poles/towers (including pole top or tower structures), lines or cables.

Please provide a Response in this box:
The information in table 2.3.2 is consistent with the requirements stated in the CA RIN notice.

Powercor has reported on augmentation type subtransmission line projects, provided project description data, and extracted project expenditure into the appropriate plant, contract, easement or other expenditure type formats.

Individual projects have been reported on that had both a direct expenditure over $2 million (nominal) and a project close that occurred between 2009-2015. A non-material project row contains all other augmentation type subtransmission line expenditure that occurred between 2009-2015.
Individual project expenditure had been provided in real $2013 dollars and the calculation factors to convert from nominal to real $2013 dollars have been provided in this Basis of Preparation for projects between 2009-2013.
Individual project expenditure had been provided in real $2014 dollars for projects in 2014 and the calculation factors to convert from nominal to real $2014 dollars have been provided in this Basis of Preparation. Individual project expenditure had been provided in real $2015 dollars for projects in 2015 and the calculation factors to convert from nominal to real $2015 dollars have been provided in this Basis of Preparation.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data Type	Source
Project Description and Changes	Project SAP network
Plant and Equipment Expenditure and Volume - Expenditures	SAP financial reporting (ZF21 transaction)
Plant and Equipment Expenditure and Volume – Poles/Towers – Poles/Towers Added & Poles/Towers Upgraded	Actual project construction drawings
Plant and Equipment Expenditure and Volume – Overhead Lines – Circuit Km Added & Circuit Km Upgraded	Project SAP network
Plant and Equipment Expenditure and Volume – Underground Cables – Circuit Km Added & Circuit Km Upgraded	Project SAP network
Plant and Equipment Expenditure and Volume – Installation (Labour) – Volume	SAP financial reporting (CN48N transaction)
Other Expenditure – Civil Works & Other Direct Expenditures	SAP financial reporting (ZF21 transaction)
Total Direct Expenditure ($000'S)	SAP financial reporting (ZF21 transaction)
Years Incurred	SAP financial reporting (ZF21 transaction)
Contracts – Expenditure	SAP financial reporting (ZF21 transaction)
Easements	SAP financial reporting (ZF21 transaction)

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Project Description and Changes** *Methodology* Subtransmission projects over the $5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220) and internal network planning augmentation projects lists. Projects over $2 million direct expenditure were also included to give the AER more information on Powercor's subtransmission line expenditure. The Project Type and Project Trigger types were manually obtained from the scope documents of each project. Scope documents were extracted from either SAP Networks (CN23 transaction) or internal network planning drives. The Route Line Length Added was obtained by analysing the materials used in each of the individual project's SAP networks. *Assumptions* Manual identification performed by staff who are specialists in identifying the projects that required work on Subtransmission Lines. **Plant and Equipment Expenditure and Volume** *Methodology* For Plant and Equipment expenditure, SAP financial reporting (ZF21 transaction) was used to extract costs for the different categories of plant (poles/towers, overhead lines, underground cables, other plant items and installation). As specified in Appendix E - 7.3 - Table 2.3.2 (c) of the Regulatory Information Notice, the following escalation factors were used to convert expenditure from nominal dollars to real $2013 dollars:

Year - Factor
2008 – 16.30%
2009 – 12.10%
2010 – 9.50%
2011 – 5.80%
2012 – 2.60%
2013 – 0.00%

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency.

The Poles/Towers Added and Poles/Towers Upgraded were identified by analysing the actual construction drawings for each individual project reported on, as they are seen as the most accurate source of data.

Circuit Km Added and Circuit Km Upgraded for Overhead Lines were identified by manually going through the materials list in the project's SAP network. These figures were used as they are the actual amounts of each material used on the project. Note that no projects were reported on with Underground Cables.

The volume figure of the installation (labour) component is the total man-hours Powercor employees spent on the project, which was extracted using SAP reporting (CN48N transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a subtransmission line, as well as whether the figures were for overhead or underground works.
Manual identification performed by staff who are specialists in identifying whether poles/towers are being added or upgraded for a project.
Manual identification performed by staff who are specialists in splitting material costs for projects between Pole/Towers, Overhead Lines, Underground Cables or Other Plant Items and also determining Installation (Labour) costs.

Other Expenditure
Methodology
Expenditure values were extracted using SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency.

The Other Direct expenditure was determined to be the remaining expenditure not associated with plant and equipment, land purchase or easement expenditure.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for civil works and any other direct expenditure from a project.

Total Direct Expenditure
Methodology
The Total Direct Expenditure Category for each individual project was obtained using SAP financial reporting (ZF21 transaction) and an excel spreadsheet template, which was used to exclude any Powercor overheads, any land purchase or easement costs, and provide a direct expenditure value.

The Non-Material Projects Total Direct Expenditure was calculated by subtracting the overall actual augmentation expenditure for subtransmission lines between the 2009 to 2013 period by the addition of the total direct expenditure of the individual projects that were reported on. Any individual projects reported on that contained actual expenditure before 2009 had those costs removed. Any land purchase or easement expenditure was also excluded from all total direct expenditure values.

The overall actual augmentation expenditure value for subtransmission lines is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for subtransmission lines is grouped with the overall actual augmentation expenditure for HV feeders. To get an accurate representation for subtransmission line expenditure, a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure was conducted.

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency.

	Assumptions Manual identification performed by staff who are specialists in identifying costs for the total direct expenditure from a project. Manual identification performed by staff who are specialists in splitting the costs for the overall actual augmentation expenditure between subtransmission lines and HV feeders. **Years Incurred** *Methodology* The Years Incurred column was calculated using the expenditure periods obtained in the SAP financial reporting (ZF21 transaction). *Assumptions* Manual identification performed by staff who are specialists in identifying the years a project incurs cost in. **Contracts** *Methodology* The All Non Related Party Contracts expenditure was calculated by adding all contract and material expenditure, excluding labour, as all materials are purchased by Powercor using contracts with individual manufacturers or suppliers. These values were taken from SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with Contracts and splitting them between the Related Party Margins and All Non Related Party Contract categories. **Easements** *Methodology* Land purchase expenditure was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases. Easement expenditure was extracted using the same SAP financial report against Powercor's internal cost code for easement expenditure. All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2013 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with either Easement or Land Purchases.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	**Project Description and Changes** *Methodology* Subtransmission projects over the $5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220) and internal network planning augmentation projects lists. Projects over $2 million direct expenditure were also included to give the AER more information on Powercor's subtransmission line expenditure in 2014. The Project Type and Project Trigger types were manually obtained from the scope documents of each project. Scope documents were extracted from either SAP Networks (CN23 transaction) or internal network planning drives. The Route Line Length Added was obtained by analysing the materials used in each of the individual project's SAP networks. *Assumptions* Manual identification performed by staff who are specialists in identifying the projects that required work on Subtransmission Lines.

Plant and Equipment Expenditure and Volume
Methodology

For Plant and Equipment expenditure, SAP financial reporting (ZF21 transaction) was used to extract costs for the different categories of plant (poles/towers, overhead lines, underground cables, other plant items and installation).

As specified in Appendix E - 7.3 - Table 2.3.2 (c) of the Regulatory Information Notice, the following escalation factors were used to convert expenditure from nominal dollars to real $2014 dollars:

Year - Factor
2008 – 20.20%
2009 – 15.40%
2010 – 12.70%
2011 – 8.90%
2012 – 5.60%
2013 – 3.00%
2014 – 0.00%

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency.

The Poles/Towers Added and Poles/Towers Upgraded were identified by analysing the actual construction drawings for each individual project reported on, as they are seen as the most accurate source of data.

Circuit Km Added and Circuit Km Upgraded for Overhead Lines were identified by manually going through the materials list in the project's SAP network. These figures were used as they are the actual amounts of each material used on the project. Note that no projects were reported on with Underground Cables.

The volume figure of the installation (labour) component is the total manhours Powercor employees spent on the project, which was extracted using SAP reporting (CN48N transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a subtransmission line, as well as whether the figures were for overhead or underground works.
Manual identification performed by staff who are specialists in identifying whether poles/towers are being added or upgraded for a project.
Manual identification performed by staff who are specialists in splitting material costs for projects between Pole/Towers, Overhead Lines, Underground Cables or Other Plant Items and also determining Installation (Labour) costs.

Other Expenditure
Methodology
Expenditure values were extracted using SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency.

The Other Direct expenditure was determined to be the remaining expenditure not associated with plant and equipment, land purchase or easement expenditure.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for civil works and any other direct expenditure from a project.

Total Direct Expenditure
Methodology
The Total Direct Expenditure Category for each individual project was obtained using SAP financial reporting (ZF21 transaction) and an excel spreadsheet template, which was used to exclude any Powercor overheads, any land purchase or easement costs, and provide a direct expenditure value.

The Non-Material Projects Total Direct Expenditure was calculated by subtracting the overall actual augmentation expenditure for subtransmission lines for the 2014 period by the addition of the total direct expenditure of the individual projects that were reported on. Any land purchase or easement expenditure was

	also excluded from all total direct expenditure values. The overall actual augmentation expenditure value for subtransmission lines is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for subtransmission lines is grouped with the overall actual augmentation expenditure for HV feeders. To get an accurate representation for subtransmission line expenditure, a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure was conducted. All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs for the total direct expenditure from a project. Manual identification performed by staff who are specialists in splitting the costs for the overall actual augmentation expenditure between subtransmission lines and HV feeders. **Years Incurred** *Methodology* The Years Incurred column was calculated using the expenditure periods obtained in the SAP financial reporting (ZF21 transaction). *Assumptions* Manual identification performed by staff who are specialists in identifying the years a project incurs cost in. **Contracts** *Methodology* The All Non Related Party Contracts expenditure was calculated by adding all contract and material expenditure, excluding labour, as all materials are purchased by Powercor using contracts with individual manufacturers or suppliers. These values were taken from SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with Contracts and splitting them between the Related Party Margins and All Non Related Party Contract categories. **Easements** *Methodology* Land purchase expenditure was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases. Easement expenditure was extracted using the same SAP financial report against Powercor's internal cost code for easement expenditure. All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2014 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with either Easement or Land Purchases.
2015	**Project Description and Changes** *Methodology* Subtransmission projects over the $5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220) and internal network planning augmentation projects lists. Projects over $2 million direct expenditure were also included to give the AER more information on Powercor's subtransmission line expenditure in 2015. The Project Type and Project Trigger types were manually obtained from the scope documents of each project. Scope documents were extracted from either SAP Networks (CN23 transaction) or internal network planning drives.

The Route Line Length Added was obtained by analysing the materials used in each of the individual project's SAP networks.

Assumptions
Manual identification performed by staff who are specialists in identifying the projects that required work on Subtransmission Lines.

Plant and Equipment Expenditure and Volume
Methodology

For Plant and Equipment expenditure, SAP financial reporting (ZF21 transaction) was used to extract costs for the different categories of plant (poles/towers, overhead lines, underground cables, other plant items and installation).

As specified in Appendix E - 7.3 - Table 2.3.2 (c) of the Regulatory Information Notice, the following escalation factors were used to convert expenditure from nominal dollars to real $2015 dollars:

Year - Factor
2008 – 20.60%
2009 – 14.87%
2010 – 13.44%
2011 – 10.37%
2012 – 6.61%
2013 – 4.52%
2014 – 2.31%
2015 – 0.00%

All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency.

The Poles/Towers Added and Poles/Towers Upgraded were identified by analysing the actual construction drawings for each individual project reported on, as they are seen as the most accurate source of data.

Circuit Km Added and Circuit Km Upgraded for Overhead Lines were identified by manually going through the materials list in the project's SAP network. These figures were used as they are the actual amounts of each material used on the project. Note that no projects were reported on with Underground Cables.

The volume figure of the installation (labour) component is the total manhours Powercor employees spent on the project, which was extracted using SAP reporting (CN48N transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a subtransmission line, as well as whether the figures were for overhead or underground works.
Manual identification performed by staff who are specialists in identifying whether poles/towers are being added or upgraded for a project.
Manual identification performed by staff who are specialists in splitting material costs for projects between Pole/Towers, Overhead Lines, Underground Cables or Other Plant Items and also determining Installation (Labour) costs.

Other Expenditure
Methodology
Expenditure values were extracted using SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency.

The Other Direct expenditure was determined to be the remaining expenditure not associated with plant and equipment, land purchase or easement expenditure.

Assumptions
Manual identification performed by staff who are specialists in identifying costs for civil works and any other direct expenditure from a project.

Total Direct Expenditure
Methodology

	The Total Direct Expenditure Category for each individual project was obtained using SAP financial reporting (ZF21 transaction) and an excel spreadsheet template, which was used to exclude any Powercor overheads, any land purchase or easement costs, and provide a direct expenditure value. The Non-Material Projects Total Direct Expenditure was calculated by subtracting the overall actual augmentation expenditure for subtransmission lines for the 2015 period by the addition of the total direct expenditure of the individual projects that were reported on (material projects over two million dollars direct cost). Any land purchase or easement expenditure was also excluded from all total direct expenditure values. The overall actual augmentation expenditure value for subtransmission lines is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for subtransmission lines is grouped with the overall actual augmentation expenditure for HV feeders. To get an accurate representation for subtransmission line expenditure, a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure was conducted. All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs for the total direct expenditure from a project. Manual identification performed by staff who are specialists in splitting the costs for the overall actual augmentation expenditure between subtransmission lines and HV feeders. **Years Incurred** *Methodology* The Years Incurred column was calculated using the expenditure periods obtained in the SAP financial reporting (ZF21 transaction). *Assumptions* Manual identification performed by staff who are specialists in identifying the years a project incurs cost in. **Contracts** *Methodology* The All Non Related Party Contracts expenditure was calculated by adding all contract and material expenditure, excluding labour, as all materials are purchased by Powercor using contracts with individual manufacturers or suppliers. These values were taken from SAP financial reporting (ZF21 transaction). All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with Contracts and splitting them between the Related Party Margins and All Non Related Party Contract categories. **Easements** *Methodology* Land purchase expenditure was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases. Easement expenditure was extracted using the same SAP financial report against Powercor's internal cost code for easement expenditure. All expenditure costs were extracted from the same SAP financial reporting method and converted to real $2015 dollar values to ensure consistency. *Assumptions* Manual identification performed by staff who are specialists in identifying costs within a project associated with either Easement or Land Purchases.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As specified in Appendix E - 7.3 - Table 2.3.2 (c) of the Regulatory Information Notice, expenditure is to be recorded in real $2013 dollars, which meant a conversion needed to be applied as the SAP financial reporting used only had expenditure in nominal dollars. The Total Direct Expenditure value for the Non-Material Projects is an estimation as Powercor's accounting practices group the overall actual augmentation expenditure for subtransmission lines with the augmentation expenditure for HV feeders.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As specified in Appendix E - 7.3 - Table 2.3.2 (c) of the Regulatory Information Notice, expenditure is to be recorded in real dollars, which meant a conversion needed to be applied as the SAP financial reporting used only had expenditure in nominal dollars. The Total Direct Expenditure value for the Non-Material Projects is an estimation as Powercor's accounting practices group the overall actual augmentation expenditure for subtransmission lines with the augmentation expenditure for HV feeders.
2015	As specified in Appendix E - 7.3 - Table 2.3.2 (c) of the Regulatory Information Notice, expenditure is to be recorded in real dollars, which meant a conversion needed to be applied as the SAP financial reporting used only had expenditure in nominal dollars. The Total Direct Expenditure value for the Non-Material Projects is an estimation as Powercor's accounting practices group the overall actual augmentation expenditure for subtransmission lines with the augmentation expenditure for HV feeders.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	To convert from nominal dollars to real $2013 dollars escalation factors were applied. They are stated below: <u>Year - Factor</u> 2008 – 16.30% 2009 – 12.10% 2010 – 9.50% 2011 – 5.80% 2012 – 2.60% 2013 – 0.00% The Total Direct Expenditure value for the Non-Material Projects row is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for subtransmission lines is grouped with the overall actual augmentation expenditure for HV feeders. To get an accurate representation for subtransmission line expenditure, a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure was conducted.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	To convert from nominal dollars to real $2014 dollars escalation factors were applied. They are stated below: <u>Year - Factor</u> 2008 – 20.20% 2009 – 15.40% 2010 – 12.70% 2011 – 8.90% 2012 – 5.60% 2013 – 3.00% 2014 – 0.00% The Total Direct Expenditure value for the Non-Material Projects row is an estimation as Powercor's internal

	accounting practices are set up in a way that the overall actual augmentation expenditure for subtransmission lines is grouped with the overall actual augmentation expenditure for HV feeders. To get an accurate representation for subtransmission line expenditure, a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure was conducted.
2015	To convert from nominal dollars to real $2015 dollars escalation factors were applied. They are stated below: Year - Factor 2008 – 20.60% 2009 – 14.87% 2010 – 13.44% 2011 – 10.37% 2012 – 6.61% 2013 – 4.52% 2014 – 2.31% 2015 – 0.00% The Total Direct Expenditure value for the Non-Material Projects row is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for subtransmission lines is grouped with the overall actual augmentation expenditure for HV feeders. To get an accurate representation for subtransmission line expenditure, a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure was conducted.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	To convert to $2013 dollars a conversion needs to be applied. When converting between different dollar rates the best practice is to apply an escalation or conversion factor. The percentage split used for the Non-Material Projects Total Direct Expenditure was used as it is based on actual individual project expenditure per year.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	To convert to $2014 dollars a conversion needs to be applied. When converting between different dollar rates the best practice is to apply an escalation or conversion factor. The percentage split used for the Non-Material Projects Total Direct Expenditure was used as it is based on actual individual project expenditure per year.
2015	To convert to $2015 dollars a conversion needs to be applied. When converting between different dollar rates the best practice is to apply an escalation or conversion factor. The percentage split used for the Non-Material Projects Total Direct Expenditure was used as it is based on actual individual project expenditure per year.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.3 Augex	
Table name: 2.3.3 - AUGEX DATA - HV/LV FEEDERS AND DISTRIBUTION SUBSTATIONS	
Table name: 2.3.3.1 DESCRIPTOR METRICS	
Table name: 2.3.3.2 COST METRICS	
Asset Group	**Asset Category**
ALL Categories	ALL Categories
BOP ID	CAPAL2.3BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

HV Feeder
Appendix E 7.4 Table 2.3.3 (on regulatory template 2.3) instructions:
(a) Complete the table by inputting the required details for:
(i) the rows that summarise all augmentation works on the specified types of HV feeders owned and operated by Powercor undertaken at any time during the years specified for projects with a total cumulative expenditure over the life of the project of greater than or equal to $0.5 million (nominal); and
(ii) the row that summarises all augmentation works on HV feeders owned and operated by Powercor undertaken at any time during the years specified for projects with a total cumulative expenditure over the life of the project of less than $0.5 million (nominal)

(b) Record all expenditure data on an 'as incurred' basis in nominal dollars.

(c) For projects that span across regulatory years, input figures for the 'Circuit km added' and 'Circuit km upgraded' columns according to the final year in which expenditure was incurred for the project.

(d) Powercor must not include expenditure related to land purchases and easements in the 'Total direct expenditure' column. Land purchases and easements expenditure related to augmentation works on all HV feeders owned and operated by Powercor must be inputted in table 2.3.6.

Distribution Substations
Appendix E 7.5 Table 2.3.3 (on regulatory template 2.3) instructions:
(a) Complete the table by inputting the required details for:
(i) the rows that summarises all augmentation works on the specified types of distribution substations owned and operated by Powercor undertaken at any time during the years specified.

(b) Record all expenditure data on an 'as incurred' basis in nominal dollars.

(c) For projects that span across regulatory years, input figures for the 'Units' column according to the final year in which expenditure was incurred.

(d) Powercor must not include expenditure related to land purchases and easements in the 'Total direct expenditure' column. Land purchases and easements expenditure related to augmentation works on all distribution substations owned and operated by Powercor must be inputted in table 2.3.6.

LV Feeder
Appendix E 7.6 Table 2.3.3 (on regulatory template 2.3) instructions:
(a) Complete the table by inputting the required details for:
(i) the rows that summarise all augmentation works on the specified types of LV feeders owned and operated by Powercor undertaken at any time during the years specified for projects with a total cumulative expenditure over the life of the project of greater than or equal to $50,000 (nominal); and

(ii) the row that summarises all augmentation works on LV feeders owned and operated by Powercor undertaken at any time during the years specified for projects with a total cumulative expenditure over the life of the project of less than $50,000 (nominal).

(b) Record all expenditure data on an 'as incurred' basis in nominal dollars.

(c) For projects that span across regulatory years, input figures for the 'Circuit km added' and 'Circuit km upgraded' columns according to the final year in which expenditure was incurred for the project.

d) Powercor must not include expenditure related to land purchases and easements in the 'Total direct expenditure' column. Land purchases and easements expenditure related to augmentation works on all LV feeders owned and operated by Powercor must be inputted in table 2.3.6.

Please provide a Response in this box:
The information in table 2.3.3 is consistent with the requirements stated in the CA RIN notice.

HV Feeders
For HV feeder augmentation projects with a direct expenditure over $0.5 million (nominal) and a project close that occurred between 2009-2015, Powercor has provided the units added and units upgraded per year, as well as the direct expenditure from these projects per year.
As shown in table 2.3.3 a further split of the HV feeders into overhead and underground types has been conducted. A non-material project row that contains all other HV feeder augmentation type expenditure that occurred between 2009-2013, 2014 and 2015 has been included. All direct project expenditure has been provided in nominal dollars and the units added or upgraded have been placed into the year in which expenditure last incurred for a project. No land purchase or easement expenditure has been included.
No units added were displayed in 2009 and no units upgraded in the years 2009, 2011 and 2013 for HV feeder augmentations – overhead lines because no reported on projects (over $0.5 million) of that category recorded their final expenditure in those years. No units added were displayed in 2013 and no units upgraded were shown for the period of 2009-2015 for HV feeder augmentations – underground cables because no reported on projects (over $0.5 million) of that category recorded their final expenditure in those years.

Distribution Substations
All distribution substation augmentation project units added, units upgraded and direct expenditure per year have been provided between the 2009-2015 period.
All direct project expenditure has been provided in nominal dollars and the units added or upgraded have been placed into the year in which expenditure last incurred for a project. No land purchase or easement expenditure has been included. As shown in table 2.3.3, a further split of the distribution substations into pole type, ground type and indoor type formats for distribution substations has been conducted.
No units added were displayed in 2015 and no units upgraded were displayed in 2013 and 2014 for distribution substation augmentations – ground mounted because no projects of that category recorded their final expenditure in that year. No units added were displayed for the period of 2009-2015 and no units upgraded were shown for the years 2009, 2010, 2011, 2013, 2014 and 2015 for distribution substation augmentations – indoor because no projects of that category recorded their final expenditure in those years.

LV Feeders
For LV feeder augmentation projects with a direct expenditure over $50,000 (nominal) and a project close that occurred between 2009-2015, Powercor has provided the units added and units upgraded per year, as well as the direct expenditure from these projects per year.
As shown in table 2.3.3 a further split of the LV feeders into overhead and underground types has been conducted. A non-material project row that contains all other LV feeder augmentation type expenditure that occurred between 2009-2013, 2014 and 2015 has been included. All direct project expenditure has been provided in nominal dollars and the units added or upgraded have been placed into the year in which expenditure last incurred for a project. No land purchase or easement expenditure has been included.
No units added were displayed in 2009, 2011, 2013, 2014 and 2015 and no units upgraded were displayed in 2015 for LV feeder augmentations – overhead lines because no reported on projects (over $50,000) of that category recorded their final expenditure in those years. No units upgraded were shown for the period of 2009-2015 for LV feeder augmentations – underground cables because no reported on projects (over $50,000) of that category recorded their final expenditure in those years. No units added were displayed in 2014-2015 for LV feeder augmentations – underground cables because no reported on projects (over $50,000) of that category recorded their final expenditure in that year.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Date Type	Source
HV FEEDER AUGMENTATIONS - OVERHEAD LINES (CIRCUIT LINE LENGTH KM)	Actual project construction drawings
HV FEEDER AUGMENTATIONS - UNDERGROUND CABLES (CIRCUIT LINE LENGTH KM)	Actual project construction drawings
HV FEEDER AUGMENTATIONS - OVERHEAD LINES ($000'S)	SAP financial reporting (ZF21 transaction)
HV FEEDER AUGMENTATIONS - UNDERGROUND CABLES ($000'S)	SAP financial reporting (ZF21 transaction)
HV FEEDER NON-MATERIAL PROJECTS ($000'S)	SAP financial reporting (ZF21 transaction) and “AER Category Analysis” report
LV FEEDER AUGMENTATIONS - OVERHEAD LINES (CIRCUIT LINE LENGTH KM)	Project SAP network and GIS
LV FEEDER AUGMENTATIONS - UNDERGROUND CABLES (CIRCUIT LINE LENGTH KM)	Project SAP network and GIS
LV FEEDER AUGMENTATIONS - OVERHEAD LINES ($000'S)	SAP financial reporting (ZF21 transaction)
LV FEEDER AUGMENTATIONS - UNDERGROUND CABLES ($000'S)	SAP financial reporting (ZF21 transaction)
LV FEEDER NON-MATERIAL PROJECTS ($000'S)	SAP financial reporting (ZF21 transaction) and “AER Category Analysis” report
DISTRIBUTION SUBSTATION AUGMENTATIONS - POLE MOUNTED	Project SAP network and GIS
DISTRIBUTION SUBSTATION AUGMENTATIONS - GROUND MOUNTED	Project SAP network and GIS
DISTRIBUTION SUBSTATION AUGMENTATIONS – INDOOR	Project SAP network and GIS
DISTRIBUTION SUBSTATION AUGMENTATIONS - POLE MOUNTED ($000'S)	SAP financial reporting (ZF21 transaction)
DISTRIBUTION SUBSTATION AUGMENTATIONS - GROUND MOUNTED ($000'S)	SAP financial reporting (ZF21 transaction)
DISTRIBUTION SUBSTATION AUGMENTATIONS - INDOOR ($000'S)	SAP financial reporting (ZF21 transaction)

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**HV Feeder Descriptor Metrics** *Methodology* HV feeder projects over the $0.5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220). Units added and units upgraded for the HV feeder projects were manually identified by analysing the actual project construction drawings of the individual projects. Using these means also made it easiest to identify whether a project was adding or upgrading a line, and to identify whether a project contained overhead or underground works. Using the expenditure values, the units added and unit replaced have been placed into the year in which expenditure last incurred for a project. Assumptions Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a line as well as whether the figures were for overhead or underground works. **HV Feeder Cost Metrics (Material Projects)** *Methodology* HV feeder projects over the $0.5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220). Total direct expenditure values per year for the HV overhead feeders and HV underground feeders are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction). For HV projects that contained both overhead and underground construction, an expenditure percentage split of the project between overhead and underground was made to increase accuracy of the expenditure figures. That percentage split was based purely on the construction costs (overhead vs underground) of the project extracted from SAP financial reporting (ZF21 transaction), then applied across the overall project direct expenditure on a per project basis. *Assumptions* As the percentage split for the Material v Non-Material costs, as well as the Overhead v Underground costs is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **HV Feeder Cost Metrics (Non-Material Projects)** *Methodology* The HV feeder non-material projects total direct expenditure was calculated by subtracting the overall actual augmentation expenditure for HV feeders between the 2009 to 2013 period by the addition of the total direct expenditure of the individual projects that were reported on (overhead and underground projects above $0.5 million direct expenditure). Any individual projects reported on that contained actual expenditure before 2009 had those costs removed. Any land purchase or easement expenditure was also excluded from all total direct expenditure values. Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for HV feeders is grouped with the overall actual augmentation expenditure for subtransmission lines. The HV feeder non-material projects total direct expenditure is a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure. *Assumptions* Manual identification performed by staff who are specialists in splitting the costs for: costs incurred prior to 2009; cost related to land and easement; and cost split of subtransmission line v HV Feeder project expenditure. As the percentage split for the Material v Non-Material costs is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **Distribution Substations Descriptor Metrics** *Methodology* Units added and units upgraded were manually identified by going into the project SAP network and analysing the scope, if the scope did not contain enough detail, GIS was used to identify units added and upgraded. Figures for units added and upgraded were all extracted manually using the project scopes or GIS for distribution substations as these methods was seen as the most accurate sources available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a substation and determine which category (pole type, ground type or indoor type) the distribution substation project was best suited to. Using the expenditure values, the units added and unit replaced have been placed into the year in

which expenditure last incurred for a project.

Assumptions
Manual identification performed by staff who are specialists in identifying whether a project contained the addition or upgrade of a pole mounted, ground mounted or indoor distribution substation.

Distribution Substations Cost Metrics
Methodology
Distribution substation projects for the reporting period of 2009-2013 required multiple SAP transactions (SQ00, CNS41, ZI69, ZJ59 transactions) to identify which category (pole type, ground type or indoor type) the distribution substation project was best suited to. A check against the project SAP network and/or scope was also conducted to ensure the correct category was allocated. Total direct expenditure values per year for the distribution substations are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction).

Assumptions
Manual identification performed by staff who are specialists in splitting the costs for projects between pole, ground and indoor types of distribution substations.

LV Feeder Descriptor Metrics
Methodology
LV feeder projects over the $50,000 reporting threshold were identified using an internal Business Warehouse report (transaction F220) and multiple SAP transactions (SQ00, CNS41, ZI69, ZJ59 transactions). Units added and units upgraded were manually identified by going into the project SAP network and analysing the scope, if the scope did not contain enough detail, GIS was used to identify units added and upgraded. Figures for units added and upgraded were all extracted manually using the project scopes or GIS for LV feeders as these methods was seen as the most accurate sources available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a line, and to identify whether a project contained overhead or underground works. Using the expenditure values, the units added and unit replaced have been placed into the year in which expenditure last incurred for a project.

Assumptions
Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a line as well as whether the figures were for overhead or underground projects.

LV Feeder Cost Metrics (Material Projects)
Methodology
LV feeder projects over the $50,000 reporting threshold were identified using an internal Business Warehouse report (transaction F220) and multiple SAP transactions (SQ00, CNS41, ZI69, ZJ59 transactions). Direct expenditure values for LV feeders were extracted from SAP financial reporting (ZF21 transaction) per year. For LV projects that contained both overhead and underground construction, an expenditure percentage split of the project between overhead and underground was made to increase accuracy of the expenditure figures. This split was based on the actual construction work completed on an individual project basis. Total direct expenditure values per year for the LV overhead feeders and LV underground feeders are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction).

Assumptions
Manual identification performed by staff who are specialists in splitting the costs for projects between overhead or underground works.

LV Feeder Cost Metrics (Non-Material Projects)
Methodology
LV feeder non-material projects total direct expenditure was calculated by subtracting the overall actual augmentation expenditure for LV feeders between the 2009 to 2013 period by the addition of the total direct expenditure of the individual projects that were reported on (overhead and underground projects above $50,000 direct expenditure). Any individual projects reported on that contained actual expenditure before 2009 had those costs removed. Any land purchase or easement expenditure was also excluded from all total direct expenditure values. The LV feeder non-material projects total direct expenditure is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for LV feeders is grouped with the overall actual augmentation expenditure for distribution substations. To get the most accurate representation for LV feeder expenditure, and because the distribution substation expenditure figures are actual direct expenditure, the total distribution substation expenditure was subtracted from Powercor's combined LV feeder and distribution substation expenditure per year.

	Assumptions Manual identification performed by staff who are specialists in splitting the costs for: costs incurred prior to 2009; cost related to land and easement; and cost split between LV feeders and distribution substations.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	**HV Feeder Descriptor Metrics** *Methodology* HV feeder projects over the $0.5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220). Units added and units upgraded for the HV feeder projects were manually identified by analysing the actual project construction drawings of the individual projects. Using these means also made it easiest to identify whether a project was adding or upgrading a line, and to identify whether a project contained overhead or underground works. Using the expenditure values, the units added and unit replaced have been placed into the year in which expenditure last incurred for a project. Assumptions Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a line as well as whether the figures were for overhead or underground works. **HV Feeder Cost Metrics (Material Projects)** *Methodology* HV feeder projects over the $0.5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220). Total direct expenditure values per year for the HV overhead feeders and HV underground feeders are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction). For HV projects that contained both overhead and underground construction, an expenditure percentage split of the project between overhead and underground was made to increase accuracy of the expenditure figures. That percentage split was based purely on the construction costs (overhead vs underground) of the project extracted from SAP financial reporting (ZF21 transaction), then applied across the overall project direct expenditure on a per project basis. *Assumptions* As the percentage split for the Material v Non-Material costs, as well as the Overhead v Underground costs is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **HV Feeder Cost Metrics (Non-Material Projects)** *Methodology* The HV feeder non-material projects total direct expenditure was calculated by subtracting the overall actual augmentation expenditure for HV feeders in the 2014 period by the addition of the total direct expenditure of the individual projects that were reported on (overhead and underground projects above $0.5 million direct expenditure). Any individual projects reported on that contained actual expenditure before 2014 had those costs removed. Any land purchase or easement expenditure was also excluded from all total direct expenditure values. Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for HV feeders is grouped with the overall actual augmentation expenditure for subtransmission lines. The HV feeder non-material projects total direct expenditure is a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure. *Assumptions* Manual identification performed by staff who are specialists in splitting the costs for: costs incurred prior to 2014; cost related to land and easement; and cost split of subtransmission line v HV Feeder project expenditure. As the percentage split for the Material v Non-Material costs is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **Distribution Substations Descriptor Metrics** *Methodology* Units added and units upgraded were manually identified by going into the project SAP network and analysing the scope, if the scope did not contain enough detail, GIS was used to identify units added and upgraded. Figures for units added and upgraded were all extracted manually using the project scopes or GIS for distribution substations as these methods was seen as the most accurate sources available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a substation and

determine which category (pole type, ground type or indoor type) the distribution substation project was best suited to. Using the expenditure values, the units added and unit replaced have been placed into the year in which expenditure last incurred for a project.

Assumptions
Manual identification performed by staff who are specialists in identifying whether a project contained the addition or upgrade of a pole mounted, ground mounted or indoor distribution substation.

Distribution Substations Cost Metrics
Methodology
Distribution substation projects for the 2014 reporting period were manual identified using the project SAP network and/or scope to identify which category (pole type, ground type or indoor type) the distribution substation project was best suited to. Total direct expenditure values per year for the distribution substations are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction).

Assumptions
Manual identification performed by staff who are specialists in identifying and splitting the costs for projects between pole, ground and indoor types of distribution substations.

LV Feeder Descriptor Metrics
Methodology
LV feeder projects over the $50,000 reporting threshold were identified using an internal Business Warehouse report (transaction F220). Units added and units upgraded were manually identified by going into the project SAP network and analysing the scope, if the scope did not contain enough detail, GIS was used to identify units added and upgraded. Figures for units added and upgraded were all extracted manually using the project scopes or GIS for LV feeders as these methods was seen as the most accurate sources available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a line, and to identify whether a project contained overhead or underground works. Using the expenditure values, the units added and unit replaced have been placed into the year in which expenditure last incurred for a project.

Assumptions
Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a line as well as whether the figures were for overhead or underground projects.

LV Feeder Cost Metrics (Material Projects)
Methodology
LV feeder projects over the $50,000 reporting threshold were identified using an internal Business Warehouse report (transaction F220). Direct expenditure values for LV feeders were extracted from SAP financial reporting (ZF21 transaction) per year. For LV projects that contained both overhead and underground construction, an expenditure percentage split of the project between overhead and underground was made to increase accuracy of the expenditure figures. This split was based on the actual construction work completed on an individual project basis. Total direct expenditure values per year for the LV overhead feeders and LV underground feeders are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction).

Assumptions
Manual identification performed by staff who are specialists in splitting the costs for projects between overhead or underground works.

LV Feeder Cost Metrics (Non-Material Projects)
Methodology
LV feeder non-material projects total direct expenditure was calculated by subtracting the overall actual augmentation expenditure for LV feeders in the 2014 period by the addition of the total direct expenditure of the individual projects that were reported on (overhead and underground projects above $50,000 direct expenditure). Any individual projects reported on that contained actual expenditure before 2014 had those costs removed. Any land purchase or easement expenditure was also excluded from all total direct expenditure values. The LV feeder non-material projects total direct expenditure is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for LV feeders is grouped with the overall actual augmentation expenditure for distribution substations. To get the most accurate representation for LV feeder expenditure, and because the distribution substation expenditure figures are actual direct expenditure, the total distribution substation expenditure was subtracted from Powercor's combined LV feeder and distribution substation expenditure per year.

Assumptions

	Manual identification performed by staff who are specialists in splitting the costs for: costs incurred prior to 2014; cost related to land and easement; and cost split between LV feeders and distribution substations.
2015	**HV Feeder Descriptor Metrics** *Methodology* HV feeder projects over the $0.5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220). Units added and units upgraded for the HV feeder projects were manually identified by analysing the actual project construction drawings of the individual projects. Using these means also made it easiest to identify whether a project was adding or upgrading a line, and to identify whether a project contained overhead or underground works. Using the expenditure values, the units added and unit replaced have been placed into the year in which expenditure last incurred for a project. Assumptions Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a line as well as whether the figures were for overhead or underground works. **HV Feeder Cost Metrics (Material Projects)** *Methodology* HV feeder projects over the $0.5 million reporting threshold were identified using an internal Business Warehouse report (transaction F220). Total direct expenditure values per year for the HV overhead feeders and HV underground feeders are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction). For HV projects that contained both overhead and underground construction, an expenditure percentage split of the project between overhead and underground was made to increase accuracy of the expenditure figures. That percentage split was based purely on the construction costs (overhead vs underground) of the project extracted from SAP financial reporting (ZF21 transaction), then applied across the overall project direct expenditure on a per project basis. *Assumptions* As the percentage split for the Material v Non-Material costs, as well as the Overhead v Underground costs is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **HV Feeder Cost Metrics (Non-Material Projects)** *Methodology* The HV feeder non-material projects total direct expenditure was calculated by subtracting the overall actual augmentation expenditure for HV feeders in the 2015 period by the addition of the total direct expenditure of the individual projects that were reported on (overhead and underground projects above $0.5 million direct expenditure). Any individual projects reported on that contained actual expenditure before 2015 had those costs removed. Any land purchase or easement expenditure was also excluded from all total direct expenditure values. Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for HV feeders is grouped with the overall actual augmentation expenditure for subtransmission lines. The HV feeder non-material projects total direct expenditure is a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure. *Assumptions* Manual identification performed by staff who are specialists in splitting the costs for: costs incurred prior to 2015; cost related to land and easement; and cost split of subtransmission line v HV Feeder project expenditure. As the percentage split for the Material v Non-Material costs is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **Distribution Substations Descriptor Metrics** *Methodology* Units added and units upgraded were manually identified by going into the project SAP network and analysing the scope, if the scope did not contain enough detail, GIS was used to identify units added and upgraded. Figures for units added and upgraded were all extracted manually using the project scopes or GIS for distribution substations as these methods was seen as the most accurate sources available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a substation and determine which category (pole type, ground type or indoor type) the distribution substation project was best suited to. Using the expenditure values, the units added and unit replaced have been placed into the year in which expenditure last incurred for a project. *Assumptions* Manual identification performed by staff who are specialists in identifying whether a project contained the

addition or upgrade of a pole mounted, ground mounted or indoor distribution substation.

Distribution Substations Cost Metrics

Methodology

Distribution substation projects for the 2015 reporting period were manual identified using the project SAP network and/or scope to identify which category (pole type, ground type or indoor type) the distribution substation project was best suited to.Total direct expenditure values per year for the distribution substations are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction).

Assumptions

Manual identification performed by staff who are specialists in identifying and splitting the costs for projects between pole, ground and indoor types of distribution substations.

LV Feeder Descriptor Metrics

Methodology

LV feeder projects over the $50,000 reporting threshold were identified using an internal Business Warehouse report (transaction F220). Units added and units upgraded were manually identified by going into the project SAP network and analysing the scope, if the scope did not contain enough detail, GIS was used to identify units added and upgraded. Figures for units added and upgraded were all extracted manually using the project scopes or GIS for LV feeders as these methods was seen as the most accurate sources available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a line, and to identify whether a project contained overhead or underground works. Using the expenditure values, the units added and unit replaced have been placed into the year in which expenditure last incurred for a project.

Assumptions

Manual identification performed by staff who are specialists in identifying the projects that are adding or upgrading a line as well as whether the figures were for overhead or underground projects.

LV Feeder Cost Metrics (Material Projects)

Methodology

LV feeder projects over the $50,000 reporting threshold were identified using an internal Business Warehouse report (transaction F220). Direct expenditure values for LV feeders were extracted from SAP financial reporting (ZF21 transaction) per year. For LV projects that contained both overhead and underground construction, an expenditure percentage split of the project between overhead and underground was made to increase accuracy of the expenditure figures. This split was based on the actual construction work completed on an individual project basis. Total direct expenditure values per year for the LV overhead feeders and LV underground feeders are actual direct expenditure values extracted from SAP financial reporting (ZF21 transaction).

Assumptions

Manual identification performed by staff who are specialists in splitting the costs for projects between overhead or underground works.

LV Feeder Cost Metrics (Non-Material Projects)

Methodology

LV feeder non-material projects total direct expenditure was calculated by subtracting the overall actual augmentation expenditure for LV feeders in the 2015 period by the addition of the total direct expenditure of the individual projects that were reported on (overhead and underground projects above $50,000 direct expenditure). Any individual projects reported on that contained actual expenditure before 2015 had those costs removed. Any land purchase or easement expenditure was also excluded from all total direct expenditure values. The LV feeder non-material projects total direct expenditure is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for LV feeders is grouped with the overall actual augmentation expenditure for distribution substations. To get the most accurate representation for LV feeder expenditure, and because the distribution substation expenditure figures are actual direct expenditure, the total distribution substation expenditure was subtracted from Powercor's combined LV feeder and distribution substation expenditure per year.

Assumptions

Manual identification performed by staff who are specialists in splitting the costs for: costs incurred prior to 2015; cost related to land and easement; and cost split between LV feeders and distribution substations.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**HV Feeder Descriptor Metrics** SAP does not allow a direct dump of information by the specified asset groups. **HV Feeder Cost Metrics (Material Projects)** SAP financial reporting (ZF21 transaction) does not differentiate between overhead or underground projects. **HV Feeder Cost Metrics (Non-Material Projects)** Powercor's accounting practices group the overall actual augmentation expenditure for HV feeders with the augmentation expenditure for subtransmission lines. **Distribution Substations Descriptor Metrics** SAP does not allow a direct dump of information by the specified asset groups. **Distribution Substations Cost Metrics** SAP financial reporting (ZF21 transaction) does not differentiate between pole mounted, ground mounted or indoor substations. **LV Feeder Descriptor Metrics** SAP does not allow a direct dump of information by the specified asset groups. **LV Feeder Cost Metrics (Material Projects)** SAP financial reporting (ZF21 transaction) does not differentiate between overhead or underground projects. **LV Feeder Cost Metrics (Non-Material Projects)** The LV feeder non-material projects total direct expenditure is not based on actual LV project expenditure due to the Powercor accounting practices of grouping the overall actual augmentation expenditure for LV feeders with the augmentation expenditure for distribution substations.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**HV Feeder Descriptor Metrics** Figures for units added and upgraded were all extracted manually using the construction drawings of individual projects for HV feeders as this method was seen as the most accurate source available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a line, and to identify whether a project contained overhead or underground works. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for HV Feeder Descriptor Metrics. **HV Feeder Cost Metrics (Material Projects)** Due to SAP financial reporting (ZF21 transaction) not differentiating between overhead or underground works, another method was required. A percentage split from SAP financial reporting (ZF21 transaction) data was conducted using purely the construction costs (overhead vs underground) for each individual project and applied across the overall project direct expenditure for that project. This allowed individual project expenditures to be split between the overhead and underground categories. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for the HV Feeder Cost Metrics of the Material projects. **HV Feeder Cost Metrics (Non-Material Projects)** Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for HV feeders is grouped with the overall actual augmentation expenditure for subtransmission lines. The HV feeder non-material projects total direct expenditure is a percentage split per year between subtransmission lines and HV feeder project expenditure using individual project expenditure, which is then subtracted by the

	total direct expenditure of the HV feeder material projects reported on. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for the HV Feeder Cost Metrics of the Non-Material projects. **Distribution Substations Descriptor Metrics** Figures for units added and upgraded were all extracted manually using the project scopes or GIS for distribution substations as these methods was seen as the most accurate sources available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a substation, and to identify whether a project was for a pole type, ground type or indoor type substation. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for the Distribution Substations Descriptor Metrics. **Distribution Substations Cost Metrics** Due to SAP financial reporting (ZF21 transaction) not differentiating between pole mounted, ground mounted or indoor substations, a scope or GIS check was required and seen as the most accurate source of data to determine which distribution substation category a project was best suited to. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for the Distribution Substations Cost Metrics. . **LV Feeder Descriptor Metrics** Figures for units added and upgraded were all extracted manually using the project scopes or GIS for LV feeders as these methods was seen as the most accurate sources available of data. Using these means also made it easiest to identify whether a project was adding or upgrading a line, and to identify whether a project contained overhead or underground works. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for the LV Feeder Descriptor Metrics. **LV Feeder Cost Metrics (Material Projects)** Due to SAP financial reporting (ZF21 transaction) not differentiating between overhead or underground works, another method was required. A percentage split from SAP financial reporting (ZF21 transaction) data was conducted based on the actual construction completed (overhead vs underground) for each individual project and applied across the overall project direct expenditure for that project. This allowed individual project expenditures to be split between the overhead and underground categories. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for the LV Feeder Cost Metrics of the Material projects. **LV Feeder Cost Metrics (Non-Material Projects)** The LV feeder non-material projects total direct expenditure is an estimation as Powercor's internal accounting practices are set up in a way that the overall actual augmentation expenditure for LV feeders is grouped with the overall actual augmentation expenditure for distribution substations. To get the most accurate representation for LV feeder expenditure, and because the distribution substation expenditure figures are actual direct expenditure, the total distribution substation expenditure was subtracted from Powercor's combined LV feeder and distribution substation expenditure per year. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for the LV Feeder Cost Metrics of the Non-Material projects.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	**HV Feeder Descriptor Metrics** SAP does not allow a direct data dump of the required data. Using the construction drawings allowed all three aspects (line length, units added or upgraded and overhead or underground) to be determined and professionally judged by a specialist. There is no other way to derive the information besides using professional judgement to identify the relevant data group (units added or upgraded and overhead or underground) for an individual project. **HV Feeder Cost Metrics (Material Projects)**

	SAP financial reporting (ZF21 transaction) cannot determine the difference between overhead or underground projects. There is no other way to derive the information without judgementally selecting the costs and allocating them across the different cost types (overhead or underground and units added or units upgraded). **HV Feeder Cost Metrics (Non-Material Projects)** Since Powercor's groups the overall actual augmentation expenditure for HV feeders with the augmentation expenditure for subtransmission lines per year, an accurate split of the costs is required. Using actual project costs to determine the percentage split between HV feeders and subtransmission lines was seen as more accurate than a professional judgement. **Distribution Substations Descriptor Metrics** SAP does not allow a direct data dump of the required data groups (pole type, ground type and indoor type substations). There is no other way to derive the information besides using professional judgement to identify the relevant data group per individual project. **Distribution Substations Cost Metrics** SAP does not differentiate between the three data groups (pole type, ground type and indoor type substations). There is no other way to allocate costs between the data groups then to use professional judgement to identify the relevant data group per individual project. **LV Feeder Descriptor Metrics** SAP does not allow a direct data dump of the required data. This approach allowed all three aspects (line length, units added or upgraded and overhead or underground) to be determined and professionally judged by a specialist. There is no other way to derive the information besides using professional judgement to identify the relevant data group (units added or upgraded and overhead or underground) for an individual project. **LV Feeder Cost Metrics (Material Projects)** SAP financial reporting (ZF21 transaction) cannot determine the difference between overhead or underground projects. There is no other way to derive the information without judgementally selecting the costs and allocating them across the different cost types (overhead or underground and units added or units upgraded). **LV Feeder Cost Metrics (Non-Material Projects)** Since Powercor's groups the overall actual augmentation expenditure for LV feeders with the augmentation expenditure for distribution substations per year, an accurate split of the costs is required. Subtracting the actual direct distribution substation expenditure to determine the LV feeder expenditure was seen as more accurate than a professional judgement.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 2.3 Augex	
Table name: 2.3.4 - AUGEX DATA - TOTAL EXPENDITURE	
Asset Group	**Asset Category**
ALL Categories	ALL Categories
BOP ID	CAPAL2.3BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Augex Data – Total Expenditure
Appendix E 7.7 Table 2.3.4 instructions:
(a) Powercor must input the total augmentation expenditure for each asset group split by the groupings specified by the table.
(i) Record all expenditure data on an 'as incurred' basis in nominal dollars.

(b) Powercor must explain how the sum of the asset group augmentation expenditures reconciles to the augmentation expenditure in tables 2.3.1 to 2.3.5.

(c) Expenditure inputted under the 'Land and easements' rows are mutually exclusive from expenditure that appear in the rows for the corresponding asset group. For example, augex attributed to HV feeders must not include expenditure related to 'HV feeders – land purchases and easements'.

Please provide a Response in this box:
The information in table 2.3.4 is consistent with the requirements stated in the CA RIN notice.

Subtransmission Substations, Switching Stations, Zone Substations
Powercor has provided total augmentation expenditure per year for subtransmission substations/switching station/zone substations over the period of 2009-2015. Total augmentation expenditure had been provided in nominal dollars. The expenditure figures in Table 2.3.4 reconcile with those in Table 2.3.1 for subtransmission substations/switching station/zone substations once escalation factors have been applied (since Table 2.3.1 is in real dollars) .

Subtransmission Lines
Powercor has provided total augmentation expenditure per year for subtransmission lines over the period of 2009-2015. Total augmentation expenditure had been provided in nominal dollars. The expenditure figures in Table 2.3.4 reconcile with those in Table 2.3.2 for subtransmission lines once escalation factors have been applied (since Table 2.3.2 is in real dollars).

HV Feeders
Powercor has provided total augmentation expenditure per year for HV feeders over the period of 2009-2015. Total augmentation expenditure had been provided in nominal dollars. The expenditure figures in Table 2.3.4 reconcile with those in Table 2.3.3.2 for HV feeders. Expenditure attributed to land purchases or easements for HV feeder projects has been removed and included in the HV feeders – land purchases and easements category.

HV Feeders – Land Purchases and Easements
Powercor has provided total augmentation expenditure per year for HV feeders – land purchases and easements over the period of 2009-2015. Total augmentation expenditure had been provided in nominal dollars. For the years 2009, 2010 2014, and 2015, no land purchase or easement expenditure was spent on HV feeder projects. The expenditure figures in Table 2.3.4 reconcile with those in Table 2.3.3.2 for HV feeders.

Distribution Substations

Powercor has provided total augmentation expenditure per year for distribution substations over the period of 2009-2015. Total augmentation expenditure had been provided in nominal dollars. The expenditure figures in Table 2.3.4 reconcile with those in Table 2.3.3.2 for distribution substations. Expenditure attributed to land purchases or easements for distribution substation projects has been removed and included in the distribution substations – land purchases and easements category.

Distribution Substations – Land Purchases and Easements
Powercor has provided total augmentation expenditure per year for distribution substations – land purchases over the period of 2009-2015. Total augmentation expenditure had been provided in nominal dollars. For the years 2009, 2011, 2012, 2013, 2014 and 2015, no land purchase or easement expenditure was spent on distribution substation projects. The expenditure figures in Table 2.3.4 reconcile with those in Table 2.3.3.2 for distribution substations.

LV Feeders
Powercor has provided total augmentation expenditure per year for LV feeders over the period of 2009-2015. Total augmentation expenditure had been provided in nominal dollars. The expenditure figures in Table 2.3.4 reconcile with those in Table 2.3.3.2 for LV feeders. Expenditure attributed to land purchases or easements for LV feeder projects has been removed and included in the LV feeders – land purchases and easements category.

LV Feeders – Land Purchases and Easements
Powercor has provided total augmentation expenditure per year for LV feeders – land purchases and easements over the period of 2009-2015. Total augmentation expenditure had been provided in nominal dollars. Over the reporting period of 2009 to 2015, no land purchase or easement expenditure was spent on LV feeder projects. The expenditure figures in Table 2.3.4 reconcile with those in Table 2.3.3.2 for LV feeders.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

"Subtransmission Substations, Switching Stations, Zone Substations":

2009	2010	2011	2012	2013	2014	2015

For the rest of the categories:

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data Type	Source
SUBTRANSMISSION SUBSTATIONS, SWITCHING STATIONS, ZONE SUBSTATIONS	SAP financial system
SUBTRANSMISSION LINES	SAP financial system
HV FEEDERS	SAP financial system
HV FEEDERS - LAND PURCHASES AND EASEMENTS	SAP financial system
DISTRIBUTION SUBSTATIONS	SAP financial system
DISTRIBUTION SUBSTATIONS - LAND PURCHASES AND EASEMENTS	SAP financial system
LV FEEDERS	SAP financial system
LV FEEDERS - LAND PURCHASES AND EASEMENTS	SAP financial system

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Subtransmission Substations, Switching Stations, Zone Substations** *Methodology* The SAP financial system is used to extract the information required to state the Distribution Network Service Provider (DNSP) capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology. The subtransmission substations/switching station/zone substations total augmentation expenditure figures extracted from the SAP financial system are not grouped with any of the other asset categories and can be used without estimations. Reconciliation occurs between subtransmission substations/switching station/zone substations expenditure in Table 2.3.4 and Table 2.3.1 once escalation factors have been applied (since Table 2.3.1 is in $2013 dollars) and expenditure before 2009 for the material projects reported on has been excluded. *Assumptions* No assumptions required as the data is based on actual nominal figures as per SAP. **Subtransmission Lines** *Methodology* The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology. Subtransmission lines and HV feeders are grouped together as part of the one capital expenditure category. On a per year basis, individual project expenditure from that capital expenditure category was manually identified as being subtransmission line or HV feeder expenditure in nature. To calculate the total direct augmentation expenditure of subtransmission lines, a percentage split was formulated using the summation of the individual subtransmission line project expenditures then applied against the total direct augmentation expenditure of the capital expenditure category, on a per year basis. Reconciliation occurs between subtransmission line expenditure in Table 2.3.4 and Table 2.3.2 once escalation factors have been applied (since Table 2.3.2 is in $2013 dollars) and expenditure before 2009 for the material projects reported on has been excluded. *Assumptions* As the percentage split for subtransmission line v HV feeder projects is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **HV Feeders** *Methodology* The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology. HV feeders and subtransmission lines are grouped together as part of the one capital expenditure category. On a per year basis, individual project expenditure from that capital expenditure category was manually identified as being HV feeder or subtransmission line expenditure in nature. To calculate the total direct augmentation expenditure of HV feeders, a percentage split was formulated using the summation of the individual HV feeder project expenditures then applied against the total direct augmentation expenditure of the capital expenditure category, on a per year basis. Reconciliation occurs for HV feeders expenditure as 'HV feeders' and 'HV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'HV feeder augmentations – overhead lines', 'HV feeder augmentations – underground lines' and 'HV feeder non-material projects' expenditure in Table 2.3.3.2. *Assumptions* As the percentage split for HV feeder v subtransmission line projects is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **HV Feeders – Land Purchases and Easements**

Methodology
Land purchase and easement expenditure for HV feeders was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. Land purchase and easement expenditure was removed from the overall HV feeder expenditure so that no cost duplication occurred. Reconciliation occurs for HV feeders – land purchases and easements expenditure as 'HV feeders' and 'HV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'HV feeder augmentations – overhead lines', 'HV feeder augmentations – underground lines' and 'HV feeder non-material projects' expenditure in Table 2.3.3.2.

Assumptions
Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for HV feeder projects.

Distribution Substations
The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology.
Distribution substations and LV feeders are grouped together as part of the one capital expenditure category. Distribution substation expenditure is actual expenditure per year using individual projects manually identified as being distribution substation projects.
Reconciliation occurs for distribution substation expenditure as 'Distribution substations' and 'Distribution substations – land purchase and easement' expenditure in Table 2.3.4 is equal to the summation of 'Distribution substation augmentations – pole mounted', 'Distribution substation augmentations – ground mounted' and 'Distribution substation augmentations – indoor' expenditure in Table 2.3.3.2.

Assumptions
Manual identification performed by staff who are specialists in identifying distribution substation projects.

Distribution Substations – Land Purchases and Easements
Methodology
Land purchase and easement expenditure for distribution substations was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. Land purchase and easement expenditure was removed from the overall distribution substation expenditure so that no cost duplication occurred.
Reconciliation occurs for distribution substations – land purchases and easements expenditure as 'Distribution substations' and 'Distribution substations – land purchase and easement' expenditure in Table 2.3.4 is equal to the summation of 'Distribution substation augmentations – pole mounted', 'Distribution substation augmentations – ground mounted' and 'Distribution substation augmentations – indoor' expenditure in Table 2.3.3.2.

Assumptions
Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for distribution substation projects.

LV Feeders
Methodology
The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology.
LV feeders and distribution substations are grouped together as part of the one capital expenditure category. Since the distribution substation expenditure is actual expenditure per year using individual project expenditure, the LV expenditure has been calculated as the remaining expenditure for the capital expenditure category.
Reconciliation occurs for LV feeders expenditure as 'LV feeders' and 'LV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'LV feeder augmentations – overhead lines', 'LV feeder augmentations – underground lines' and 'LV feeder non-material projects' expenditure in Table 2.3.3.2.

Assumptions
Manual identification performed by staff who are specialists in identifying distribution substation expenditure on

	a per project basis and splitting costs between the distribution substation and LV feeder capital expenditure category. **LV Feeders – Land Purchases and Easements** *Methodology* Land purchase and easement expenditure for LV feeders was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. No land purchase or easement expenditure for LV feeders occurred between the 2009-2013 period. Reconciliation occurs for LV feeders – land purchases and easements expenditure as 'LV feeders' and 'LV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'LV feeder augmentations – overhead lines', 'LV feeder augmentations – underground lines' and 'LV feeder non-material projects' expenditure in Table 2.3.3.2. *Assumptions* Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for LV feeder projects.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	**Subtransmission Substations, Switching Stations, Zone Substations** *Methodology* The SAP financial system is used to extract the information required to state the Distribution Network Service Provider (DNSP) capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology. The subtransmission substations/switching station/zone substations total augmentation expenditure figures extracted from the SAP financial system are not grouped with any of the other asset categories and can be used without estimations. Reconciliation occurs between subtransmission substations/switching station/zone substations expenditure in Table 2.3.4 and Table 2.3.1 once escalation factors have been applied (since Table 2.3.1 is in $2014 dollars) and expenditure before 2014 for the material projects reported on has been excluded. *Assumptions* No assumptions required as the data is based on actual nominal figures as per SAP. **Subtransmission Lines** *Methodology* The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology. Subtransmission lines and HV feeders are grouped together as part of the one capital expenditure category. On a per year basis, individual project expenditure from that capital expenditure category was manually identified as being subtransmission line or HV feeder expenditure in nature. To calculate the total direct augmentation expenditure of subtransmission lines, a percentage split was formulated using the summation of the individual subtransmission line project expenditures then applied against the total direct augmentation expenditure of the capital expenditure category, on a per year basis. Reconciliation occurs between subtransmission line expenditure in Table 2.3.4 and Table 2.3.2 once escalation factors have been applied (since Table 2.3.2 is in $2014 dollars) and expenditure before 2014 for the material projects reported on has been excluded. *Assumptions* As the percentage split for subtransmission line v HV feeder projects is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP. **HV Feeders** *Methodology* The SAP financial system is used to extract the information required to state the DNSP capital expenditure

information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology.
HV feeders and subtransmission lines are grouped together as part of the one capital expenditure category. On a per year basis, individual project expenditure from that capital expenditure category was manually identified as being HV feeder or subtransmission line expenditure in nature. To calculate the total direct augmentation expenditure of HV feeders, a percentage split was formulated using the summation of the individual HV feeder project expenditures then applied against the total direct augmentation expenditure of the capital expenditure category, on a per year basis.
Reconciliation occurs for HV feeders expenditure as 'HV feeders' and 'HV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'HV feeder augmentations – overhead lines', 'HV feeder augmentations – underground lines' and 'HV feeder non-material projects' expenditure in Table 2.3.3.2.

Assumptions
As the percentage split for HV feeder v subtransmission line projects is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP.

HV Feeders – Land Purchases and Easements
Methodology
Land purchase and easement expenditure for HV feeders was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. No land purchase or easement expenditure for HV feeders occurred in the 2014 period.
Reconciliation occurs for HV feeders – land purchases and easements expenditure as 'HV feeders' and 'HV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'HV feeder augmentations – overhead lines', 'HV feeder augmentations – underground lines' and 'HV feeder non-material projects' expenditure in Table 2.3.3.2.

Assumptions
Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for HV feeder projects.

Distribution Substations
The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology.
Distribution substations and LV feeders are grouped together as part of the one capital expenditure category. Distribution substation expenditure is actual expenditure per year using individual projects manually identified as being distribution substation projects.
Reconciliation occurs for distribution substation expenditure as 'Distribution substations' and 'Distribution substations – land purchase and easement' expenditure in Table 2.3.4 is equal to the summation of 'Distribution substation augmentations – pole mounted', 'Distribution substation augmentations – ground mounted' and 'Distribution substation augmentations – indoor' expenditure in Table 2.3.3.2.

Assumptions
Manual identification performed by staff who are specialists in identifying distribution substation projects.

Distribution Substations – Land Purchases and Easements
Methodology
Land purchase and easement expenditure for distribution substations was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. No land purchase or easement expenditure for Distribution substations occurred in the 2014 period.
Reconciliation occurs for distribution substations – land purchases and easements expenditure as 'Distribution substations' and 'Distribution substations – land purchase and easement' expenditure in Table 2.3.4 is equal to the summation of 'Distribution substation augmentations – pole mounted', 'Distribution substation augmentations – ground mounted' and 'Distribution substation augmentations – indoor' expenditure in Table 2.3.3.2.

	Assumptions Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for distribution substation projects. **LV Feeders** *Methodology* The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology. LV feeders and distribution substations are grouped together as part of the one capital expenditure category. Since the distribution substation expenditure is actual expenditure per year using individual project expenditure, the LV expenditure has been calculated as the remaining expenditure for the capital expenditure category. Reconciliation occurs for LV feeders expenditure as 'LV feeders' and 'LV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'LV feeder augmentations – overhead lines', 'LV feeder augmentations – underground lines' and 'LV feeder non-material projects' expenditure in Table 2.3.3.2. *Assumptions* Manual identification performed by staff who are specialists in identifying distribution substation expenditure on a per project basis and splitting costs between the distribution substation and LV feeder capital expenditure category. **LV Feeders – Land Purchases and Easements** *Methodology* Land purchase and easement expenditure for LV feeders was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. No land purchase or easement expenditure for LV feeders occurred in the 2014 period. Reconciliation occurs for LV feeders – land purchases and easements expenditure as 'LV feeders' and 'LV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'LV feeder augmentations – overhead lines', 'LV feeder augmentations – underground lines' and 'LV feeder non-material projects' expenditure in Table 2.3.3.2. *Assumptions* Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for LV feeder projects.
2015	**Subtransmission Substations, Switching Stations, Zone Substations** *Methodology* The SAP financial system is used to extract the information required to state the Distribution Network Service Provider (DNSP) capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology. The subtransmission substations/switching station/zone substations total augmentation expenditure figures extracted from the SAP financial system are not grouped with any of the other asset categories and can be used without estimations. Reconciliation occurs between subtransmission substations/switching station/zone substations expenditure in Table 2.3.4 and Table 2.3.1 once escalation factors have been applied (since Table 2.3.1 is in $2015 dollars) and expenditure before 2015 for the material projects reported on has been excluded. *Assumptions* No assumptions required as the data is based on actual nominal figures as per SAP. **Subtransmission Lines** *Methodology* The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology.

Subtransmission lines and HV feeders are grouped together as part of the one capital expenditure category. On a per year basis, individual project expenditure from that capital expenditure category was manually identified as being subtransmission line or HV feeder expenditure in nature. To calculate the total direct augmentation expenditure of subtransmission lines, a percentage split was formulated using the summation of the individual subtransmission line project expenditures then applied against the total direct augmentation expenditure of the capital expenditure category, on a per year basis.
Reconciliation occurs between subtransmission line expenditure in Table 2.3.4 and Table 2.3.2 once escalation factors have been applied (since Table 2.3.2 is in $2015 dollars) and expenditure before 2015 for the material projects reported on has been excluded.

Assumptions
As the percentage split for subtransmission line v HV feeder projects is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP.

HV Feeders
Methodology
The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology.
HV feeders and subtransmission lines are grouped together as part of the one capital expenditure category. On a per year basis, individual project expenditure from that capital expenditure category was manually identified as being HV feeder or subtransmission line expenditure in nature. To calculate the total direct augmentation expenditure of HV feeders, a percentage split was formulated using the summation of the individual HV feeder project expenditures then applied against the total direct augmentation expenditure of the capital expenditure category, on a per year basis.
Reconciliation occurs for HV feeders expenditure as 'HV feeders' and 'HV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'HV feeder augmentations – overhead lines', 'HV feeder augmentations – underground lines' and 'HV feeder non-material projects' expenditure in Table 2.3.3.2.

Assumptions
As the percentage split for HV feeder v subtransmission line projects is determined via a manual process through SAP, there is an assumption that the percentage split is still relevant for the total costs derived from the relevant capital expenditure category within SAP.

HV Feeders – Land Purchases and Easements
Methodology
Land purchase and easement expenditure for HV feeders was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. No land purchase or easement expenditure for HV feeders occurred in the 2015 period.
Reconciliation occurs for HV feeders – land purchases and easements expenditure as 'HV feeders' and 'HV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'HV feeder augmentations – overhead lines', 'HV feeder augmentations – underground lines' and 'HV feeder non-material projects' expenditure in Table 2.3.3.2.

Assumptions
Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for HV feeder projects.

Distribution Substations
The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology.
Distribution substations and LV feeders are grouped together as part of the one capital expenditure category. Distribution substation expenditure is actual expenditure per year using individual projects manually identified as being distribution substation projects.
Reconciliation occurs for distribution substation expenditure as 'Distribution substations' and 'Distribution substations – land purchase and easement' expenditure in Table 2.3.4 is equal to the summation of

	'Distribution substation augmentations – pole mounted', 'Distribution substation augmentations – ground mounted' and 'Distribution substation augmentations – indoor' expenditure in Table 2.3.3.2. *Assumptions* Manual identification performed by staff who are specialists in identifying distribution substation projects. **Distribution Substations – Land Purchases and Easements** *Methodology* Land purchase and easement expenditure for distribution substations was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. No land purchase or easement expenditure for Distribution substations occurred in the 2015 period. Reconciliation occurs for distribution substations – land purchases and easements expenditure as 'Distribution substations' and 'Distribution substations – land purchase and easement' expenditure in Table 2.3.4 is equal to the summation of 'Distribution substation augmentations – pole mounted', 'Distribution substation augmentations – ground mounted' and 'Distribution substation augmentations – indoor' expenditure in Table 2.3.3.2. *Assumptions* Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for distribution substation projects. **LV Feeders** *Methodology* The SAP financial system is used to extract the information required to state the DNSP capital expenditure information by category and regulatory segment. Using the audited statutory accounts for Powercor the business uses cost elements within SAP in order to disaggregate the data for the purposes of apportioning capital expenditure costs between capital expenditure categories and regulatory segments in accordance with the cost allocation methodology. LV feeders and distribution substations are grouped together as part of the one capital expenditure category. Since the distribution substation expenditure is actual expenditure per year using individual project expenditure, the LV expenditure has been calculated as the remaining expenditure for the capital expenditure category. Reconciliation occurs for LV feeders expenditure as 'LV feeders' and 'LV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'LV feeder augmentations – overhead lines', 'LV feeder augmentations – underground lines' and 'LV feeder non-material projects' expenditure in Table 2.3.3.2. *Assumptions* Manual identification performed by staff who are specialists in identifying distribution substation expenditure on a per project basis and splitting costs between the distribution substation and LV feeder capital expenditure category. **LV Feeders – Land Purchases and Easements** *Methodology* Land purchase and easement expenditure for LV feeders was extracted by running a SAP financial report (ZF21 transaction) against Powercor's internal cost code for land purchases, then another report against the internal cost code for easements. No land purchase or easement expenditure for LV feeders occurred in the 2015 period. Reconciliation occurs for LV feeders – land purchases and easements expenditure as 'LV feeders' and 'LV feeders – land purchases and easements' expenditure in Table 2.3.4 is equal to the summation of 'LV feeder augmentations – overhead lines', 'LV feeder augmentations – underground lines' and 'LV feeder non-material projects' expenditure in Table 2.3.3.2. *Assumptions* Manual identification performed by staff who are specialists in identifying and extracting land purchase and easement expenditure for LV feeder projects.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**Subtransmission Substations, Switching Stations, Zone Substations** No estimates were required for the Subtransmission Substations, Switching Stations, Zone Substations expenditure is actual data extracted from the SAP financial system. **Subtransmission Lines** Powercor's accounting practices group subtransmission line and HV feeder expenditure together as part of the one capital expenditure category, therefore actual data cannot be extracted from the SAP financial system. **HV Feeders** Powercor's accounting practices group subtransmission line and HV feeder expenditure together as part of the one capital expenditure category, therefore actual data cannot be extracted from the SAP financial system. **HV Feeders – Land Purchases and Easements** The SAP financial system does not allow a direct dump of the required information. **Distribution Substations** Powercor's accounting practices group distribution substation and LV feeder expenditure together as part of the one capital expenditure category, therefore actual data cannot be extracted from the SAP financial system. **Distribution Substations – Land Purchases and Easements** The SAP financial system does not allow a direct dump of the required information. **LV Feeders** Powercor's accounting practices group distribution substation and LV feeder expenditure together as part of the one capital expenditure category, therefore actual data cannot be extracted from the SAP financial system. **LV Feeders – Land Purchases and Easements** The SAP financial system does not allow a direct dump of the required information.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**Subtransmission Substations, Switching Stations, Zone Substations** NOT APPLICABLE **Subtransmission Lines** Powercor groups both subtransmission line and HV feeder expenditure together under the one capital expenditure category, therefore a split is required to calculate the subtransmission line expenditure. In this case a percentage split using individual project expenditures was conducted. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for Subtransmission Lines. **HV Feeders** Powercor groups both subtransmission line and HV feeder expenditure together under the one capital expenditure category, therefore a split is required to calculate the HV feeder expenditure. In this case a percentage split using individual project expenditures was conducted. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for HV Feeders. **HV Feeders – Land Purchases and Easements** The SAP financial system cannot extract land purchase and easement data without manual input of HV feeder projects or manual identification of the appropriate expenditure attributed to a land purchase or easement.

	Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for HV Feeders – Land Purchases and Easements. **Distribution Substations** Powercor groups both distribution substation and LV feeder expenditure together under the one capital expenditure category, therefore a split is required to calculate the distribution substation expenditure. In this case actual individual project expenditure was used to calculate the total distribution substation expenditure. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for Distribution Substations. **Distribution Substations – Land Purchases and Easements** The SAP financial system cannot extract land purchase and easement data without manual input of distribution substation projects or manual identification of the appropriate expenditure attributed to a land purchase or easement. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for Distribution Substations – Land Purchases and Easements. **LV Feeders** Powercor groups both distribution substation and LV feeder expenditure together under the one capital expenditure category, therefore a split is required to calculate the LV feeder expenditure. In this case since the distribution substation expenditure is an actual figure, the LV feeder expenditure was determined to be the remaining expenditure for the capital expenditure category. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for LV Feeders. **LV Feeders – Land Purchases and Easements** The SAP financial system cannot extract land purchase and easement data without manual input of LV feeder projects or manual identification of the appropriate expenditure attributed to a land purchase or easement. Refer to Section D for assumptions made. There were no alternative methods of gathering the required data for LV Feeders – Land Purchases and Easements.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	**Subtransmission Substations, Switching Stations, Zone Substations** NOT APPLICABLE **Subtransmission Lines** The SAP financial system cannot extract a direct dump of subtransmission line expenditure, so to provide the data a percentage split was seen as an accurate means of providing this expenditure figure. To ensure accuracy, the percentage splits per year were calculated using individual project expenditures in each year. **HV Feeders** The SAP financial system cannot extract a direct dump of HV feeder expenditure, so to provide the data a percentage split was seen as an accurate means of providing this expenditure figure. To ensure accuracy, the percentage splits per year were calculated using individual project expenditures in each year. **HV Feeders – Land Purchases and Easements** Since the data cannot be directly extracted out of the SAP financial system, the only way to determine the land purchase and easement expenditure is manually using the professional judgement of a specialist. **Distribution Substations** The SAP financial system cannot extract a direct dump of distribution substation expenditure, so to provide the data distribution substation projects were identified manually then inputted into the SAP financial system to get the actual individual project expenditure figures. Since these are actual project expenditures it was seen as an accurate means of calculating the distribution substation expenditure. **Distribution Substations – Land Purchases and Easements** Since the data cannot be directly extracted out of the SAP financial system, the only way to determine the land

	purchase and easement expenditure is manually using the professional judgement of a specialist. **LV Feeders** The SAP financial system cannot extract a direct dump of LV feeder expenditure, so to provide the data it was seen as an accurate means to use the distribution substation expenditure as that is an actual figure based on individual projects. **LV Feeders – Land Purchases and Easements** Since the data cannot be directly extracted out of the SAP financial system, the only way to determine the land purchase and easement expenditure is manually using the professional judgement of a specialist.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 2.3 Augex	
Table name: 2.3.4 Augex Data – Total Expenditure	
Asset Group	**Asset Category**
Augmentation Capex	Other Assets VBRC Amour Rods & Dampers Retrofit (pass through) VBRC Spacers – Lidar Conductor clearance Survey VBRC Bushfire Safety – Miscellaneous SCADA / Automation
BOP ID	CAPAL2.3BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

No specific requirements defined for Victorian Bushfire Royal Commission (VBRC) expenditure.
Guidance was provided from AER as to treatment from VBRC expenditure on 20th May (Lawrence Irlam).
The AER guidance required AR&V Retrofit expenditure to be categorised as "Augex".

AER guidance email 20th May inserted stated the following;

"The definitions for both encompass compliance-driven works as well as the basic nature of the activity, namely adding new equipment or replacing it. As you've pointed out, "augmentation" has the NER definition but also includes works to "improve the quality of the network" (we consider improvements include reducing the risk of bushfires). "Replacement" would cover ACRs that no longer meet the "service performance requirement" (i.e. this includes safety requirements). Given your concerns about the treatment of these costs in a benchmarking sense (of which we are appreciative), we would expect these items to be listed separately in the templates and/ or in the basis of preparation"

Please provide a Response in this box:
Powercor has complied with the advice provided by Mr Irlam and listed VBRC AR&VD and VBRC LIDAR survey expenditure as "Augex".

Other Assets includes VBRC volumes and expenditure and SCADA / automation expenditure

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

SCADA / Automation Expenditure

2009	2010	2011	2012	2013	2014	2015

VBRC Expenditure

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

VBRC Amour Rods & Dampers Retrofit (pass through) and
VBRC Spacers – Lidar Conductor clearance Survey

Cost
From the 2015 audited RIN section 27 Safety & Bushfire

VBRC Bushfire Safety – Miscellaneous

Volume-
There are no physicals for the miscellaneous expenditure relating to Victorian Bushfire Royal Commission (VBRC) Powerline Relocation project.

Cost
From the 2015 audited RIN section 27 Safety & Bushfire
Miscellaneous expenditure relating to Victorian Bushfire Royal Commission (VBRC) Powerline Relocation project scoping and process development.

SCADA / Automation
The SAP financial system is the source

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**VBRC** - Not Applicable **SCADA / Automation** **Expenditure** The data is derived straight from FC 168 and FC 169.
2010	**VBRC** - Not Applicable **SCADA / Automation** As per 2009
2011	**VBRC** - Not Applicable **SCADA / Automation** As per 2009
2012	**VBRC** - Not Applicable **SCADA / Automation** As per 2009
2013	**VBRC Amour Rods & Dampers Retrofit (pass through)** **Volume** A count of spans was pulled from an internal project report. A count of spans made compliant by retrofitting an armour rods and or vibration damper onto existing spans in accordance with technical standard **Cost** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **VBRC Spacers – Lidar Conductor clearance Survey** **Volumes** The GST exclusive invoice cost from Geomatic Technologies (number 8003) $27,381.80 divided by the

	survey unit rate of $580/ kilometre which equals 37kms **Cost** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology **VBRC Bushfire Safety – Miscellaneous Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **SCADA / Automation** As per 2009
2014	**Cost** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology.
2015	**VBRC Bushfire Safety – Miscellaneous Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. This includes costs associated with REFCL projects at Woodend and Gisborne **SCADA / Automation Expenditure** The data is taken straight from FC 166, 168 and FC 169.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**VBRC** - Not Applicable **SCADA / Automation** No estimation is required as the data is derived straight from SAP function code 168 and 169
2010	**VBRC** - Not Applicable **SCADA / Automation** As per 2009
2011	**VBRC** - Not Applicable **SCADA / Automation** As per 2009
2012	**VBRC** - Not Applicable **SCADA / Automation** As per 2009

2013	**VBRC Amour Rods & Dampers Retrofit (pass through)** **Expenditure** An estimate was required as overheads needed to be allocated to the direct cost margins which were pulled from the audited RIN" **VBRC Spacers – Lidar Conductor clearance Survey** **Volumes** There was no actual data provided on the contractor invoice. **Expenditure** An estimate was required as overheads needed to be allocated to the direct cost margins which were pulled from the audited RIN. **VBRC Bushfire Safety – Miscellaneous** **Expenditure** An estimate was required as overheads needed to be allocated to the direct cost margins which were pulled from the audited RIN
2014	**VBRC Amour Rods & Dampers Retrofit (pass through)** As per 2013 **VBRC Spacers – Lidar Conductor clearance Survey** **Expenditure** An estimate was required as overheads needed to be allocated to the direct cost margins which were pulled from the audited RIN. **VBRC Bushfire Safety – Miscellaneous** As per 2013
2015	As per 2014

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	**VBRC Amour Rods & Dampers Retrofit (pass through)** **Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **VBRC Spacers – Lidar Conductor clearance Survey** **Volumes** The GST exclusive invoice cost from Geomatic Technologies (number 8003) $27,381.80 divided by the survey unit rate of $580/ kilometre which equals 37kms. No other data is available. **Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **VBRC Bushfire Safety – Miscellaneous** **Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **SCADA / Automation**

	Not applicable
2014	**VBRC Amour Rods & Dampers Retrofit (pass through)** As per 2013 **VBRC Spacers – Lidar Conductor clearance Survey** **Expenditure** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology **VBRC Bushfire Safety – Miscellaneous** As per 2013 **SCADA / Automation** Not applicable
2015	As per 2014

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	**VBRC Amour Rods & Dampers Retrofit (pass through)** **Expenditure** Best method to apportion additional cost elements **VBRC Spacers – Lidar Conductor clearance Survey** **Volumes** No other data is available **Expenditure** This was the easiest and most accurate approach to allocating overheads to the direct expenditure” **VBRC Bushfire Safety – Miscellaneous** **Expenditure** This was the easiest and most accurate approach to allocating overheads to the direct expenditure” **SCADA / Automation** Not applicable
2014	**VBRC Amour Rods & Dampers Retrofit (pass through)** As per 2013 **VBRC Spacers – Lidar Conductor clearance Survey** **Expenditure** This was the easiest and most accurate approach to allocating overheads to the direct expenditure” **VBRC Bushfire Safety – Miscellaneous** As per 2013 **SCADA / Automation** Not applicable
2015	As per 2014

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
VBRC Bushfire Safety – Miscellaneous

There are no physicals for the miscellaneous expenditure relating to Victorian Bushfire Royal Commission (VBRC) Powerline Relocation project.

2.5 Connections

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Descriptor Metric**
Residential	Underground Connections (000's)
Residential	Overhead Connections (000's)
Commercial/Industrial	Underground Connections (000's)
Commercial/Industrial	Overhead Connections (000's)
BOP ID	CAPAL2.5BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Not applicable to this metric
9.3	Not applicable to this metric
9.4	Not applicable to this metric
9.5	Complies – only data relating to non-contestable, regulated connection services has been used in this measure
9.6	Complies – as no data related to gifted assets, negotiated connection services or connection services have been reported under this measure, in line with the requirements of the RIN
9.7	Not applicable to this metric
9.8	Not applicable to this metric
9.9	Not applicable to this metric
9.10	Not applicable to this metric
9.11	Not applicable to this metric

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The source of this data was CIS Open-Vision (our customer records management system)

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	It is assumed that these fields require only brand new, first time connections. The methodology applied was to obtain a list of service orders for the defined period that indicate a completed, brand new connection. Each service order is associated with a National Meter Identifier, which has an associated installation type (residential or commercial industrial) and also an indication of whether the site is overhead or underground. After analysis was carried out, this data provided the inputs required. For a small number of sites (<5%), there was no indication of whether the installation was overhead or underground. In order to provide a value, the overhead/underground split of 'known' sites was determined and applied to the 'unknown' sites. For example, if 70% of the known sites were overhead and 30% were underground, the same 70/30 split was applied to the unknown sites.
2010	As above
2011	As above
2012	As above
2013	As above
2014	It is assumed that these fields require only brand new, first time connections. The methodology applied was to obtain a list of service orders from CIS Open-Vision for the defined period that indicate a completed, brand new connection, the BI Report used 'Close Out Volume'. Each service order is associated with a National Meter Identifier, which has an associated installation type (residential or commercial industrial) and also an indication of whether the site is overhead or underground. An assumption was made that BTS sites are predominately O/H and that Mtr Only Sites are predominately U/G.
2015	As above

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As described in section D, estimation is required for sites where the installation type (underground or overhead) is unknown due to no data being recorded in CIS for certain sites.
2010	As above
2011	As above
2012	As above
2013	As above
2014	As described in Section D, a small number of sites have had an assumption of category made.
2015	As above

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As described in section D, the overhead/underground split of 'known' sites was determined and apportioned to the 'unknown' sites.
2010	As above
2011	As above
2012	As above
2013	As above
2014	As described in Section D, a small number of sites have had an assumption of category made.
2015	As above

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	A sample of the 'unknown' sites suggested that the split of overhead/underground installations is in line with the 'known sites'. Therefore, using the split of 'known' sites as the basis for categorising the 'unknown' sites is the most appropriate method for deriving an input.
2010	As above
2011	As above
2012	As above
2013	As above
2014	As described in Section D, a small number of sites have had an assumption of category made.
2015	As above

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Cost Metrics by Connection Classification	
Connection Subcategory	**Connection Classification**
Residential	DISTRIBUTION SUBSTATION INSTALLED (MVA ADDED)
Embedded generation	DISTRIBUTION SUBSTATION INSTALLED (MVA ADDED)
Subdivision	DISTRIBUTION SUBSTATION INSTALLED (MVA ADDED)
Commercial/Industrial	DISTRIBUTION SUBSTATION INSTALLED (MVA ADDED)
BOP ID	CAPAL2.5BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of *complex connections* in appendix F provide guidance on the types of augmentation works which must be reported as *connection services*, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for *connections* in *regulatory template* 2.5 relating to *customer connection* requests, as per the definition of *connection expenditure* in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in *regulatory templates* 2.3 and 2.5.
9.10 Powercor must report the *MVA added* for *distribution substations* installed for *connection services*. Where *MVA added* must be calculated by Powercor as the sum of the *nameplate rating* of all the *distribution substations* installed for the relevant year.
9.11 Powercor is not required to report data in respect of *GSLs*, where a *GSL* scheme does not exist for the *connection service*.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections as per appendix F
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Global Information System GIS

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	• The installation of distribution substations and their nameplate capacity are not recorded against the AER customer classification. • In GIS Powercor record all transformers which are installed and in service including the MVA capacity of the transformer. To determine the growth/decrease from year to year, a delta change was identified. The delta change is the change in numbers from the start of one year to the end of that year. The delta change from previously reported years was used where available • Some adjustments have been made where the results were not consistent with other years. This was likely as the historical method used to report distribution substations in that year may not be consistent between years. Distribution substations may also be retried and hence the MVA would be seen as a decrease which would distort the new MVA added. • The installation of distribution substations in GIS is not recorded as a result of a customer connection or a supply quality or maintenance project. Without this knowledge all installed MVA has been assumed to be as a result of customer connection. • The increase or decreases in transformer installations are not classified into the type of customers- residential/commercial/subdivisions/embedded generations. • Assumption: Powercor Asset finalisation sheet divides projects into asset classes with one of the asset classes being substations. The Asset Finalisation includes the Powercor function codes which have been mapped to the AER customer classification sheet was obtained for different classes and % was obtained for each category. The % per asset class finalisation was averaged across all 5 years and this final % was applied to year on year expenditure – hence why the volumes/expenditure for 2009-2013 have been smoothed out – this was done because there was incomplete data from 2009 – 2013 hence taking an average % would be the best estimate • That % of distribution substations for each customer classification was applied to the total MVA added to provide a value for the MVA added for each customer classification • No MVA has been included for embedded generations as most use existing installed distribution substations to export energy
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	• The delta change for 2014 was obtained from GIS to provide the MVA added. • The % per asset class finalisation for 2014 was taken based on the ACTUAL capital expenditure for 2014. The MVA added was assumed to be on the same % per asset class finalisation as the number of transformers installed.. There will be a jump in volume/expenditure based on the actual volume/expenditure across LV,HV and Substations compared to the 2009 to 2013 average approach.
2015	• The delta change for 2015 was obtained from GIS to provide the MVA added. The % per asset class finalisation for 2015 was taken based on the ACTUAL capital expenditure for 2015. The MVA added was assumed to be on the same % per asset class finalisation as the number of transformers installed..

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	• Accuracy of data in GIS is questionable • Method of recording in GIS doesn't align to the AER customer classification as substations are not recorded against a connection or supply quality or maintenance project. • Method of recording in GIS does not allow for increase in MVA to be identified as a results of connections • The method used does not consider the retirement of substation in that year
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	• The basis of the estimate was the delta change in substation capacity obtained from GIS • The total of the MVA added was assumed to be allocated to connections as there is no basis to determine the reason the substation was installed. • MVA added was allocated to the AER customer classification using percentages estimated from asset finalisation sheets for completed projects. • Further details in section D
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Powercor cannot provide the requested information as it is not available in the format required. The approach used verifiable and auditable data where possible although some assumptions have had to be applied. As the requested data is not recorded in the manner to be reported the only option available was to use the above approach.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Cost Metrics by Connection Classification	
Connection Subcategory	**Connection Classification**
Residential	DISTRIBUTION SUBSTATIONS INSTALLED (000'S)
Embedded generation	DISTRIBUTION SUBSTATIONS INSTALLED (000'S)
Subdivision	DISTRIBUTION SUBSTATIONS INSTALLED (000'S)
Commercial/Industrial	DISTRIBUTION SUBSTATIONS INSTALLED (000'S)
BOP ID	CAPAL2.5BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections as per appendix F
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Asset Finalisation data base & GIS

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	GIS was not used as it used as it only provides a physical count of substations that does not contain any information for the purpose that the substation was erected. This prohibits the alignment of substations in GIS against the AER customer classification as well as the determination if the substation was installed because of a customer connection. The substations in GIS are also subject to retirements so the numbers would not be accurate to attribute to new customer connections. The accounting asset finalisation data base was used as this contains an asset class of substation. It was assumed that any expenditure against the substation asset class per project was equivalent to a single substation. The count of substations from the asset finalisation sheets was matched to the Powercor function codes. The function code to AER customer classification was mapped to determine the percentage of the total number of substations installed for each AER customer classification. The % per asset class finalisation was averaged across all 5 years and this final % was applied to year on year expenditure – hence why the volumes/expenditure for 2009-2013 have been smoothed out – this was done because there was incomplete data from 2009 – 2013 hence taking an average % would be the best estimate
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	• The delta change for 2014 was obtained from GIS to provide the number of distribution substations added. The delta change is the change in numbers from the start of one year to the end of that year • The % per asset class finalisation for 2014 was taken based on the ACTUAL capital expenditure for 2014. There will be a jump in volume/expenditure based on the actual volume/expenditure across LV,HV and Substations compared to the 2009 to 2013 average approach.
2015	• The delta change for 2015 was obtained from GIS to provide the number of distribution substations added. The delta change is the change in numbers from the start of one year to the end of that year • The % per asset class finalisation for 2015 was taken based on the ACTUAL capital expenditure for 2015.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Substations are not recorded against the AER customer classification in the GIS asset register. An estimate was required, as actual data (i.e. physical count) doesn't exist.
2010	Refer to 2009

2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Included in the response 'D'
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Included in the response 'D'
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Connection Classification**
Residential	DISTRIBUTION SUBSTATION INSTALLED TOTAL SPEND ($000'S)
Embedded generation	DISTRIBUTION SUBSTATION INSTALLED TOTAL SPEND ($000'S)
Subdivision	DISTRIBUTION SUBSTATION INSTALLED TOTAL SPEND ($000'S)
Commercial/Industrial	DISTRIBUTION SUBSTATION INSTALLED TOTAL SPEND ($000'S)
BOP ID	CAPAL2.5BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections at high voltage 22 kV
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
SAP Business Intelligence Report

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Since this category requires costs incurred, GIS was not used as GIS does not contain financial data Financial information is available from the asset finalisation procedure that splits cost into asset classes. The asset class of substations assets is able to be determined from the asset finalisation data. The expenditure for the asset class was determined for each function code. The function codes were mapped to the AER customer classification. The percentage of the expenditure for substation augmentation asset class was determined against the total expenditure. The percentage was then applied against the total cost as reported in table 2.5.2. to provide the expenditure for substations in the 4 metrics The % per asset class finalisation was averaged across all 5 years and this final % was applied to year on year expenditure – hence why the volumes/expenditure for 2009-2013 have been smoothed out – this was done because there was incomplete data from 2009 – 2013 hence taking an average % would be the best estimate
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	The % per asset class finalisation for 2014 was taken based on the ACTUAL capital expenditure for 2014. There will be a jump in volume/expenditure based on the actual volume/expenditure across LV,HV and Substations compared to the 2009 to 2013 average approach.
2015	The % per asset class finalisation for 2015 was taken based on the ACTUAL capital expenditure for 2015.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Substation augmentation assets are not recorded against the AER customer classification in the Global Information System. GIS does not contain any financial information. Financial costs for projects in standard reports only contains the total costs not individual assets. Substations installed are not recorded against the AER customer classification
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009

2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Refer to Response D above.
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The asset finalisation sheets provide some rational for the percentage of substation expenditure against the total expenditure. Applying the percentage against the total cost in table 2.5.2 was the most accurate estimate available
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Cost Metrics by Connection Classification	
Connection Subcategory	**Connection Classification**
Residential	AUGMENTATION HV (NET CIRCUIT KM ADDED) AUGMENTATION LV (NET CIRCUIT KM ADDED
Embedded generation	AUGMENTATION HV (NET CIRCUIT KM ADDED) AUGMENTATION LV (NET CIRCUIT KM ADDED
Subdivision	AUGMENTATION HV (NET CIRCUIT KM ADDED) AUGMENTATION LV (NET CIRCUIT KM ADDED
Commercial/Industrial	AUGMENTATION HV (NET CIRCUIT KM ADDED) AUGMENTATION LV (NET CIRCUIT KM ADDED
BOP ID	CAPAL2.5BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections per appendix F

9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Global Information System and SAP Financial asset finalisation sheets

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	There is no record in the Global Information System of the reason for the installation of cables. This means that there is no alignment against the AER customer classification. It was assumed that all conductors installed were as a result of customer projects, and no other business areas were considered as installing conductors. The Financial asset finalisation data contains financial data against the asset class of conductor and includes the Powercor function code. This was assumed to be suitable to determine the allocation of conductor against the AER customer classification categories. The expenditure for the asset class that matched HV, LV and Substation were totalled for each function code. This this was then mapped to the AER customer classification to determine a % of the expenditure for HV, and LV and substations. This was then applied against the total KM's from GIS The % per asset class finalisation was averaged across all 5 years and this final % was applied to year on year expenditure – hence why the volumes/expenditure for 2009-2013 have been smoothed out – this was done because there was incomplete data from 2009 – 2013 hence taking an average % would be the best estimate The total KM's of circuit from a delta change were obtained from GIS and these were allocated against the customer classification on the basis of the percentage of cost per function code as reported in the asset class as part of the asset finalisation. This method did not consider any conductor retirement during the year, so is an estimate only
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	The % per asset class finalisation for 2014 was taken based on the ACTUAL capital expenditure for 2014. There will be a jump in volume/expenditure based on the actual volume/expenditure across LV,HV and Substations compared to the 2009 to 2013 average approach.
2015	The % per asset class finalisation for 2015 was taken based on the ACTUAL capital expenditure for 2015.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Conductor installed in the Global Information System is not recorded against the AER customer classification. A combination of financial data and physical data has had to be combined to provide an estimate.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Refer to response D
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The best use of data to provide the most accurate estimate.
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Descriptor Metrics**
Residential	AUGMENTATION HV (TOTAL SPEND $000'S) AUGMENTATION LV (TOTAL SPEND $000'S)
Embedded generation	AUGMENTATION HV (TOTAL SPEND $000'S) AUGMENTATION LV (TOTAL SPEND $000'S)
Subdivision	AUGMENTATION HV (TOTAL SPEND $000'S) AUGMENTATION LV (TOTAL SPEND $000'S)
Commercial/Industrial	AUGMENTATION HV (TOTAL SPEND $000'S) AUGMENTATION LV (TOTAL SPEND $000'S)
BOP ID	CAPAL2.5BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non-contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections as defined in appendix F

9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
SAP Asset Finalisation Report, Global Information System,

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	GIS contains no financial data so was not utilised as this category required costs incurred. Financial information is available from the asset finalisation procedure that splits cost into asset classes. The asset class of HV and LV assets is able to be determined from the asset finalisation data. The expenditure for the asset class was determined for each function code. The function codes were mapped to the AER customer classification. The percentage of the expenditure for the HV & LV augmentation asset class was determined against the total expenditure. The percentage was then applied against the total cost as reported in table 2.5.2. The % per asset class finalisation was averaged across all 5 years and this final % was applied to year on year expenditure – hence why the volumes/expenditure for 2009-2013 have been smoothed out – this was done because there was incomplete data from 2009 – 2013 hence taking an average % would be the best estimate
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	The % per asset class finalisation for 2014 was taken based on the ACTUAL capital expenditure for 2014. There will be a jump in volume/expenditure based on the actual volume/expenditure across LV, HV and Substations compared to the 2009 to 2013 average approach.
2015	The % per asset class finalisation for 2015 was taken based on the ACTUAL capital expenditure for 2015.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	An estimate is required as HV & LV augmentation assets are not recorded against the AER customer classification in the Global Information System (GIS). GIS does not contain any financial information. Financial costs for projects in standard reports only contain the total costs not individual assets.
2010	As per 2009
2011	As per 2009

2012	As per 2009
2013	As per 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	An estimate is required as HV & LV augmentation assets are not recorded against the AER customer classification in the Global Information System (GIS). GIS does not contain any financial information.
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	This method was selected as it was considered the most feasible option to produce a result as required in the Notice.
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Descriptor Metric**
Residential	Mean days to connect residential customer with LV single phase connection (no.)
BOP ID	CAPAL2.5BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections. Regulatory Information Notice under Division 4 of Part 3 of the National Electricity Law 33
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Not applicable to this metric
9.3	Not applicable to this metric
9.4	Not applicable to this metric
9.5	Complies – only data relating to non-contestable, regulated connection services has been used for this measure
9.6	Complies – as no data related to gifted assets, negotiated connection services or connection services have been reported under this measure, in line with the requirements of the RIN
9.7	Not applicable to this metric
9.8	Not applicable to this metric
9.9	Not applicable to this metric
9.10	Not applicable to this metric
9.11	Not applicable to this metric

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

To provide this input, the figures are obtained from the DVPA Report for each month. The data is filtered to show new connections, Cancelled and Pending work is removed and a formula applied to calculate business days from Received Date to Meter Install/Energisation date, The monthly figure is collated to provide a yearly figure. Note that the number is for all new connections, not just Residential.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	It is assumed that this includes the time from which a) the connection is ready for energisation and b) all paperwork required for an energisation is received by Powercor and the time the energisation actually occurs
2010	As above
2011	As above
2012	As above
2013	As above
2014	The numbers for 2009 – 2013 have been restated as actual days; previously they converted to a decimal.
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	An estimate is required because Powercor does not differentiate between the cycle time for residential and commercial /industrial customers.
2010	As above
2011	As above
2012	As above
2013	As above
2014	As above
2015	As Above

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis for the estimate it to utilise the mean cycle time for all customer connections (whether they are commercial or residential). The alternative option is to make further assumptions about differences between the cycle time for commercial/residential connection types. For example, we could make an assumption that residential cycle times or shorter than commercial cycle times.
2010	As above
2011	As above
2012	As above
2013	As above
2014	As above
2015	As Above

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The cycle times of all connection types was used as the basis for estimate because it reduces the need to make further assumptions that may not be valid
2010	As above
2011	As above
2012	As above
2013	As above
2014	As above
2015	As Above

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Descriptor Metric**
Residential	VOLUME OF GSL BREACHES FOR RESIDENTIAL CUSTOMERS (0'S)
Residential	GSL PAYMENTS ($000's)
BOP ID	CAPAL2.5BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Not applicable to this metric
9.3	Not applicable to this metric
9.4	Not applicable to this metric
9.5	Complies – only data relating to non-contestable, regulated connection services has been used in this measure
9.6	Complies – as no data related to gifted assets, negotiated connection services or connection services have been reported under this measure, in line with the requirements of the RIN
9.7	Not applicable to this metric
9.8	Not applicable to this metric
9.9	Not applicable to this metric
9.10	Not applicable to this metric
9.11	Complies – a GSL scheme does exist for these connection services

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Missed new connections are determined from the "DVPA" report, calculating the number of working days between paperwork received and connection date, then reviewing any >10 days for details of agreed dates.

A separate extract from CISOV listing Revenue Class for each NMI is applied to the GSL list to Count and Sum only the Residential GSLs

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Data relating to GSL payments and breaches are available from SAP (transaction FBL 1N). This transaction captures all cheques raised for customers. The data is then filtered so that it only captures cheques relating to connections. There are no assumptions associated with the calculation of these figures.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009, the figures from 2009 to 2013 have been restated using the SAP transaction FBL 1N.
2015	The list of missed New Connection GSLs from the DVPA report is used to provide this data on a monthly basis. The report needs to be re-run the following month to pick up field-completed jobs from the previous month processed the following month.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	This metric requires brand new, residential connections only. Actual data is not available because Powercor calculates GSL breaches and payments for all energisations and does not differentiate between a) residential and commercial and b) brand new connections and existing connections.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	Not Applicable. Revenue Class listing is appended to the DVPA list to provide actual data.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	For this reason, breach and payment volumes have been apportioned according to a) the portion of brand new residential connections into the total number of brand new connections and b) the portion of brand new connection into the total number of connections.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This option was chosen as it is the only viable option for estimation
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Descriptor Metric**
Residential	Volume of customer complaints relating to connection services (no.)
BOP ID	CAPAL2.5BOP9

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Not applicable to this metric
9.3	Not applicable to this metric
9.4	Not applicable to this metric
9.5	Complies – only data relating to non-contestable, regulated connection services has been used in this measure
9.6	Complies – as no data related to gifted assets, negotiated connection services or connection services have been reported under this measure, in line with the requirements of the RIN
9.7	Not applicable to this metric
9.8	Not applicable to this metric
9.9	Not applicable to this metric
9.10	Not applicable to this metric
9.11	Not applicable to this metric

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Customised SAP based system CARE (Customer Action and Response).

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Methodology used - It is essential that all information extracted from the CARE system is reviewed and validated at year end. We make no assumptions regarding complaint numbers or data, as it is accurate data extracted. CARE has a user friendly reporting tool that allows us to extract information relating to a variety of categories including connection service complaints. Administrating CARE standard work instruction 03-10-W0002.
2010	As per 2015
2011	As per 20015
2012	As per 2015
2013	As per 2015
2014	As per 2015 Note that data for 2009 – 2013 has been restated in 2015 as part of the 2014 RIN submission.
2015	Methodology used - It is essential that all information extracted from the CARE system is reviewed and validated at year end. We make no assumptions regarding complaint numbers or data, as it is accurate data extracted. CARE has a reporting tool that allows us to extract information relating to a variety of categories including connection service and supply augmentation complaints. Administrating CARE standard work instruction 03-10-W0002 is used to extract relevant data. SAP transaction ZP55 - CARE list is used to produce this report. Once report run undertake the following steps: • Filter the heading “Category Description” to include Connections & Supply Augmentation. • Review “Sub Category” & “CARE Subject” to remove any complaints relating to activities outside a Connection as per the RIN definition. • Examples of complaints excluded include: tariffs, permit to work, overhead service issues, consumer mains cross property, transposition, disconnections and illegal wiring. Note that data for 2009 – 2014 has been restated in 2016 as part of the 2015 RIN submission.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009

2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Connection Classification**
Subdivision	Underground Connections
Subdivision	Overhead Connections
BOP ID	CAPAL2.5BOP10

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	N/A to Powercor as per AER advice
9.2	Not applicable to this metric
9.3	Not applicable to this metric
9.4	Not applicable to this metric
9.5	Complies – only data relating to non-contestable, regulated connection services has been used in this measure
9.6	Complies – as no data related to gifted assets, negotiated connection services or connection services have been reported under this measure, in line with the requirements of the RIN
9.7	Not applicable to this metric
9.8	Not applicable to this metric
9.9	Not applicable to this metric
9.10	Not applicable to this metric
9.11	Not applicable to this metric

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Not Applicable

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	N/A
2014	N/A
2015	N/A

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	N/A
2014	N/A
2015	N/A

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	N/A
2014	N/A
2015	N/A

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	N/A
2014	N/A
2015	N/A

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: This data cannot be provided as our current business process is to capture these connections as either commercial/industrial or residential.

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Connection Classification**
Subdivision	Cost per Lot ($)
BOP ID	CAPAL2.5BOP11

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of *complex connections* in appendix F provide guidance on the types of augmentation works which must be reported as *connection services*, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for *connections* in *regulatory template* 2.5 relating to *customer connection* requests, as per the definition of *connection expenditure* in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in *regulatory templates* 2.3 and 2.5.
9.10 Powercor must report the *MVA added* for *distribution substations* installed for *connection services*. Where *MVA added* must be calculated by Powercor as the sum of the *nameplate rating* of all the *distribution substations* installed for the relevant year.
9.11 Powercor is not required to report data in respect of *GSLs*, where a *GSL* scheme does not exist for the *connection service*.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections that align to the appendix F
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response:
Source SAP Business Intelligence report for Customer Projects

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Assumptions • Only residential lots have been included there is no consistency between other types of residential developments. The standard underground residential development is a typical housing estate. • Dual and multiple type subdivision have been excluded • Low density subdivisions and high-rise residential developments have been excluded Methodology • Powercor record some details in SAP for monitoring of subdivisions. A Business Intelligence report was used provide some information of cost and lots. Using subject matter expert this sample information was deemed to be reflective of the cost per lot for this metric.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	• Powercor do not report on the number of lots connected, so are unable to provide this information from actual data • Powercor do have some reports that provide lots connected which is representative of the average costs per lot. The reports may not include all subdivisions completed per year but is a high enough be considered as indicative. • The lots connected do include cost for projects that the developer has elected to complete some contestable work and for projects where Powercor has completed all the work. Cost only includes those that were incurred by Powercor. The result of not including the gifted assets that the developer has provided is that the cost per lot is lower and is not representative of the actual cost.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	• A representative sample of subdivision projects was used to determine a cost per lot. • The sample is of sufficient size to represent the various types of subdivisions i.e. lot sizes, layout, density to be indicative of the average cost. • AER advice to not include gifted assets does impact on the cost per lot, by lowering the dollar value per lot
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	• Uses actual data as the basis so provides the most accurate result.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.1 Descriptor Metrics	
Connection Subcategory	**Descriptor Metric**
Embedded Generation	Underground Connections (000's)
Embedded Generation	Overhead Connections (000's)
BOP ID	CAPAL2.5BOP12

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Not applicable to this metric
9.3	Not applicable to this metric
9.4	Not applicable to this metric
9.5	Complies – only data relating to non-contestable, regulated connection services has been used in this measure
9.6	Complies – as no data related to gifted assets, negotiated connection services or connection services have been reported under this measure, in line with the requirements of the RIN
9.7	Not applicable to this metric
9.8	Not applicable to this metric
9.9	Not applicable to this metric
9.10	Not applicable to this metric
9.11	Not applicable to this metric

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Not Applicable

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Powercor has assessed the requirements for this category and believe it is reasonable to specify there is no data. However, should an estimate be required, it is immaterial in volume. The volume of brand new connections that include embedded generation is immaterial in volume, and Powercor has estimated that this category makes up only 1% of the total. Hence it is reasonable to assume the data as NIL.
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	An estimate is required as the volume of brand new connections that include embedded generation is immaterial in volume, and Powercor has estimated that this category makes up only 1% of the total. Hence it is reasonable to assume the data as NIL.
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
After consultation with a subject matter expert from the business, it is estimated that the volume of brand new connections that include embedded generation is nil.

Tab name: 2.5 Connections	
Table name: 2.5.2 - Cost metrics by connection classification	
Connection Subcategory	**Connection Classification**
RESIDENTIAL	SIMPLE CONNECTION LV ($000'S)
COMMERCIAL/INDUSTRIAL	SIMPLE CONNECTION LV ($000'S)
RESIDENTIAL	SIMPLE CONNECTION LV (000'S)
COMMERCIAL/INDUSTRIAL	SIMPLE CONNECTION LV (000'S)
BOP ID	CAPAL2.5BOP13

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Definitions
Residential customer connection
A residential customer connection relates to connecting customers who purchase energy principally for personal, household or domestic use at premises.

Customer complaint
A written or verbal expression of dissatisfaction about an action, or failure to act, or in respect of a product or service offered or provided by an electricity network distributor.

Underground connection
A physical link between the distribution system and a customer's premises running underground from a pole or service pit to the customer's premises.

Overhead connection

A physical aerial link between the distribution system and a customer's premises from a pole to the customer's premises.

Commercial/Industrial customer connection
A commercial and industrial customer connection relates to connecting any customer who is not a residential or unmetered customer.

Please provide a Response in this box:

Expenditure
In complying with the AER requirements additional expenditure from Function Codes 114 and 115 was required to be added to the Templates. The relevant Function Code 114 and 115 expenditure relates to line of mains non-contestable regulated connection services.

Response:

9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections that align to the appendix F
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

Volumes

9.1	Not applicable to Powercor as per AER advice
9.2	Not applicable to this metric
9.3	Not applicable to this metric
9.4	Not applicable to this metric
9.5	Complies – only data relating to non-contestable, regulated connection services has been used in this measure
9.6	Complies – as no data related to gifted assets, negotiated connection services or connection services have been reported under this measure, in line with the requirements of the RIN
9.7	Not applicable to this metric
9.8	Not applicable to this metric
9.9	Not applicable to this metric
9.10	Not applicable to this metric
9.11	Not applicable to this metric

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Expenditure: Financial data obtained from SAP.

Volumes:
The source of this data was CIS/OV (Powercor's customer records management system).

'Residential Simple Connection LV' is the summation of the same data provided for Residential Underground and

Overhead connection components of table 2.5.1.

'Commercial/Industrial Simple Connection LV' is the summation of the same data provided for Commercial/Industrial Underground and Overhead connection components of table 2.5.1.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Expenditure The costs were obtained directly from the SAP Function Code Expenditure for that year. In Table 2.5.2, the Residential ratio of F/C 114 and 115 costs was entered into the Residential Simple Connection LV costs. The Commercial ratio of F/C 114 and 115 costs was added to the total for the Commercial/Industrial Simple Connection LV costs. As these cost categories are not directly obtainable, this is the best estimate available. Volumes It is assumed that these fields require only brand new, first time connections. The methodology applied was to obtain a list of service orders from CIS Open-Vision for the defined period that indicate a completed, brand new connection..
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Expenditure An estimate is required as the costs are not directly available. Volumes As described in section D,
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Expenditure Estimate of apportioning costs was on the basis of numbers of simple connection jobs in the Residential and Commercial/Industrial categories. Volumes As described in section D
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Expenditure There appears to be no other logical approach. Volumes This was the best information available
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.2 - Cost metrics by connection classification	
Connection Subcategory	**Connection Classification**
RESIDENTIAL	COMPLEX CONNECTION LV ($000'S) COMPLEX CONNECTION HV ($000'S) COMPLEX CONNECTION LV (000'S) COMPLEX CONNECTION HV (000'S)
COMMERCIAL/INDUSTRIAL	COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT LV, UPSTREAM ASSET WORKS) ($000'S) COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT LV, UPSTREAM ASSET WORKS) (000'S)
Subdivision	COMPLEX CONNECTION HV (WITH UPSTREAM ASSET WORKS) ($000'S) COMPLEX CONNECTION HV (WITH UPSTREAM ASSET WORKS) (000'S)
BOP ID	CAPAL2.5BOP14

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document.** The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of *complex connections* in appendix F provide guidance on the types of augmentation works which must be reported as *connection services*, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for *connections* in *regulatory template* 2.5 relating to *customer connection* requests, as per the definition of *connection expenditure* in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in *regulatory templates* 2.3 and 2.5.
9.10 Powercor must report the *MVA added* for *distribution substations* installed for *connection services*. Where *MVA added* must be calculated by Powercor as the sum of the *nameplate rating* of all the *distribution substations* installed for the relevant year.
9.11 Powercor is not required to report data in respect of *GSLs*, where a *GSL* scheme does not exist for the *connection service*.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable

9.8	Complies – Only includes connections that align to the appendix F
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response:

Source data from Regulatory RIN for 2009 to 2015 and SAP Business Intelligence report for Customer Project Management System

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	1. Powercor function codes do not align with the AER connection classifications. Function codes relate to capacity being made available in kVA, and not the type of connection being made. A matrix was used to spread the function code across the connection classifications. 2. The Regulatory RIN report was used for the direct expenditure for the years 2009 to 2015. This report excludes gifted assets. 3. The SAP CPM Business Intelligence report provided average direct costs of completed projects within a function code. Note this does not include capture of all projects so is a sample only. Percentage capture was in the range of 65% of the total reported regulation RIN $ so was considered to be a fair indication of the average cost per project. 4. The average unit cost from the SAP CPM Business Intelligence report has been used to calculate the number of physicals required to match the regulation RIN expenditure. 5. Projects may incur cost over a number of years so the LTD costs will not necessary match the regulation RIN YTD expenditure per the Powercor function code. 6. After the mapping assumptions were applied, the estimated total of the reported expenditure for all the AER customer classifications was in the rage of + or – 5% of the RIN expenditure. To match the RIN expenditure a further estimate was applied to adjust the volumes of the higher volume customer classification categories to remove the variance to the RIN. The unit costs were not altered in this step.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009. Note that values for 2009-2013 have been restated. The change made was in the mapping for function code 102. Originally the capital expenditure was assigned 100% to RESIDENTIAL - COMPLEX CONNECTION LV (000'S). The revision is now 48% to RESIDENTIAL - COMPLEX CONNECTION LV (000'S) and 52% to RESIDENTIAL - COMPLEX CONNECTION HV (000'S). This affects both volumes and $'s. These align with the values in the CIE report.
2015	Refer to 2009 and 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	1. Powercor have not historically recorded customer projects in the format as requested in the AER connection classification as per the category analysis. Actual data has been used to determine averages per function code but an estimate of how this maps to the connection classification has had to be adopted. 2. Only a sample of projects were captured so an estimate had to be applied to determine 100% of the regulation RIN
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As above
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	As above
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable unless no projects existed in that connection classification.

Tab name: 2.5 Connections	
Table name: 2.5.2 **Cost Metrics by Connection Classification**	
Connection Subcategory	**Variable Name**
Commercial/Industrial	COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT HV) ($000'S)
Commercial/Industrial	COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT HV) (000'S)
BOP ID	CAPAL2.5BOP15

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of *complex connections* in appendix F provide guidance on the types of augmentation works which must be reported as *connection services*, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for *connections* in *regulatory template* 2.5 relating to *customer connection* requests, as per the definition of *connection expenditure* in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in *regulatory templates* 2.3 and 2.5.
9.10 Powercor must report the *MVA added* for *distribution substations* installed for *connection services*. Where *MVA added* must be calculated by Powercor as the sum of the *nameplate rating* of all the *distribution substations* installed for the relevant year.
9.11 Powercor is not required to report data in respect of *GSLs*, where a *GSL* scheme does not exist for the *connection service*.

Response	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non-contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections at high voltage 22 kV
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

A. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

B. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response:

SAP – Networks for HV connections and CPM Business Intelligence reports

C. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	• Powercor records HV connections as a single group. Any connections at Sub Transmission were identified by Project Managers and removed from the total leaving only connections at 22 kV • Projects are built over a number of years and the costs vary. The individual life to date costs of large projects for HV connections built over a number of years has been included in the AER customer classification in the year where the majority of the expenditure occurred and the volumes reported a as single value in that year. For the remaining smaller projects an average cost was applied. • Powercor capture expenditure by function codes which are defined by the capacity being made available. This doesn't align with the AER customer classifications. A mapping of the function code expenditure to the AER classification has been used to allocate the costs from the reported Regulatory RIN expenditure. The mapping assumptions had to determine the function code as being residential, commercial, subdivision or embedded generation. • After the mapping assumptions were applied, the estimated total of the reported expenditure for all the AER customer classifications was in the rage of + or – 5% of the RIN expenditure. To match the RIN expenditure a further estimate was applied to adjust the volumes of the higher volume customer classification categories to remove the variance to the RIN. The unit costs were not altered in this step. • The physicals were determined by the expenditure divided by the average value
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer to 2009

D. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	• The time period to build these major projects does not align with the regulation reporting of YTD values. • An average value of a number of completed projects in a calendar year or multiple years has been used. • Costs for this type of project vary e.g. mine in remote location or factory in urban location. • There are only a small number of HV connections each year
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009

2013	• No projects were reported as being completed in 2013 but costs were reported in the RIN. The average value for 2009 to 2012 was used as the average cost for 2013. This number of physicals was determined to align with the RIN total for 2013
2014	Refer to 2009
2015	Refer to 2009 comments. . The reported expenditure in 2015 will be for cost incurred but not necessary all the costs for that project. An average project cost has been used for the cost incurred in 2015 and the number of completed projects in 2015.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Averages have been used for actual completed projects. The other option was to report on the average cost YTD of a project but this doesn't comply with the AER unit cost approach.
2010	2009
2011	2009
2012	2009
2013	2009
2014	Refer 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Long construction period incurring cost over multiple years.
2010	2009
2011	2009
2012	2009
2013	2009
2014	Refer 2009
2015	Refer to 2009

E. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.2 Cost Metrics by Connection Classification	
Connection Subcategory	**Connection Classification**
COMMERCIAL/INDUSTRIAL	COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT LV, MINOR HV WORKS) ($000'S)
SUBDIVISION	COMPLEX CONNECTION HV (NO UPSTREAM ASSET WORKS) ($000'S)
COMMERCIAL/INDUSTRIAL	COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT LV, MINOR HV WORKS) (000'S)
SUBDIVISION	COMPLEX CONNECTION HV (NO UPSTREAM ASSET WORKS) (000'S)
BOP ID	CAPAL2.5BOP16

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.
9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.
9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non-contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections as per appendix F

9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response:
SAP Business Intelligence report

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Powercor do not record projects that do or do not require upstream augmentation and cannot separate the commercial industrial connection into this classification. There is no basis to split the projects that would reflect the different expenditure that may occur due to additional works for upstream augmentation. All Commercial Industrial complex connections at LV have been recorded against projects with upstream works as there is no logical basis to split them. Nothing is reported in the classification for both the volume and expenditure metric. The same applies to subdivisions where all the costs are allocated in the projects with upstream HV works
2010	2009
2011	2009
2012	2009
2013	2009
2014	As per 2009
2015	Refer to 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable

2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Powercor do not record project that do or do not require upstream augmentation and cannot separate the commercial industrial connection into this classification. There is no basis to split the projects that would reflect the different expenditure that may occur due to additional works for upstream augmentation.

All Commercial Industrial complex connections at LV have been recorded against projects with upstream works as there is no logical basis to split them.

Nothing is reported in the classification for both the volume and expenditure metric.

Tab name: 2.5 Connections	
Table name: 2.5.2 Cost Metrics by Connection Classification	
Connection Subcategory	**Connection Classification**
COMMERCIAL/INDUSTRIAL	COMPLEX CONNECTION SUB-TRANSMISSION ($000'S) COMPLEX CONNECTION SUB-TRANSMISSION (000'S)
BOP ID	CAPAL2.5BOP17

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of *complex connections* in appendix F provide guidance on the types of augmentation works which must be reported as *connection services*, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for *connections* in *regulatory template* 2.5 relating to *customer connection* requests, as per the definition of *connection expenditure* in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in *regulatory templates* 2.3 and 2.5.
9.10 Powercor must report the *MVA added* for *distribution substations* installed for *connection services*. Where *MVA added* must be calculated by Powercor as the sum of the *nameplate rating* of all the *distribution substations* installed for the relevant year.
9.11 Powercor is not required to report data in respect of *GSLs*, where a *GSL* scheme does not exist for the *connection service*.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non-contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections at Sub Transmission 66 kV
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response:
SAP – Networks for HV connections and CPM Business Intelligence reports

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	• Powercor records high voltage connections as a single group. Any connections at Sub Transmission were identified by Project Managers and the others removed leaving connections to Sub Transmission • Projects are built over a number of years and the costs vary. The individual life to date costs of large projects for HV connections built over a number of years has been included in the AER customer classification in the year where the majority of the expenditure occurred and the volumes reported a as single valued in that year. • The Regulatory RIN report was used for the direct expenditure for the years 2009 to 2010. This report excludes gifted assets • After the mapping assumptions were applied, the estimated total of the reported expenditure for all the AER customer classifications was in the rage of + or – 5% of the RIN expenditure. To match the RIN expenditure a further estimate was applied to adjust the volumes of the higher volume customer classification categories to remove the variance to the RIN. The unit costs were not altered in this step.
2010	Refer to 2009
2011	No Powercor projects were completed in the connection classification
2012	No Powercor projects were completed in the connection classification
2013	No Powercor projects were completed in the connection classification
2014	No Powercor projects were completed in the connection classification
2015	No Powercor projects were completed in the connection classification

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The time period to build these major projects does not align with the regulation reporting of YTD values. Actual costs of individual projects were placed used. There are only a small number of Sub Transmission connections over the reporting period.
2010	The time period to build these major projects does not align with the regulation reporting of YTD values. Actual costs of individual projects were placed used. There are only a small number of Sub Transmission connections over the reporting period.
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Actual cost of the completed project have been used but placed in the year where the majority of the cost were incurred
2010	Actual cost of the completed project have been used but placed in the year where the majority of the cost were incurred
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	This is the best estimate as it provides the most accurate volumes and expenditure
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.2 Cost Metrics by Connection Classification	
Connection Subcategory	**Connection Classification**
Embedded generation	Simple connection lv ($000's)
Subdivision	Complex connection lv ($000's)
Embedded generation	Simple connection lv (000's)
Subdivision	Complex connection lv (000's)
BOP ID	CAPAL2.5BOP18

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

9. CONNECTIONS

9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.

9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.

9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.

9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.

9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.

9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.

9.8 The definitions of complex connections in appendix F provide guidance on the types of augmentation works which must be reported as connection services, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.

9.9 Powercor must only report augmentation for connections in regulatory template 2.5 relating to customer connection requests, as per the definition of connection expenditure in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in regulatory templates 2.3 and 2.5.

9.10 Powercor must report the MVA added for distribution substations installed for connection services. Where MVA added must be calculated by Powercor as the sum of the nameplate rating of all the distribution substations installed for the relevant year.

9.11 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for the connection service.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non-contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections as per appendix F
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response: Source data from Regulatory RIN for 2009 to 2015 and SAP Business Intelligence report for Customer Project Management System

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Subdivision** • The AER definition for the subdivision – simple connection lv ($000's) is for Small subdivisions requiring extension or augmentation of overhead or underground LV feeders including road crossings • These small types of subdivision are not recorded in financial reporting and cannot be separated into the AER customer classification. The cost for this work is recorded in Powercor financial reporting and management of the connection as a residential connection and has been included in the AER customer classification under Residential – Complex Connection LV **Embedded Generation** • The AER definition for embedded generation – simple connection lv ($000's) is for Single/multi-phase customer connection service, and /or: one span of overhead service wire or standard underground service wire and/or road crossing; and meter upgrade. The AER definitions provides the example of residential customer photo voltaic with meter upgrade. • These small types of embedded connections are not recorded in financial reporting and cannot be separated into the AER customer classification. The cost for this work is recorded in Powercor financial reporting and management of the connection as a residential connection and has been included in the AER customer classification under Residential – Complex Connection lv No data is to be provided in either the volume or expenditure metric.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No data is to be reported in this customer classification
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not applicable
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Expenditure and volumes for these customer classifications has been included in the AER customer classification under Residential – Complex Connections. Powercor are unable to separate the connection type from other connections.

Tab name: 2.5 Connections	
Table name: 2.5.2 Cost Metrics by Connection Classification	
Connection Subcategory	**Connection Classification**
Embedded Generation	COMPLEX CONNECTION HV (SMALL CAPACITY) ($000'S) COMPLEX CONNECTION HV (SMALL CAPACITY) (000'S)
BOP ID	CAPAL2.5BOP19

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of *complex connections* in appendix F provide guidance on the types of augmentation works which must be reported as *connection services*, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for *connections* in *regulatory template* 2.5 relating to *customer connection* requests, as per the definition of *connection expenditure* in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in *regulatory templates* 2.3 and 2.5.
9.10 Powercor must report the *MVA added* for *distribution substations* installed for *connection services*. Where *MVA added* must be calculated by Powercor as the sum of the *nameplate rating* of all the *distribution substations* installed for the relevant year.
9.11 Powercor is not required to report data in respect of *GSLs*, where a *GSL* scheme does not exist for the *connection service*.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections that align to the appendix F
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response:

SAP – Networks for HV connections and CPM Business Intelligence reports

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	• Powercor records Embedded Generation connections as a single group. Any connections at Sub Transmission were identified by Project Managers and removed from the total leaving only connections at 22 kV or distribution substations • Projects are built over a number of years and the costs vary. Where available, individual life to date LTD cost per projects constructed over a number of years have been used otherwise average value of these connection types has been used and the cost populated in the year to align with the regulation RIN expenditure for that year by the number of physicals. • The physicals were determined by the expenditure divided by the average value. Note: not all projects are captured so physicals has to be estimated • The Regulatory RIN report was used for the direct expenditure for the years 2009 to 2015. This report excludes gifted assets • An assumption has been made to take an average of the completed projects for that year to determine unit rate. Note: not all projects are captured so physicals have to be estimated • For the larger projects the costs were allocated to the year where the majority of costs were incurred. • After the mapping assumptions were applied, the estimated total of the reported expenditure for all the AER customer classifications was in the rage of + or – 5% of the RIN expenditure. To match the RIN expenditure a further estimate was applied to adjust the volumes of the higher volume customer classification categories to remove the variance to the RIN. The unit costs were not altered in this step.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	• Note not all projects are captured so physicals have to be estimated • The AER connection classification for Embedded Generation complex small and large and HV connections 22 KV and sub transmission have not been able to be aligned with the regulation RIN expenditure as these projects incurred costs over a number of years and there is no basis to allocate the LTD (life to date) costs in any particular year •
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009

2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Averages have been used for actual completed projects per year. The number of physicals was then estimated to align with the reported RIN
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Long lead time and projects completed over multiple years does not align with the reported RIN
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.5 Connections	
Table name: 2.5.2 Cost Metrics by Connection Classification	
Connection Subcategory	**Connection Classification**
Embedded Generation	COMPLEX CONNECTION HV (LARGE CAPACITY) ($000'S) COMPLEX CONNECTION HV (LARGE CAPACITY) (000'S)
BOP ID	CAPAL2.5BOP20

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

9. CONNECTIONS
9.1 Powercor must ensure that the data provided for connection services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
9.2 Powercor is not required to distinguish expenditure for connection services between standard or alternative control services in regulatory template 2.5.
9.3 Powercor is not required to distinguish expenditure for connection services as either capex or opex in regulatory template 2.5.
9.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
9.5 Powercor must report data for non-contestable, regulated connection services. This includes work performed by third parties on behalf of Powercor.
9.6 Powercor must not report data in relation to gifted assets, negotiated connection services or connection services which have been classified as contestable by the AER.
9.7 For augmentation metrics, 'km added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections.
9.8 The definitions of *complex connections* in appendix F provide guidance on the types of augmentation works which must be reported as *connection services*, as descriptor metrics for table 2.5.1 and as cost metrics for table 2.5.2.
9.9 Powercor must only report augmentation for *connections* in *regulatory template* 2.5 relating to *customer connection* requests, as per the definition of *connection expenditure* in appendix F. Powercor must not double count augmentation requirements by twice reporting augmentation data in *regulatory templates* 2.3 and 2.5.
9.10 Powercor must report the *MVA added* for *distribution substations* installed for *connection services*. Where *MVA added* must be calculated by Powercor as the sum of the *nameplate rating* of all the *distribution substations* installed for the relevant year.
9.11 Powercor is not required to report data in respect of *GSLs*, where a *GSL* scheme does not exist for the *connection service*.

Response:	
9.1	Not applicable to Powercor as per AER advice
9.2	Complies - Powercor has not distinguished expenditure between standard and alternative control
9.3	Complies – Expenditure has not been distinguished as Opex costs do not apply to connections
9.4	Complies - Gross amounts used
9.5	Complies – Includes all regulated connection services
9.6	Complies – Only the non contestable component i.e. tie in and shared augmentation work has been included for contestable services.
9.7	Not applicable for this variable
9.8	Complies – Only includes connections at high voltage 22 kV
9.9	Complies – Only the work for the connection has been included. No augmentation is reported twice
9.10	Not applicable for this variable
9.11	Not applicable for this variable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response:

SAP – Networks for HV connections and CPM Business Intelligence reports

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	No Powercor projects reported in the connection classification for this year
2010	No Powercor projects reported in the connection classification for this year
2011	• Powercor records Embedded Generation connections as a single group. Any connection which falls under Sub Transmission was identified by Project Managers, to separate Sub Transmission from the Embedded Generation data. • There was only a single project in this year but of significant costs. • Actual project cost were obtained for individual projects • The Regulatory RIN report was used for the direct expenditure for the years 2009 to 2015. This report excludes gifted assets • Projects are built over a number of years and the costs vary. The individual life to date costs of large projects for HV connections built over a number of years has been included in the AER customer classification in the year where the majority of the expenditure occurred and the volumes reported a as single valued in that year. • After the mapping assumptions were applied, the estimated total of the reported expenditure for all the AER customer classifications was in the rage of + or – 5% of the RIN expenditure. To match the RIN expenditure a further estimate was applied to adjust the volumes of the higher volume customer classification categories to remove the variance to the RIN. The unit costs were not altered in this step.
2012	Refer to 2011
2013	No Powercor projects reported in the connection classification for this year
2014	No Powercor projects reported in the connection classification for this year
2015	Refer to 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Actual data used but LTD cost allocated in the year with the most expenditure
2012	Actual data used but LTD cost allocated in the year with the most expenditure
2013	Not applicable
2014	Not applicable
2015	Refer to 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No Powercor projects reported in the connection classification for this year
2010	No Powercor projects reported in the connection classification for this year
2011	The AER is requesting a unit rate for each of the connection customer classification. The unit rate provided is the total cost of a completed project not the average cost incurred in a year. A project cost unit rate per Powercor function code would be based on an average value of actual completed projects in a calendar year. For large projects completed over a number of years for embedded generation where the volumes are small, a combination of actual cost of individual projects and average project costs for the remaining have been applied. In this metric there were only single projects in a year The individual costs of large projects for embedded generation connections built aver a number of years has been included in the AER customer classification in the year where the majority of the expenditure occurred and the volumes reported a as single value in that year.
2012	Refer to 2011
2013	No Powercor projects reported in the connection classification for this year
2014	No Powercor projects reported in the connection classification for this year
2015	Refer to 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not applicable
2010	Not applicable
2011	This is the best estimate as it provides the most accurate volumes and expenditure
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Refer to 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
No Powercor projects were completed in the connection classification for 2009, 2010, 2013 and 2014.

AER Category Analysis RIN

Powercor Australia Pty

Basis of Preparation documents

PART B

Year ended 31 December 2015

Table of Contents

2.6 Non Networks

Tab name: 2.6 Non-network	
Table name: 2.6.1 Non Network Expenditure	
Service Subcategory	**Asset Category**
IT and Communications	Client Device Expenditure (OPEX)
BOP ID	CAPAL2.6BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
10.1 If expenditure is directly attributable to an expenditure category in this regulatory template 2.6 it is a Direct Cost for the purposes of this regulatory template. Report all capex and/or opex Direct Costs as required, irrespective of whether any Direct Costs are also classified as Corporate Overheads, Network Overheads or other capex or opex categories. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

Non-network IT &Communications Expenditure Client Devices Expenditure
Client Devices Expenditure is expenditure related to a hardware device that accesses services made available by a server. Client Devices Expenditure includes hardware involved in providing desktop computers, laptops, tablets, thin client interfaces and handheld end user computing devices including smart phones, tablets and laptops.

Please provide a Response in this box:
The information provided complies with section 10.1 of Appendix E and complies with the definition in Appendix F. All direct costs for the purposes Client Device Expenditure (OPEX) have been reported, irrespective of whether they are also classified as Corporate Overheads, Network Overheads or other CAPEX or OPEX categories

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL[1] data green; and ESTIMATED[2]/derived data red

2009	2010	2011	2012	2013	2014	2015

[1] ''Actual Information" is defined as: "Information presented in response to the Notice whose presentation is Materially dependent on information recorded in Powercor historical accounting records or other records used in the normal course of business, and whose presentation for the purposes of the Notice is not contingent on judgments and assumptions for which there are valid alternatives, which could lead to a Materially different presentation in the response to the Notice.

'Accounting records' include trial balances, the general ledger, subsidiary accounting ledgers, journal entries and documentation to support journal entries. Actual financial information may include accounting estimates, such as accruals and provisions, and any adjustments made to the accounting records to populate Powercor's regulatory accounts and responses to the Notice. 'Records used in the normal course of business', for the purposes of non-financial information, includes asset registers, geographical information systems, outage analysis systems, and so on."

[2] "Estimated Information" is defined as "Information presented in response to the Notice whose presentation is not Materially dependent on information recorded in Powercor historical accounting records or other records used in the normal course of business, and whose presentation for the purposes of the Notice is contingent on judgments and assumptions for which there are valid alternatives, which could lead to a Materially different presentation in the response to the Notice."

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
All data has been extracted from SAP Profit Centre report and Business Intelligence profit centre reports.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	For OPEX costs we do not separate our device costs from other services associated with that device type. We have calculated the OPEX Expenditure for Client Devices using the following account and Function Code (Under the assumption that all relevant costs have been captured by these accounts) 534000 (Telco Router Maintenance) 534010 (Telco – WAN Intercon C) 534020 (Managed WAN Charge) 534080 (Telco Internet) 534090 (Telco – Int Telephone) 534100 (Telco – Telephone MA) 534110 (Telco – Telephony) 534120 (Telco – Mobile) 534125 (Telco Hardware). The total costs have been allocated between CitiPower and Powercor. The percentage of total costs allocated to Powercor is based on Powercor's Business As Usual (BAU) costs as a percentage of the total BAU costs, under the assumption that the proportion of BAU costs incurred are reflective of how Telco costs are incurred.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	For OPEX costs we have used the following accounts for device (mobile and PC) expenditure (excluding Prescribed Metering): 534000 (Telco - Router Maintenance Charges) 534010 (Telco - WAN Interconnect Charges) 534020 (Telco - Managed WAN Charges) 534080 (Telco - Internet Access Charges) 534100 (Telco - Telephone MACs Charges) 534110 (Telco - Telephony Voice & Lines Charges) 534120 (Telco – Mobile) 534125 (Telco – Mobile Hardware) The above costs have been allocated between CitiPower and Powercor. The percentage of total costs allocated to Powercor is based on Powercor's Business As Usual (BAU) costs as a percentage of the total BAU costs, under the assumption that the proportion of BAU costs incurred are reflective of how Telco costs are incurred.
2015	See 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	An estimate was required because Telco costs which were excluded from total BAU costs were not captured at a CitiPower/Powercor level

2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Telco costs were allocated to CitiPower / Powercor based on the percentage of CitiPower / Powercor's Business As Usual (BAU) costs to total BAU costs (as per split of Management Fee allocations from CHED Services IT to PAL / CP , under the assumption that the split in BAU costs are reflective of the split in Telco costs"
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The approach selected is assumed to be most reflective of how costs are incurred
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.1 Non Network Expenditure	
Service Subcategory	**Asset Category**
IT and Communications	Client Device Expenditure (CAPEX)
BOP ID	CAPAL2.6BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
10.1 If expenditure is directly attributable to an expenditure category in this *regulatory template* 2.6 it is a *Direct Cost* for the purposes of this *regulatory template*. Report all capex and/or opex *Direct Costs* as required, irrespective of whether any *Direct Costs* are also classified as *Corporate Overheads*, *Network Overheads* or other *capex* or *opex categories*. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

Non-network IT &Communications Expenditure Client Devices Expenditure
Client Devices Expenditure is expenditure related to a hardware device that accesses services made available by a server. Client Devices Expenditure includes hardware involved in providing desktop computers, laptops, tablets, thin client interfaces and handheld end user computing devices including smart phones, tablets and laptops.

Please provide a Response in this box:
The information provided complies with section 10.1 of Appendix E given that all direct costs for the purposes of Client Device Expenditure (CAPEX) have been reported, irrespective of whether they are also classified as Corporate Overheads, Network Overheads or other CAPEX or OPEX categories

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
All data from Business Intelligence (Capital expenditure function code) reports interfaced with SAP.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	For CAPEX we have used BI Capital report for functions codes 200 (IT Equipment and Computers). Under the assumption that all relevant costs have been captured by these accounts.
2010	See 2009

2011	See 2009
2012	See 2009
2013	For CAPEX we have used BI Capital report for functions codes 200 (IT Equipment and Computers) & 270 (Telecommunications) Under the assumption that all relevant costs have been captured by these accounts. Historically (before 2013), function code 270 had minimal costs allocated to it. Costs were allocated under the "Other" category. Since 2013, function code 270 has been used to capture IT Telecommunication costs. We then allocated them against the "non-network" category.
2014	See 2013
2015	See 2013

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.1 Non Network Expenditure	
Service Subcategory	**Asset Category**
IT and Communications	RECURRENT EXPENDITURE (OPEX) NON-RECURRENT (OPEX)
BOP IQ	CAPAL2.6BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
10.1 If expenditure is directly attributable to an expenditure category in this regulatory template 2.6 it is a Direct Cost for the purposes of this regulatory template. Report all capex and/or opex Direct Costs as required, irrespective of whether any Direct Costs are also classified as Corporate Overheads, Network Overheads or other capex or opex categories. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

Non-network IT & Communications Expenditure - Recurrent Expenditure Is all IT & Communications Expenditure that is Recurrent Expenditure excluding any expenditure reported as IT & Communications Expenditure - Client Devices Expenditure.

Please provide a Response in this box:
The information provided complies with section 10.1 of Appendix E, and aligns with the definitions provided in Appendix F.

The information provided complies with section 10.1 of Appendix E given that all direct costs relating to Recurrent Expenditure (OPEX) have been reported, irrespective of whether they are also classified as Corporate Overheads, Network Overheads or other CAPEX or OPEX categories

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
All data from SAP Profit Centre reporting.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	For OPEX we have used SAP IT Profit and Loss statement. We have deemed all IT Opex costs to be recurrent. Under the assumption that all IT OPEX costs occur consistently enough to meet the definition of recurrent expenditure. Telco costs have been subtracted given that it has already been included in Client Device Expenditure –OPEX. Total Telco costs were subtracted from Powercor based on the percentage of Powercor's Business As Usual (BAU) costs to total BAU costs, under the assumption that the split in BAU costs are reflective of the split in Telco costs
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	An estimate was required because Telco costs which were excluded from total BAU costs were not captured at a CitiPower/Powercor level
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Telco costs were allocated to Powercor's client device expenditure opex category based on the percentage of Powercor's Business As Usual (BAU) costs to total BAU costs, under the assumption that the split in BAU costs are reflective of the split in Telco costs"
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The approach selected is assumed to be most reflective of how costs are incurred.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.1 Non Network Expenditure	
Service Subcategory	**Asset Category**
IT and Communications	RECURRENT EXPENDITURE (CAPEX)
BOP ID	CAPAL2.6BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
10.1 If expenditure is directly attributable to an expenditure category in this regulatory template 2.6 it is a Direct Cost for the purposes of this regulatory template. Report all capex and/or opex Direct Costs as required, irrespective of whether any Direct Costs are also classified as Corporate Overheads, Network Overheads or other capex or opex categories. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

Non-network IT & Communications Expenditure - Recurrent Expenditure Is all IT & Communications Expenditure that is Recurrent Expenditure excluding any expenditure reported as IT & Communications Expenditure - Client Devices Expenditure.

Please provide a Response in this box:
The information provided complies with section 10.1 of Appendix E, and aligns with the definitions provided in Appendix F.

The information provided complies with section 10.1 of Appendix E given that all direct costs relating to Recurrent Expenditure (CAPEX) have been reported, irrespective of whether they are also classified as Corporate Overheads, Network Overheads or other CAPEX or OPEX categories

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
All data from Business Intelligence (CAPEX Function code) reports interfaced with SAP.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	For CAPEX we have used BI Capital report for functions codes 200 (IT Equipment and Computers). We have then manually allocated each individual project between recurrent and non-recurrent using the following principle: Expenditure that is expected to be reasonably consistent from regulatory period to regulatory period (taking into account volume and unit cost drivers) is considered recurrent expenditure. As an example recurrent includes but was not limited to: Refresh to infrastructure assets, upgrades to existing software systems, strategy and tariff refresh programs and change requests performed for the business. This has been completed under the assumption that all relevant costs have been captured by these accounts.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Business Intelligence does not capture IT Capital program expenditure categorised at Recurrent or Non-Recurrent.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis was as per section D, 2009. Considered a percentage allocation which was deemed inappropriate due to the varying nature of IT projects year on year.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The approach was considered to be the most accurate and consistent way to allocate the data into these categories
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.1 Non Network Expenditure	
Service Subcategory	**Asset Category**
IT and Communications	NON-RECURRENT EXPENDITURE (CAPEX)
BOP ID	CAPAL2.6BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
10.1 If expenditure is directly attributable to an expenditure category in this regulatory template 2.6 it is a Direct Cost for the purposes of this regulatory template. Report all capex and/or opex Direct Costs as required, irrespective of whether any Direct Costs are also classified as Corporate Overheads, Network Overheads or other capex or opex categories. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

Non-network IT & Communications Expenditure - Recurrent Expenditure Is all IT & Communications Expenditure that is Recurrent Expenditure excluding any expenditure reported as IT & Communications Expenditure - Client Devices Expenditure Non-recurrent expenditure is all expenditure that is not recurrent in relation to the specific category of expenditure.

Please provide a Response in this box:
The information provided complies with section 10.1 of Appendix E, and aligns with the definitions provided in Appendix F.

The information provided complies with section 10.1 of Appendix E given that all direct costs relating to Non-recurrent Expenditure (CAPEX) have been reported, irrespective of whether they are also classified as Corporate Overheads, Network Overheads or other CAPEX or OPEX categories

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
All data from Business Intelligence (Function code capital) reports interfaced with SAP.

The financial data for the expenditure categories and cost allocations for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	For CAPEX we have used BI Capital report for functions codes 200 (IT Equipment and Computers). We have then manually allocated each individual project between recurrent and non-recurrent using the following principle: Expenditure that is expected to be reasonably inconsistent from regulatory period to regulatory period (taking into account volume and unit cost drivers) is considered non-recurrent expenditure As an example Non Recurrent expenditure includes but is not limited to: Initial implementations, standalone projects and the PABX project due to the one off nature and size of the project and will not be repeated in this manner again. This has been completed under the assumption that all relevant costs have been captured by these accounts.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Business Intelligence does not capture IT Capital program expenditure categorised at Recurrent or Non-Recurrent.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis was as per section D, 2009. Considered a percentage allocation which was deemed inappropriate due to the varying nature of IT projects year on year.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The approach was considered to be the most accurate and consistent way to allocate the data into these categories
2010	See 2009
2011	See 2009

2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.1 NON-NETWORK EXPENDITURE	
Service Subcategory	**Asset Category**
Motor Vehicles	CAPEX
BOP ID	CAPAL2.6BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
APPENDIX E: PRINCIPLES AND REQUIREMENTS
10. NON-NETWORK EXPENDITURE

10.1 If expenditure is directly attributable to an expenditure category in this regulatory template 2.6 it is a Direct Cost for the purposes of this regulatory template. Report all capex and/or opex Direct Costs as required, irrespective of whether any Direct Costs are also classified as Corporate Overheads, Network Overheads or other capex or opex categories. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

10.2 For example, and for the avoidance of doubt, Motor Vehicle expenditure directly attributable to direct expenditure categories, for example motor vehicle expenditure directly attributable to activities giving rise to replacement capital expenditure, must be included in the expenditure reported in those replacement capital expenditure categories and any reported unit costs.

10.3 Where a requested value is not constant across a year, calculate an approximate simple average based on the different values over the year and the period for which the different values applied. For example, if Powercor had 12 vehicles for 8 months and 14 vehicles for 4 months, the average vehicles in the class over the year would be 12*(8/12) + 14*(4/12) = 12.67 vehicles.

10.4 Add additional rows to disaggregate cost categories as Powercor considers required.

10.5 In relation to the Non-network Other expenditure category, if Powercor has incurred $1 million or more (nominal) in capital expenditure over the last five regulatory years for a given type or class of assets (e.g. mobile cranes), Powercor must insert a row in the regulatory template and report that item separately.

APPENDIX F: DEFINITIONS
Car
Cars are Motor Vehicles other than those that comply with the definition of Light commercial vehicle, Heavy commercial vehicle, Elevated work platform (LCV) or Elevated work platform (HCV)

Elevated Work Platform (HCV)
Elevated work platforms (HCV) are Motor Vehicles that have permanently attached elevating work platforms that would be HCVs but for the exclusion of elevated work platforms from the definition of HCV.

Elevated Work Platform (LCV)
Elevated work platforms (LCV) are Motor Vehicles that have permanently attached elevating work platforms that are not Elevated work platform (HCV).

Heavy Commercial Vehicle (HCV)
Heavy commercial vehicles (HCVs) are Motor Vehicles that are registered for use on public roads excluding Elevated Work Platform (HCV)s that:
•have a gross vehicle mass greater than 4.5 tonnes; or

•are articulated Vehicles; or
•are buses with a gross vehicle mass exceeding 4.5 tonnes

Light Commercial Vehicle (LCV)
Light commercial vehicles (LCVs) are Motor Vehicles that are registered for use on public roads excluding elevated work platforms that:
•are rigid trucks or load carrying vans or utilities having a gross vehicle mass greater than 1.5 tonnes but not exceeding 4.5 tonnes; or
•have cab-chassis construction, and a gross vehicle mass greater than 1.5 tonnes but not exceeding 4.5 tonnes; or
•are buses with a gross vehicle mass not exceeding 4.5 tonnes.

Please provide a Response in this box:
Information supplied in the templates has been completed in accordance with requirement sated in Appendix E – Principles and Requirements and Appendix F – Definitions. Given that all expenditure that is directly attributable to an expenditure category in Motor Vehicles has been included, irrespective of whether any direct costs are classified as Corporate Overheads, Network Overheads or other CAPEX or OPEX categories."

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
CAPEX data extracted from Companies SAP Asset management reporting system

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Consolidation of Motor vehicle asset classes into the Service sub categories as set out in RIN template. Source data extracted from SAP using report S_ALR_8702050. Below is break of SAP asset classes and linkage to RIN Service sub categories. Car: 100, 104,105 & 129 Light Commercial: 101,106,107,108, 109, 110 & 125 Elevated Work Platform - LCV: 121 & 122 Elevated Work Platform – HCV: 123 & 124 Heavy Commercial: 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 126,128, 203, 204, 205, 206, 208,209, 215,216,217,219 & 220 The function codes above are assumed to contain all the expenditure related to each sub category within Motor Vehicles –CAPEX
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Consolidation of Motor vehicle asset classes into the Service sub categories as set out in RIN template. Source data extracted from SAP BI filtered *as per the following breakdown of asset classes: Car: V01, V05 Light Commercial: V02, V03 Heavy Commercial: , V04, V06, V07, V11, V12, V13

	EWP LCV: , V08 EWP HCV: V09 This is further broken down by company code: 4550 for Powercor and 4650 for CitiPower *The SAP BI report is sorted by asset number to ensure part / progress payments are consolidated to a single asset.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.1 NON-NETWORK EXPENDITURE	
Service Subcategory	**Asset Category**
Motor Vehicles	OPEX
BOP ID	CAPAL2.6BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
APPENDIX E: PRINCIPLES AND REQUIREMENTS

10. NON-NETWORK EXPENDITURE

10.1 If expenditure is directly attributable to an expenditure category in this regulatory template 2.6 it is a Direct Cost for the purposes of this regulatory template. Report all capex and/or opex Direct Costs as required, irrespective of whether any Direct Costs are also classified as Corporate Overheads, Network Overheads or other capex or opex categories. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

10.2 For example, and for the avoidance of doubt, Motor Vehicle expenditure directly attributable to direct expenditure categories, for example motor vehicle expenditure directly attributable to activities giving rise to replacement capital expenditure, must be included in the expenditure reported in those replacement capital expenditure categories and any reported unit costs.

10.3 Where a requested value is not constant across a year, calculate an approximate simple average based on the different values over the year and the period for which the different values applied. For example, if Powercor had 12 vehicles for 8 months and 14 vehicles for 4 months, the average vehicles in the class over the year would be 12*(8/12) + 14*(4/12) = 12.67 vehicles.

10.4 Add additional rows to disaggregate cost categories as Powercor considers required.

10.5 In relation to the Non-network Other expenditure category, if Powercor has incurred $1 million or more (nominal) in capital expenditure over the last five regulatory years for a given type or class of assets (e.g. mobile cranes), Powercor must insert a row in the regulatory template and report that item separately.

APPENDIX F: DEFINITIONS
Car
Cars are Motor Vehicles other than those that comply with the definition of Light commercial vehicle, Heavy commercial vehicle, Elevated work platform (LCV) or Elevated work platform (HCV)

Elevated Work Platform (HCV)
Elevated work platforms (HCV) are Motor Vehicles that have permanently attached elevating work platforms that would be HCVs but for the exclusion of elevated work platforms from the definition of HCV.

Elevated Work Platform (LCV)
Elevated work platforms (LCV) are Motor Vehicles that have permanently attached elevating work platforms that are not Elevated work platform (HCV).

Heavy Commercial Vehicle (HCV)
Heavy commercial vehicles (HCVs) are Motor Vehicles that are registered for use on public roads excluding Elevated Work Platform (HCV)s that:

•have a gross vehicle mass greater than 4.5 tonnes; or
•are articulated Vehicles; or
•are buses with a gross vehicle mass exceeding 4.5 tonnes

Light Commercial Vehicle (LCV)
Light commercial vehicles (LCVs) are Motor Vehicles that are registered for use on public roads excluding elevated work platforms that:
•are rigid trucks or load carrying vans or utilities having a gross vehicle mass greater than 1.5 tonnes but not exceeding 4.5 tonnes; or
•have cab-chassis construction, and a gross vehicle mass greater than 1.5 tonnes but not exceeding 4.5 tonnes; or
•are buses with a gross vehicle mass not exceeding 4.5 tonnes.

Please provide a Response in this box:
Information supplied in the templates has been completed in accordance with requirement sated in Appendix E – Principles and Requirements and Appendix F - Definitions
Trailers, cable equipment, cranes, forklifts, previously included in “Other” have been included into "Heavy Commercial Vehicle” Category as a result of the change in Template by the AER

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Data was also extracted externally from our Supplier ORIX for part of 2015

Data was extracted from Companies SAP Asset Management Reporting system for years 2011- 2015

Data from 2009 & 2010 was held in old DRIVE fleet system and it was considered that the data was not reliable. 2009 and 2010 data have been estimated using data from SAP from 2011-2013 years.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Data extrapolated from years 2011, 2012 & 2013 – taking average increase and trending backward, under the assumption that Motor Vehicles OPEX would have trended fairly consistently between 2009-2013.
2010	Refer to 2009
2011	Data extracted from SAP Fleet system using “Fleet Costs” report for each year.
2012	Refer to 2011
2013	Refer to 2011
2014	Refer to 2011
2015	Refer to 2011; Data extracted from SAP Fleet System, Data has also been provided by the 3rd party supplier ORIX for OPEX data as well. Data from SAP and ORIX was merged and made consistent. From the ORIX sheet, the ‘Indirect Costs’, ‘Depreciation’ and ‘End of lease costs’ were removed as they were unnecessary, The total cost was then calculated from the remaining fields. The Data from SAP and ORIX was placed in a pivot table to combine any Registration Numbers which were duplicates. The data was then taken from the Pivot and placed in the sheet called ‘RIN CAT – 2015’ where further analysis was undertaken.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Data from 2009 & 2010 was held in old DRIVE fleet system and it was considered that the data was not reliable
2010	Data from 2009 & 2010 was held in old DRIVE fleet system and it was considered that the data was not reliable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Data extrapolated from years 2011, 2012 & 2013 – taking average increase and trending backward, under the assumption that Motor Vehicles OPEX would have trended fairly consistently between 2009-2013.
2010	See 2009
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Data from DRIVE was considered unreliable and possibly corrupt, the SAP Fleet system considered better quality of data.
2010	Data from DRIVE was considered unreliable and possibly corrupt, the SAP Fleet system considered better quality of data
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.1 Non Network Expenditure	
Service Subcategory	**Asset Category**
BUILDINGS AND PROPERTY	Buildings and Property Expenditure
BOP ID	CAPAL2.6BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
10.1 If expenditure is directly attributable to an expenditure category in this regulatory template 2.6 it is a Direct Cost for the purposes of this regulatory template. Report all capex and/or opex Direct Costs as required, irrespective of whether any Direct Costs are also classified as Corporate Overheads, Network Overheads or other capex or opex categories. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

Please provide a Response in this box:
The information provided complies with section 10.1 of Appendix E, and aligns with the definitions provided in Appendix F.

Expenditure directly attributable to non-network buildings and property assets including: the replacement, installation, operation and maintenance of non-network buildings, fittings and fixtures. It includes expenditure related to real chattels (e.g. interests in land such as a lease) but excludes expenditure related personal chattels (e.g. furniture) that should be reported under Non-network Other expenditure.

All expenditure reported in Buildings and Property Expenditure relates to the replacement, installation, operation and maintenance of non-network buildings, fittings and fixtures. It includes expenditure related to real chattels (e.g. interests in land such as a lease) but generally excludes expenditure related personal chattels (e.g. furniture).

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
SAP and in particular, the General Ledger and Function Code reporting.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Capital Expenditure (CAPEX)** Function Code 230 (corporate and Electricity Networks) was used to extract the actual CAPEX for the Head Office and Depots, under the assumption that all capital costs relating to Building and Property Expenditure have been captured by these function codes. **Operating Expenditure (OPEX)** The SAP financial system is used to extract the information required by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. 532500 Property Services 532800 Lease: Office Space 532900 Utilities 583150 Land Tax 591100 Water Rates 591200 Council Rates Additionally, other OPEX related to Buildings and Property is captured in function code 490 . The costs included from function code 490 are based on a specific identification of GL accounts that relate to Head Office and Depot costs.
2010	As per 2009.
2011	As per 2009.
2012	As per 2009.
2013	As per 2009.
2014	As per 2009.
2015	As per 2009.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.6 Non-network	
Table name: 2.6.1 Non Network Expenditure	
Service Subcategory	**Asset Category**
OTHER	All actual data. Includes basis for items: OTHER EXPENDITURE (OPEX AND CAPEX)
BOP ID	CAPAL2.6BOP9

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

10. NON-NETWORK EXPENDITURE

10.1 If expenditure is directly attributable to an expenditure category in this regulatory template 2.6 it is a Direct Cost for the purposes of this regulatory template. Report all capex and/or opex Direct Costs as required, irrespective of whether any Direct Costs are also classified as Corporate Overheads, Network Overheads or other capex or opex categories. To the extent this results in multiple reporting of expenditures, identify this in accordance with instructions at paragraph 2.3 above.

10.2 For example, and for the avoidance of doubt, Motor Vehicle expenditure directly attributable to direct expenditure categories, for example motor vehicle expenditure directly attributable to activities giving rise to replacement capital expenditure, must be included in the expenditure reported in those replacement capital expenditure categories and any reported unit costs.

10.3 Where a requested value is not constant across a year, calculate an approximate simple average based on the different values over the year and the period for which the different values applied. For example, if Powercor had 12 vehicles for 8 months and 14 vehicles for 4 months, the average vehicles in the class over the year would be 12*(8/12) + 14*(4/12) = 12.67 vehicles.

10.4 Add additional rows to disaggregate cost categories as Powercor considers required.

10.5 In relation to the Non-Network Other expenditure category, if Powercor has incurred $1million or more (nominal) in capital expenditure over the last five regulatory years for a given type or class of assets (e.g. mobile cranes), Powercor must insert a row in the regulatory template and report that item separately.

Please provide a Response in this box:
Non Network Other expenditure has been reported consistent with the cost allocation methodology, Regulatory Financial Statements and opex categories in place at the time for those regulatory years, with the exception of the 2011 and 2012 years.

Powercor's approved CAM for 2011 and 2012 was inconsistent with the AER's final distribution determination 2011-15 service classification. In December 2013 the AER approved an amended CAM which is consistent with the AER's final distribution determination 2011-15 service classification. For the purposes of this RIN, Powercor has deemed that the 2011 and 2012 Regulatory Accounting Statements restated to be consistent with the approved amended CAM are the relevant Regulatory Accounting Statements. On this basis, opex has been reported consistent with the cost allocation methodologies, Regulatory Financial Statements and opex categories that applied in the relevant year.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for the expenditure categories and cost allocations for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The SAP financial system is used to extract the information required to state the DNSP other non-network costs. All direct standard control expenditure relating to non-network - other have been reported within: OTHER EXPENDITURE OPEX CAPEX Direct non network capex relates to distribution capex not captured in other categories as prescribed in the RIN. No direct non network other opex expenditure has been identified for this year.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

AER CATEGORY ANALYSIS RIN

Tab name: 2.6 Non-network	
Table name: 2.6.2 ANNUAL DESCRIPTOR METRICS - IT & COMMUNICATIONS EXPENDITURE	
Service Subcategory	**Asset Category**
IT and Communications	Number of Users
BOP ID	CAPAL2.6BOP10

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Active IT system log in accounts used for standard control services work scaled for standard control services use (i.e. an account used 50% of the time for standard control services work equals 0.5 active IT log in accounts)

Please provide a Response in this box:
The information provided complies with section 10 of Appendix E and aligns with the definitions provided in Appendix F.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Total Numbers of users derived from Total Numbers of devices for 2015 sourced from VSM infra (IT Asset management tool) and Infotech Telephony management tool

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	User number is calculated using the Desktop and Laptop numbers less training machines, loan machines and field machines which are not used by an individual user. User number was then allocated based on the % split between CitiPower and Powercor standard control employees, under the assumption that the split in standard control employees reflects the split in Device numbers. The number of employees has been sourced from ASL labour rates (a separate BOP has been preferred for the ASL model. This has been completed under the assumption that all relevant users have been captured by these records.
2010	See 2009
2011	See 2009

2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	User number data that was stored is not split between CitiPower & Powercor, standard control and non-standard control.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis for estimates was as per section D and E. We considered a direct review of users and allocating them on an individual basis, this was discounted as not enough data was captured at a user level to allow this method of allocation.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The approach was considered to be the most accurate and consistent way to allocate the data into these categories
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.2 ANNUAL DESCRIPTOR METRICS - IT & COMMUNICATIONS EXPENDITURE	
Service Subcategory	**Asset Category**
IT and Communications	Number of Devices
BOP ID	CAPAL2.6BOP11

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
The number of client devices used to provide standard control services scaled for standard control services use (i.e. a device used 50% of the time for standard control services work equals 0.5 devices). Client Devices are hardware devices that accesses services made available by a server and may include desktop computers, laptops, tablets and thin client interfaces and handheld end user computing devices including smart phones, tablets and laptops.

Please provide a Response in this box:
The information provided complies with section 10 of Appendix E and aligns with the definitions provided in Appendix .F

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Total Numbers of devices for 2015 sourced from VSM infra (IT Asset management tool) and Infotech Telephony management tool

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Device number calculated using Desktop, laptop, iPhone/blackberry (estimate) mobile phone (estimate) numbers Device number has been allocated based on the % split between CitiPower and Powercor standard control employees, under the assumption that the split in standard control employees reflects the split in Device numbers. The number of employees sourced from ASL labour rates (a separate BOP has been preferred for the ASL model). This has been completed under the assumption that all relevant devices have been captured by these records.

2010	Device number calculated using Desktop, laptop, iPhone, mobile phone, numbers Device number has been allocated based on the % split between CitiPower and Powercor standard control employees, under the assumption that the split in standard control employees reflects the split in Device numbers. The number of employees sourced from ASL labour rates (a separate BOP has been preferred for the ASL model). This has been completed under the assumption that all relevant devices have been captured by these records.
2011	Device number calculated using Desktop, laptop, iPhone, mobile phone, & field mobile device numbers Device number has been allocated based on the % split between CitiPower and Powercor standard control employees, under the assumption that the split in standard control employees reflects the split in Device numbers. The number of employees sourced from ASL labour rates (a separate BOP has been preferred for the ASL model). This has been completed under the assumption that all relevant devices have been captured by these records.
2012	Device number calculated using Desktop numbers (which included laptops), estimated figures for iphone, mobile phone, & field mobile device numbers Device number has been allocated based on the % split between CitiPower and Powercor standard control employees, under the assumption that the split in standard control employees reflects the split in Device numbers. The number of employees sourced from ASL labour rates (a separate BOP has been preferred for the ASL model). This has been completed under the assumption that all relevant devices have been captured by these records.
2013	Device number calculated using Desktop, laptop, iPhone, mobile phone, numbers estimated figures for field mobile device numbers Device number has been allocated based on the % split between CitiPower and Powercor standard control employees, under the assumption that the split in standard control employees reflects the split in Device numbers. The number of employees sourced from ASL labour rates (a separate BOP has been preferred for the ASL model). This has been completed under the assumption that all relevant devices have been captured by these records.
2014	Device number calculated using Desktop, workstations, laptops, iPhones, and iPads has been allocated based on the % split between CitiPower and Powercor standard control employees, under the assumption that the split in standard control employees reflects the split in Device numbers. The number of employees sourced from ASL labour rates (a separate BOP has been preferred for the ASL model). This has been completed under the assumption that all relevant devices have been captured by these records.
2015	See 2014. In addition, the number of iPhones is taken from the source list and all non-device listed lines are removed from the calculation – meaning any names with no devices are removed.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimated and derived data was not captured, or stored, data that was stored is not split between CitiPower & Powercor, standard control and non-standard control Blackberry – estimate based on number of senior executives known to have been blackberry users Mobile Phones – estimate based on 2010 recorded number of devices
2010	Estimated and derived data was not captured, or stored, data that was stored is not split between CitiPower & Powercor, standard control and non-standard control
2011	Estimated and derived data was not captured, or stored, data that was stored is not split between CitiPower & Powercor, standard control and non-standard control
2012	Estimated and derived data was not captured, or stored, data that was stored is not split between CitiPower & Powercor, standard control and non-standard control iPhone/iPads - estimate based on 2011 recorded number of devices Mobile phones - estimate based on 2011 recorded number of devices Field Mobile Devices - estimate based on 2011 recorded number of devices
2013	Estimated and derived data was not captured, or stored, data that was stored is not split between CitiPower &

	Powercor, standard control and non-standard control Field Mobile devices – estimate based on 2011 recorded number of devices
2014	Estimated and derived data was not captured, or stored, data that was stored is not split between CitiPower & Powercor, standard control and non-standard control Field Mobile devices
2015	See 2014

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis for estimates was as per section D and E. We considered a direct review of assets and allocating them on an individual basis, this was discounted as not enough data was captured at a user level to allow this method of allocation.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The approach was considered to be the most accurate and consistent way to allocate the data into these categories
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.6 Non-network	
Table name: 2.6.3 ANNUAL DESCRIPTOR METRICS - MOTOR VEHICLES	
Service Subcategory	**Asset Category**
Motor Vehicles	(All categories)
BOP ID	CAPAL2.6BOP12

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Car
Cars are Motor Vehicles other than those that comply with the definition of Light commercial vehicle, Heavy commercial vehicle, Elevated work platform (LCV) or Elevated work platform (HCV)

Elevated Work Platform (HCV)
Elevated work platforms (HCV) are Motor Vehicles that have permanently attached elevating work platforms that would be HCVs but for the exclusion of elevated work platforms from the definition of HCV.

Elevated Work Platform (LCV)
Elevated work platforms (LCV) are Motor Vehicles that have permanently attached elevating work platforms that are not Elevated work platform (HCV).

Heavy Commercial Vehicle (HCV)
Heavy commercial vehicles (HCVs) are Motor Vehicles that are registered for use on public roads excluding Elevated Work Platform (HCV)s that:
- have a gross vehicle mass greater than 4.5 tonnes; or
- are articulated Vehicles; or
- are buses with a gross vehicle mass exceeding 4.5 tonnes

Light Commercial Vehicle (LCV)
Light commercial vehicles (LCVs) are Motor Vehicles that are registered for use on public roads excluding elevated work platforms that:
- are rigid trucks or load carrying vans or utilities having a gross vehicle mass greater than 1.5 tonnes but not exceeding 4.5 tonnes; or
- have cab-chassis construction, and a gross vehicle mass greater than 1.5 tonnes but not exceeding 4.5 tonnes; or
- are buses with a gross vehicle mass not exceeding 4.5 tonnes.

Please provide a Response in this box:
The information provided complies with the definitions in Appendix F

Trailers, cable equipment, cranes, forklifts, previously included in "Other" have been included into "Heavy Commercial Vehicle Category" as a result of the change in Template by the AER. The average annual kms / vehicle is considered low due the inclusion of these items with no available odometer reading.

The other different vehicle categories being:

Car
Light Commercial Vehicle
Elevated Work Platform (LCV)
Elevated Work Platforms (HCV)

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

AVERAGE KILOMETERS TRAVELLED (000'S)

2009	2010	2011	2012	2013	2014	2015

NUMBER PURCHASED

2009	2010	2011	2012	2013	2014	2015

NUMBER LEASED

2009	2010	2011	2012	2013	2014	2015

NUMBER IN FLEET

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was also extracted externally from our Supplier ORIX for part of 2015

Data was extracted from SAP Asset Management Reporting system for years 2011- 2015

Data from 2009 & 2010 was held in old DRIVE fleet system and it was considered that the data was not reliable. 2009 and 2010 information have been estimated based on 2011-2013 figures sourced from SAP.

In each year (2009 to 2015), for Heavy Commercial Vehicles, the average annual kms / vehicle is considered low due the inclusion of items (trailers , cable recovery, cranes and forklifts) with no available odometer reading.

AVERAGE KILOMETERS TRAVELLED (000's)

Data was extracted from SAP Asset Management Reporting system
Data was also extracted externally from our Supplier ORIX for part of 2015

NUMBER PURCHASED

Number provided from the Asset Acquisition report provided by the fixed asset accounting team. Data was extracted from SAP.

NUMBER LEASED

Number was consistent with previous years, Powercor and Citipower do not lease out any vehicles, and hence why it remains at 0.

NUMBER IN FLEET

Data was extracted from SAP Asset Management Reporting system
Data was also extracted externally from our Supplier ORIX for part of 2015

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Data was calculated as average of 2011-2013 years, under the assumption that Motor Vehicles metrics trended fairly consistently between 2009-2013

2010	Refer to 2009
2011	Data extracted from SAP Fleet system using "Fleet Costs" report for each year. Sold Vehicles assumed to be sold at 6 months operation (i.e. half year, 0.5 count)
2012	Refer to 2011
2013	Refer to 2011
2014	Refer to 2011. Note there has been a restatement of data for the HCV average KMs travelled for 2009-2014 figures
2015	Refer to 2014 **AVERAGE KILOMETERS TRAVELLED (000'S)** Data from ORIX (3rd party supplier) had not provided the average KM's travelled due to data integrity issues and had difficulty in projecting / calculating the odometer readings to year end, Consolidated with SAP Data. The affected fields being: 'KM Travelled', and 'Average KM/Vehicle' **NUMBER PURCHASED** The category of vehicle was assigned as best guess according to the titles given to the data from the fixed asset team's data. E.g Sedan was classified as a CAR and so forth. **NUMBER LEASED** Number was consistent with previous years, Powercor and Citipower do not lease out any vehicles, and hence why it remains at 0. **NUMBER IN FLEET** This number was extracted from SAP/ ORIX and a calculation given on each vehicle in the report. If the vehicle is determined to be 'Oper', then it would count as 1, if it was classified as anything else, it would count as 0.5. The total was added up for each category for both Citipower and Powercor.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Data from 2009 & 2010 was held in old DRIVE fleet system and it was considered that the data was not reliable
2010	Data from 2009 & 2010 was held in old DRIVE fleet system and it was considered that the data was not reliable
2011	Acquisition and Disposal dates for motor vehicles not readily available
2012	See 2011
2013	See 2011
2014	See 2011
2015	Because of the data issues from the 3rd party supplier ORIX, Average KM travelled would be left with particularly low values not truly reflecting the year of 2015. It was decided that using an estimate of the average for the last 5 years would be a better representation of the data presented. Vehicle categories were applied as a best guess based on assumptions on 2014 Vehicle categories, the cars are not formally given a category in the source data.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Data extrapolated from years 2011, 2012 & 2013 – taking average increase and trending backward, under the assumption that Motor Vehicles metrics would have trended fairly consistently between 2009-2013.
2010	Refer to 2009
2011	Sold Vehicles assumed to be sold at 6 months operation (i.e. half year, 0.5 count) this is assumed to provide information that is most reflective of the average
2012	Refer to 2011

2013	Refer to 2011
2014	Refer to 2011
2015	Refer to 2011; The Avg KM's travelled was determined by using the average value of the last 5 years for the vehicle category

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Data from DRIVE was considered unreliable and possibly corrupt, the SAP Fleet system considered better quality of data
2010	Data from DRIVE was considered unreliable and possibly corrupt, the SAP Fleet system considered better quality of data
2011	An assumption that sold vehicles were sold at 6 months operation is believed to give the best estimate by providing an average
2012	Refer to 2011
2013	Refer to 2011
2014	Refer to 2011
2015	Because of the data issues from the 3rd party supplier ORIX, Average KM travelled would be left with particularly low values not truly reflecting the year of 2015. It was decided that using an estimate of the average for the last 5 years would be a better representation of the data presented. Vehicle categories were applied as a best guess based on assumptions on 2014 Vehicle categories, the cars are not formally given a category in the source data.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Leased data not provided because nil balance

2.7 Vegetation Management

Tab name: 2.7 Vegetation management	
Table name: 2.7.1 - Descriptor metrics by zone	
Asset	**Asset**
Route length within zone (km)	Urban and CBD, Rural
BOP ID	CAPAL2.7BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

APPENDIX E: PRINCIPLES AND REQUIREMENTS
3. BASIS OF PREPARATION
3.1 Powercor must explain, for all information in the regulatory templates, the basis upon which Powercor prepared information to populate the input cells (basis of preparation).
3.2 The basis of preparation must be a separate document (or documents) that Powercor submits with its completed regulatory templates.
3.3 The basis of preparation must follow a logical structure that enables auditors, assurance practitioners and the AER to clearly understand how Powercor has complied with the requirements of this Notice.
3.4 At a minimum, the basis of preparation must:
(a) demonstrate how the information provided is consistent with the requirements of the Notice;
(b) explain the source from which Powercor obtained the information provided;
(c) explain the methodology Powercor used to provide the required information, including any assumptions Powercor made; and
(d) explain circumstances where Powercor cannot provide input for a variable using actual information, and therefore must provide estimated information:
(i) why an estimate was required, including why it was not possible for Powercor to use actual information;
(ii) the basis for the estimate, including the approach used, assumptions made and reasons why the estimate is Powercor's best estimate, given the information sought in the Notice.

Descriptor metrics by zone table
12.8 If Powercor records poles rather than spans, the number of spans is the number of poles less one.

APPENDIX F: DEFINITIONS
Route line length (Vegetation Management)
The aggregate length in kilometres of distribution lines, measured as the length of each span between poles and/or towers, and where the length of each span is considered only once irrespective of how many circuits it contains. This is the distance between line and cable segments and does not include vertical components such as sag.
The length of service lines is not to be included in the route line length.

Response:

With respect to Overhead Conductors

For the year 2015 the data was obtained utilising a GIS (Geographical Information System) query that summates the total of the overhead network span lengths, to determine the total Overhead Route Line Length.

- Spans less than or equal to 10 metres in length were excluded
- Multiple circuit lines within spans were counted as one line

Note:-

- The Overhead Route Line Length includes all spans of high and low voltage greater than 10 metres in length
- Overhead elements associated with communication, protection & control and unmetered loads were excluded
- Overhead elements in the DNSP's area that are owned by another DNSP were excluded

With respect to Underground Cables

For the year 2015 the data could not be obtained utilising a GIS (Geographical Information System) query that summates the total of the underground network section lengths to determine the total Underground Route Line Length, hence an estimate for this metric was used.

These methodologies meet the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

With respect to Overhead Conductors

For Powercor (PAL), GIS was the originating data source (i.e. from where the data is obtained).

However, as 2013 was the first year that the Route Line Length variable was required to be evaluated, and since GIS records are not continuously archived, no earlier historical data is available.

In this case:

- For years 2009 to 2012 inclusive, historical consolidated overhead conductor circuit length data, provided by the Annual Regulatory Performance Reports [National Reporting (Annual) tab] and AER Non-Financial RINs [3. Asset Installation tab & 5. General Information tab], were used as the starting point for estimating route lengths.
- For the year 2013, 2014 and 2015 the overhead conductor Circuit Lengths and Route Lengths were both obtained from GIS

With respect to Underground Cables

- For the years 2009 to 2012 inclusive, historical consolidated underground cable circuit length data, provided by the Annual Regulatory Performance Reports [National Reporting (Annual) tab] and AER Non-Financial RINs [3. Asset Installation tab & 5. General Information tab] , was used as the starting point for estimating route lengths. For year 2013, 2014 and 2015, only the underground cable circuit length was obtained from GIS.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	***Methodology used to derive historical Route Line Length estimate to align with section A of this Information Notice*** **With respect to Overhead Conductors** • For this year, the Overhead Route Line Length was estimated using the ratio/percentage derived from the known 2013 data of overhead circuit line length and route line length, at each voltage level. • These derived ratios/percentages were applied to the overhead circuit line length data available for this year, to obtain Route Line Length data for this year. ***The assumptions made were*** • The overhead circuit lengths reported in the 2009 Annual Regulatory Report were derived from GIS queries that are reasonably consistent with those currently used • Therefore, it is reasonable to use the ratios/percentages derived from the overhead circuit line lengths and overhead route line lengths for the year 2013 to estimate the overhead route line lengths for the year 2009, based on the reported circuit line length data **With respect to Underground Cables** • Data for the year 2013 could not be obtained utilising a GIS query to determine the total Underground Route Line Length • Assumptions made to estimate the Underground Route Line Length were as follows: ○ For PAL Urban the ratio of underground route length to circuit length is 0.90 ○ For PAL Rural Short the ratio of underground route length to circuit length is 1.00 ○ For PAL Rural Long the ratio of underground route length to circuit length is 1.00
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	**With respect to Overhead Conductors** The Overhead Route Line Length data was obtained utilising a query that summates the total of the overhead span lengths in GIS, to determine the Route Line Length. • Spans less than or equal to 10 metres in length were excluded • Multiple circuit lines within spans were counted as one line **With respect to Underground Cables** The Underground Route Line Length was estimated using the same methodology as for years 2009 to 2012 inclusive.
2014	As per 2013
2015	As per 2013

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	For both overhead conductors and underground cables the data for Years 2009 to 2012 in PAL was not available in the form specified in this Information Notice, hence it was necessary to estimate/derive the requested historical data utilising other data sources, in this case the Annual Regulatory Performance Reports and the 2013 AER Annual RIN report.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	For year 2013 the overhead conductor data complies with this Information Notice (see Response in section A) For underground cables the data is estimated/derived as previously described
2014	As per 2013
2015	As per 2013

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**With respect to Overhead Conductors** The Overhead Circuit Lengths reported in the 2009 to 2012 Annual Regulatory Reports were derived from GIS queries that are reasonably consistent with those used for the 2013 reporting year Therefore, it is reasonable for the percentages/ratios derived from the circuit lengths and route lengths for the year 2013 to be used to estimate route lengths for the years 2009 to 2012 inclusive **With respect to Underground Cables** The ratios of route length to circuit length are based on experience and network installation knowledge to provide a value, as there is no historical context for a more accurate assessment
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	For overhead conductors no estimation or derivation was used. For underground cables the data is estimated/derived as previously described.
2014	As per 2013
2015	As per 2013

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The approach utilises existing reported data for the overhead component. The approach utilises the described approach for the underground component, as no corresponding route line length data is available
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	The approach utilises existing reported data for the overhead component. The approach utilises the experience and network installation knowledge for the underground component, as no corresponding route line length data is available.
2014	2013
2015	As per 2013

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Data has been provided for all the years requested

Tab name: 2.7 Vegetation Management	
Table name: 2.7.1 - Descriptor metrics by zone	
Asset	Urban and CBD, Rural
Number of maintenance spans	Number of Maintenance Spans
BOP ID	CAPAL2.7BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Maintenance span - A span within Powercor's network that is subject to active vegetation management practices in the relevant year. Active vegetation management practices do not include inspection of vegetation maintenance spans.

12.8 If Powercor records poles rather than spans, the number of spans is the number of poles less one.

Please provide a Response in this box:
Powercor records vegetation against a span, so the count is as required by definition.

The spans counted are those that are recorded as having had cutting of vegetation so meets definition "A span in Powercor's network that is subject to active vegetation management practices in the relevant year. Active vegetation management practices do not include Inspection of vegetation Maintenance Spans"

Feeder categorisation for each year has been linked from relevant annual RIN data for the year therefore categorisation to Rural and CBD/Urban is compliant.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data base of reference for vegetation is SAP and section name is the Vegetation Work Bench. SAP is linked to our GIS data system where pole information and span link equipment number is sourced.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The contractor provided data file contains all spans on the network. A pivot table was run on the composite data to count the number of spans which have a cut activity by year and by feeder category per definitions. In order to derive the total number of spans records in the data file download were counted as these represent the span information which was provided to vegetation management contractor to inspect and maintain. The same process was used for all years, however it is anticipated that data accuracy in the source data has improved over time but this is not verifiable. Data exists for Powercor and Powercor in the same data base record. The relevant company was extracted by using a region code. CTP is CitiPower and all other regions were filtered out for Powercor data.
2010	As above
2011	As above
2012	As above
2013	As above
2014	As above
2015	Powercor has extracted the total number of maintenance spans (spans cut) from SAP. Count of spans cut is the total number of maintenance spans.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.7 Vegetation management	
Table name: 2.7.1 - Descriptor metrics by zone	
Zone	**Asset**
Zone 1	Total Length Of Maintenance Spans (Km)
BOP ID	CAPAL2.7BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
A span within Powercor's network that is subject to active vegetation management practices in the relevant year. Active vegetation management practices do not include inspection of vegetation maintenance spans.

Please provide a Response in this box:
Powercor records vegetation against a span, Powercor has taken the length of spans cut in a year by category.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data base of reference for vegetation is SAP and section name is the Vegetation Work Bench. SAP is linked to our GIS data system where pole information and span link equipment number is sourced.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Powercor has extracted the total number of maintenance spans from the data file provided by The contractor. Each individual span was then cross referenced with its span length from data extracted from GIS. A sum of the total length then provided the calculation for this variable.
2010	As per above
2011	As per above
2012	As per above
2013	As per above
2014	As per above
2015	Powercor has extracted the total number of maintenance spans (spans cut) from SAP. Each individual span was then cross referenced with its span length from data extracted from GIS. A sum of the total length then provided the calculation for this variable.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.7 Vegetation management	
Table name: 2.7.1 - Descriptor metrics by zone	
Zone	**Asset**
Zone 1	Length of vegetation corridors (km) Rural feeders only corridors do not exist on Urban/CBD feeders.
BOP ID	CAPAL2.7BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Vegetation corridor A tract of land along which vegetation is maintained in order to form a passageway along the route of a power line or lines (e.g. a shared corridor) that is free of vegetation encroachment into the asset clearance space. This does not include portions of the corridor where no managed vegetation exists (e.g. grassland or heathland) or where vegetation is not managed (e.g. deep gullies/valleys were no vegetation management is undertaken). For clarity, the form of tenure, or lack of tenure, over the corridor are not relevant to the existence of a vegetation corridor.

If Powercor does not record the average number of trees per maintenance span, estimate this variable using one or a combination of the following data sources:
(a) Encroachment defects (e.g. identified by ground or aerial inspections, or LiDAR) and/or records of vegetation works scoping, or GIS vegetation density data;
(b) Field surveys using a sample of maintenance spans within each vegetation management zone to assess the number of mature trees within the maintenance corridor. Sampling must provide a reasonable estimate and consider the nature of maintenance spans in urban versus rural environments in determining reasonable sample sizes.
(c) Vegetation data such as:
(i) the Normalised Difference Vegetation Index (NDVI) and maps available from the Bureau of Meteorology (BOM);
(ii) data from the National Vegetation Information System (VIS data) overlaid on network GIS data to assess the density of vegetation in the direct vicinity of the maintenance spans; or
Regulatory Information Notice under Division 4 of Part 3 of the National Electricity Law 36
(iii) similar data from other sources such as Geoscience Australia or commercial suppliers of satellite imagery overlaid on network GIS data records.
(d) Any other data source based on expert advice.
(e) When completing the templates for subsequent regulatory years, if Powercor can provide actual information for the average number of trees per maintenance span it must do so; otherwise Powercor must provide estimated information.

Please provide a Response in this box:
Actual corridor lengths are not captured, Powercor's external vegetation management contractor have supplied the number of spans where plant specifically utilised for corridor maintenance has been utilised, the average span length been multiplied by number of spans completed to provide the corridor length.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Powercor's external contractor's time sheet database is the source of this information.

No corridors exist in the Urban and CBD feeder categories
No actual span data exists for years prior to 2012 so for 2011, 2010 and 2009, 2012 span numbers were used as the basis of the estimate.

2013, 2014 and 2015 Powercor identify vegetation spans worked by nominating the highest pole number from the zone substation as the span name, the pole prior to the nominated pole (span name) is not referenced so actual span length is not actual able to be calculated. Corridor span kilometres have been estimated by Corridor Maintenance Spans multiplied by average span lengths.

Time sheet data was not available for the full year so this was extrapolated as detailed below.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	No actual span data exists for years prior to 2012, 2009, 2012 span numbers were used as the basis of the estimate.
2010	No actual span data exists for years prior to 2012 so for 2010, 2012 span numbers were used as the basis of the estimate.
2011	No actual span data exists for years prior to 2012 so for 2011, 2012 span numbers were used as the basis of the estimate.
2012	Powercor identify vegetation spans worked by nominating the highest pole number from the zone substation as the span name, the pole prior to the nominated pole (span name) is not referenced so actual span length is not actual able to be calculated. Corridor span kilometres have been estimated by Corridor Maintenance Spans multiplied by average span lengths. No corridors exist in the Urban and CBD feeder categories
2013	Refer to 2012
2014	Refer to 2012
2015	Refer to 2012

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No actual span data exists for years prior to 2012, 2009, 2012 span numbers were used as the basis of the estimate.
2010	No actual span data exists for years prior to 2012, 2009, 2012 span numbers were used as the basis of the estimate.
2011	No actual span data exists for years prior to 2012, 2009, 2012 span numbers were used as the basis of the estimate.
2012	An estimate was required because actual corridor lengths are not captured. We have obtained span details from our vegetation management contractor for those spans where mechanical plant was specifically utilised

	for corridor maintenance.
2013	An estimate was required because actual corridor lengths are not captured. We have obtained span details from our vegetation management contractor for those spans where mechanical plant was specifically utilised for corridor maintenance.
2014	An estimate was required because actual corridor lengths are not captured. We have obtained span details from our vegetation management contractor for those spans where mechanical plant was specifically utilised for corridor maintenance.
2015	An estimate was required because actual corridor lengths are not captured. We have obtained span details from the vegetation management for those spans where mechanical plant was specifically utilised for corridor maintenance.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No actual span data exists for years prior to 2012 , 2009, 2012 span numbers were used as the basis of the estimate.
2010	No actual span data exists for years prior to 2012 so for 2010, 2012 span numbers were used as the basis of the estimate.
2011	No actual span data exists for years prior to 2012 so for 2011, 2012 span numbers were used as the basis of the estimate.
2012	Corridor span kilometres have been estimated by Corridor Maintenance Spans multiplied by average span lengths'
2013	Refer to 2012
2014	Refer to 2012
2015	Corridor span kilometres have been estimated by the sum of span length extracted from the Route line length data for spans where Corridor Maintenance or mechanical clearing of spans has occurred. As the vegetation management contractor was only able to provide data for corridor maintenance and mechanical clearing for a 5 month period it was assumed that this was representative for the portion of the year and this was then extrapolated by a factor of 2.5 to give an adequate estimate for the full year.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Due to the unavailability of actual data, the selected approach was considered the best estimate in order to comply with the requirement of the notice.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2012
2014	Refer to 2012
2015	Refer to 2012

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.7 Vegetation Management	
Table name: 2.7.1 - Descriptor metrics by zone	
Asset	**Asset Subcategory**
Average number of trees per maintenance span (000's)	Urban and CBD, Rural
BOP ID	CAPAL2.7BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
The estimated average of the number of trees within Powercor's vegetation Maintenance Spans. This includes only trees that require active vegetation management to meet its vegetation management obligations. This excludes trees that only require Inspections and no other vegetation management activities required to comply with Powercor's vegetation obligations

Please provide a Response in this box:
Powercor records vegetation against a span, so the count is as required by definition.
Feeder categorisation for each year has been linked from relevant annual RIN data for the year therefore categorisation to Rural and CBD/Urban is compliant.

Data for the current year cannot be sourced as the management company went into administration. Estimated data based on historical values has been provided.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data base of reference for vegetation is found in SAP and named the Vegetation Work Bench. SAP is also linked to our GIS data system where pole information and span link equipment number is sourced and transferred to SAP. The vegetation database records current status of vegetation spans for last inspection and last cut data from the previous contractor held data for year 2015 to 05.11.2015 when data ceased to be provided as the company entered administration. For 2015 the source for this metric is the historical data submitted to the AER.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	No data was collected in 2009 for tree numbers. Therefore the number reported in 2013 has also been reported for 2009 Assumption made were that the average number of trees as reported in 2013 is considered appropriate to report for previous years given this is expected to be reasonably consistent year on year.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Records were provided by Vegetation management contractor that recorded the number of trees and amount of scrub reported as needing action by their inspector. This may not be the same as actual work carried out, but is believed to be very close. Scrub is used for vegetation with stems less the 4 inches in diameter, and may or may not include vegetation of 3 metres in height as suggested for tree count by AER. Inclusion of allowance for trees over 3 metres in scrub can increase the tree count by 300%, however it has been decided to exclude scrub from the tree count for the Category RIN as there is no basis to estimate the number of trees to include. Availability of, and confidence in, historical data on trees is uncertain and so only 2013 data has been reported. Assumptions need to be made on how many trees over 3 metres may exist in areas only recorded as scrub. Assumptions of 1 or more would be as valid as the assumption of zero that we have used.
2014	Records were provided by Vegetation management contractor that recorded the number of trees and amount of scrub reported as needing action by their inspector. This may not be the same as actual work carried out, but is believed to be very close. Scrub is used for vegetation with stems less the 4 inches in diameter, and may or may not include vegetation of 3 metres in height as suggested for tree count by AER. Inclusion of allowance for trees over 3 metres in scrub can increase the tree count by 300%, however it has been decided to exclude scrub from the tree count for the Category RIN as there is no basis to estimate the number of trees to include. Assumptions need to be made on how many trees over 3 metres may exist in areas only recorded as scrub. Assumptions of 1 or more would be as valid as the assumption of zero that we have used.
2015	Data cannot be sourced for the current year therefore average of past two years data has been used to estimate

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Assumption that 2013 numbers are consistent across all years.
2010	Assumption that 2013 numbers are consistent across all years.
2011	Assumption that 2013 numbers are consistent across all years.
2012	Assumption that 2013 numbers are consistent across all years.
2013	Availability of, and confidence in, historical data on trees is uncertain and so only 2013 data has been reported. Assumptions need to be made on how many trees over 3 metres may exist in areas only recorded as scrub. Assumptions of 1 or more would be as valid as the assumption of zero that we have used.
2014	Availability of, and confidence in, historical data on trees is uncertain and so only 2013 data has been reported. Assumptions need to be made on how many trees over 3 metres may exist in areas only recorded as scrub. Assumptions of 1 or more would be as valid as the assumption of zero that we have used.
2015	Data cannot be sourced for the current year therefore average of past two years data has been used to estimate

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	• Records were provided by Vegetation management contractor that recorded the number of trees and amount of scrub reported as needing action by their inspector. This may not be the same as actual work carried out, but is believed to be very close. • Scrub is used for vegetation with stems less the 4 inches in diameter, and may or may not include vegetation of 3 metres in height as suggested for tree count by AER. • Inclusion of allowance for trees over 3 metres in scrub can increase the tree count by 300%, however

	it has been decided to exclude scrub from the tree count for the Category RIN as there is no basis to estimate the number of trees to include. • Tree numbers actioned per span were linked to maintenance spans through a lookup function and pivot table used to generate averages for required businesses and categories.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Data cannot be sourced for the current year therefore average of past two years data has been used to estimate

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The approach taken counts only identified trees and avoids escalation of these numbers by using an assumption of trees existing in scrub areas that could not be validated. This will however lead to our trees per span being substantially lower than those who report per the AER guidance of a tree being vegetation over 3 metres. As below
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	This approach is the best estimate as the last two years are deemed to be representative of the population.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 2.7 Vegetation management	
Table name: 2.7.1 - Descriptor metrics by zone	
Zone	**Rural, CBD and Urban**
Zone 1	Average frequency of cutting cycle (years)
BOP IQ	CAPAL2.7BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Cutting cycle - The average planned number of years (including fractions of years) between which cyclic vegetation maintenance is performed within urban areas, rural areas, and vegetation management zones.

12.10 If Powercor performs vegetation management work on multiple cutting cycles in urban and CBD, or rural areas within its nominated vegetation management zones, provide a simple average of all the cutting cycles in the relevant area.

Please provide a Response in this box:
Powercor records vegetation against a span, so the count is as required by definition.

Feeder categorisation for each year has been linked from relevant annual RIN data for the year therefore categorisation to Rural and CBD/Urban is compliant.

Powercor does not have specific cycles for areas but rather the interval for pruning action is based on the particular circumstances of each span and the code allocated indicates the number of years before intervention is expected to be required. This can be more than once per year or periods greater than 5 years. To meet the AER definition we have interpreted area to be the span and have calculated the simple average for all spans in the Feeder classification areas therefore meeting the definition "The planned number of years (including fractions of years) between which cyclic vegetation maintenance is performed for the relevant area."

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data base of reference for vegetation is found in SAP and named the Vegetation Work Bench. SAP is also linked to our GIS data system where pole information and span link equipment number is sourced and transferred to SAP. The vegetation database records current status of vegetation spans for last inspection and last cut data from the previous contractor held data for year 2015 to 05.11.2015 when data ceased to be provided as the company entered administration.

For 2015 the source for this metric is the historical actual data submitted to the AER.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	○ The data file contains a code which represents the year vegetation is expected to encroach the regulated clearance space. ○ Powercor is currently working through a transition program to full compliance. Spans being managed to full compliance are recorded as "transitioned", and full compliance is maintained by attending to the span in the year prior to the expected encroachment year. ○ For a non-transitioned span the clearance cycle was calculated as the period between the cut date and the database code. For transitioned spans the clearance cycle was calculated as above minus 1. ○ A simple average of spans was then derived in a pivot table. • The same process was used for all years, however it is anticipated that data accuracy in the source data has improved over time but this is not verifiable. Data exists for CitiPower and Powercor in the same data base record. The relevant company was extracted by using a region code. CTP is CitiPower and was filtered out for Powercor data. Assumptions • The data file from the contractor for each year contains all spans on the network.
2010	As per above
2011	As per above
2012	As per above
2013	As per above
2014	As per above
2015	SAP records current status of vegetation spans for last inspection and last cut data from the previous contractor held data for year 2015 to 05.11.2015 when data ceased to be provided as the company entered administration. An average of past two years has been used to estimate average frequency.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Data cannot be sourced for the current year therefore average of past two years data has been used to estimate

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Data cannot be sourced for the current year therefore average of past two years data has been used to estimate

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	This approach is the best estimate as the last two years are deemed to be representative

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

AER CATEGORY ANALYSIS RIN

Tab name: 2.7 Vegetation management	
Table name: 2.7.2 - Expenditure metrics by zone	
Zone	**Service Subcategory**
Zone 1	Tree trimming (excluding hazard trees) ($000's)
BOP ID	CAPAL2.7BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Tree trimming - The activity of cutting back trees or other vegetation to remove dead or living parts so as to prevent parts of the tree or vegetation from growing into, falling onto, or blowing onto electricity assets.

12.11 If hazard tree clearance expenditures are not recorded separately, include these expenditures within tree trimming expenditure and shade the cells for hazard tree clearance black. For the Regulatory Years including and after 2015, Powercor must provide data on hazard tree clearance expenditure.
12.12 If ground clearance works are not recorded separately, include these expenditures within tree trimming expenditure and shade the cells for ground clearance black. For the Regulatory Years including and after 2015 Powercor must provide data on ground clearance expenditure.
12.13 Only include expenditure on inspections where Powercor inspects solely for the purpose of assessing vegetation. Include inspection expenditure for inspections assessing both Powercor's assets and vegetation under maintenance (regulatory template 2.8). If Powercor does not record expenditure on inspections of vegetation separately, Powercor may shade the cells black. For the Regulatory Years including and after 2015, Powercor must provide data on inspection expenditure.
12.14 If auditing of vegetation management work is not recorded separately, include these expenditures within inspection expenditure. If Powercor does not record expenditure on audits of vegetation management work separately, Powercor may shade the cells black. For the Regulatory Years including and after 2015, Powercor must provide data on auditing expenditure.
12.15 Annual vegetation management expenditure across all categories and zones must sum up to the total vegetation management expenditure each year. In table 2.7.2, add any other vegetation management expenditure not requested in any other part of regulatory template 2.7 (or added in regulatory template 2.8) in total annual vegetation management expenditure. In the basis of preparation, explain the expenditures that have been included in this table.

Please provide a Response in this box:
Powercor have a fixed price lump sum contract for all vegetation activities including hazard trees, Information available in the contract in regard to rates along with information supplied by the contractor has been utilised to provide the best available estimate of this requirement.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Powercor have a fixed price lumpsum contract with Powercor's external contractor for all vegetation activities.

Tree trimming (excluding hazard trees) ($000's); All contractor costs are spread across the Lumpsum amount and not provided to Powercor. Tree trimming has been estimated by subtracting the vegetation corridor clearance cost and inspection cost from the total lumpsum value to provide the tree trimming cost.

Vegetation corridor clearance ($000's); Mechanical hourly rate multiplied by hours worked from the contractor's timesheet database. No breakdown of Mechanical plant is available 2011, 2010, and 2009 these numbers have been estimated on percentage of expenditure.

Inspection cost; Estimated by the number of inspectors and field managers on the contractor's organisational structure multiplied by the contract hourly rate multiplied by the nominal working hours in a year (1824 hours).

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Powercor have a fixed price lump sum contract for all vegetation activities.** **Tree trimming (excluding hazard trees) ($000's);** All contractor costs are spread across the Lump sum amount and not provided to Powercor. Tree trimming has been estimated by subtracting the vegetation corridor clearance cost and inspection cost from the total lump sum value to provide the tree trimming cost. **Vegetation corridor clearance ($000's);** Mechanical hourly rate multiplied by hours worked from the contractor's timesheet database . No breakdown of Mechanical plant is available 2011, 2010, and 2009 these numbers have been estimated on percentage of expenditure. **Inspection cost;** Estimated by the number of inspectors and field managers on the contractor's organisation structure multiplied by the contract hourly rate multiplied by the nominal working hours in a year (1824 hours).
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	CitiPower Powercor have a fixed price lump sum contract for all vegetation activities. Powercor have no breakdown of the costs that make up the Lump sum.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**Tree trimming (excluding hazard trees) ($000's);** All contractor costs are spread across the Lump sum amount and not provided to Powercor. Tree trimming has been estimated by subtracting the vegetation corridor clearance cost and inspection cost from the total lump sum value to provide the tree trimming cost.

	Vegetation corridor clearance ($000's); Mechanical hourly rate multiplied by hours worked from the contractors timesheet database .No breakdown of Mechanical plant is available 2011, 2010, and 2009 these numbers have been estimated on percentage of expenditure. **Inspection cost;** Estimated by the number of inspectors and field managers on the contractors org structure multiplied by the contract hourly rate multiplied by the nominal working hours in a year (1824 hours).
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Given Powercor does not have a breakdown of this lump sum contract, this approach was considered a best estimate.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 2.7 Vegetation management	
Table name: 2.7.2 - Cost metrics by zone	
Zone	**Service Subcategory**
Zone 1	Vegetation corridor clearance ($000's)
BOP ID	CAPAL2.7BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Vegetation corridor - A tract of land along which vegetation is maintained in order to form a passageway along the route of a power line or lines (e.g. a shared corridor) that is free of vegetation encroachment into the asset clearance space. This does not include portions of the corridor where no managed vegetation exists (e.g. grassland or heathland) or where vegetation is not managed (e.g. deep gullies/valleys were no vegetation management is undertaken). For clarity, the form of tenure, or lack of tenure, over the corridor are not relevant to the existence of a vegetation corridor.

For each vegetation management zone identified in 12.1 above, provide in the basis of preparation:
(a) a list of regulations that impose a material cost on performing vegetation management works (including, but is not limited to, bushfire mitigation regulations);
(b) a list of self-imposed standards from Powercor's vegetation management program which apply to that zone; and
(c) an explanation of the cost impact of regulations and self-imposed standards on performing vegetation management work.

Please provide a Response in this box:
Actual corridor lengths and costs are not captured, Powercor's vegetation management contractor have supplied spans where plant specifically utilised for Corridors has been utilised. The contractor's Time sheet database is the source of this information

Powercor's contractor for vegetation management utilise specialised plant to clear and remove trees on the edges of corridors (Skytrim, Hedger, or Kwik trim), clean up for this type of clearing utilises forest mowers or slashers that mulches both debris and scrub in the corridor.

Mechanical hourly rate multiplied by hours worked from the timesheet database were used to approximate this cost.

No breakdown of Mechanical plant is available 2011, 2010, and 2009 these numbers have been estimated on percentage of expenditure 2012.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Powercor have a fixed price lumpsum contract for all vegetation activities, the contractor has no obligation to provide Powercor with a breakdown of activities that make up the lumpsum.

Powercor's contractor for vegetation management utilise specialised plant to clear and remove trees on the edges of corridors (Skytrim, Hedger, or Kwik trim), clean up for this type of clearing utilises forest mowers or slashers that mulches both debris and scrub in the corridor. Powercor have included the cost of the corridor trimmers and mowers in our estimate as records are not kept of these works separated.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Powercor have a fixed price lumpsum contract for all vegetation activities, the contractor has no obligation to provide Powercor with a breakdown of activities that make up the lumpsum. Vegetation corridor clearance ($000's); Mechanical hourly rate multiplied by hours worked from the contractor's timesheet database (Time sheet database will need to be audited at contractor's office). No breakdown of Mechanical plant is available 2011, 2010, and 2009 these numbers have been estimated on percentage of expenditure 2012.
2010	As per 2009
2011	As per 2009
2012	Powercor have a fixed price lumpsum contract for all vegetation activities, the contractor has no obligation to provide Powercor with a breakdown of activities that make up the lumpsum. Vegetation corridor clearance ($000's); Mechanical hourly rate multiplied by hours worked from the contractor's timesheet database (Time sheet database will need to be audited at the contractor's office).
2013	Powercor have a fixed price lumpsum contract for all vegetation activities, the contractor has no obligation to provide Powercor with a breakdown of activities that make up the lumpsum. Vegetation corridor clearance ($000's); Mechanical hourly rate multiplied by hours worked from the contractor's timesheet database (Time sheet database will need to be audited at the contractor's office).
2014	Powercor have a fixed price lumpsum contract for all vegetation activities, the contractor has no obligation to provide Powercor with a breakdown of activities that make up the lumpsum. Vegetation corridor clearance ($000's); Mechanical hourly rate multiplied by hours worked from the contractor's timesheet database (Time sheet database will need to be audited at the contractor's office).
2015	Powercor have a fixed price lumpsum contract for all vegetation activities, the contractor has no obligation to provide Powercor with a breakdown of activities that make up the lumpsum. As the vegetation management contractor was only able to provide data for corridor maintenance and mechanical clearing for a 5 month period it was assumed that this was representative for the portion of the year and this was then extrapolated by a factor of 2.5 to give an adequate estimate for the full year.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor have a fixed price lumpsum contract for all vegetation activities, and does not record any data that enables reporting of this requirement
2010	Refer to 2009

2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No breakdown of Mechanical plant is available 2009 these numbers have been estimated on percentage of expenditure 2012.
2010	No breakdown of Mechanical plant is available 2010 these numbers have been estimated on percentage of expenditure 2012.
2011	No breakdown of Mechanical plant is available 2011 these numbers have been estimated on percentage of expenditure 2012.
2012	As below
2013	**Vegetation corridor clearance ($000's);** Mechanical hourly rate multiplied by hours worked from the contractor's timesheet database. The estimate is based on information on plant type used to clear corridors Powercor's contractor for vegetation management utilise specialised plant to clear and remove trees on the edges of corridors (Skytrim, Hedger, or Kwik trim), clean up for this type of clearing utilises forest mowers or slashers that mulches both debris and scrub in the corridor. Powercor have included the cost of the corridor trimmers and mowers in our estimate as records are not kept of these works separated.
2014	As per 2013
2015	**Vegetation corridor clearance ($000's);** Mechanical hourly rate multiplied by hours worked from the contractor's timesheet database. The estimate is based on information on plant type used to clear corridors Powercor's contractor for vegetation management utilise specialised plant to clear and remove trees on the edges of corridors (Skytrim, Hedger, or Kwik trim), clean up for this type of clearing utilises forest mowers or slashers that mulches both debris and scrub in the corridor. Powercor have included the cost of the corridor trimmers and mowers in our estimate as records are not kept of these works separated. As the vegetation management contractor was only able to provide data for corridor maintenance and mechanical clearing for a 5 month period it was assumed that this was representative for the portion of the year and this was then extrapolated by a factor of 2.5 to give an adequate estimate for the full year.

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Powercor have no record of corridor information, and has based the estimate on time worked provided by our Vegetation contractor.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not applicable

AER CATEGORY ANALYSIS RIN

Tab name: 2.7 Vegetation management	
Table name: 2.7.2 - EXPENDITURE METRICS BY ZONE	
Zone	**Service Subcategory**
Zone 1	Inspection ($000'S)
BOP ID	CAPAL2.7BOP9

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Inspection (Vegetation management) - Inspections only for the purpose of identifying of trees or other vegetation that require trimming or removal. This includes vegetation scoping works, use of LiDAR, aerial and other forms of inspections.

Identify one or more vegetation management zones across the geographical area of Powercor's network. To do so consider:
(a) areas where bushfire mitigation costs are imposed by legislation, regulation or ministerial order; and
(b) areas of the network where other recognised drivers affect the costs of performing vegetation management work.

For each vegetation management zone identified in 12.1 above, provide in the basis of preparation:
(a) a list of regulations that impose a material cost on performing vegetation management works (including, but is not limited to, bushfire mitigation regulations);
(b) a list of self-imposed standards from Powercor's vegetation management program which apply to that zone; and
(c) an explanation of the cost impact of regulations and self-imposed standards on performing vegetation management work.

Only include expenditure on inspections where Powercor inspects solely for the purpose of assessing vegetation. Include inspection expenditure for inspections assessing both Powercor's assets and vegetation under maintenance (regulatory template 2.8). If Powercor does not record expenditure on inspections of vegetation separately, Powercor may shade the cells black. For the Regulatory Years including and after 2015, Powercor must provide data on inspection expenditure.

Please provide a Response in this box:
Powercor have a lumpsum contract for the provision of Vegetation Management. Inspection costs have not been collected separately from the Lumpsum amount. The amount provided in the RIN has been estimated by count the number of inspectors (25) on the contractor's organisational structures for a year multiplied by the number of hours in a year multiplied by the hourly contract rates.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Powercor have a fixed price lumpsum contract for all vegetation activities.

Inspection costs are estimated by the number of inspectors and field managers on the contractor's organisational structure multiplied by the contract hourly rate multiplied by the nominal working hours in a year (1824 hours).

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Powercor have a lump sum contract for the provision of Vegetation Management. Inspection costs have not been collected separately from the Lump sum amount. The amount provided in the RIN has been estimated by count the number of inspectors on the contractor's organisational structures for a year multiply by the number of hours in a year multiplied by the hourly contract rates. Assumption made was that all employees with the position of 'inspector' or supervisors responsible for inspection worked a full time employee's hours for the year, and only performed 'inspection' work
2010	As per above
2011	As per above
2012	As per above
2013	As per above
2014	As per above
2015	As per above

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	An estimate was required because Powercor have a fixed price lump sum contract for all vegetation activities which is not broken down by work performed.
2010	As above
2011	As above
2012	As above
2013	As above
2014	As above
2015	As per above

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Basis for the estimate: Inspection costs are estimated by the number of inspectors (25) and field managers on the contractor's organisational structure multiplied by the contract hourly rate multiplied by the nominal working hours in a year (1824 hours)."
2010	As above
2011	As above
2012	As above
2013	As above
2014	As above
2015	As per above

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Reason for the selected approach: The Fixed price lump sum contract for all vegetation activities is not broken down by work performed, therefore this approach was considered a best estimate.

2010	As above
2011	As above
2012	As above
2013	As above
2014	As above
2015	As per above

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.7 Vegetation management	
Table name: 2.7.2 - Expenditure metrics by zone	
Zone	**Service Subcategory**
Zone 1	Contractor liaison expenditure ($000's)
BOP ID	CAPAL2.7BOP10

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Contractor liaison - Day-to-day liaison with and management of the contractors involved in undertaking vegetation management work on behalf of Powercor. This includes but is not limited to the management of work invoices, assigning work to contractors and the review of audits. This excludes actual audit work undertaken.

For each vegetation management zone identified in 12.1 above, provide in the basis of preparation:
(a) a list of regulations that impose a material cost on performing vegetation management works (including, but is not limited to, bushfire mitigation regulations);
(b) a list of self-imposed standards from Powercor's vegetation management program which apply to that zone; and
(c) an explanation of the cost impact of regulations and self-imposed standards on performing vegetation management work.

Please provide a Response in this box:
Powercor have a fixed price lumpsum contract for all vegetation activities. Powercor direct vegetation employees are employed to ensure contract compliance, liaising with the contractor on a daily basis.

Contractor liaison; Day-to-day liaison with and management of the contractors involved in undertaking vegetation management work on behalf of Powercor. This includes but is not limited to the management of work invoices, assigning work to contractors and the review of audits. Powercor have reported direct labour costs (Vegetation Control) which makes up the balance for "contractor liaison expenditure" therefore meeting the definition of 'contractor liaison'.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Powercor have a fixed price lumpsum contract for all vegetation activities. Powercor direct vegetation employees are employed to ensure contract compliance, liaising with the contractor on a daily basis.

The numbers provided are only direct cost attributed and does not include the cost for the Vegetation Manager or other Powercor employees not directly engaged in vegetation management day to day. Information is taken from consolidated financials V2, function code 400.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The total cost of Powercor labour was extracted from the total cost of Vegetation expenditure, for the portion that relates to labour. The numbers provided are only direct cost attributed and does not include the cost for the Vegetation Manager or other Powercor employees not directly engaged in vegetation management day to day.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

AER CATEGORY ANALYSIS RIN

Tab name: 2.7 Vegetation Management	
Table name: 2.7.3 - Descriptor Metrics Across all Zones - Unplanned Vegetation Events	
DESCRIPTOR METRIC	
NUMBER OF FIRE STARTS CAUSED BY VEGETATION GROW-INS (NSP RESPONSIBILITY) (0'S)	
NUMBER OF FIRE STARTS CAUSED BY VEGETATION BLOW-INS AND FALL-INS (NSP RESPONSIBILITY) (0'S)	
NUMBER OF FIRE STARTS CAUSED BY VEGETATION GROW-INS (OTHER PARTY RESPONSIBILITY) (0'S)	
NUMBER OF FIRE STARTS CAUSED BY VEGETATION BLOW-INS AND FALL-INS (OTHER PARTY RESPONSIBILITY) (0'S)	
BOP ID	CAPAL2.7BOP11

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

Requirements

Fire start - Any fire:

· that starts in and originates from the reporting NSP's distribution system; or

· started by any tree, or part of a tree which falls or blows in or grows into contact with the reporting NSP's distribution system.

Vegetation blow-ins; Wind-borne tree limbs or bark, coming into contact with Powercor's network assets **Vegetation grow-ins;** Vegetation that has grown into the standard clearance area, coming into contact with Powercor's network assets

Vegetation fall-ins; Vegetation falling onto a NSP's network assets

Response

Powercor have reported fire starts from vegetation blow-ins, grow ins etc in accordance with the notice.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Powercor has not collected the information for fires in the categories required to populate table 2.7.3. Powercor has sourced the data from reports used to inform the regulator of fire starts, the individual categories have been separated by review of the comments on the fire found in the report. Data has been drawn from F factor report for 2012, 2013, 2014 and 2015; earlier years data source is a summary of schedule 1 reporting to the regulator.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The total count of fire starts in each year was determined manually from the F factor reports using the judgement of the subject matter expert. As an estimate, please include assumptions: - Assume that each incident has been appropriately categorised in line with AER requirements. - Due to the element of judgement required in manually determining the categories, the SME (Subject Matter Expert) is assumed to have the appropriate expertise to make this judgement.
2010	As Above
2011	As Above
2012	As Above
2013	As Above
2014	As Above
2015	As Above

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	4. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimate was required as data received was not categorised in the same manner as required by the AER
2010	As Above
2011	As Above
2012	As Above
2013	As Above
2014	As Above
2015	As Above

Year	5. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	A manual judgement allocation of total fires between each category.
2010	As Above
2011	As Above
2012	As Above
2013	As Above
2014	As Above
2015	As Above

Year	6. the reason(s) for the selected approach and why it is the best estimate.
2009	There was no other way to allocate the total count of fires between the categories required by the AER other than SME judgement, therefore this is the best estimate.
2010	As Above
2011	As Above
2012	As Above
2013	As Above
2014	As Above
2015	As Above

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

2.8 Maintenance

Tab name: 2.8 Maintenance		
Table name: 2.8.1 - DESCRIPTOR METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE (ASSET QUANTITY - AT YEAR END)		
MAINTENANCE ACTIVITY	**MAINTENANCE ASSET CATEGORY**	**UNIT OF MEASURE - ASSET QUANTITY**
POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE	POLE TOPS AND OVERHEAD LINES	NUMBER OF POLES (000'S)
POLE INSPECTION AND TREATMENT	ALL POLES	NUMBER OF POLES (000'S)
BOP ID	CAPAL2.8BOP1	

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

APPENDIX E: PRINCIPLES AND REQUIREMENTS

11. MAINTENANCE EXPENDITURE

11.1 For expenditure incurred for the simultaneous inspection of assets and vegetation or for *access track maintenance*, report this expenditure under maintenance, not *vegetation management*.

11.2 For each of the *maintenance* subcategories prescribed in the template, add rows for additional subcategories if these are material and necessary to disaggregate financial or non-financial data, for example, to disaggregate asset groups according to voltage levels or to specify inspection/ maintenance cycles.

11.3 For each *maintenance* subcategory, provide in separate columns the data for inspection cycles and maintenance cycles.

11.4 For the *inspection cycle* for each *maintenance* subcategory, express this as 'n' in the statement 'every n years'. For example, if the inspection cycle is 'every 6 years', put '6' in the inspection cycle column.

11.5 Similarly, for the *maintenance cycle* for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the maintenance cycle is 'every 3 years', put '3' in the maintenance cycle column.

11.6 For inspection and maintenance cycles, asset quantity, and average age of the asset group, use the highest-value (i.e. highest replacement cost) asset type in the asset group as the basis.

11.7 Where there are multiple inspection and maintenance activities, report the cycle that reflects the highest cost activity.

11.8 Adding rows for additional *maintenance* subcategories to indicate inspection or maintenance cycles (i.e. non-financial data) does not require disaggregating the corresponding financial data for those additional subcategories.

11.9 For 'Asset Quantity', provide in separate columns:

(a) the total number of assets (population) at the end of the regulatory year, for each asset category
(b) the number of assets actually inspected or maintained during the regulatory year, for each asset category

11.10 For 'Other maintenance activity', add rows for *maintenance* expenditure subcategories if these are material and if these are not yet included in any other *maintenance* expenditure subcategory.

APPENDIX F: DEFINITIONS

Installed assets – quantity currently in commission by year
The number of assets currently in commission and the year they were installed.

Poles
These are vertically oriented assets that provide load bearing structural support for overhead conductors or other lines assets.

- This also includes associated pole top structures, such as cross-arms and insulators where these are replaced in conjunction with a pole replacement project.
- It excludes other pole mounted assets that are included in any other asset group, notably pole mounted substations and pole mounted switchgear such as links, fuses, air break switches etc.

Please provide a Response in this box:
For the year 2009 to 2015 inclusive the data was obtained utilising a GIS (Geographical Information System) query that traces the in-service network connectivity model in GIS, to determine

1. The circuit line length, which includes all spurs. Each circuit element was evaluated in its own right, for example:
   - SWER lines, single-phase lines, and three-phase lines counted as one line
   - Double circuit lines counted as two lines
   - Overhead elements associated with communication, protection & control and unmetered loads were excluded
   - Overhead elements in the DNSP's area that are owned by another Distribution Network Service Provider were excluded
2. The number of poles consistent with the above line length evaluation process
3. In this instance the number of poles in the Pole Top, Overhead Line & Service Line Maintenance category and the Pole Inspection and Treatment category as one and the same

This methodology meets the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
For Powercor the Geographical Information System is the originating data source (i.e. from where the data is obtained).

For the year 2014 & 2015 the data was obtained using the BI (Business Intelligence) report called the "Asset Installation" report. For the years 2013 to 2011 inclusive, the source data is the same data that was used to complete the AER Annual RIN Reports (non-Financial), tab "5. General Information".

For the years 2009 to 2010 inclusive, the source data is the same data that was used to complete the Annual Regulatory Performance Reports, tab "National Reporting".

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The number of poles reported is as per the 2009 Annual Regulatory Performance Report.
2010	The number of poles reported is as per the 2010 Annual Regulatory Performance Report.
2011	The number of poles reported is as per the 2011 AER Annual RIN Report.
2012	The number of poles reported is as per the 2012 AER Annual RIN Report.
2013	The number of poles reported is as per the 2013 AER Annual RIN Report.
2014	The number of poles reported for 2014 was obtained using a new BI (Business Intelligence) report called the "Asset Installation" report". The report provides the number of poles using the same methodology as used in

	2011-2013.
2015	As per 2014.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Year 2009 for PAL complies with this Information Notice (see Response in section A)
2010	Year 2010 for PAL complies with this Information Notice (see Response in section A)
2011	Year 2011 for PAL complies with this Information Notice (see Response in section A)
2012	Year 2012 for PAL complies with this Information Notice (see Response in section A)
2013	Year 2013 for PAL complies with this Information Notice (see Response in section A)
2014	Year 2014 for PAL complies with this Information Notice (see Response in section A)
2015	Year 2015 for PAL complies with this Information Notice (see Response in section A).

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Year 2009 for PAL complies with this Information Notice (see Response in section A)
2010	Year 2010 for PAL complies with this Information Notice (see Response in section A)
2011	Year 2011 for PAL complies with this Information Notice (see Response in section A)
2012	Year 2012 for PAL complies with this Information Notice (see Response in section A)
2013	Year 2013 for PAL complies with this Information Notice (see Response in section A)
2014	Year 2014 for PAL complies with this Information Notice (see Response in section A)
2015	Year 2015 for PAL complies with this Information Notice (see Response in section A).

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Year 2009 for PAL complies with this Information Notice (see Response in section A)
2010	Year 2010 for PAL complies with this Information Notice (see Response in section A)
2011	Year 2011 for PAL complies with this Information Notice (see Response in section A)
2012	Year 2012 for PAL complies with this Information Notice (see Response in section A)
2013	Year 2013 for PAL complies with this Information Notice (see Response in section A)
2014	Year 2014 for PAL complies with this Information Notice (see Response in section A)
2015	Year 2015 for PAL complies with this Information Notice (see Response in section A).

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Data is provided for all the years requested

Tab name: 2.8 Maintenance		
Table name: 2.8.1 - DESCRIPTOR METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE (ASSET QUANTITY - AT YEAR END)		
MAINTENANCE ACTIVITY	**MAINTENANCE ASSET CATEGORY**	**UNIT OF MEASURE - ASSET QUANTITY**
POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE	SERVICE LINES	NUMBER OF CUSTOMERS (000'S)
BOP ID	CAPAL2.8BOP2	

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
No specific requirements in the RIN. Table 2.8.1 requests the number of customers per year.

Definition:
Customer - Has the meaning prescribed in the National Electricity Rules.

Pole top, overhead line and services line maintenance
Maintenance of network overhead lines and pole tops, sub transmission & distribution:
conveying electricity between zone substations, from zone substations to distribution substations and low voltage lines. Includes Stobie poles for South Australian NSPs. Includes services maintenance (pre-arranged maintenance of Powercor's services providing supply to customers' premises).

Includes:
Pole tops and overhead lines maintenance –all direct costs (labour, material, contract, motor vehicle); insulation washing; bird covers and spreaders; maintenance of all pole and conductor hardware and surge diverters not on substation poles. One pole top job will include all the maintenance activity carried out in one work session.

Services maintenance –all direct costs (labour, material, contract, motor vehicle); removing, inspecting, testing and re-installation of overhead or underground services and associated equipment; service maintenance including attending to customer complaints not covered by Emergency Response category.

Excludes:
Pole tops and overhead lines maintenance –Pole Inspection and Treatment; vegetation control; pole replacement or staking; switch maintenance or recall; work on voltage complaints or television and radio interference - investigation & solution not involving capex; replacement of hardware on a pole which is being changed; the replacement of existing conductor other than minor works to ensure continuity and reliability of supply (major replacements are capex).

Services maintenance –new connections; removing, inspecting, testing and re-installation of meters and time switches; metering personnel costs; service maintenance on fused junction boxes, joints and terminations; costs to replace any of the above assets with new assets (capex); and underground services installed to replace overhead services in relation to private electricity lines. Excludes vegetation inspection which is captured under Vegetation Management.

Excludes poles used solely for providing public lighting services

Physical measure: Pole tops and overhead lines – Number of pole tops maintained by zone substation; Services – Number of customer premises maintained.

Please provide a Response in this box:

The RIN does not specifically request customer numbers in the notice but requires in the template the number of services using the metric number of customers. Assuming a 1:1 relationship between number of customers and the number of services, for each year from 2009 to 2015 inclusive the data was from Corporate Finance's end of year reports which are sourced from Powercor's billing system, CIS Open Vision (CISOV) where NMIs are classed as 'Active'.

An allowance has been made for de-energised premises as per the methodology detailed below to account for all premises with a service line.

This methodology meets the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Total 2009 -15 customer numbers are obtained from Corporate Finance's end of year reports which are sourced from Powercor's billing system, CIS Open Vision (CISOV) where NMIs are classed as 'Active'.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The reported customer numbers for this section assumes the numbers relate to NMIs set up for billing purposes. Data is obtained by averaging Finance's prior year's end of year customer numbers and the current year's end of year customer numbers and adding estimated 1% of de-energised sites to the total. CISOV is the original source and reports based on the number of active sites. The information provided is in line with the Economic Benchmarking RIN provided to the AER.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor does not hold historical data in regards to the status of the NMI (i.e. De-energisations) therefore an estimate of de-energised NMIs were obtained from 2013's end of year position. The estimated number of 1% of de-energised sites was then added on to the average year end customer numbers for years 2006-2013
2010	as per 2009
2011	as per 2009

2012	as per 2009
2013	as per 2009
2014	Powercor does not hold historical data in regards to the status of the NMI (i.e. De-energisations) therefore an estimate of de-energised NMIs was obtained from the prior years end of year position. The estimated number of 1% of de-energised sites was then added on to the average year end customer numbers for the reporting year
2015	as per 2014

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The reported customer numbers for this section assumes the numbers relate to NMIs set up for billing purposes. Data is obtained by averaging Finance's prior year's end of year customer numbers and the current year's end of year customer numbers and adding estimated 1% of de-energised sites to the total. No other option was considered as it would require extensive system changes.
2010	as per 2009
2011	as per 2009
2012	as per 2009
2013	as per 2009
2014	as per 2009
2015	as per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The information provided is in line with the requirements of the Notice. No other option was considered as it would require extensive system changes.
2010	as per 2009
2011	as per 2009
2012	as per 2009
2013	as per 2009
2014	as per 2009
2015	as per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.8 Maintenance	
Table name: 2.8.1 - DESCRIPTOR METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE	
Table name: 2.8.2 - COST METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE	
MAINTENANCE ACTIVITY	
-POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE -POLE INSPECTION AND TREATMENT -OVERHEAD ASSET INSPECTION	
BOP ID	CAPAL2.8BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

11. MAINTENANCE EXPENDITURE
11.1 For expenditure incurred for the simultaneous inspection of assets and vegetation or for access track maintenance, report this expenditure under maintenance, not vegetation management.
11.2 For each of the maintenance subcategories prescribed in the template, add rows for additional subcategories if these are material and necessary to disaggregate financial or non-financial data, for example, to disaggregate asset groups according to voltage levels or to specify inspection/ maintenance cycles.
11.3 For each maintenance subcategory, provide in separate columns the data for inspection cycles and maintenance cycles.
11.4 For the inspection cycle for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the inspection cycle is 'every 6 years', put '6' in the inspection cycle column.
11.5 Similarly, for the maintenance cycle for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the maintenance cycle is 'every 3 years', put '3' in the maintenance cycle column.
11.6 For inspection and maintenance cycles, asset quantity, and average age of the asset group, use the highest-value (i.e. highest replacement cost) asset type in the asset group as the basis.
11.7 Where there are multiple inspection and maintenance activities, report the cycle that reflects the highest cost activity.
11.8 Adding rows for additional maintenance subcategories to indicate inspection or maintenance cycles (i.e. non-financial data) does not require disaggregating the corresponding financial data for those additional subcategories.
11.9 For 'Asset Quantity', provide in separate columns:
(a) the total number of assets (population) at the end of the regulatory year, for each asset category
(b) the number of assets actually inspected or maintained during the regulatory year, for each asset category
11.10 For 'Other maintenance activity', add rows for maintenance expenditure subcategories if these are material and if these are not yet included in any other maintenance expenditure subcategory.

Please provide a Response in this box:
The physical and financial data for "Pole Top, Overhead Line & Service Line Maintenance", "Pole Inspection and Treatment", and "Overhead Asset Inspection", have been provided in the requested categories as detailed in the table below:

Variable	AER Definition
Pole Top, Overhead Line & Service Line Maintenance	Maintenance of network overhead lines and pole tops, sub transmission & distribution: conveying electricity between zone substations, from zone substations to distribution substations and low voltage lines. Includes Stobie poles for South Australian NSPs. Includes services maintenance (pre-arranged maintenance of Powercor's services providing supply to customers' premises). Includes: Pole tops and overhead lines maintenance –all direct costs (labour, material, contract, motor vehicle); insulation washing; bird covers and spreaders; maintenance of all pole and conductor hardware and surge diverters not on substation poles. One pole top job will

	include all the maintenance activity carried out in one work session. Services maintenance –all direct costs (labour, material, contract, motor vehicle); removing, inspecting, testing and re-installation of overhead or underground services and associated equipment; service maintenance including attending to customer complaints not covered by Emergency Response category. Excludes: Pole tops and overhead lines maintenance –Pole Inspection and Treatment; vegetation control; pole replacement or staking; switch maintenance or recall; work on voltage complaints or television and radio interference - investigation & solution not involving capex; replacement of hardware on a pole which is being changed; the replacement of existing conductor other than minor works to ensure continuity and reliability of supply (major replacements are capex). Services maintenance –new connections; removing, inspecting, testing and re-installation of meters and time switches; metering personnel costs; service maintenance on fused junction boxes, joints and terminations; costs to replace any of the above assets with new assets (capex); and underground services installed to replace overhead services in relation to private electricity lines. Excludes vegetation inspection which is captured under Vegetation Management. Excludes poles used solely for providing public lighting services Physical measure: Pole tops and overhead lines – Number of pole tops maintained by zone substation; Services – Number of customer premises maintained.
Pole Inspection and Treatment	All inspection, testing and treatment of sub transmission and/or distribution poles. Includes all direct costs (labour, material, contract, motor vehicle); inspection of network assets including poles, conductors and cross-arms; pole preserving chemical treatments. Includes inspection of vegetation where inspections of both vegetation and poles occur simultaneously. Excludes customers HV lines; LV overhead private electric lines. Excludes inspection of vegetation where inspection is for vegetation only (this is captured under Vegetation Management). Physical measure: Number of poles inspected by zone substation.
Overhead Asset Inspection	All inspection of network overhead assets. Includes all direct costs (labour, material, contract, motor vehicle); thermal survey programs. Physical measure: Route km line patrolled by zone substation

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Assets Inspected and Maintained for “Pole Tops and Overhead Lines”, and “All Poles”
Financial Expenditure for “Pole Tops and Overhead Lines”, “Service Lines”, “All Poles” and “All Overhead Assets”

2009	2010	2011	2012	2013	2014	2015

Assets Inspected and Maintained and Assets at year end, for “All Overhead Assets”
Assets Inspected and Maintained for “Service Lines”

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

- All Physical and financial data have been sourced from Powercor’s SAP system
- Line patrolled (route km) data was sourced from GIS

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Table 2.8.1 - Methodology & Assumptions – Assets Inspected/Maintained Data** **All Poles - Pole inspection and treatment:** **Methodology:** An inspection notification is raised in SAP and attached to a Pole Equipment when that asset is inspected. • A count of inspection notifications attached to pole equipment's was used to determine the number of poles inspected each year. **Assumptions:** All inspections have been recorded in notifications and are attached to correct equipment with correct dates in SAP. **Pole Tops & Overhead Lines – Pole Top, Overhead Line & Service Line Maintenance:** **Methodology:** A defect notification is raised in SAP where a piece of equipment is identified as requiring attention. • As per the AER definition a count of poles containing notifications was used to determine the number of poles maintained each year. **Assumptions:** All defects have been recorded in notifications and are attached to correct equipment with correct dates in SAP. **Service Lines - Pole Top, Overhead Line & Service Line Maintenance:** **Methodology:** There is no customer details associated with the notifications that are raised in SAP it was assumed there is one to one relationship between an aerial service and a customer. • A count of aerial services maintained was used to determine the number of customers maintained each year **Assumptions:** All inspections have been recorded in notifications and are attached to correct equipment witch correct dates in SAP. There is a one to one relationship between aerial services and customers (as per methodology statement). **All Overhead Assets - Overhead Asset Inspection:** **Methodology:** There is no record kept of route km's patrolled as part of the Thermal Inspection program. The sections patrolled on the Powercor Electricity Network vary from part to full feeder patrols. **Assumptions:** It was assumed that the sections of line patrolled in the fire areas would balance out the sections of lines not patrolled in the non-fire areas. Based on this assumption it was estimated the total length of conductor in the Non Fire area would be equivalent to the length of line patrolled on each feeder. **Table 2.8.2 - Methodology & Assumptions – Cost Metrics Data** **Pole Top, Overhead Line & Service Line Maintenance:** **Methodology:** Based on the definition for Non-routine maintenance all maintenance completed has been categorised as Non-Routine as it is based on asset condition. **Assumptions:** All maintenance costs are Non-Routine as defined in the methodology. **Pole Inspection and Treatment:** **Methodology:**

	Based on the definition for Routine maintenance all inspections completed have been categorised as Routine as they are carried out at specific intervals regardless of asset condition. **Assumptions:** All inspection costs are Routine as defined in the methodology. **Overhead Asset Inspection:** **Methodology:** Based on the definition for Routine maintenance all inspections completed have been categorised as Routine as they are carried out at specific intervals regardless of asset condition. **Assumptions:** All inspection costs are Routine as defined in the methodology.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why was an estimate required, including why it is not possible to use actual data;
2009	**Table 2.8.1 – Reason for estimate** **Overhead Asset inspection, Line patrolled:** • Information is not recorded in SAP or GIS relating to the route KM of Overhead Asset Inspections completed **Service Lines - Pole Top, Overhead Line & Service Line Maintenance:** • There is no link between the aerial service asset and the customer information
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**Table 2.8.1 – Basis for estimate** **Overhead Asset inspection, Line patrolled:** Inspections mainly occur on backbone of feeders. It was assumed that the sections of line patrolled in the fire areas would balance out the sections of lines not patrolled in the non-fire areas. Based on this assumption it was estimated the total length of conductor in the Non Fire area would be equivalent to the length of line patrolled on each feeder **Service Lines - Pole Top, Overhead Line & Service Line Maintenance:** There is no customer details associated with the notifications that are raised in SAP. The most common type of service replaced is to a single installation; on this basis it was assumed there is one to one relationship between an aerial service and a customer.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	**Table 2.8.1 – Reason for selected approach** **Overhead Asset inspection, Line patrolled:** Inspections mainly occur on backbone of feeders, this is seen as the best indication until distances can be traced. **Service Lines - Pole Top, Overhead Line & Service Line Maintenance:** The most common type of service replaced is to a single installation, on this basis allowing 1 customer per service was determined to be the best estimate.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.8 Maintenance	
Table name: 2.8.1 – DESCRIPTOR METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE	
Maintenance Activity	**Maintenance Asset Category**
NETWORK UNDERGROUND CABLE MAINTENANCE: BY VOLTAGE	(ALL data)
NETWORK UNDERGROUND CABLE MAINTENANCE: BY LOCATION	(ALL data)
DISTRIBUTION SUBSTATION EQUIPMENT & PROPERTY MAINTENANCE	(ALL data)
ZONE SUBSTATION EQUIPMENT MAINTENANCE	(ALL data)
ZONE SUBSTATION PROPERTY MAINTENANCE	(ALL data)
SCADA & NETWORK CONTROL MAINTENANCE	(ALL data)
PROTECTION SYSTEMS MAINTENANCE	(ALL data)
BOP ID	CAPAL2.8BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
11. MAINTENANCE EXPENDITURE

11.1 For expenditure incurred for the simultaneous inspection of assets and vegetation or for *access track maintenance*, report this expenditure under maintenance, not *vegetation management*

11.2 For each of the *maintenance* subcategories prescribed in the template, add rows for additional subcategories if these are material and necessary to disaggregate financial or non-financial data, for example, to disaggregate asset groups according to voltage levels or to specify inspection/ maintenance cycles.

11.3 For each *maintenance* subcategory, provide in separate columns the data for inspection cycles and maintenance cycles.

11.4 For the *inspection cycle* for each *maintenance* subcategory, express this as 'n' in the statement 'every n years'. For example, if the inspection cycle is 'every 6 years', put '6' in the inspection cycle column.

11.5 Similarly, for the *maintenance cycle* for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the maintenance cycle is 'every 3 years', put '3' in the maintenance cycle column.

11.6 For inspection and maintenance cycles, asset quantity, and average age of the asset group, use the highest-value (i.e. highest replacement cost) asset type in the asset group as the basis.

11.7 Where there are multiple inspection and maintenance activities, report the cycle that reflects the highest cost activity.

11.8 Adding rows for additional *maintenance* subcategories to indicate inspection or maintenance cycles (i.e. non-financial data) does not require disaggregating the corresponding financial data for those additional subcategories.

11.9 For 'Asset Quantity', provide in separate columns:
(a) the total number of assets (population) at the end of the regulatory year, for each asset category
(b) the number of assets actually inspected or maintained during the regulatory year, for each asset category

11.10 For 'Other maintenance activity', add rows for *maintenance* expenditure subcategories if these are material and if these are not yet included in any other *maintenance* expenditure subcategory.

DEFINITIONS

Distribution substation A *substation* on a distribution *network* that transforms *voltage* of levels at or below 33 kV but above 1 kV to levels below 1 kV.
As a guide, assets included within a *distribution substation* include all equipment permanently installed within the *distribution substation* boundary. Where applicable (such as indoor and outdoor *substations*), this includes any enclosures, structures, *civil works*, poles and associated hardware, cabling and other assets that are located permanently within the *distribution substation* boundary, but excludes any incoming or outgoing *lines* or *cables* . For the avoidance of doubt this does not include any building, structure, equipment, cabling, etc. located within the *substation* boundary that is the property or responsibility of third parties. Where applicable (such as for pole mounted *substations*), this also includes any poles, pole hardware, pole structures, links, surge diverters, fuses or protective devices, cabling and other assets forming part of the *substation* or its supports, but excluding incoming or outgoing overhead mains, cables and associated cable terminations (cables in this context includes all power, communications and control cables).

Distribution substation equipment & property maintenance
Maintenance of distribution substations, equipment to convert HV distribution to LV, current transformers, voltage transformers, voltage regulators and associated secondary protection and communication equipment.
Equipment maintenance – includes all direct costs (labour, material, contract, motor vehicle); maintenance of distribution switchgear; inspecting, testing and maintaining distribution substations primary and secondary equipment, apparatus and hardware; transformers, earthing, surge diverters, isolators, protection and communication directly associated with the substation; inspecting, testing and maintaining substations and protective apparatus, equipment and hardware; earthing, surge diverters, EDOs and isolators directly associated with the substation; maintenance of site including buildings, fences and cleaning; carrying out replacement of HV fuses not occasioned by fault or emergency work (minor value of replacement, e.g. <$500).
Property maintenance – includes all direct costs (labour, material, contract, motor vehicle); maintenance of site including buildings, fences and cleaning; weed control.
Excludes upgrades and replacements of equipment which should be capex.
Physical measure: Number of projects completed by distribution substation; Number of substations and voltage regulators maintained by zone substation; Number of distribution substation properties maintained

Distribution substation transformers maintenance
A subset of Distribution Substation Equipment & Property Maintenance. Maintenance of all transformers in distribution substations and associated secondary protection and communication equipment.
Includes all direct costs (labour, material, contract, motor vehicle); maintenance of HV to LV transformers; inspecting, testing and maintaining transformer equipment, apparatus and hardware; protection and communication directly associated with the distribution substation.
Excludes upgrades and replacements of transformers (capex); maintenance of distribution substation equipment other than transformers under Distribution Substation Equipment & Property Maintenance.
Physical measure: Number of installed transformers by distribution substation

Distribution switchgear maintenance
Maintenance of distribution network switches.
Includes all direct costs (labour, material, contract, motor vehicle); distribution air break switches; distribution metal clad switchgear; distribution auto-reclosers; pole mounted and ground mounted switchgear; HV and LV switchgear
Physical measure: Number of switches maintained by zone substation.

Inspection cycle The planned or actual duration between two consecutive inspections of an asset

Maintenance Operational repairs and maintenance of the distribution system including high voltage and low voltage assets, and including testing, investigation, validation and correction costs not involving capital expenditure. This also includes location of underground cables and covering of low voltage mains for safety reasons.
Includes the maintenance of public lighting, as well as scheduled maintenance, meter investigations, special readings and photovoltaic (PV) installations
For AMI services, includes the maintenance of meters and time switches

Maintenance cycle The planned or actual duration between two consecutive maintenance works on an asset

Network underground cable maintenance
Inspection, testing and maintenance of underground HV distribution and LV cable installations and terminations.
Includes all direct costs (labour, material, contract, motor vehicle); power, supervisory and protection cable maintenance and ancillaries such as conduits, tunnels, manholes, cover slabs, sumps and terminations; cable location

inquiries; cable maintenance for all voltages; total lengths of distribution feeder cables emanating from a zone substation.
Excludes underground service cable maintenance (see Pole Top, Overhead Line and Services Maintenance); all cables and major replacements inside a zone substation except feeder cables; cable repairs made as part of an emergency or fault restoration and repair of damage caused by other parties.
Physical measure: Length of cables maintained by zone substation; Number of joints.

Non-routine maintenance Costs (opex) of activities predominantly directed at managing asset condition or rectifying defects (excluding emergency call-outs). The timing of these activities depends on asset condition and decisions on when to maintain or replace the asset, which may vary over time and across NSPs.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are not routine in nature.
The non-routine activities may be undertaken in a discriminate manner for individual assets.
Excludes routine asset maintenance activities.
Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.
Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response.
May include:
· activities to inspect, survey, audit, test, repair, alter, or reconfigure assets
· functional and intrusive testing of assets, including spares and equipment;
Includes load monitoring and switching activities attributable to non-routine asset maintenance.

Opex The costs of operating and maintaining the network (excluding all capital costs and capital construction costs). Operating expenditure

Routine maintenance Costs (opex) of recurrent/programmed activities undertaken to maintain assets, performed regardless of the condition of the asset. Costs of activities predominantly directed at discovering information on asset condition, and often undertaken at intervals that can be predicted.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are:
· routine in nature; and
· indiscriminately carried out for a pre-defined set of assets; and
· scheduled to occur at pre-defined intervals.
May include activities to inspect, survey, audit, test, repair, alter, or reconfigure assets.
A pre-defined interval may be based on the number of times the asset has operated, or any other measure, if the future timing of the maintenance based on the measure can be predicted with a reasonable level of certainty.
Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.
Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response.
May include:
· functional and intrusive testing of assets, including spares and equipment;
· helicopter, vehicle, and foot patrols, including negotiation of landowner access;
· asset surveys;
· environmental testing;
· painting of network assets;
· re-conductoring lines
· indoor and outdoor maintenance of substations including lawn mowing, weed control, fencing;
Includes load monitoring and switching activities attributable to routine asset maintenance.

SCADA Supervisory control and data acquisition

SCADA and Network Control maintenance (opex)
Expenditure associated with the maintenance of *SCADA* and network control hardware, software and associated IT and communications systems.
Excludes maintenance of Protection Systems, which is a separate subcategory in template 2.7 Maintenance.
Also refer to *SCADA and Network Control Expenditure* definition (capex).

Zone substation A *substation* on a distribution *network* that transforms any *voltage* above 33 kV to levels at or below 33 kV but above 1 kV.
As a guide, assets included within a *zone substation* include all equipment, buildings, structures, *civil works* and other assets that are located permanently within the *substation* boundary fence; but excluding the landing spans of incoming

or outgoing *overhead lines*, and excluding incoming or outgoing cables and associated cable terminations (cables includes all power, communications and control cables).

Zone substation equipment maintenance
Maintenance of zone substations, equipment to convert sub transmission voltage to distribution voltage, current transformers, voltage transformers and associated secondary protection and communication equipment.
Includes all direct costs (labour, material, contract, motor vehicle); maintenance of sub transmission switchgear; inspecting, testing and maintaining zone substations primary and secondary equipment, apparatus and hardware; transformers, earthing, surge diverters, isolators, protection and communication directly associated with the substation.
Includes maintenance of distribution equipment within the zone substation.
Excludes upgrades and replacements which should be capex; Zone Substation Property Maintenance.
Physical measure: Number of zone substation assets, e.g. number of transformers

Zone substation property maintenance
Includes all direct costs (labour, material, contract, motor vehicle); maintenance of site including buildings, fences and cleaning; weed control.
Excludes Zone Substation Equipment Maintenance and Zone Substation Transformer Maintenance
Physical measure: Number of zone substation properties maintained

Zone substation transformers maintenance
A subset of Zone Substation Equipment Maintenance. Maintenance of all transformers in zone substations and associated secondary protection and communication equipment.
Includes all direct costs (labour, material, contract, motor vehicle); maintenance of HV to LV transformers; inspecting, testing and maintaining transformer equipment, apparatus and hardware; protection and communication directly associated with the zone substation.
Excludes upgrades and replacements of transformers which should be capex; maintenance of zone substation equipment other than transformers under Zone Substation Equipment Maintenance.
Physical measure: Number of installed voltage transformers by zone substation

Please provide a Response in this box:
The data provided complies with the instructions and definitions specified in the CA RIN except for the clauses below.

11.4 A response cannot be accurately provided to this request as CitiPower / Powercor utilise varied time based maintenance plans which are determined by a number of factors including risk, utilisation and specifics of individual populations. (ie manufacturer / model / age specific etc.). Condition based maintenance is also utilised and calibrated to population specifics. This information cannot be transposed into the format requested.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Asset Quantity at Year End and Average Age of Asset Group

2009	2010	2011	2012	2013	2014	2015

All other categories

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
ASSET QUANTITY - AT YEAR END

- 2013-2009: The 2013, 2012 and 2011 Asset Instillation information from the annual CitiPower/Powercor AER RIN's were utilised for equipment quantities and average age calculations.
- 2014-2015. The **RIN: Asset Instillations** Business Intelligence report was executed for the reporting year
- 2015. Additional data was included from GIS and SAP for equipment categories not covered by the RIN: Asset Instillations report.

ASSET QUANTITY - INSPECTED/ MAINTAINED

- A list of projects was obtained from SAP Business Intelligence (BI) reports.
- Plant Maintenance (PM) Orders were extracted from SAP
- Functional location details were extracted from SAP.
- Equipment details were extracted from SAP

AVERAGE AGE OF ASSET GROUP

- 2013-2009. The 2013, 2012 and 2011 Asset Instillation information from the annual CitiPower/Powercor AER RIN's were utilised for equipment quantities and average age calculations.
- 2014-2015. The **RIN: Asset Instillations** Business Intelligence report was executed for the reporting year.
- 2015. Additional data was included from GIS and SAP for equipment categories not covered by the RIN: Asset Instillations report.

INSPECTION CYCLE (YEARS)

- CitiPower/Powercor maintenance policies, maintenance contract scopes or SAP maintenance strategy configuration.

MAINTENANCE CYCLE (YEARS)

- CitiPower/Powercor maintenance policies, maintenance contract scopes or SAP maintenance strategy configuration.
-

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Response:** **ASSET QUANTITY - AT YEAR END** AER annual RIN reporting information was mapped into the new AER Category RIN structure requirements. This data was then re-allocated to determine the average age and total assets installed at year end to provide data which is compliant with AER requirements. Where data was not present in the previous iterations of reports an average was applied to populate the table. **ASSET QUANTITY - INSPECTED/ MAINTAINED** SAP maintenance orders were categorised and mapped into the AER CAT RIN categories. These orders were then counted in each category for each year. Please refer to the BoP for table 2.8.2 which includes further information in relation to the determination of maintenance counts. **AVERAGE AGE OF ASSET GROUP** AER annual RIN reporting information was mapped into the new AER Category RIN structure requirements. This data was then re-allocated to determine the average age and total assets installed at year end to provide data which is compliant with AER requirements. Where data was not present in the previous iterations of reports an average was applied to populate the table. **INSPECTION CYCLE (YEARS)** The inspection cycles information is equal to that of the maintenance cycles for the asset types considered in this BoP. **MAINTENANCE CYCLE (YEARS)** Where possible a direct population of the table was undertaken from information obtained by CitiPower/Powercor asset maintenance policy. A response could not be accurately provided to this request at all times as CitiPower / Powercor utilise varied time based maintenance plans which are determined by a number of factors including risk, utilisation and specifics of individual populations. (ie manufacturer / model / age specific etc.). Condition based maintenance (not time dependant) is also utilised and calibrated to population specifics. This information cannot be transposed into the format requested.
2010	As per 2009
2011	As per 2009
2012	As per 2009

2013	As per 2009
2014	**ASSET QUANTITY - AT YEAR END** AER annual RIN reporting information was mapped into the new AER Category RIN structure requirements. This data was then re-allocated to determine the average age and total assets installed at year end to provide data which is compliant with AER requirements. **ASSET QUANTITY - INSPECTED/ MAINTAINED** As per 2009 **AVERAGE AGE OF ASSET GROUP** AER annual RIN reporting information was mapped it into the new AER Category RIN structure requirements. This data was then re-allocated to determine the average age and total assets installed at year end to provide data which is compliant with AER requirements. **INSPECTION CYCLE (YEARS)** As per 2009 **MAINTENANCE CYCLE (YEARS)** As per 2009
2015	**ASSET QUANTITY - AT YEAR END** As per 2014 but with additional population data obtained from GIS and SAP included. **ASSET QUANTITY - INSPECTED/ MAINTAINED** As per 2009 **AVERAGE AGE OF ASSET GROUP** As per 2014 but with additional population data obtained from GIS and SAP included. **INSPECTION CYCLE (YEARS)** As per 2009 **MAINTENANCE CYCLE (YEARS)** As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimation is required in this instance: **ASSET QUANTITY - AT YEAR END** • The data set previously provided to the AER did not cover all categories requested in this iteration. All the requested data was not available. **ASSET QUANTITY - INSPECTED/ MAINTAINED** • In order to bridge the differences in definitions between CitiPower / Powercor Function Code accounts, the Regulatory Category Asset Classes, and the new AER CAT RIN classes which do not result in direct mapping. • CitiPower / Powercor function code definitions, for function codes 316, 317, 318, 319, 350, 442 & 492 are broader than the Category Asset Classes and, in some cases, the Category Asset Groups. For expenditure to be allocated to an Asset Class definition gap must be bridged. **AVERAGE AGE OF ASSET GROUP** • The data set previously provided to the AER did not cover all categories requested in this iteration. All the requested data was not available. **INSPECTION CYCLE (YEARS)** • Not Applicable **MAINTENANCE CYCLE (YEARS)**

	• Not Applicable
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	**As per 2013 except for:** **AVERAGE AGE OF ASSET GROUP** • The commissioning date for substation properties was not available.
2015	**As per 2014 except for:** **ASSET QUANTITY - AT YEAR END** • There is a portion of assets that do not have a known age, these assets are not included in the quantity. **AVERAGE AGE OF ASSET GROUP** • Zone substation property and Distribution Substation Property profiles no longer utilise a substitute profile.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimation is based on: **ASSET QUANTITY - AT YEAR END** • Information previously provided to the AER as part of yearly metric reporting. Previously reportioned information was used as the basis for extrapolation. **ASSET QUANTITY - INSPECTED/ MAINTAINED** • The manual allocation of an AER category to each PMOrder. This allocation is based on the PMOrder linking to equipment and / or functional location in order to be mapped. PMOrders which were not linked were ignored in the allocation exercise. **AVERAGE AGE OF ASSET GROUP** • Information previously provided to the AER as part of yearly metric reporting. Previously reportioned information was used as the basis for extrapolation. **INSPECTION CYCLE (YEARS)** • Not Applicable **MAINTENANCE CYCLE (YEARS)** • Not Applicable
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009 except for: **AVERAGE AGE OF ASSET GROUP** • Zone substation property utilised the zone substation transformer average age • Distribution Substation Property utilised the distribution transformer average age.
2015	**As per 2014 except for:** **ASSET QUANTITY - AT YEAR END** • There are a portion of assets that do not have a known age, these assets are included in the quantity. **AVERAGE AGE OF ASSET GROUP** • Zone substation property and Distribution Substation Property profiles no longer utilise a substitute profile. • There are a portion of assets that do not have a known age, these assets are not included in the average age calculation as this would artificially reduce the average age

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This method was selected as: **ASSET QUANTITY - AT YEAR END** • It was extrapolated from previously reported and accredited information. **ASSET QUANTITY - INSPECTED/ MAINTAINED** • It provided the most accurate result considering the differences in data structure requirements. **AVERAGE AGE OF ASSET GROUP** • It was extrapolated from previously reported and accredited information. **INSPECTION CYCLE (YEARS)** • Not Applicable **MAINTENANCE CYCLE (YEARS)** • Not Applicable
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	**As per 2009 except for:** **AVERAGE AGE OF ASSET GROUP** • The transformer categories were considered the best matching category.
2015	**As per 2014 except for:** **ASSET QUANTITY - AT YEAR END** • There is a portion of assets that do not have a known age, these assets are not included in the quantity. **AVERAGE AGE OF ASSET GROUP** Zone substation property and Distribution Substation Property profiles no longer utilise a substitute profile.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

In areas where the inspection / maintenance cycle could not be populated the table has been left **blank** and the following statement applies:

A response cannot be accurately provided to this request as CitiPower / Powercor utilise varied time based maintenance plans which are determined by a number of factors including risk, utilisation and specifics of individual populations. (ie manufacturer / model / age specific etc.). Condition based maintenance (not time dependent) is also utilised and calibrated to population specifics. This information cannot be transposed into the format requested.

Tab name: 2.8 Maintenance	
Table name: 2.8.1 – Descriptor Metrics for Routine & Non-Routine Maintenance	
Asset Group	**Maintenance Asset Category**
Public Lighting	(ALL)
BOP ID	CAPAL2.8BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
11. MAINTENANCE EXPENDITURE
11.1 For expenditure incurred for the simultaneous inspection of assets and vegetation or for access track maintenance, report this expenditure under maintenance, not vegetation management.
11.2 For each of the maintenance subcategories prescribed in the template, add rows for additional subcategories if these are material and necessary to disaggregate financial or non-financial data, for example, to disaggregate asset groups according to voltage levels or to specify inspection/ maintenance cycles.
11.3 For each maintenance subcategory, provide in separate columns the data for inspection cycles and maintenance cycles.
11.4 For the inspection cycle for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the inspection cycle is 'every 6 years', put '6' in the inspection cycle column.
11.5 Similarly, for the maintenance cycle for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the maintenance cycle is 'every 3 years', put '3' in the maintenance cycle column.
11.6 For inspection and maintenance cycles, asset quantity, and average age of the asset group, use the highest-value (i.e. highest replacement cost) asset type in the asset group as the basis.
11.7 Where there are multiple inspection and maintenance activities, report the cycle that reflects the highest cost activity.
11.8 Adding rows for additional maintenance subcategories to indicate inspection or maintenance cycles (i.e. non-financial data) does not require disaggregating the corresponding financial data for those additional subcategories.
11.9 For 'Asset Quantity', provide in separate columns:
(a) the total number of assets (population) at the end of the regulatory year, for each asset category
(b) the number of assets actually inspected or maintained during the regulatory year, for each asset category
11.10 For 'Other maintenance activity', add rows for maintenance expenditure subcategories if these are material and if these are not yet included in any other maintenance expenditure subcategory.

Definitions

Opex Category: Means operating expenditure associated with the following categories:
· Non-network expenditures
· Vegetation management
· Maintenance
· Emergency response
· Network Overheads and Corporate Overheads

Maintenance: Operational repairs and maintenance of the distribution system including high voltage and low voltage assets, and including testing, investigation, validation and correction costs not involving capital expenditure. This also includes location of underground cables and covering of low voltage mains for safety reasons. Includes the maintenance of public lighting, as well as scheduled maintenance, meter investigations, special readings and photovoltaic (PV) installations
For AMI services, includes the maintenance of meters and time switches

Public lighting maintenance: Expenditure associated with the maintenance, repair or inspection of public lighting assets on major roads and minor roads Includes all direct costs (labour, material, contract, motor vehicle) Physical Measure: Number of public lights serviced by zone substation; Number of kilometres patrolled by zone substation.

Light maintenance: The operating cost associated with the repair and inspection of the following public lighting assets on a major or minor road:
· Luminaires
· Brackets
· Lamps
· Poles dedicated to public lighting services; and
· Underground or overhead cabling dedicated to public lighting services.
Light maintenance should include the operational repairs and inspection of the public lighting assets, not including capital expenditure.

Routine maintenance: Costs (opex) of recurrent/programmed activities undertaken to maintain assets, performed regardless of the condition of the asset. Costs of activities predominantly directed at discovering information on asset condition, and often undertaken at intervals that can be predicted.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are:
· routine in nature; and
· indiscriminately carried out for a pre-defined set of assets; and
· scheduled to occur at pre-defined intervals.
May include activities to inspect, survey, audit, test, repair, alter, or reconfigure assets. A pre-defined interval may be based on the number of times the asset has operated, or any other measure, if the future timing of the maintenance based on the measure can be predicted with a reasonable level of certainty.
Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.
Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response.
May include:
· functional and intrusive testing of assets, including spares and equipment;
· helicopter, vehicle, and foot patrols, including negotiation of landowner access;
· asset surveys;
· environmental testing;
· painting of network assets;
· re-conductoring lines
· indoor and outdoor maintenance of substations including lawn mowing, weed control, fencing;
Includes load monitoring and switching activities attributable to routine asset maintenance.

Non-routine maintenance: Costs (opex) of activities predominantly directed at managing asset condition or rectifying defects (excluding emergency call-outs). The timing of these activities depends on asset condition and decisions on when to maintain or replace the asset, which may vary over time and across NSPs.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are not routine in nature. The non-routine activities may be undertaken in a discriminate manner for individual assets. Excludes routine asset maintenance activities. Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.
Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response.
May include:
· activities to inspect, survey, audit, test, repair, alter, or reconfigure assets
· functional and intrusive testing of assets, including spares and equipment;
Includes load monitoring and switching activities attributable to non-routine asset maintenance. Normal cyclic rating
The maximum peak loading based on a given daily load cycle that an asset or element of the network can supply each day of its life under normal conditions resulting in a normal rate of wear. Powercor must provide its definition(s) of 'normal conditions'.

Maintenance cycle: The planned or actual duration between two consecutive maintenance works on an asset

Inspection cycle: The planned or actual duration between two consecutive inspections of an asset

Major road: Roads on which the visual requirements of motorists are dominant (e.g. traffic routes). Typically the responsibility of a state or territory road authority.

Minor road: Roads on which the visual requirements of pedestrians are dominant (e.g. local roads and lighting that is applicable to areas other than roads outdoor public areas, e.g. outdoor shopping). Typically the responsibility of a local Government authority.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 2.2.1 Cost Metrics by asset category for Public Lighting, we have provided data that complies with the instructions and definitions specified in the requirements as follows:
11 Maintenance Expenditure
11.1 not applicable
11.2 not applicable
11.3 not applicable
11.4 The inspection cycle has been expressed in 'n' years
11.5 The maintenance cycle has been expressed in 'n' years
11.6 not applicable
11.7 not applicable
11.8 not applicable
11.9 (a) total number of assets (population) at the end of the regulatory year has been provided
(b) total number of assets inspected/maintained during that regulatory year has been provided
11.10 not applicable

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

ASSETS AT YEAR END

2009	2010	2011	2012	2013	2014	2015

ASSETS INSPECTED/MAINTAINED

2009	2010	2011	2012	2013	2014	2015

AVERAGE AGE OF ASSET GROUP

2009	2010	2011	2012	2013	2014	2015

INSPECTION CYCLE (YEARS)

2009	2010	2011	2012	2013	2014	2015

MAINTENANCE CYCLE (YEARS)

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
ASSETS AT YEAR END
- The source data was extracted from GIS listing all billable lights on the last day of the reportable year.

ASSETS INSPECTED/MAINTAINED
- Assets inspected/maintained: The source data was extracted from Streetlight Manager (Salesforce) that listed all routine and non-routine maintenance activities.

AVERAGE AGE OF ASSET GROUP
- The source data was extracted from GIS listing all billable lights on the last day of the 2015 reportable year.

INSPECTION CYCLE (YEARS)
- Major Road – requirement of Public Lighting Code 2005 (Victoria) for all arterial roads
- Minor Road – no inspection cycle for minor road lights

MAINTENANCE CYCLE (YEARS)
- Major Road – no maintenance cycle for major road lights
- Minor Road – requirement of Public Lighting Code 2005 (Victoria) for all residential roads

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions

2009	**ASSETS AT YEAR END**
	METHODOLOGY
	• Per definition, for 11.9 (a) 'Asset Quantity' total number of assets (population) at the end of the regulatory year have been provided
	• Per definition, for major roads & minor roads, assets were allocated to these sub-categories based on cost sharing status.
	ASSUMPTIONS
	• Assumption that all lights 'full cost (municipality)' are reported as 'minor roads'
	• Assumption that all lights 'cost shared (municipality/state road authority) are reported as 'major roads'
	ASSETS INSPECTED/MAINTAINED
	METHODOLOGY
	• Minor roads are maintained every four years to enable re-lamping
	  ○ Replacement of the photo electric cell (PE Cell) every eight years was completed at the same time as the re-lamping and was not included in the volume calculation
	• Major Roads were maintained every four years to enable re-lamping and every eight years for replacement of PE Cell (up to 2010) .
	  ○ Replacement of the photo electric cell (PE Cell) every eight years was completed at the same time as the re-lamping and was not included in the volume calculation
	  ○ After 2010 lamps were replaced as required through 3 yearly patrols and public reports received.
	• All faults attended in the respective year were also included as they were in addition to the programmed maintenance
	• Actual volumes of asset non routine maintenance (where available) are extracted from PLFMS and allocated to asset sub-categories as listed above for major and minor roads.
	ASSUMPTIONS
	• Minor Roads – assumed that all lamps were replaced on a four yearly cycle and both lamps and pe cells replaced on the following four year cycle. In addition, non-routine maintenance is included in the total assets inspected/maintained at the end of the regulatory year reported.
	• Major Roads – assumed that all lamps were replaced on a four yearly cycle and both lamps and pe cells replaced on the following four year cycle up to 2010. After 2010, routine maintenance comprised of three yearly patrols as required. In addition non, routine maintenance is included in the total assets inspected/maintained at the end of the regulatory year reported.
	AVERAGE AGE OF ASSET GROUP
	METHODOLOGY
	• Per definition of "assets in commission" only in service and billable lights as at 1/1/14 were extracted from GIS.
	• Asset quantity recorded were allocated across the years 1910 – 2013 using information recorded relating to "year lantern manufactured"
	• Average age of public lighting luminaires was calculated by multiplying the total number of luminaires by the age of luminaire (where age = 1 for 2013, age = 2 for 2012 etc.) then dividing by the total number of luminaires reported at the end of the 2013 regulatory year.
	ASSUMPTIONS
	• Only in service and billable lights were reported
	• Cost share status was used to separate between major road and minor road in order to meet the definition of major/minor roads per the definition.
	• Where 'Year Lantern Changed' = 1960, 1970 & 2001and 'Year Lantern Manufactured' varied, 'Year Lantern Manufactured was used in preference to 'Year Lantern Changed'.
	• Where 'Year Lantern Changed' ≠ 1960, 1970 & 2001, no change was made and 'Year Lantern Changed' was taken to represent the year the asset was commissioned.
	• Where cost share status = full cost (VicRoads) or 'other', these were added to major road
	• Note: this only affected 14 lights in total
	INSPECTION CYCLE (YEARS)
	METHODOLOGY
	• Per definition of inspection cycle only major road lights are required to be inspected on a routine basis
	ASSUMPTIONS
	• Minor Road – no inspection cycle for minor road lights
	• Major Road –3 patrols completed as required by Public Lighting Code 2005 (Victoria) for all arterial

	roads **MAINTENANCE CYCLE (YEARS)** METHODOLOGY • Per definition of maintenance cycle only minor road lights are required to be maintained on a routine basis ASSUMPTIONS • Minor road – lamps replaced on a four yearly cycle, PE Cells replaced every eight years as required by Public Lighting Code 2005 (Victoria) for all residential roads • Major road – no maintenance cycle for major road lights
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**ASSETS INSPECTED/MAINTAINED** METHODOLOGY • All routine and non-routine activities are now stored in Streetlight Manager (Salesforce). (From May 2015) • Actual data is only available from May 2015, this was used to estimate the total yearly figure. • Minor roads are maintained every four years to enable re-lamping o Replacement of the photo electric cell (PE Cell) every eight years was completed at the same time as the re-lamping and was not included in the volume calculation • Major Roads were maintained every four years to enable re-lamping and every eight years for replacement of PE Cell (up to 2010) . o After 2010 lamps were replaced as required through 3 yearly patrols and public reports received. • All faults attended in the respective year were also included as they were in addition to the programmed maintenance • Actual volumes of asset non routine maintenance (where available) are extracted from Streetlight Manager (Salesforce) and allocated to asset sub-categories as listed above for major and minor roads. ASSUMPTIONS • Minor Roads – assumed that all lamps were replaced on a four yearly cycle and both lamps and pe cells replaced on the following four year cycle. In addition, non-routine maintenance is included in the total assets inspected/maintained at the end of the regulatory year reported. • Major Roads – assumed that all lamps were replaced on a four yearly cycle and both lamps and pe cells replaced on the following four year cycle up to 2010. After 2010, routine maintenance comprised of three yearly patrols as required. In addition non, routine maintenance is included in the total assets inspected/maintained at the end of the regulatory year reported. As per 2009 for remaining areas

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**ASSETS AT YEAR END** • No data was estimated or derived **ASSETS INSPECTED/MAINTAINED** • Business does not currently record individual public light maintenance programs which made it impossible to determine exact numbers of lamp replacements in a given year. **AVERAGE AGE OF ASSET GROUP** • Significant data was unusable due to 'default' dates being used for 'Date Lantern Changed' such as '1/01/1960', '1/01/1970' & '1/08/2001'. A separate field was also available 'Year Lantern Manufactured', this year was also compromised as it appeared that it had not been maintained throughout the time period. • Data was unable to be verified to confirm actual year of replacement due to data migration to GIS. • Data entered has not been consistently validated to ensure that accuracy was correctly entered. • Assumptions listed above were used to provide a slightly more accurate age profile of Luminaires, however there are still large gaps and default dates still used that distorts the data. Per definition of "assets in commission" only in service and billable lights as at 1/1/14 were extracted from GIS.

	• Only the 2013 reported regulatory year data was used due to the significant data manipulation required to establish an age profile. **INSPECTION CYCLE (YEARS)** • No data was estimated or derived **MAINTENANCE CYCLE (YEARS)** • No data was estimated or derived
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**ASSETS INSPECTED/MAINTAINED** Business now records individual public light maintenance programs, however this was not available from May 2015 (Streetlight Manager) As per 2009 for remaining areas

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**ASSETS AT YEAR END** • No data was estimated or derived **ASSETS INSPECTED/MAINTAINED** **Approach used:** • Details available in systems available did not provide any conclusive evidence regarding the number of assets maintained/inspected. Current maintenance cycles are based on municipal boundaries and not physical luminaires. • No allowance has been made for pole inspections where a visual inspection is performed. • No allowance has been made for patrols required as part of the Public Lighting Code for arterial roads. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Volumes were not available for routine maintenance **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads. • Business retains some information of non-routine maintenance by asset categories and this was used where available. • Allocation to major road / minor road was not retained historically. Allocation was completed using cost sharing,(full cost & cost shared) as the best fit to the RIN definition. **AVERAGE AGE OF ASSET GROUP** **Approach used:** • 'Cost Share Status' was used to separate between major road and minor road in order to meet the definition of major/minor roads per the RIN. The major and minor road classifications maintained within GIS relate to the type of globe used rather than the road location and hence these internal classifications did meet the definitions in the RIN. • Where 'Year Lantern Changed' = 1960, 1970 & 2001and 'Year Lantern Manufactured' varied, 'Year Lantern Manufactured was used in preference to 'Year Lantern Changed' in order to reduce the distortion caused by default dates as these were assumed to be more accurate dates. • Where 'Cost Share Status' = 'Full Cost (VicRoads) or 'other', these were added to 'Cost Shared (4/10)(6/10)' *** Note: this only affected 14 lights in total. This was because lights fully allocated to VicRoads were reasonably assumed to be on major roads and hence included in that category. **Options considered:** • Investigation into the current asset ages revealed that the business has not historically been required to report on this and has not been appropriately maintained. • No other option was available to source the data. **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads. • Business retains some information of 'Year Lantern Manufactured' and 'Year Lantern Changed' however significant data was unreliable or inconsistent and was modified where possible. **INSPECTION CYCLE (YEARS)**

	• No data was estimated or derived **MAINTENANCE CYCLE (YEARS)** • No data was estimated or derived
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**ASSETS INSPECTED/MAINTAINED** **Approach used:** • Where actual data was available, this was used and extrapolated for the 12 month period. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Actual volumes were not available for routine maintenance until May 2015 **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads. • Business retains some information of non-routine maintenance by asset categories and this was used where available. • Allocation to major road / minor road was not retained historically. Allocation was completed using cost sharing,(full cost & cost shared) as the best fit to the RIN definition. As per 2009 for remaining areas

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other reliable data is available for the period required.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 2.8 Maintenance		
Table name: 2.8.1 – DESCRIPTOR METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE		
Variable Name: AVERAGE AGE OF ASSET GROUP		
MAINTENANCE ACTIVITY	**MAINTENANCE ASSET CATEGORY**	**UNIT OF MEASURE – ASSET QUANTITY**
POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE	POLE TOPS AND OVERHEAD LINES	NUMBER OF POLES (000,S)
POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE	SERVICE LINES	NUMBER OF CUSTOMERS (000'S)
POLE INSPECTION AND TREATMENT	ALL POLES	NUMBER OF POLES (000,S)
OVERHEAD ASSET INSPECTION	ALL OVERHEAD ASSETS	LINE PATROLLED (ROUTE KM) (000'S)
BOP ID	CAPAL2.8BOP6	

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

APPENDIX E: PRINCIPLES AND REQUIREMENTS

11. MAINTENANCE EXPENDITURE

11.1. For expenditure incurred for the simultaneous inspection of assets and vegetation or for a*ccess track maintenance*, report this expenditure under maintenance, not *vegetation management*.

11.2. For each of the *maintenance* subcategories prescribed in the template, add rows for additional subcategories if these are material and necessary to disaggregate financial or non-financial data, for example, to disaggregate asset groups according to voltage levels or to specify inspection/ maintenance cycles.

11.3. For each *maintenance* subcategory, provide in separate columns the data for inspection cycles and maintenance cycles.

11.4. For the *inspection cycle* for each *maintenance* subcategory, express this as 'n' in the statement 'every n years'. For example, if the inspection cycle is 'every 6 years', put '6' in the inspection cycle column.

11.5. Similarly, for the *maintenance cycle* for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the maintenance cycle is 'every 3 years', put '3' in the maintenance cycle column.

11.6. For inspection and maintenance cycles, asset quantity, and average age of the asset group, use the highest-value (i.e. highest replacement cost) asset type in the asset group as the basis.

11.7. Where there are multiple inspection and maintenance activities, report the cycle that reflects the highest cost activity.

11.8. Adding rows for additional *maintenance* subcategories to indicate inspection or maintenance cycles (i.e. non-financial data) does not require disaggregating the corresponding financial data for those additional subcategories.

11.9. For 'Asset Quantity', provide in separate columns:
- a) the total number of assets (population) at the end of the regulatory year, for each asset category
- b) the number of assets actually inspected or maintained during the regulatory year, for each asset category

11.10. For 'Other maintenance activity', add rows for *maintenance* expenditure subcategories if these are material and if these are not yet included in any other *maintenance* expenditure subcategory.

APPENDIX F: DEFINITIONS

Installed assets – quantity currently in commission by year

The number of assets currently in commission and the year they were installed.

Poles
These are vertically oriented assets that provide load bearing structural support for overhead conductors or other lines assets.

- This also includes associated pole top structures, such as cross-arms and insulators where these are replaced in conjunction with a pole replacement project.
- It excludes other pole mounted assets that are included in any other asset group, notably pole mounted substations and pole mounted switchgear such as links, fuses, air break switches etc.

Overhead conductors
These assets have the primary function of distributing power, above ground, within the distribution network. It excludes any pole mounted assets that are included in any other asset group.

Overhead asset inspection
All inspection of network overhead assets.

Includes all direct costs (labour, material, contract, motor vehicle); thermal survey programs.

Physical measure: Route km line patrolled by zone substation

Please provide a Response in this box:

The information provided complies with section 11 of Appendix E and complies with the definition in Appendix F.

For the year 2011 to 2015 the Age Profile data provided as part of the Annual RIN and Category RIN was used to calculate the Average Age of the Assets Specified.

For years 2009 to 2010 inclusive the age profile source data was not available and an estimate was used

This methodology meets the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
For Powercor the Geographical Information System is the originating data source (i.e. from where the data is obtained).
For the year 2014 and 2015 the asset age profile data was sourced from the BI (Business Intelligence" report called the "Asset Installation Report".

For the year 2013 the asset age profile data was sourced from the Geographical Information System which is the same data that was used to prepare the Asset Age profiles for Section 5.2 of the 2013 Category RIN.

For the year 2012 the asset age profile data is the same data that was used to complete the 2012 AER Annual RIN Reports (Non-Financial), tab "3. Asset Installation".

For the year 2011 the asset age profile data is the same data that was used to complete the 2011 AER Annual RIN Reports (Non-Financial), tab "3. Asset Installation".

For the years 2009 to 2010 inclusive no source data was available. The 2009 to 2010 data was estimated using the 2011 data as the reference source

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	It is reasonable to assume that assets not subject to substantial replacement volumes from one year to the next exhibit an average age that changes by one unit (in this case one (1) year) from one annual reporting period to another. Hence, it is a reasonable estimate that the average asset age of such assets would most likely increase by one (1) year from that of the preceding year. As no source data was available the average asset ages were decremented by 2 years from that reported in 2011.
2010	It is reasonable to assume that assets not subject to substantial replacement volumes from one year to the next exhibit an average age that changes by one unit (in this case one (1) year) from one annual reporting period to another. Hence, it is a reasonable estimate that the average asset age of such assets would most likely increase by one (1) year from that of the preceding year. As no source data was available the average asset ages were decremented by 1 year from that reported in 2011.
2011	As per 2013 but using the age profile data as provided in the 2011 AER Annual RIN Reports (Non-Financial), tab "3. Asset Installation"
2012	As per 2013 but using the age profile data as provided in the 2012 AER Annual RIN Reports (Non-Financial), tab "3. Asset Installation".
2013	The age profiles were evaluated from the age profile data as provided in the 2013 AER Category RIN, Age Profiles. • The general equation used was $$Average\ Asset\ Age = \frac{\sum_{n=1}^{n=n}(Number\ of\ Asset\ per\ Class \times Class\ Age)}{\sum_{n=1}^{n=n}(Total\ Number\ of\ Assets\ in\ the\ Class)}$$ Where n = the asset age • This methodology was applied to all the required asset descriptors
2014	As per 2013 but using the age profile data as provided in the 2014 AER Category RIN Reports, 5.2 Asset Age profile.
2015	As per 2014.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No source data was available
2010	No source data was available
2011	Year 2011 for PAL complies with this Information Notice.
2012	Year 2012 for PAL complies with this Information Notice.
2013	Year 2013 for PAL complies with this Information Notice.
2014	Year 2014 for PAL complies with this Information Notice.
2015	Year 2015 for PAL complies with this Information Notice.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	It is reasonable to assume that assets not subject to substantial replacement volumes from one year to the next exhibit an average age that changes by one unit (in this case one (1) year) from one annual reporting period to another. Hence, it is a reasonable estimate that the average asset age of such assets would most likely increase by one (1) year from that of the preceding year.

2010	It is reasonable to assume that assets not subject to substantial replacement volumes from one year to the next exhibit an average age that changes by one unit (in this case one (1) year) from one annual reporting period to another. Hence, it is a reasonable estimate that the average asset age of such assets would most likely increase by one (1) year from that of the preceding year
2011	Year 2011 for PAL complies with this Information Notice.
2012	Year 2012 for PAL complies with this Information Notice.
2013	Year 2013 for PAL complies with this Information Notice.
2014	Year 2014 for PAL complies with this Information Notice.
2015	Year 2015 for PAL complies with this Information Notice.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Assets that are not subject to substantial replacement volumes from one year to the next will usually exhibit an "average age" that alters by one unit (in this instance 1 year) from one annual reporting period to the next. Hence as no source data for 2009 is available decrementing the average asset age by two (2) years from the 2011 source data is a reasonable approach
2010	Assets that are not subject to substantial replacement volumes from one year to the next will usually exhibit an "average age" that alters by one unit (in this instance 1 year) from one annual reporting period to the next. Hence as no source data for 2010 is available decrementing the average asset age by one (1) year from the 2011 source data is a reasonable approach
2011	Year 2011 for PAL complies with this Information Notice.
2012	Year 2012 for PAL complies with this Information Notice.
2013	Year 2013 for PAL complies with this Information Notice.
2014	Year 2014 for PAL complies with this Information Notice.
2015	Year 2015 for PAL complies with this Information Notice.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Data is provided for all the years requested

Tab name: 2.8 Maintenance	
Table name: 2.8.2 – COST METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE	
Maintenance Activity	**Maintenance Asset Category**
NETWORK UNDERGROUND CABLE MAINTENANCE: BY VOLTAGE	(ALL data)
NETWORK UNDERGROUND CABLE MAINTENANCE: BY LOCATION	(ALL data)
DISTRIBUTION SUBSTATION EQUIPMENT & PROPERTY MAINTENANCE	(ALL data)
ZONE SUBSTATION EQUIPMENT MAINTENANCE	(ALL data)
ZONE SUBSTATION PROPERTY MAINTENANCE	(ALL data)
SCADA & NETWORK CONTROL MAINTENANCE	(ALL data)
PROTECTION SYSTEMS MAINTENANCE	(ALL data)
BOP ID	CAPAL2.8BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

11. MAINTENANCE EXPENDITURE

11.1 For expenditure incurred for the simultaneous inspection of assets and vegetation or for *access track maintenance*, report this expenditure under maintenance, not *vegetation management*.
11.2 For each of the *maintenance* subcategories prescribed in the template, add rows for additional subcategories if these are material and necessary to disaggregate financial or non-financial data, for example, to disaggregate asset groups according to voltage levels or to specify inspection/ maintenance cycles.
11.3 For each *maintenance* subcategory, provide in separate columns the data for inspection cycles and maintenance cycles.
11.4 For the *inspection cycle* for each *maintenance* subcategory, express this as 'n' in the statement 'every n years'. For example, if the inspection cycle is 'every 6 years', put '6' in the inspection cycle column.
11.5 Similarly, for the *maintenance cycle* for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the maintenance cycle is 'every 3 years', put '3' in the maintenance cycle column.
11.6 For inspection and maintenance cycles, asset quantity, and average age of the asset group, use the highest-value (i.e. highest replacement cost) asset type in the asset group as the basis.
11.7 Where there are multiple inspection and maintenance activities, report the cycle that reflects the highest cost activity.
11.8 Adding rows for additional *maintenance* subcategories to indicate inspection or maintenance cycles (i.e. non-financial data) does not require disaggregating the corresponding financial data for those additional subcategories.
11.9 For 'Asset Quantity', provide in separate columns:
(a) the total number of assets (population) at the end of the regulatory year, for each asset category
(b) the number of assets actually inspected or maintained during the regulatory year, for each asset category
11.10 For 'Other maintenance activity', add rows for *maintenance* expenditure subcategories if these are material and if these are not yet included in any other *maintenance* expenditure subcategory.

Definitions

Distribution substation A *substation* on a distribution *network* that transforms *voltage* of levels at or below 33 kV but above 1 kV to levels below 1 kV.
As a guide, assets included within a *distribution substation* include all equipment permanently installed within the *distribution substation* boundary. Where applicable (such as indoor and outdoor *substations*), this includes any enclosures, structures, *civil works*, poles and associated hardware, cabling and other assets that are located permanently within the *distribution substation* boundary, but excludes any incoming or outgoing *lines* or *cables* . For the avoidance of doubt this does not include any building, structure, equipment, cabling, etc. located within the

substation boundary that is the property or responsibility of third parties. Where applicable (such as for pole mounted *substations*), this also includes any poles, pole hardware, pole structures, links, surge diverters, fuses or protective devices, cabling and other assets forming part of the *substation* or its supports, but excluding incoming or outgoing overhead mains, cables and associated cable terminations (cables in this context includes all power, communications and control cables).

Distribution substation equipment & property maintenance
Maintenance of distribution substations, equipment to convert HV distribution to LV, current transformers, voltage transformers, voltage regulators and associated secondary protection and communication equipment.
Equipment maintenance – includes all direct costs (labour, material, contract, motor vehicle); maintenance of distribution switchgear; inspecting, testing and maintaining distribution substations primary and secondary equipment, apparatus and hardware; transformers, earthing, surge diverters, isolators, protection and communication directly associated with the substation; inspecting, testing and maintaining substations and protective apparatus, equipment and hardware; earthing, surge diverters, EDOs and isolators directly associated with the substation; maintenance of site including buildings, fences and cleaning; carrying out replacement of HV fuses not occasioned by fault or emergency work (minor value of replacement, e.g. <$500).
Property maintenance – includes all direct costs (labour, material, contract, motor vehicle); maintenance of site including buildings, fences and cleaning; weed control.
Excludes upgrades and replacements of equipment which should be capex.
Physical measure: Number of projects completed by distribution substation; Number of substations and voltage regulators maintained by zone substation; Number of distribution substation properties maintained

Distribution substation transformers maintenance
A subset of Distribution Substation Equipment & Property Maintenance. Maintenance of all transformers in distribution substations and associated secondary protection and communication equipment.
Includes all direct costs (labour, material, contract, motor vehicle); maintenance of HV to LV transformers; inspecting, testing and maintaining transformer equipment, apparatus and hardware; protection and communication directly associated with the distribution substation.
Excludes upgrades and replacements of transformers (capex); maintenance of distribution substation equipment other than transformers under Distribution Substation Equipment & Property Maintenance.
Physical measure: Number of installed transformers by distribution substation

Distribution switchgear maintenance
Maintenance of distribution network switches.
Includes all direct costs (labour, material, contract, motor vehicle); distribution air break switches; distribution metal clad switchgear; distribution auto-reclosers; pole mounted and ground mounted switchgear; HV and LV switchgear
Physical measure: Number of switches maintained by zone substation.

Inspection cycle
The planned or actual duration between two consecutive inspections of an asset

Maintenance Operational repairs and maintenance of the distribution system including high voltage and low voltage assets, and including testing, investigation, validation and correction costs not involving capital expenditure. This also includes location of underground cables and covering of low voltage mains for safety reasons.
Includes the maintenance of public lighting, as well as scheduled maintenance, meter investigations, special readings and photovoltaic (PV) installations
For AMI services, includes the maintenance of meters and time switches

Maintenance cycle
The planned or actual duration between two consecutive maintenance works on an asset

Network underground cable maintenance
Inspection, testing and maintenance of underground HV distribution and LV cable installations
and terminations.
Includes all direct costs (labour, material, contract, motor vehicle); power, supervisory and protection cable maintenance and ancillaries such as conduits, tunnels, manholes, cover slabs, sumps and terminations; cable location inquiries; cable maintenance for all voltages; total lengths of distribution feeder cables emanating from a zone substation.
Excludes underground service cable maintenance (see Pole Top, Overhead Line and Services Maintenance); all cables and major replacements inside a zone substation except feeder cables; cable repairs made as part of an emergency or fault restoration and repair of damage caused by other parties.
Physical measure: Length of cables maintained by zone substation; Number of joints.

Non-routine maintenance Costs (opex) of activities predominantly directed at managing asset condition or rectifying defects (excluding emergency call-outs). The timing of these activities depends on asset condition and decisions on when to maintain or replace the asset, which may vary over time and across NSPs.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are not routine in nature.
The non-routine activities may be undertaken in a discriminate manner for individual assets.
Excludes routine asset maintenance activities.
Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.
Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response.
May include:
· activities to inspect, survey, audit, test, repair, alter, or reconfigure assets
· functional and intrusive testing of assets, including spares and equipment;
Includes load monitoring and switching activities attributable to non-routine asset maintenance.

Opex The costs of operating and maintaining the network (excluding all capital costs and capital construction costs). Operating expenditure

Routine maintenance Costs (opex) of recurrent/programmed activities undertaken to maintain assets, performed regardless of the condition of the asset. Costs of activities predominantly directed at discovering information on asset condition, and often undertaken at intervals that can be predicted.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are:
· routine in nature; and
· indiscriminately carried out for a pre-defined set of assets; and
· scheduled to occur at pre-defined intervals.
May include activities to inspect, survey, audit, test, repair, alter, or reconfigure assets.
A pre-defined interval may be based on the number of times the asset has operated, or any other measure, if the future timing of the maintenance based on the measure can be predicted with a reasonable level of certainty.
Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.
Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response.
May include:
· functional and intrusive testing of assets, including spares and equipment;
· helicopter, vehicle, and foot patrols, including negotiation of landowner access;
· asset surveys;
· environmental testing;
· painting of network assets;
· re-conductoring lines
· indoor and outdoor maintenance of substations including lawn mowing, weed control, fencing;
Includes load monitoring and switching activities attributable to routine asset maintenance.

SCADA Supervisory control and data acquisition

SCADA and Network Control maintenance (opex)
Expenditure associated with the maintenance of *SCADA* and network control hardware, software and associated IT and communications systems.
Excludes maintenance of Protection Systems, which is a separate subcategory in template 2.7 Maintenance.
Also refer to *SCADA and Network Control Expenditure* definition (capex).

Zone substation A *substation* on a distribution *network* that transforms any *voltage* above 33 kV to levels at or below 33 kV but above 1 kV.
As a guide, assets included within a *zone substation* include all equipment, buildings, structures, *civil works* and other assets that are located permanently within the *substation* boundary fence; but excluding the landing spans of incoming or outgoing *overhead lines*, and excluding incoming or outgoing cables and associated cable terminations (cables includes all power, communications and control cables).

Zone substation equipment maintenance
Maintenance of zone substations, equipment to convert sub transmission voltage to distribution voltage, current transformers, voltage transformers and associated secondary protection and communication equipment.

Includes all direct costs (labour, material, contract, motor vehicle); maintenance of sub transmission switchgear; inspecting, testing and maintaining zone substations primary and secondary equipment, apparatus and hardware; transformers, earthing, surge diverters, isolators, protection and communication directly associated with the substation.
Includes maintenance of distribution equipment within the zone substation.
Excludes upgrades and replacements which should be capex; Zone Substation Property Maintenance.
Physical measure: Number of zone substation assets, e.g. number of transformers

Zone substation property maintenance
Includes all direct costs (labour, material, contract, motor vehicle); maintenance of site including buildings, fences and cleaning; weed control.
Excludes Zone Substation Equipment Maintenance and Zone Substation Transformer Maintenance
Physical measure: Number of zone substation properties maintained

Zone substation transformers maintenance
A subset of Zone Substation Equipment Maintenance. Maintenance of all transformers in zone substations and associated secondary protection and communication equipment.
Includes all direct costs (labour, material, contract, motor vehicle); maintenance of HV to LV transformers; inspecting, testing and maintaining transformer equipment, apparatus and hardware; protection and communication directly associated with the zone substation.
Excludes upgrades and replacements of transformers which should be capex; maintenance of zone substation equipment other than transformers under Zone Substation Equipment Maintenance.
Physical measure: Number of installed voltage transformers by zone substation

Please provide a Response in this box:
The requirements of section 11 of the notice have been complied with
11.1 For expenditure incurred for the simultaneous inspection of assets and vegetation or for *access track maintenance*, this expenditure was reported under maintenance, not *vegetation management*.
11.2 No additional subcategory rows were necessary to disaggregate financial Regulatory Information.
11.4 The *inspection cycle* for each *maintenance* subcategory was expressed in years.
11.5 Similarly, the *maintenance cycle* for each maintenance subcategory was expressed in years.
11.6 For inspection and maintenance cycles, asset quantity, and average age of the asset group the highest-value asset type in the asset group was used as the basis.
11.7 Where there are multiple inspection and maintenance activities the cycle that reflects the highest cost activity was reported.
11.8 No additional subcategory rows were necessary.
11.9 For 'Asset Quantity':
(a) the total number of assets (population) at the end of the regulatory year, for each asset category &
(b) the number of assets actually inspected or maintained during the regulatory year, for each asset category,
Were provided in separate columns for each subcategory.
11.10 'Other maintenance activity' rows were not material and not utilised.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
ROUTINE & NON-ROUTINE MAINTENANCE COSTS
1. Top level Summary Function Code information was sourced from the regulatory reporting accounts.
2. A list of projects was obtained from SAP Business Intelligence (BI) reports.
3. Plant Maintenance (PM) Orders were extracted from SAP.

4. Functional location details were extracted from SAP.
5. Equipment details were extracted from SAP.

Note that the data sources 1. and 2. do not balance due to differing general ledger accounts being applied to the regulatory accounts and the CitiPower/Powercor internal direct OPEX reports. The BI extractions are used as a % proxy of the Regulatory Reporting totals as the regulatory totals are at the summary function code level only and do not provide sufficient data to allow mapping of expenditure to the AER RIN categories and classes. The costs provided by the BI reports against individual projects/orders are converted to a percentage of the function code total for the given year. At the conclusion of the cost allocation algorithm these percentages are then multiplied by the regulatory account totals to determine the actual expenditure.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**ROUTINE & NON-ROUTINE MAINTENANCE COSTS** The purpose of this methodology is to describe the process undertaken to allocate maintenance expenditure from CitiPower/Powercor data structures into the data structures required by the AER. SAP Maintenance PM Orders were categorised and mapped into the AER CAT RIN categories. Maintenance attendances were counted based on the PMOrder counts. The BI financials associated with the PM Orders were used as a proportionality proxy of the regulatory reporting totals. This resulted in the summation of PMOrder costs into the AER CAT RIN totals.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Estimation is required in this instance: **ROUTINE & NON-ROUTINE MAINTENANCE COSTS** • In order to bridge the differences in definitions between CitiPower / Powercor Function Code accounts, the Regulatory Category Asset Classes, and the new AER CAT RIN classes which do not result in direct mapping. ○ CitiPower / Powercor function code definitions, for function codes 316, 317, 318, 319, 350, 442 & 492 are broader than the Category Asset Classes and, in some cases, the Category Asset Groups. For expenditure to be allocated to an Asset Class definition gap must be bridged.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimation is based on: **ROUTINE & NON-ROUTINE MAINTENANCE COSTS** • The manual allocation of an AER category to each cost incurring PMOrder. This allocation is based on the

	PMOrder linking to equipment and / or functional location in order to be mapped. PMOrders which were not linked were ignored in the allocation exercise. • PMOrder type being the most accurate representation of routine / non-routine maintenance. • From the categorisation the % allocation of expenditure to each Category Asset Class can be determined and multiplied by the total regulatory spend in each year. This provides a cost breakdown to the Category Asset Class level but is an estimation based on the data mapping exercise. • The AER requested underground cable data to be presented via two different methods. The CBD non-CBD split is not undertaken in this process. Powercor does not have a CBD network. CitiPower it was assumed that All 33 kV and above expenditure was CBD and all other was not.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This method was selected as: **ROUTINE & NON-ROUTINE MAINTENANCE COSTS** • It provided a more accurate result than a percentage split of function codes based on unfounded estimation and was based on allocation from reduced but categorised data.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 2.8 Maintenance	
Table name: 2.8.2 - COST METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE	
Asset Group	**Maintenance Asset Category**
Public Lighting Maintenance	Minor Roads
Public Lighting Maintenance	Major Roads
BOP ID	CAPAL2.8BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
11. MAINTENANCE EXPENDITURE
11.1 For expenditure incurred for the simultaneous inspection of assets and vegetation or for access track maintenance, report this expenditure under maintenance, not vegetation management.
11.2 For each of the maintenance subcategories prescribed in the template, add rows for additional subcategories if these are material and necessary to disaggregate financial or non-financial data, for example, to disaggregate asset groups according to voltage levels or to specify inspection/ maintenance cycles.
11.3 For each maintenance subcategory, provide in separate columns the data for inspection cycles and maintenance cycles.
11.4 For the inspection cycle for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the inspection cycle is 'every 6 years', put '6' in the inspection cycle column.
11.5 Similarly, for the maintenance cycle for each maintenance subcategory, express this as 'n' in the statement 'every n years'. For example, if the maintenance cycle is 'every 3 years', put '3' in the maintenance cycle column.
11.6 For inspection and maintenance cycles, asset quantity, and average age of the asset group, use the highest-value (i.e. highest replacement cost) asset type in the asset group as the basis.
11.7 Where there are multiple inspection and maintenance activities, report the cycle that reflects the highest cost activity.
11.8 Adding rows for additional maintenance subcategories to indicate inspection or maintenance cycles (i.e. non-financial data) does not require disaggregating the corresponding financial data for those additional subcategories.
11.9 For 'Asset Quantity', provide in separate columns:
(a) the total number of assets (population) at the end of the regulatory year, for each asset category
(b) the number of assets actually inspected or maintained during the regulatory year, for each asset category
11.10 For 'Other maintenance activity', add rows for maintenance expenditure subcategories
if these are material and if these are not yet included in any other maintenance expenditure subcategory.

Definitions

Opex Category: Means operating expenditure associated with the following categories:
· Non-network expenditures
· Vegetation management
· Maintenance
· Emergency response
· Network Overheads and Corporate Overheads

Maintenance: Operational repairs and maintenance of the distribution system including high voltage and low voltage assets, and including testing, investigation, validation and correction costs not involving capital expenditure. This also includes location of underground cables and covering of low voltage mains for safety reasons. Includes the maintenance of public lighting, as well as scheduled maintenance, meter investigations, special readings and photovoltaic (PV) installations
For AMI services, includes the maintenance of meters and time switches

Public lighting maintenance: Expenditure associated with the maintenance, repair or inspection of public lighting assets on major roads and minor roads Includes all direct costs (labour, material, contract, motor vehicle) Physical Measure: Number of public lights serviced by zone substation; Number of kilometres patrolled by zone substation.

Light maintenance: The operating cost associated with the repair and inspection of the following public lighting assets on a major or minor road:
· Luminaires
· Brackets
· Lamps
· Poles dedicated to public lighting services; and
· Underground or overhead cabling dedicated to public lighting services.
Light maintenance should include the operational repairs and inspection of the public lighting assets, not including capital expenditure.

Routine maintenance: Costs (opex) of recurrent/programmed activities undertaken to maintain assets, performed regardless of the condition of the asset. Costs of activities predominantly directed at discovering information on asset condition, and often undertaken at intervals that can be predicted.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are:
· routine in nature; and
· indiscriminately carried out for a pre-defined set of assets; and
· scheduled to occur at pre-defined intervals.
May include activities to inspect, survey, audit, test, repair, alter, or reconfigure assets. A pre-defined interval may be based on the number of times the asset has operated, or any other measure, if the future timing of the maintenance based on the measure can be predicted with a reasonable level of certainty.
Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.
Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response.
May include:
· functional and intrusive testing of assets, including spares and equipment;
· helicopter, vehicle, and foot patrols, including negotiation of landowner access;
· asset surveys;
· environmental testing;
· painting of network assets;
· re-conductoring lines
· indoor and outdoor maintenance of substations including lawn mowing, weed control, fencing;
Includes load monitoring and switching activities attributable to routine asset maintenance.

Non-routine maintenance: Costs (opex) of activities predominantly directed at managing asset condition or rectifying defects (excluding emergency call-outs). The timing of these activities depends on asset condition and decisions on when to maintain or replace the asset, which may vary over time and across NSPs.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are not routine in nature. The non-routine activities may be undertaken in a discriminate manner for individual assets. Excludes routine asset maintenance activities. Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.
Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response.
May include:
· activities to inspect, survey, audit, test, repair, alter, or reconfigure assets
· functional and intrusive testing of assets, including spares and equipment;
Includes load monitoring and switching activities attributable to non-routine asset maintenance. Normal cyclic rating The maximum peak loading based on a given daily load cycle that an asset or element of the network can supply each day of its life under normal conditions resulting in a normal rate of wear. Powercor must provide its definition(s) of 'normal conditions'.

Maintenance cycle: The planned or actual duration between two consecutive maintenance works on an asset

Inspection cycle: The planned or actual duration between two consecutive inspections of an asset

Major road: Roads on which the visual requirements of motorists are dominant (e.g. traffic routes). Typically the responsibility of a state or territory road authority.

Minor road: Roads on which the visual requirements of pedestrians are dominant (e.g. local roads and lighting that is applicable to areas other than roads outdoor public areas, e.g. outdoor shopping). Typically the responsibility of a local Government authority.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 2.2.1 Cost Metrics by asset category for Public Lighting. We have provided data that complies with the instructions and definitions specified in the requirements as follows:
11 Maintenance Expenditure
11.1 expenditure for simultaneous inspection has been allocated to maintenance asset category.
11.2 not applicable
11.3 not applicable
11.4 not applicable
11.5 not applicable
11.6 not applicable
11.7 not applicable
11.8 not applicable
11.9 (a) not applicable
(b) not applicable
11.10 not applicable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

ROUTINE MAINTENANCE COST

2009	2010	2011	2012	2013	2014	2015

NON-ROUTINE MAINTENANCE COST

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
ROUTINE MAINTENANCE COST ($000'S)
- The source data is based on total lights extracted from Streetlight Manager (Salesforce) listing all routine maintenance activities.
- Finance costs have been extracted out of SAP Finance for public lighting routine maintenance

NON-ROUTINE MAINTENANCE COST ($000'S)
- The source data is based on total faults extracted from Streetlight Manager (Salesforce) listing all non-routine maintenance activities.
- Finance costs have been extracted out of SAP Finance for public lighting non-routine maintenance

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**ROUTINE MAINTENANCE COST ($000'S)** METHODOLOGY • Per definition, routine maintenance is all activities undertaken to maintain assets, performed regardless of the condition of the asset at the end of the regulatory year have been provided • Per definition, for major roads & minor roads, assets were allocated to these sub-categories based on cost sharing status. • Costs were allocated based on the total cost of routine maintenance multiplied by the percentage of minor roads assets. • Costs were allocated based on the total cost of routine maintenance multiplied by the percentage of

	major roads assets for 2009-2010. Only asset inspection costs were allocated for the remaining regulatory years 2011-2014 as bulk change program was not conducted for major road lights. ASSUMPTIONS • Assumption that all lights 'full cost (municipality)' are reported as 'minor roads' • Assumption that all lights 'cost shared (municipality/state road authority) are reported as 'major roads' **NON-ROUTINE MAINTENANCE COST ($000'S)** METHODOLOGY • Per definition, non-routine maintenance is all activities undertaken to manage asset condition or rectifying defects (excluding emergency call-outs), and excludes routine asset maintenance activities at the end of the regulatory year have been provided • Per definition, for major roads & minor roads, assets were allocated to these sub-categories based on cost sharing status. • Costs were allocated based on the total cost of non-routine maintenance multiplied by the percentage of major road and minor roads non-routine maintenance activities. ASSUMPTIONS • Assumption that all lights 'full cost (municipality)' are reported as 'minor roads' • Assumption that all lights 'cost shared (municipality/state road authority) are reported as 'major roads'
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**ROUTINE MAINTENANCE COST ($000'S)** METHODOLOGY • Per definition, routine maintenance is all activities undertaken to maintain assets, performed regardless of the condition of the asset at the end of the regulatory year have been provided • Per definition, for major roads & minor roads, assets were allocated to these sub-categories based on cost sharing status. • Costs were allocated based on average costs extracted from Streetlight Manager for the regulatory year. • Costs were allocated based on the total cost of routine maintenance multiplied by the percentage of major roads assets ASSUMPTIONS • Assumption that all lights 'full cost (municipality)' are reported as 'minor roads' • Assumption that all lights 'cost shared (municipality/state road authority) are reported as 'major roads' **NON-ROUTINE MAINTENANCE COST ($000'S)** METHODOLOGY • Per definition, non-routine maintenance is all activities undertaken to manage asset condition or rectifying defects (excluding emergency call-outs), and excludes routine asset maintenance activities at the end of the regulatory year have been provided • Per definition, for major roads & minor roads, assets were allocated to these sub-categories based on cost sharing status. • Costs were allocated based on average costs extracted from Streetlight Manager for the regulatory year. • Costs were allocated based on the total cost of routine maintenance multiplied by the percentage of major roads assets ASSUMPTIONS • Assumption that all lights 'full cost (municipality)' are reported as 'minor roads' Assumption that all lights 'cost shared (municipality/state road authority) are reported as 'major roads'

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**ROUTINE MAINTENANCE COST ($000'S)** • Business does not currently record individual public light routine maintenance programs which made it impossible to determine exact numbers of lamp replacements in a given year. Cost allocation is against the total routine maintenance activity rather than sub-categories. **NON-ROUTINE MAINTENANCE COST ($000'S)** • Business does currently record individual public light non-routine maintenance activities, however the

	cost allocation is against the total asset category rather than sub-categories.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**ROUTINE MAINTENANCE COST ($000'S)** **Approach used:** • Details available in systems available did not provide any conclusive evidence regarding the number of assets maintained/inspected. Current maintenance cycles are based on municipal boundaries and not physical luminaires. • No allowance has been made for pole inspections where a visual inspection is performed. • No allowance has been made for patrols required as part of the Public Lighting Code for arterial roads. • Business does not currently record individual public light routine maintenance programs which made it impossible to determine exact numbers of lamp replacements in a given year. Cost allocation is against the total routine maintenance activity rather than sub-categories. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Volumes were not available for routine maintenance **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads. • Allocation to major road / minor road was not retained historically. Allocation was completed using cost sharing,(full cost & cost shared) as the best fit to the RIN definition. **NON-ROUTINE MAINTENANCE COST ($000'S)** **Approach used:** • Details available in systems available provided sufficient detail regarding the number of assets maintained as part of non-routine maintenance activities. However cost allocation was not available on an individual asset basis **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Limited volumes were available for non-routine maintenance **Assumptions made:** • The definition as per the RIN required that all roads managed by state road authorities be classified as 'major roads', roads managed by municipal councils classified as 'minor roads. • Business retains some information of non-routine maintenance by asset categories and this was used where available. • Allocation to major road / minor road was not retained historically. Allocation was completed using cost sharing,(full cost & cost shared) as the best fit to the RIN definition.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other reliable data is available for the period required.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 2.8 Maintenance	
Table name: 2.8.2 - COST METRICS FOR ROUTINE AND NON-ROUTINE MAINTENANCE	
MAINTENANCE ACTIVITY	**MAINTENANCE ASSET CATEGORY**
OTHER	EMERGENCY FAULTS - OVERHEAD EMERGENCY FAULTS - UNDERGROUND EMERGENCY FAULTS - METERS EMERGENCY FAULTS - PROTECTION AND CONTROL ROADS MGT BILL VOLTAGE COMPLAINTS TVI INVESTIGATIONS POLE DEFECT MANAGEMENT INSULATOR WASHING ENVIRONMENT MANAGEMENT UG CABLE LOCATIONS QUALITY AUDITS QUALITY INVESTIGATIONS NETWORK LOGGING MONITORING RESEARCH AND DEVELOPMENT ESV REPORTING MISCELLANEOUS MAINTENANCE NETWORK ASSET RETIREMENT ASSET RETIREMENT
BOP ID	CAPAL2.8BOP9

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
11. MAINTENANCE EXPENDITURE
11.10 For 'Other maintenance activity', add rows for *maintenance* expenditure subcategories if these are material and if these are not yet included in any other *maintenance* expenditure subcategory.

Please provide a Response in this box:
All 'other maintenance activity' not included in the specific asset related *maintenance* subcategories have been identified and an appropriate row has been added describing the maintenance activity undertaken.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Financial data obtained from a report from SAP.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The costs for the 'other maintenance activities' as described in clause 11.10 of the RIN were obtained directly from the Electricity Networks Business Unit Function Code Expenditure for that year. All other Maintenance category Function Codes were used to populate the AER nominated maintenance activities in Table 2.8.2. The items in red font, are routine maintenance costs, the remaining Function Code costs are non-routine maintenance costs. Each item has the following Function Code (FC): • FC309 EMERGENCY FAULTS - OVERHEAD • FC310 EMERGENCY FAULTS - UNDERGROUND • FC311 EMERGENCY FAULTS - METERS • FC312 EMERGENCY FAULTS - PROTECTION AND CONTROL • FC325 ROADS MGT BILL • FC335 VOLTAGE COMPLAINTS • FC336 TVI INVESTIGATIONS • FC381 POLE DEFECT MANAGEMENT • FC410 INSULATOR WASHING • FC425 ENVIRONMENT MANAGEMENT • FC426 BUSHFIRE MITIGATION • FC440 UG CABLE LOCATIONS • FC482 QUALITY AUDITS • FC484 QUALITY INVESTIGATIONS • FC485 NETWORK LOGGING MONITORING • FC486 RESEARCH AND DEVELOPMENT • FC488 ESV REPORTING • FC800 MISCELLANEOUS MAINTENANCE • FC991 NETWORK ASSET RETIREMENT • A991 ASSET RETIREMENT
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As for 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

2.9 Emergency Response

AER CATEGORY ANALYSIS RIN

Tab name: 2.9 Emergency Response	
Table name: 2.9.1 - EMERGENCY RESPONSE EXPENDITURE (OPEX)	
(A) TOTAL EMERGENCY RESPONSE EXPENDITURE ($000'S)	(ALL)
(B) MAJOR EVENTS O&M EXPENDITURE ($000'S)	(ALL)
(C) MAJOR EVENT DAYS O&M EXPENDITURE ($000'S)	(ALL)
BOP ID	CAPAL2.9BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
13. EMERGENCY RESPONSE EXPENDITURE
13.1 Report the following expenditure for each regulatory year:
(a) total emergency response expenditure
(b) emergency response expenditure attributable to major events by identifying direct costs through a specific cost code for each major event or major storm. Major events most often refer to, but are not limited to, a major storm.
(c) emergency response expenditure attributable to major event days by identifying daily operating expenditure incurred on each date of those major event days and summing up the expenditure for each event.

Emergency response
Costs incurred to restore a failed component to an operational state including all expenditure relating to the work incurred where supply has been interrupted or assets damaged or rendered unsafe by a breakdown, making immediate operations and/or repairs necessary. Costs of activities primarily directed at maintaining network functionality and for which immediate rectification is necessary. These activities are primarily due to network failure caused by weather

Please provide a Response in this box:
13.1 expenditure for each regulatory year:
(a) total emergency response expenditure
All operating expenditure directly associated with the emergency response to failed Subtransmission, High Voltage and Low Voltage components has been provided for each regulatory year. These works comprise the response to restore the network to its operational state, and include:

- all such emergency work to respond, rectify or make safe
- all switching associated with the emergency including work preparation and restoration of supply
- attendance to:
  - loss of supply to customers
  - electrical accidents
  - shocks or facilities fires
  - high voltage injection
- emergency response operating costs for major events.

(b) emergency response expenditure attributable to major events by identifying direct costs through a specific cost code for each major event or major storm. Major events most often refer to, but are not limited to, a major storm. The costs for emergency response to Major events such as storm and extreme weather event costs are captured using blanket Orders created for each specific event. A major event will be made up of a large number of individual faults that are directly attributable to the event. A blanket order captures the costs for each individual fault to give the total cost for the major event.

(c) emergency response expenditure attributable to major event days by identifying daily operating expenditure incurred on each date of those major event days and summing up the expenditure for each event:

The costs for each date of a major event are not separated by their date, but are captured in the "blanket" order as described in (b) above. All operating costs associated with each event are captured.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Section c)

2009	2010	2011	2012	2013	2014	2015

Section a)

2009	2010	2011	2012	2013	2014	2015

Section b)

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

The Total Emergency Response Expenditure for each year is provided by Regulatory Accounting group from data obtained from SAP.

Major Event Days (MEDs) are provided by the Reliability group from their determination of days that met the MED threshold as set by the AER for the corresponding years. Data is then obtained from:

- Outage Management System (via Business Intelligence reporting system) used to review fault data for MED days – OM0015 Order Details report, OM0016 Order Details Generic report and SAP transaction ZI49 provide fault orders.
- SAP transaction KSB1 and KOB1 provide cost for these events.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Table 2.9.1 – Emergency Response Expenditure (A) Total Expenditure: The data in table 2.9.1 represents actual figures captured in the SAP system and referenced to individual fault cases through the Outage Management System (OMS). This data is inclusive of all emergency works including Major Event Days. (B) Major Storm Based on the AER's definition of a Major Storm (AER Requirement Document, Appendix F Definitions, Major Storm – "Tropical cyclone Category 1 or above as classified by Australian Bureau of Meteorology", there have been no Major Storm events in Powercor during the period of reporting. (C) Major Event Days The data in table 2.9.1 represents actual figures captured in the SAP system and referenced to individual fault cases through the Outage Management System (OMS) for Major Event Days only. The data includes all fault costs for that day, plus any fault orders related to the event that span over the whole major event. Major Event Days include: ○ All causes – including severe weather events and normal faults. ○ A severe weather event could last for more than a day. The cost includes the operational cost of

	the entire event. The AER 2010 Major Event Days (MED) threshold was applied for 2009
2010	Same as 2009. 2 MEDs – 4 and 5 September 2010 are provided as one event.
2011	Same as 2009. 2 MEDs – 13 – 14 January 2011 are provided as one event
2012	Same as 2009, there is no MED in 2012.
2013	Same as 2009.
2014	Same as 2009.
2015	Same as 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	An estimate was required due to a minor discrepancy between the Regulation Accounting group data and the Fault and Emergency Historical data. It was not possible to use actual data since the MED historical data could not be matched equally to finance figures.
2010	Same as 2009
2011	Same as 2009
2012	Same as 2009
2013	Same as 2009
2014	Same as 2009
2015	Same as 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Historical data for MED was proportioned to total Fault and Emergency historical data. This proportion was then allocated pro rata to the Regulation Accounting group information obtained from finance. RIN MED Cost = MED cost (historical data) x total Fault and Emergency figure from Regulation Accounting group / total Fault and Emergency historical figure.
2010	Same as 2009
2011	Same as 2009
2012	Same as 2009
2013	Same as 2009
2014	Same as 2009
2015	Same as 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This approach was the best estimate given it was simple and effective in reconciling the minor discrepancy between the figures.
2010	Same as 2009
2011	Same as 2009
2012	Same as 2009
2013	Same as 2009
2014	Same as 2009
2015	Same as 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

No data has been provided for section b) as based on the AER's definition of a Major Storm (AER Requirement Document, Appendix F Definitions, Major Storm – "Tropical cyclone Category 1 or above as classified by Australian Bureau of Meteorology", there have been no Major Storm events in Powercor during the period of reporting.

2.10 Overheads

Tab name: 2.10 Overheads	
Table name 2.10.1 - NETWORK OVERHEADS EXPENDITURE	
NETWORK OVERHEADS	All actual data. **Includes** basis for items: OTHER FLEET & PROPERTY OVERHEAD PNS OVERHEAD LEVIES GSL PAYMENTS ADVERTISING
BOP ID	CAPAL2.10BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

14. OVERHEADS EXPENDITURE

14.1 Report overhead expenditure before it is allocated to services or direct expenditure, and before any part of it is capitalised.

14.2 Powercor must disaggregate network operating costs into the following six subcategories:

(a) network management
(b) network planning
(c) network control and operational switching personnel
(d) quality and standard functions
(e) project governance and related functions
(f) other.

14.3 For the avoidance of doubt, the following expenditures must be provided in regulatory template 2.10:

(a) Table 2.10.1 Network Overhead – If Powercor has previously reported network operating costs in its Regulatory Accounting Statements, Powercor must report these under network overhead in regulatory template 2.10.1:
(i) network management
(ii) network planning
(iii) network control and operational switching
(iv) quality and standard functions (including standards and manuals, compliance, quality of supply, reliability, network records (GIS), and asset strategy (other than network planning)
(v) project governance and related functions (including supervision, procurement, works management, logistics and stores)
(vi) other (including training, OH&S functions, network billing, and customer service).
The six subcategories above are mandatory subcategories in network overhead.

(b) Table 2.10.1 Network Overhead – For other network operating costs that Powercor previously reported in its Regulatory Accounting Statements and are not included in the six mandatory subcategories above, Powercor must report these under network overhead in regulatory template 2.10.1. These expenditures include, but are not limited to:
(i) meter reading
(ii) advertising/marketing
(iii) Guaranteed Service Level (GSL) payments
(iv) National Energy Customer Framework (NECF)-related expenses
(v) feed-in tariffs
(vi) demand management expenditure
(vii) levies

(c) Table 2.10.2 Corporate Overhead – For corporate overhead expenditure that Powercor previously reported in its Regulatory Accounting Statements and are not included in any other overhead subcategory, Powercor must report these under corporate overhead in regulatory template 2.10.2. These expenditures include, but are not limited to:
(i) office of the CEO
(ii) legal and secretariat
(iii) human resources
(iv) finance
(v) regulatory
(vi) insurance
(vii) self-insurance
(viii) debt raising costs
(ix) equity raising costs
(x) non-network IT support.

14.4 If there is any overhead expenditure that is capitalised:
(a) explain, in the Basis of Preparation, why it is capitalised
(b) if there is a material change in reported expenditures in the Initial Regulatory Years or in Subsequent Regulatory Years due to a change in capitalisation policy, identify the expenditure categories and quantum of capex and opex that are affected and explain this in the Basis of Preparation.

Please provide a Response in this box:
Network Overheads have been reported consistent with the cost allocation methodology, Regulatory Financial Statements and opex categories in place at the time for those regulatory years, with the exception of the 2011 and 2012 years.
Powercor's approved CAM for 2011 and 2012 was inconsistent with the AER's final distribution determination 2011-15 service classification. In December 2013 the AER approved an amended CAM which is consistent with the AER's final distribution determination 2011-15 service classification. For the purposes of this RIN, Powercor has deemed that the 2011 and 2012 Regulatory Accounting Statements restated to be consistent with the approved amended CAM are the relevant Regulatory Accounting Statements. On this basis, opex has been reported consistent with the cost allocation methodologies, Regulatory Financial Statements and opex categories that applied in the relevant year.

Network overheads have been reported before allocation to services or direct expenditure, and before any part of it is capitalised.
Powercor has restated its network operating costs and applicable network management overheads in accordance with the following categorisation as defined by the AER:
(i) network management
(ii) network planning
(iii) network control and operational switching
(iv) quality and standard functions (including standards and manuals, compliance, quality of supply, reliability, network records (GIS), and asset strategy (other than network planning)
(v) project governance and related functions (including supervision, procurement, works management, logistics and stores)
(vi) other (including training, OH&S functions, network billing, and customer service).
The six subcategories above are mandatory subcategories in network overhead.

'Other' includes network billing and customer service.

The business has not reported meter reading, and advertising/marketing as a network operating cost in its Regulatory Accounting Statements. Victoria has not yet moved to NECF, so no NECF direct costs have been incurred. Demand management expenditure is included in the six mandatory network overhead subcategories.

For the capitalised portion an explanation has been provided as to why this is capitalised.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: The data for the expenditure categories and cost allocations for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Overhead Expenditure Before Allocation:** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. Information presented in this table utilises the cost allocation methodology applicable for the particular year. **Capitalised Overheads:** FLEET & PROPERTY OVERHEAD PNS OVERHEAD The business has taken the position that as the core operation of the business is the management of the distribution network, then overhead costs of managing the business are deemed to be unavoidable costs that are directly attributable to construction activity. The effect of the policy is to allocate these overheads between capital and maintenance activities, and between categories of distribution service.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

AER CATEGORY ANALYSIS RIN

Tab name: 2.10 Overheads	
Table name 2.10.1 - NETWORK OVERHEADS EXPENDITURE	
NETWORK OVERHEADS	All estimated data. **Includes** basis for items: NETWORK MANAGEMENT NETWORK PLANNING NETWORK CONTROL AND OPERATIONAL SWITCHING QUALITY AND STANDARD FUNCTIONS PROJECT GOVERNANCE AND RELATED FUNCTIONS
BOP ID	CAPAL2.10BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

14. OVERHEADS EXPENDITURE

14.1 Report overhead expenditure before it is allocated to services or direct expenditure, and before any part of it is capitalised.

14.2 Powercor must disaggregate network operating costs into the following six subcategories:

(a) network management
(b) network planning
(c) network control and operational switching personnel
(d) quality and standard functions
(e) project governance and related functions
(f) other.

14.3 For the avoidance of doubt, the following expenditures must be provided in regulatory template 2.10:

(a) Table 2.10.1 Network Overhead – If Powercor has previously reported network operating costs in its Regulatory Accounting Statements, Powercor must report these under network overhead in regulatory template 2.10.1:
(i) network management
(ii) network planning
(iii) network control and operational switching
(iv) quality and standard functions (including standards and manuals, compliance, quality of supply, reliability, network records (GIS), and asset strategy (other than network planning)
(v) project governance and related functions (including supervision, procurement, works management, logistics and stores)
(vi) other (including training, OH&S functions, network billing, and customer service).
The six subcategories above are mandatory subcategories in network overhead.

(b) Table 2.10.1 Network Overhead – For other network operating costs that Powercor previously reported in its Regulatory Accounting Statements and are not included in the six mandatory subcategories above, Powercor must report these under network overhead in regulatory template 2.10.1. These expenditures include, but are not limited to:
(i) meter reading
(ii) advertising/marketing
(iii) Guaranteed Service Level (GSL) payments
(iv) National Energy Customer Framework (NECF)-related expenses
(v) feed-in tariffs
(vi) demand management expenditure
(vii) levies

(c) Table 2.10.2 Corporate Overhead – For corporate overhead expenditure that

Powercor previously reported in its Regulatory Accounting Statements and are not included in any other overhead subcategory, Powercor must report these under corporate overhead in regulatory template 2.10.2. These expenditures include, but are not limited to:
(i) office of the CEO
(ii) legal and secretariat
(iii) human resources
(iv) finance
(v) regulatory
(vi) insurance
(vii) self-insurance
(viii) debt raising costs
(ix) equity raising costs
(x) non-network IT support.

14.4 If there is any overhead expenditure that is capitalised:
(a) explain, in the Basis of Preparation, why it is capitalised
(b) if there is a material change in reported expenditures in the Initial Regulatory Years or in Subsequent Regulatory Years due to a change in capitalisation policy, identify the expenditure categories and quantum of capex and opex that are affected and explain this in the Basis of Preparation.

Please provide a Response in this box:
Network Overheads have been reported consistent with the cost allocation methodology, Regulatory Financial Statements and opex categories in place at the time for those regulatory years, with the exception of the 2011 and 2012 years.
Powercor's approved CAM for 2011 and 2012 was inconsistent with the AER's final distribution determination 2011-15 service classification. In December 2013 the AER approved an amended CAM which is consistent with the AER's final distribution determination 2011-15 service classification. For the purposes of this RIN, Powercor has deemed that the 2011 and 2012 Regulatory Accounting Statements restated to be consistent with the approved amended CAM are the relevant Regulatory Accounting Statements. On this basis, opex has been reported consistent with the cost allocation methodologies, Regulatory Financial Statements and opex categories that applied in the relevant year.

Network overheads have been reported before allocation to services or direct expenditure, and before any part of it is capitalised.
Powercor has restated its network operating costs and applicable network management overheads in accordance with the following categorisation as defined by the AER:
(i) network management
(ii) network planning
(iii) network control and operational switching
(iv) quality and standard functions (including standards and manuals, compliance, quality of supply, reliability, network records (GIS), and asset strategy (other than network planning)
(v) project governance and related functions (including supervision, procurement, works management, logistics and stores)
(vi) other (including training, OH&S functions, network billing, and customer service).
The six subcategories above are mandatory subcategories in network overhead.

For the capitalised portion an explanation has been provided as to why this is capitalised.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for the expenditure categories and cost allocations for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

The FTE data used for the estimation basis is sourced from the SAP HR payroll system.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Overhead Expenditure Before Allocation:** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. The information is reported consistent with the cost allocation methodology applicable for the particular year. An allocation based on FTE has been used as an estimate to allocate expenditure previously reported as network operating expenditure and applicable direct network overheads into the AER defined categories. **Capitalised Overheads:** NETWORK MANAGEMENT NETWORK PLANNING NETWORK CONTROL AND OPERATIONAL SWITCHING QUALITY AND STANDARD FUNCTIONS PROJECT GOVERNANCE AND RELATED FUNCTIONS The business has taken the position that as the core operation of the business is the management of the distribution network, then overhead costs of managing the business are deemed to be unavoidable costs that are directly attributable to construction activity. The effect of the policy is to allocate the applicable pools of overheads between capital and maintenance activities, and between categories of distribution service. The Network operating component previously reported as operating expenditure within the Regulatory financial statements is not allocated to capital and maintenance activities.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor did not capture expenditure in accordance with these categories as defined by the AER and therefore cannot use cost elements within SAP in order to disaggregate the data for the purposes of apportioning overhead costs between these categories.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The material driver for these costs is labour. It was therefore determined that the best basis for estimation between the AER defined categories was to split the costs based on an FTE allocation between these defined categories. FTE data was sourced from the SAP HR payroll system. Roles were allocated as best estimate by

	management between these categories in accordance with the definitions found in the AER Explanatory Statement.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	As the business did not capture expenditure in accordance with the AER defined categories, the selected approach based on an FTE allocation estimate was determined as the best representation based on employee effort on these functions.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.10 Overheads	
Table name 2.10.2 - CORPORATE OVERHEADS EXPENDITURE	
CORPORATE OVERHEADS	All actual data. **Includes** basis for items: OFFICE OF THE CEO DEBT RAISING COSTS FINANCE LEGAL & SECRETARIAT REGULATORY HUMAN RESOURCES IT INSURANCE SELF INSURANCE EQUITY RAISING COSTS OTHER
BOP ID	CAPAL2.10BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

14. OVERHEADS EXPENDITURE

14.1 Report overhead expenditure before it is allocated to services or direct expenditure, and before any part of it is capitalised.

14.2 Powercor must disaggregate network operating costs into the following six subcategories:

(a) network management
(b) network planning
(c) network control and operational switching personnel
(d) quality and standard functions
(e) project governance and related functions
(f) other.

14.3 For the avoidance of doubt, the following expenditures must be provided in regulatory template 2.10:

(a) Table 2.10.1 Network Overhead – If Powercor has previously reported network operating costs in its Regulatory Accounting Statements, Powercor must report these under network overhead in regulatory template 2.10.1:
(i) network management
(ii) network planning
(iii) network control and operational switching
(iv) quality and standard functions (including standards and manuals, compliance, quality of supply, reliability, network records (GIS), and asset strategy (other than network planning)
(v) project governance and related functions (including supervision, procurement, works management, logistics and stores)
(vi) other (including training, OH&S functions, network billing, and customer service).
The six subcategories above are mandatory subcategories in network overhead.

(b) Table 2.10.1 Network Overhead – For other network operating costs that Powercor previously reported in its Regulatory Accounting Statements and are not included in the six mandatory subcategories above, Powercor must report these under network overhead in regulatory template 2.10.1. These expenditures include, but are not limited to:
(i) meter reading
(ii) advertising/marketing
(iii) Guaranteed Service Level (GSL) payments

(iv) National Energy Customer Framework (NECF)-related expenses
(v) feed-in tariffs
(vi) demand management expenditure
(vii) levies

(c) Table 2.10.2 Corporate Overhead – For corporate overhead expenditure that Powercor previously reported in its Regulatory Accounting Statements and are not included in any other overhead subcategory, Powercor must report these under corporate overhead in regulatory template 2.10.2. These expenditures include, but are not limited to:
(i) office of the CEO
(ii) legal and secretariat
(iii) human resources
(iv) finance
(v) regulatory
(vi) insurance
(vii) self-insurance
(viii) debt raising costs
(ix) equity raising costs
(x) non-network IT support.

14.4 If there is any overhead expenditure that is capitalised:
(a) explain, in the Basis of Preparation, why it is capitalised
(b) if there is a material change in reported expenditures in the Initial Regulatory Years or in Subsequent Regulatory Years due to a change in capitalisation policy, identify the expenditure categories and quantum of capex and opex that are affected and explain this in the Basis of Preparation.

Please provide a Response in this box:
Corporate Overheads have been reported consistent with the cost allocation methodology, Regulatory Financial Statements and opex categories in place at the time for those regulatory years, with the exception of the 2011 and 2012 years.
Powercor's approved CAM for 2011 and 2012 was inconsistent with the AER's final distribution determination 2011-15 service classification. In December 2013 the AER approved an amended CAM which is consistent with the AER's final distribution determination 2011-15 service classification. For the purposes of this RIN, Powercor has deemed that the 2011 and 2012 Regulatory Accounting Statements restated to be consistent with the approved amended CAM are the relevant Regulatory Accounting Statements. On this basis, opex has been reported consistent with the cost allocation methodologies, Regulatory Financial Statements and opex categories that applied in the relevant year.

Corporate overheads have been reported before allocation to services or direct expenditure, and before any part of it is capitalised.

For the capitalised portion an explanation has been provided as to why this is capitalised.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for the expenditure categories and cost allocations for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Overhead Expenditure Before Allocation:** The SAP financial system is used to extract the information required to state the DNSP overhead information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. Information presented in this table utilises the cost allocation methodology applicable for the particular year. **Capitalised Overheads:** OFFICE OF THE CEO FINANCE LEGAL & SECRETARIAT REGULATORY HUMAN RESOURCES IT OTHER The businesses identifies the following corporate overheads as directly attributable to direct costs: • 50% of Chief Executive Officer (CEO) • Finance • Company secretary and legal • Human resources • Regulation • IT support & maintenance A corporate overhead rate is calculated and input into the SAP system which then applies the corporate overhead rate to all direct costs (capital and maintenance expenditure) by individual cost element. The business has taken the position that as the core operation of the business is the management of the distribution network, then overhead costs of managing the business are deemed to be unavoidable costs that are directly attributable to construction activity. The effect of the policy is to allocate these overheads between capital and maintenance activities, and between categories of distribution service.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No estimated data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

2.11 Labour

Tab name: 2.11 Labour	
Table name 2.11.1 - COST METRICS PER ANNUM	
(ALL Categories)	All estimated data. **Includes** basis for items: ASL (0'S)
BOP ID	CAPAL2.11BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

4. LABOUR COST INFORMATION

4.1 Only labour costs allocated to the provision of standard control services should be reported in the labour cost tables in regulatory template 2.11.

4.2 Labour used in the provision of contracts for both goods and services, other than contracts for the provision of labour (i.e. labour hire contracts) must not be reported in these tables.

4.3 Powercor must break down its labour data (both employees and labour contracted through labour hire contracts) into the Classification Levels provided in the relevant table in the template. Powercor must explain how it has grouped workers into these Classification Levels.

4.4 Labour related to each classification level obtained through labour hire contracts may be reported separately on separate lines to employee based labour. If Powercor wishes to do this they should add extra lines in the regulatory template below each classification level for which it wishes to separately report labour hire.

4.5 Quantities of labour, expenditure, or stand down periods should not be reported multiple times across labour tables However, labour may be split between tables (for example one worker could have half of their time allocated to corporate overheads and half of their time to network overheads).

4.6 The ASLs for each Classification Level must reflect the average Paid FTEs for each Classification Level over the course of the year.

4.7 'Per ASL' values are average values per ASL in each Classification Level. For example, the average productive work hours per ASL would equal the total productive work hours associated with labour in the Classification Level divided by the number reported in Annual Totals – ASLs for the Classification Level (i.e. the number of ASLs in the Classification Level).

4.8 Stand down periods must be reported against the relevant classification level in the table containing the relevant labour. For example, a stand down of an electrical line apprentice would be reported against the apprentice classification level in the Total network direct internal labour costs table.

Please provide a Response in this box:
In accordance with the requirements of the RIN notice:
- ASL's have been reported consistent with the definition of labour in this RIN notice. Powercor has included all internal ASL's and ASL's relating to contracts primarily for the provision of labour consistent with the mapping of labour cost reported in the RIN notice.
- Only ASL's relating to standard control services has been reported in this labour template.
- All ASL's have been reported against the mandatory classification levels in the table
- No ASL's have been reported multiple times within the tables
- ASL's per classification level is reported as an average across the relevant years

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

All ASL Categories Except for 'Apprentices'

2009	2010	2011	2012	2013	2014	2015

Apprentices

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

2009 – 2013: The data for ASL's for the years 2009-2013 has been sourced from both the SAP HR payroll system for internal employees and management estimates for external contractor ASL's.
Labour escalations for award employees have been sourced from the approved EBA.
2014: The data for ASL's for the year 2014 has been:

- Calculated leveraging off the 2013 reported ASL source data as above, and EBA escalations. (Except for Apprentices)
- Apprentices: Actual apprentices have been reported as per the HR payroll system.
- Number of ASL's is dependent on labour cost as sourced from SAP in the current year. (See BOP CAPAL2.11BOP2)

2015: As per 2014

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	In order to establish ASL's working on standard control services Powercor must work back from the ASL data relating to Victoria Power Networks (VPN). For the VPN group the legal employer of the employee is not representative of the business on which that employee work is expended. For that reason the following methodology was followed in order to establish ASL's relating to Standard Control, by segment and classification category. **Calculating Overall ASL's** VPN Internal ASL's have been collated as per the VPN Business Report, sourced from SAP HR payroll data in each month over the 5 year period. VPN External ASL's relating to contracts primarily for the provision of labour have been added to the VPN internal ASL's to establish a total VPN ASL's. This information has been sourced from management estimates in order to best align with labour contract invoicing. Management estimates have then been used to remove those ASL's working on non-distribution services within the VPN group in order to establish distribution business ASL's for Powercor & CitiPower combined. Utilising HR payroll data and applying a mapping against the role descriptions employees have been categorised as best as possible against the category descriptions as supplied in the RIN for internal employees as a best estimate from management on external contract ASL's. Using expected labour growth rates for each of the years, based upon EBA escalation and internal non award labour escalations, ASL's for each of the years have been derived taking into account the historical build-up of ASL's by labour category. In order to establish the split between Powercor and CitiPower, ASL's have been split based upon the labour cost reported in each of the distribution businesses in each segment Network Overheads, Corporate Overheads and Direct.

	Splitting VPN ASL's into Powercor ASL's ASL's have then been split based upon the Powercor labour cost splits between standard control and other distribution services for the segments Network Overheads, Corporate Overheads and Direct. Labour costs have been split between categories of distribution service in accordance with the cost allocation methodology.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	*The process is the same as 2013 except as follows* The ASL's determined in 2013 have been used as the starting point and total labour cost (BOP CAPAL2.11BOP2) has been mapped to these 2013 ASL categories. An assumption of implied labour rate growth, as per the EBA agreements in the current year has been applied to the average labour cost per ASL category determined in 2013. This labour cost per ASL is then divided into the total labour cost to determine the ASL reported by category in 2014. Actual apprentice ASL's has been reported as per the HR payroll system.
2015	*The process is the same as 2014 except for the following*: Changes were made for the process of allocating skilled electrical/non-electrical ASL's. In 2015 IT costs were comparatively higher due to an increase presence of IT projects and so the non-electrical/electrical split has been adjusted to reflect this. This was determined by dividing the incremental labour cost by the number of working days divided by the daily labour rate. An assumption of implied labour rate growth, as per the EBA agreements in the current year has been applied to the average labour cost per ASL category determined in 2013. This labour cost per ASL is then divided into the total labour cost to determine the ASL reported by category in 2015.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor is required to make estimates of ASL's for the following reasons; - For the VPN group the legal employer of the employee is not representative of the business on which that employee work is expended. - Powercor reports our internal employees only with a role description and not in accordance with the categories of labour prescribed in this template. Management therefore is required to use judgement in classifying ALS against these categories. - ASL's are not reported against categories of distribution service. - Accurate ASL data is not consistently captured for all units against external labour contracts. -
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009 except for Apprentices which are reported as per payroll
2015	As per 2014

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimates have been made for the following data; - **Labour Contract ASL's –** Where possible has been sourced from the labour contract invoicing / time confirmations though management estimates were required where no data existed to align with labour cost invoicing. In these circumstances, contract ASL's is estimated using the labour cost divided against the estimate of the daily rates for these ASL's. - **Non Distribution ASL's –** Estimates were made by management with regard to identifying those ASL's relating to Non Distribution services. Where available HR payroll data was used to assign those FTE's by

	job description or function of the business these employees work. Where this was not available management estimate was used to best align the ASL's to the mapping of labour costs within the VPN group. - **Split of ASL's by labour category -** Utilising HR payroll data and applying a mapping against the role descriptions employees have been categorised as best as possible against the category descriptions as supplied in the RIN for internal employees and as a best estimate from management on external contract ASL's. - **EBA Labour Rate escalations –** EBA (ETU and APESMA/ASU) for the respective years have been utilised and applied to entire years. This is an estimate as escalation fall at periods throughout the years and therefore cross different years. Application of these labour rates to the year in which they occur materially estimates the growth rates over time. - **Internal Non Award Labour Rate escalations –** Internal non award labour rates have been sourced from the budgeted labour rate escalation assumptions for the respective year used in setting internal salary increments. - **Split between Powercor and CitiPower ASL's -** ASL's have been split based upon the labour cost reported in each of the distribution businesses in each segment Network Overheads, Corporate Overheads and Direct. - **Split between standard control and other distribution services -** based upon the Powercor labour cost splits between standard control and other distribution services for the segments Network Overheads, Corporate Overheads and Direct. Labour costs have been split between categories of distribution service in accordance with the cost allocation methodology. -
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	Estimates for all ASL's (except for Apprentices) have been determined by utilising the assumption that the known underlying labour rate growth in the EBA in the current year is the most certain of all conceivable outcomes of the data to be presented. Given the multiple different data sources and difficulty in aligning these sources accurately, EBA growth is the most commonly aligned factor to normalise the data inputs to a logical outcome.
2015	As per 2014

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other options were identified that fit the requirements of the exercise.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

AER CATEGORY ANALYSIS RIN

Tab name: 2.11 Labour	
Table name 2.11.1 - COST METRICS PER ANNUM	
(ALL Categories)	All estimated data. **Includes** basis for items: TOTAL LABOUR COST ($000'S)
BOP ID	CAPAL2.11BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

4. LABOUR COST INFORMATION

4.1 Only labour costs allocated to the provision of standard control services should be reported in the labour cost tables in regulatory template 2.11.

4.2 Labour used in the provision of contracts for both goods and services, other than contracts for the provision of labour (i.e. labour hire contracts) must not be reported in these tables.

4.3 Powercor must break down its labour data (both employees and labour contracted through labour hire contracts) into the Classification Levels provided in the relevant table in the template. Powercor must explain how it has grouped workers into these Classification Levels.

4.4 Labour related to each classification level obtained through labour hire contracts may be reported separately on separate lines to employee based labour. If Powercor wishes to do this they should add extra lines in the regulatory template below each classification level for which it wishes to separately report labour hire.

4.5 Quantities of labour, expenditure, or stand down periods should not be reported multiple times across labour tables However, labour may be split between tables (for example one worker could have half of their time allocated to corporate overheads and half of their time to network overheads).

4.6 The ASLs for each Classification Level must reflect the average Paid FTEs for each Classification Level over the course of the year.

4.7 'Per ASL' values are average values per ASL in each Classification Level. For example, the average productive work hours per ASL would equal the total productive work hours associated with labour in the Classification Level divided by the number reported in Annual Totals – ASLs for the Classification Level (i.e. the number of ASLs in the Classification Level).

4.8 Stand down periods must be reported against the relevant classification level in the table containing the relevant labour. For example, a stand down of an electrical line apprentice would be reported against the apprentice classification level in the Total network direct internal labour costs table.

Please provide a Response in this box:
In accordance with the requirements of the RIN notice:
- Labour cost has been reported consistent with the definition of labour in this RIN notice. Powercor has reported all internal labour and labour relating to contracts primarily for the provision of labour.
- Only labour relating to standard control services has been reported in this labour template.
- All labour costs have been reported against the mandatory classification levels in the table
- No labour costs have been reported multiple times within the tables

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: The data for the standard control labour cost expenditure for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

HR payroll data has been utilised in establishing a best estimate of average remuneration by labour classification.

Internal labour rate models have been used to align assumptions with cost mapping.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The SAP financial system is used to extract the information required to state the DNSP costs by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. In order to establish the proportion of costs that relate to labour, as per the definition of labour in the RIN, a mapping is applied to assign GL accounts as either labour material or contract costs. This mapping is a management judgement to best align GL account definitions with RIN definitions of labour, material and contracts. Most GL accounts have been mapped in their entirety to either labour, materials or contracts. For the remaining GL accounts, management judgement has been used to estimate an allocation between labour, materials and contracts. The RIN notice requires labour costs to be reported against labour classifications. In order to do this labour costs for each of Network Overheads, Corporate Overheads and Direct are allocated to the labour classifications, with the allocator calculated as follows. Average remuneration has been estimated for each of the labour classifications. Utilising the reported ASL's by classification level this estimated average remuneration is multiplied the ASL's to establish a labour cost estimate. The labour cost proportion by labour classification is the allocator.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor is required to make estimates of labour cost for the following reasons; - The business captures costs by GL account. Whilst many of the GL accounts are readily identifiable as labour, materials or contracts there are instances where management has been required to form judgement to this labour mapping where a GL account cannot be exclusive identified as labour materials or contracts and been allocated based on management best estimate which category fits best.

	- Powercor does not capture labour cost against the labour categories as specified in the RIN notice
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimates have been made for the following data; - **Labour** / **Materials** / **Contracts Split –** A mapping is applied to assign GL accounts as either labour material or contract costs. This mapping is a management estimate assigning activity allocation GL accounts against these categories. Where a GL account materially fits one of these categories, that account has been mapped in its entirety to either labour, materials or contracts. - **Estimated Average Remuneration –** A best possible estimate of average remuneration has been calculated utilising the 2013 HR payroll budget salary information. Internal employees were mapped to each of the classification levels as best as possible against the RIN definitions to calculate an average total remuneration (TR) by labour classification. Adjustments were made to this TR information for the skilled electrical worker, skilled non electrical worker and apprentice for the following as they are material to these particular classifications: **Overtime adjustment –** A percentage is applied to the TR for each of these classifications to account for the average overtime per ASL. The assumption for line workers is based on the EBA and OHS fatigue policy of a limit of 390 hours of overtime per worker per year. Assumptions for other categories are based on historical averages and local knowledge by construction co-ordinators. Assumptions are monitored on a monthly basis and over years have been maintained as stable over time. **Average overtime rate** – An assumption has been made that overtime is payed at twice that of the ordinary time rate. This is materially representative and is consistent with all internal budget instruction and resource models and EBA's. **External contractor adjustment -** A percentage is applied to the TR for each of these classifications to account for both the percentage of external contractors and the relative additional labour rate for an external subcontract resource. Average hourly rate for external labour contractors is based on the 'Contractor Database' containing the field resources rates. This is compared against our internal labour rates to establish the additional cost of an external contractor. **Allowance adjustment –** A management best estimate has been sourced from the HR payroll data in order allocate a percentage to each of these categories with regard to the average allowances per ASL. A sampling of HR payroll data containing allowances against ASL has been referenced in order to estimate an approximate proportion of allowances by category type. Management believes this to be materially accurate in the assumptions used against the labour types within the RIN.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other options were identified that fit the requirements of the exercise.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

AER CATEGORY ANALYSIS RIN

Tab name: 2.11 Labour	
Table name 2.11.1 - COST METRICS PER ANNUM	
(ALL Categories)	All estimated data. **Includes** basis for items: AVERAGE PRODUCTIVE WORK HOURS PER ASL (0'S)
BOP ID	CAPAL2.11BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

4. LABOUR COST INFORMATION

4.1 Only labour costs allocated to the provision of standard control services should be reported in the labour cost tables in regulatory template 2.11.

4.2 Labour used in the provision of contracts for both goods and services, other than contracts for the provision of labour (i.e. labour hire contracts) must not be reported in these tables.

4.3 Powercor must break down its labour data (both employees and labour contracted through labour hire contracts) into the Classification Levels provided in the relevant table in the template. Powercor must explain how it has grouped workers into these Classification Levels.

4.4 Labour related to each classification level obtained through labour hire contracts may be reported separately on separate lines to employee based labour. If Powercor wishes to do this they should add extra lines in the regulatory template below each classification level for which it wishes to separately report labour hire.

4.5 Quantities of labour, expenditure, or stand down periods should not be reported multiple times across labour tables However, labour may be split between tables (for example one worker could have half of their time allocated to corporate overheads and half of their time to network overheads).

4.6 The ASLs for each Classification Level must reflect the average Paid FTEs for each Classification Level over the course of the year.

4.7 'Per ASL' values are average values per ASL in each Classification Level. For example, the average productive work hours per ASL would equal the total productive work hours associated with labour in the Classification Level divided by the number reported in Annual Totals – ASLs for the Classification Level (i.e. the number of ASLs in the Classification Level).

4.8 Stand down periods must be reported against the relevant classification level in the table containing the relevant labour. For example, a stand down of an electrical line apprentice would be reported against the apprentice classification level in the Total network direct internal labour costs table.

Please provide a Response in this box:
In accordance with the requirements of the RIN notice:
- Productive Work Hours per ASL has been reported consistent with the definition of labour in this RIN notice. Powercor has included all internal ASL's and ASL's relating to contracts primarily for the provision of labour consistent with the mapping of labour cost reported in the RIN notice.
- Only ASL's relating to standard control services has been reported in this labour template.
- All ASL's have been reported against the mandatory classification levels in the table

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

The data for productive work hours for the years 2009-2015 has is based on a series of assumptions, some of which are sourced from labour rate calculation models and others management estimates.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	In order to establish Productive work hours per ASL for standard control services, Powercor has used a series of assumptions as follows; 4 distinct labour categories each have been assigned a different set of assumptions. A differing methodology has been applied to these categories as they have been identified as having a distinct difference in assumption drivers. These categories are: Skilled Electrical Worker Skilled Non Electrical Worker Apprentices All other categories A methodology has then been followed using the following assumptions: **Available days** Available working days – Excluding Public Holidays (Days) *Deduct the following assumptions* Annual Leave (Days) Sick/Carer's/Special Leave (Days) Long Service leave (Days) **Available hours per day** Total available ordinary time hours per ASL *Deduct the following assumptions* Total unconfirmed ordinary time hours per ASL *Add the following assumptions* Total overtime hours per ASL Productive hours per ASL is then calculated as: **Available days x Available hours per day**
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor is required to make estimates of productive work hours for the following reasons; - For the VPN group the legal employer of the employee is not representative of the business on which that employee work is expended. - Powercor reports our internal employees only with a role description and not in accordance with the categories of labour prescribed in this template. Management therefore is required to use judgement in classifying ASL's against these categories. - Internal employees are not reported against categories of distribution service. - Accurate ASL data is not consistently captured for all units against external labour contracts.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimates have been made for the following data; - **Annual Leave (Days) –** Management estimate, consistent with labour rate models. Each ASL accumulates four weeks recreational leave per year. On average over time the assumption is that this level of annual leave will be taken each year. - **Sick/Carer's/Special Leave (Days) –** Management estimate, consistent with labour rate models. Based on a sampling of our largest workforce segment, field resources, the assumption is based on average days taken over one year. This assumption has been assumed as materially accurate to apply to all labour categories. - **Long Service leave (Days) –** Management estimate, consistent with labour rate models. Based on a sampling of our largest workforce segment, field resources, the assumption is based on average days taken over one year. This assumption has been assumed as materially accurate to apply to all labour categories. - **Total unconfirmed ordinary time hours per ASL –** Management estimate, utilising assumptions contained within labour rate models. Unconfirmed ordinary time accounts for the time spent on training, meetings, lost time due to wet weather and other time spent on non-construction activity. Assumptions for unconfirmed time are based on experience and local knowledge by construction co-ordinators. Assumptions are monitored on a monthly basis and over years have been maintained as stable over time. - **Total overtime hours per ASL -** Management estimate, utilising assumptions contained within labour rate models. Assumption for line workers is based on the EBA and OHS fatigue policy of a limit of 390 hours of overtime per worker per year. Assumptions for overtime are based on historical averages and local knowledge by construction co-ordinators. Assumptions are monitored on a monthly basis and over years have been maintained as stable over time.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other options were identified that fit the requirements of the exercise.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

AER CATEGORY ANALYSIS RIN

Tab name: 2.11 Labour	
Table name 2.11.1 - COST METRICS PER ANNUM	
(ALL Categories)	All estimated data. **Includes** basis for items: STAND-DOWN OCCURENCES PER ASL (0'S)
BOP ID	CAPAL2.11BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

4. LABOUR COST INFORMATION

4.1 Only labour costs allocated to the provision of standard control services should be reported in the labour cost tables in regulatory template 2.11.

4.2 Labour used in the provision of contracts for both goods and services, other than contracts for the provision of labour (i.e. labour hire contracts) must not be reported in these tables.

4.3 Powercor must break down its labour data (both employees and labour contracted through labour hire contracts) into the Classification Levels provided in the relevant table in the template. Powercor must explain how it has grouped workers into these Classification Levels.

4.4 Labour related to each classification level obtained through labour hire contracts may be reported separately on separate lines to employee based labour. If Powercor wishes to do this they should add extra lines in the regulatory template below each classification level for which it wishes to separately report labour hire.

4.5 Quantities of labour, expenditure, or stand down periods should not be reported multiple times across labour tables However, labour may be split between tables (for example one worker could have half of their time allocated to corporate overheads and half of their time to network overheads).

4.6 The ASLs for each Classification Level must reflect the average Paid FTEs for each Classification Level over the course of the year.

4.7 'Per ASL' values are average values per ASL in each Classification Level. For example, the average productive work hours per ASL would equal the total productive work hours associated with labour in the Classification Level divided by the number reported in Annual Totals – ASLs for the Classification Level (i.e. the number of ASLs in the Classification Level).

4.8 Stand down periods must be reported against the relevant classification level in the table containing the relevant labour. For example, a stand down of an electrical line apprentice would be reported against the apprentice classification level in the Total network direct internal labour costs table.

Please provide a Response in this box:
In accordance with the requirements of the RIN notice:
- Stand down periods have been reported against a material best estimate of the relevant classification level in the table.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: The data for stand down occurrences for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The SAP financial system is used to extract the information required to state the DNSP costs by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. When a stand down event occurs, time confirmations are made to specific stand down orders by these individuals in SAP, for both internal and external contract labour resources. Using this SAP data the total number of stand down events is determined. The total number of stand down events is then divided by the ASL's for that labour category to determine total stand down occurrences per ASL.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor is required to make estimates of stand down occurrences for the following reasons; - Stand down occurrences are captured in SAP for all work performed for CitiPower and Powercor and not split between these distribution businesses.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimates have been made for the following data; - **Split of stand down occurrences between Powercor & CitiPower–** Stand down occurrences have been split using the split of total labour cost between Powercor and Citipower.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other options were identified that fit the requirements of the exercise.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.11 Labour	
Table name 2.11.2 - EXTRA DESCRIPTOR METRICS FOR CURRENT YEAR	
(ALL Categories)	All estimated data. **Includes** basis for items: AVERAGE PRODUCTIVE WORK HOURS PER ASL - ORDINARY TIME (0'S) AVERAGE PRODUCTIVE WORK HOURS HOURLY RATE PER ASL - ORDINARY TIME (0'S) AVERAGE PRODUCTIVE WORK HOURS PER ASL - OVERTIME (0'S) AVERAGE PRODUCTIVE WORK HOURS HOURLY RATE PER ASL - OVERTIME (0'S)
BOP ID	CAPAL2.11BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

4. LABOUR COST INFORMATION

4.1 Only labour costs allocated to the provision of standard control services should be reported in the labour cost tables in regulatory template 2.11.

4.2 Labour used in the provision of contracts for both goods and services, other than contracts for the provision of labour (i.e. labour hire contracts) must not be reported in these tables.

4.3 Powercor must break down its labour data (both employees and labour contracted through labour hire contracts) into the Classification Levels provided in the relevant table in the template. Powercor must explain how it has grouped workers into these Classification Levels.

4.4 Labour related to each classification level obtained through labour hire contracts may be reported separately on separate lines to employee based labour. If Powercor wishes to do this they should add extra lines in the regulatory template below each classification level for which it wishes to separately report labour hire.

4.5 Quantities of labour, expenditure, or stand down periods should not be reported multiple times across labour tables However, labour may be split between tables (for example one worker could have half of their time allocated to corporate overheads and half of their time to network overheads).

4.6 The ASLs for each Classification Level must reflect the average Paid FTEs for each Classification Level over the course of the year.

4.7 'Per ASL' values are average values per ASL in each Classification Level. For example, the average productive work hours per ASL would equal the total productive work hours associated with labour in the Classification Level divided by the number reported in Annual Totals – ASLs for the Classification Level (i.e. the number of ASLs in the Classification Level).

4.8 Stand down periods must be reported against the relevant classification level in the table containing the relevant labour. For example, a stand down of an electrical line apprentice would be reported against the apprentice classification level in the Total network direct internal labour costs table.

Please provide a Response in this box:
In accordance with the requirements of the RIN notice:
- Productive Work Hours per ASL has been reported consistent with the definition of labour in this RIN notice. Powercor has included all internal ASL's and ASL's relating to contracts primarily for the provision of labour consistent with the mapping of labour cost reported in the RIN notice.
- Only ASL's relating to standard control services has been reported in this labour template.
- All ASL's have been reported against the mandatory classification levels in the table

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

The data for productive work hours, split between ordinary time and overtime for the years 2009-2015 is based on a series of assumptions, some of which are sourced from the labour rate calculation models and others management estimates.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	In order to establish ordinary and overtime work hours per ASL for standard control services, Powercor has used a series of assumptions as follows; **Average Productive Work Hours Per ASL – Ordinary Time** This is arrived at by taking the 'Average Productive Hours Worked Per ASL' (calculated as detailed within CAPPAL2.11BOP 3) and then deducting 'Average Productive Hours Worked Per ASL – Overtime' (below) **Average Productive Work Hours Hourly Rate Per ASL – Ordinary Time** ➢ *Corporate and Network Overhead s Labour is calculated as:* Labour cost (CAPAL2.11BOP 2) / ASL (CAPPAL2.11BOP 1) / Productive work hour per ASL (BOP 3). ➢ *Direct Network Labour is calculated as:* ➢ Labour cost (CAPPAL2.11BOP 2) / ASL (CAPPAL2.11BOP 1) / [Productive work hour per ASL - ordinary time (CAPPAL2.11BOP 3) + (2 * Productive work hour per ASL – overtime)]. **Average Productive Work Hours Per ASL – Overtime** This is calculated relying on assumptions within the Average Productive Hours template (calculated per CAPPAL2.11BOP3). Overtime assumptions utilises the ratio of ordinary time hours to overtime hours within productive work hours, and using a multiple of 2 for the assumption of overtime rate per hour, a labour rate is able to be split using total labour costs for each category. Note – No overtime assumption has been made for labour categories other than Direct Network Labour Costs as the overtime components are immaterial. **Average Productive Work Hours Hourly Rate Per ASL – Overtime** This is calculated by 'Average Productive Work Hours Hourly Rate Per ASL – Ordinary Time' X 2 (as calculated in CAPPAL2.11BOP3). The Hourly rate is multiplied by 2 as the assumption of overtime rate per hour – detailed in Section E.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	***Note**; the below Estimates have been extracted from CAPPAL2.11BOP3 as relevant to calculating 'Average Productive Work Hours Per ASL' which is used to drive the calculations in Section D.* Powercor is required to make estimates of ordinary and over time for the following reasons; - For the VPN group the legal employer of the employee is not representative of the business on which that employee work is expended. - Powercor reports our internal employees only with a role description and not in accordance with the categories of labour prescribed in this template. Management therefore is required to use judgement in classifying ALS against these categories. - Internal employees are not reported against categories of distribution service. - Accurate ASL data is not consistently captured for all units against external labour contracts.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	***Note**; the below Estimates have been extracted from CAPPAL2.11BOP3 as relevant to calculating 'Average Productive Work Hours Per ASL' which is used to drive the calculations in Section D.* Estimates have been made for the following data; - **Annual Leave (Days) –** Management estimate, consistent with labour rate models. Each ASL accumulates four weeks recreational leave per year. On average over time the assumption is that this level of annual leave will be taken each year. - **Sick/Carer's/Special Leave (Days) –** Management estimate, consistent with labour rate models. Based on a sampling of our largest workforce segment, field resources, the assumption is based on average days taken over one year. This assumption has been assumed as materially accurate to apply to all labour categories. - **Long Service leave (Days) –** Management estimate, consistent with labour rate models. Based on a sampling of our largest workforce segment, field resources, the assumption is based on average days taken over one year. This assumption has been assumed as materially accurate to apply to all labour categories. - **Total unconfirmed ordinary time hours per ASL –** Management estimate, utilising assumptions contained within labour rate models. Unconfirmed ordinary time accounts for the time spent on training, meetings, lost time due to wet weather and other time spent on non-construction activity. Assumptions for unconfirmed time are based on experience and local knowledge by construction co-ordinators. Assumptions are monitored on a monthly basis and over years have been maintained as stable over time. - **Total overtime hours per ASL -** Management estimate, utilising assumptions contained within labour rate models. Assumption for line workers is based on the EBA and OHS fatigue policy of a limit of 390 hours of overtime per worker per year. Assumptions for other categories are based on historical averages and local knowledge by construction co-ordinators. Assumptions are monitored on a monthly basis and over years have been maintained as stable over time.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other options were identified that fit the requirements of the exercise.
2010	As per 2009

2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

2.12 Input Tables

AER CATEGORY ANALYSIS RIN

Tab name: 2.12 Input Tables	
(ALL Categories)	All estimated data. **Includes** basis for items: DIRECT MATERIAL COST DIRECT LABOUR COST CONTRACT COST OTHER COST
BOP ID	CAPAL2.12BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

As per the definitions in the RIN Notice

Labour costs - The costs of:
- Labour hire; and
- Ordinary time earnings; and
- Other earnings, on-costs and taxes; and
- Superannuation.

Labour hire – means expenditure:
- incurred under labour hire contracts.
- Excludes expenditure required under contracts other than labour hire contracts, irrespective of whether or not the contract includes a labour component.

Contract Costs - A legally binding contract

Please provide a Response in this box:
In accordance with the requirements of the RIN notice:
- Labour and Contract costs have been reported consistent with the definitions contained in the RIN notice. As a definition has not been listed for materials an interpretation has been made internally to allocate costs appropriately.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014		2015	

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for the labour, material, contract, other expenditure for the years 2009-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The SAP financial system is used to extract the information required to state the DNSP costs by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. In order to establish the proportion of costs that relate to labour, materials, contracts and others as per the definition of labour in the RIN, a mapping is applied to assign GL accounts as either labour, materials contracts or other costs. This mapping is a management judgement to best align GL account definitions with RIN definitions of labour, material, contracts and others. Most GL accounts have been mapped in their entirety to either labour, materials or contracts. For the remaining GL accounts, management judgement has been used to estimate an allocation between labour, materials, contracts and other. Note – The basis of preparation for the assignment of costs between work type categories has been specified in the BOP's relating to these categories within the RIN template. This basis of preparation addresses the methodology for the split of these categories between labour, materials, contracts and other.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor is required to make estimates for the following reasons; - The business captures costs by GL account. Whilst many of the GL accounts are readily identifiable as labour, materials contracts or other, there are instances where management has been required to form judgement to this labour mapping where a GL account cannot be exclusive identified as labour materials, contracts or other and has been allocated based on management best estimate which category fits best.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimates have been made for the following data; - **Labour** / **Materials** / **Contracts** / **Other Split –** A mapping is applied to assign cost elements as either labour, material, contract or other costs. This mapping is a management estimate assigning activity allocation GL accounts against these categories. Where a GL account materially fits one of these categories, that account has been mapped in its entirety to either labour, materials or contracts.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other options were identified that fit the requirements of the exercise.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 2.12 Input Tables	
(ALL Categories)	All estimated data. **Includes** basis for items: RELATED PARTY CONTRACT COST RELATED PARTY CONTRACT MARGIN
BOP ID	CAPAL2.12BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

As per the definitions in the RIN Notice

Related Party - In relation to Powercor, any other entity that:
· had, has or is expected to have control or significant influence over Powercor;
· was, is or is expected to be subject to control or significant influence from Powercor;
· was, is or is expected to be controlled by the same entity that controlled, controls or is expect to control Powercor referred to as a situation in which entities are subject to common control;
· was, is or is expected to be controlled by the same entity that significantly influenced, influences or is expected to influence Powercor; or
· was, is or is expected to be significantly influenced by the same entity that controlled, controls or is expected to control Powercor;

but excludes any other entity that would otherwise be related solely due to normal dealings of:
· financial institutions;
· authorised trustee corporations as prescribed in Schedule 9 of the Corporations Regulations 2001 (Cth);
· fund managers;
· trade unions;
· statutory authorities;
· government departments;
· local governments and includes Powercor Australia Ltd (ACN 064 651 109); or
· where any of the entities identified in sub-paragraphs (a) to (e) have novated or assigned a contract or arrangement to or from another entity (where that contract or arrangement relates to the provision of distribution services by Powercor, the entity to whom that contract or arrangement has been novated or assigned.

Related party contract - A finalised Contract between Powercor and a Related Party for the provision of goods and/or services

Related party margin - The dollar amount of profit a Related Party gains above its total actual costs under a Related Party Contract with Powercor. This profit may include margins, management fees or incentive payments.

Please provide a Response in this box:
In accordance with the requirements of the RIN notice:
- Related Party Contract costs and margins have been reported consistent with the definitions contained in the RIN.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for the related party costs and margins for the years 2009-2015 has been sourced from related party SAP accounting systems. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for related parties. In addition to this, as part of the Annual RIN process related parties are required to provide the actual cost of providing services. This under or over recovery by related party is allocated on pro rata basis across the specific activity.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The methodology used to state the related party information is as follows; **Related Party Margins** – Detailed related party data was extracted from the related party SAP accounting systems. This data does not align to the categories in the input tables and is allocated in accordance with the allocation of all other costs and described in their basis of preparations. **Related Party Contract Cost** – Utilising the total costs of each related party contract as reported in the Annual RIN's, which has been extracted from cost elements within SAP, total related party contract costs have been apportioned utilising a combination of margin and direct cost to represent the related party cost applicable to the categories in the RIN. Whilst estimating the related party contract costs by category the total related party contract reported in the RIN reflect that of previously reported Annual RIN's. Utilising the assumption that particular maintenance functions are known to be primarily either performed by a related party or externally provided, further alignment was made between opex direct and opex overheads to ensure related party cost best reflect management's best estimate.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor is required to make estimates for the following reasons; - Powercor does not readily have access to complete and comprehensive information supporting the related party contracts at the more granular level of the Category Analysis RIN. - As the actual cost from the related party is not identifiable at an activity level there is a level of estimation in applying the pro rata.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimates have been made for the following data; **Related party contract costs by work type category –** In arriving at the chosen methodology, Powercor explored a pro rata allocation using margins, an approach using a mix of pro rata and direct cost allocation and the chosen methodology utilising a mix of margin, direct cost and management estimates.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	In evaluating all methods considered, Powercor believes that the related party contract costs reported by category within the RIN, using the chosen methodology, best represents managements estimate of the underlying contract cost by category.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

AER Category Analysis RIN

Powercor Australia Ltd

Basis of Preparation documents

PART C

Year ended 31 December 2015

Table of Contents

4.1 Public Lighting

AER CATEGORY ANALYSIS RIN

Tab name: 4.1 Public Lighting	
Table name: 4.1.1 Current Population of Lights	
Asset Group	**Asset Category**
Public Lighting by : Asset Type; Current Year	(ALL Categories)
BOP ID	CAPAL4.1BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 Powercor must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Powercor's proposed revenue requirements.
17.2 Powercor is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.
17.3 Powercor is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.
17.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
17.5 Powercor must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Powercor.
17.6 Powercor must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.
17.7 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.
17.8 In the basis of preparation, Powercor must explain how the average unit cost for public lighting services was estimated.

Definitions
Light type Powercor should nominate the light type and/or standard wattage used. This will be consistent with the light types listed in annual tariff proposals. For example: Sodium, Fluorescent, Mercury, Metal Halide lighting types.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 4.1.1 Current Population of Lights by light type. We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 not applicable
17.2 not applicable
17.3 not applicable
17.4 not applicable
17.5 we have provided data for non-contestable, regulated public lighting services
17.6 not applicable
17.7 not applicable
17.8 not applicable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL[1] data green; and ESTIMATED[2]/derived data red

CURRENT POPULATION OF LIGHTS

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

CURRENT POPULATION OF LIGHTS

- The source data was extracted from GIS system listing all billable lights on the last day of the reportable year.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	not applicable
2010	not applicable
2011	not applicable
2012	not applicable
2013	not applicable
2014	**Methodology** • Per definition of "light type" only in service and billable lights were extracted from GIS. • Asset quantities were allocated across light types based on the definition listed above. **Assumptions** • Only in service and billable lights were reported • Metal Halide lights were combined where the wattage was the same.
2015	**Same as 2014**

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	not applicable
2010	not applicable

[1] ''Actual Information" is defined as "Information presented in response to the Notice whose presentation is Materially dependent on information recorded in Powercor or CitiPower's historical accounting records or other records used in the normal course of business, and whose presentation for the purposes of the Notice is not contingent on judgments and assumptions for which there are valid alternatives, which could lead to a Materially different presentation in the response to the Notice.

'Accounting records' include trial balances, the general ledger, subsidiary accounting ledgers, journal entries and documentation to support journal entries. Actual financial information may include accounting estimates, such as accruals and provisions, and any adjustments made to the accounting records to populate CitiPower or Powercor's regulatory accounts and responses to the Notice. 'Records used in the normal course of business', for the purposes of non-financial information, includes asset registers, geographical information systems, outage analysis systems, and so on."

[2] "Estimated Information" is defined as "Information presented in response to the Notice whose presentation is not Materially dependent on information recorded in Powercor or CitiPower's historical accounting records or other records used in the normal course of business, and whose presentation for the purposes of the Notice is contingent on judgments and assumptions for which there are valid alternatives, which could lead to a Materially different presentation in the response to the Notice."

2011	not applicable
2012	not applicable
2013	not applicable
2014	No estimate required
2015	No estimate required

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	not applicable
2010	not applicable
2011	not applicable
2012	not applicable
2013	not applicable
2014	No estimate required
2015	No estimate required

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	not applicable
2010	not applicable
2011	not applicable
2012	not applicable
2013	not applicable
2014	No estimate required
2015	No estimate required

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Data for 2009 – 2013 was not provided as it was not required per the template provided by AER

Tab name: 4.1 Public Lighting	
Table name: 4.1.2 LIGHT INSTALLATION – VOLUME OF WORKS AND EXPENDITURE	
Asset Group	**Asset Category**
Public Lighting by : Asset Type; Current Year	(ALL Categories)
BOP ID	CAPAL4.1BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 Powercor must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Powercor's proposed revenue requirements.
17.2 Powercor is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.
17.3 Powercor is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.
17.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
17.5 Powercor must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Powercor.
17.6 Powercor must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.
17.7 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.
17.8 In the basis of preparation, Powercor must explain how the average unit cost for public lighting services was estimated.

Definitions
Light installation: The installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp.
The installation may also include:
· Poles dedicated to public lighting services and
· Underground or overhead cabling dedicated to public lighting services.
Major road: Roads on which the visual requirements of motorists are dominant (e.g. traffic routes). Typically the responsibility of a state or territory road authority.
Minor road: Roads on which the visual requirements of pedestrians are dominant (e.g. local roads and lighting that is applicable to areas other than roads outdoor public areas, e.g. outdoor shopping). Typically the responsibility of a local Government authority.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 4.1.1 Current Population of Lights by light type. We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 the data provided for public lighting services reconcile to internal planning models
17.2 not applicable
17.3 not applicable
17.4 we have reported total expenditure data as a gross amount
17.5 we have provided data for non-contestable, regulated public lighting services
17.6 not applicable
17.7 not applicable
17.8 not applicable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

MAJOR ROAD LIGHT INSTALLATION VOLUME (000'S)

2009	2010	2011	2012	2013	2014	2015

MINOR ROAD LIGHT INSTALLATION VOLUME (000'S)

2009	2010	2011	2012	2013	2014	2015

NUMBER OF POLES INSTALLED (000'S)

2009	2010	2011	2012	2013	2014	2015

TOTAL COST ($000'S)

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

MAJOR ROAD LIGHT INSTALLATION VOLUME (000'S)

- The source data was extracted from GIS system listing all billable lights on the last day of the reportable year.

MINOR ROAD LIGHT INSTALLATION VOLUME (000'S)

- The source data was extracted from GIS system listing all billable lights on the last day of the reportable year.

NUMBER OF POLES INSTALLED (000'S)

- The source data for 2015 was extracted from a report completed for the 2015 Annual RIN Statement – 3 Asset Installation (Table 1) Asset Age Profile for distribution system assets – Public Lighting Poles.

TOTAL COST ($000'S)

- The source data was extracted from SAP – Finance based on function code allocation for each reportable year.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**MAJOR ROAD LIGHT INSTALLATION VOLUME (000'S)** **METHODOLOGY** • Per definition, light *installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp.* • Per definition, major road lights is based on 'Cost Sharing' not equal to '1' **ASSUMPTIONS** • Assumption made that total light installed for reported year was the net difference between the reportable year and the preceding year. • Major road data available in 2008 was not consistent with following years; however the total population was consistent. By calculating the variation between 2008 and 2009 for total lights, this percentage was then used to calculate the change in Major/Minor Lights. **MINOR ROAD LIGHT INSTALLATION VOLUME (000'S)** **METHODOLOGY** • Per definition, light *installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp.* • Per definition, minor road lights is based on 'Cost Sharing' equal to '1' **ASSUMPTIONS** • Assumption made that total light installed for reported year was the net difference between the reportable year and the preceding year. • Minor road data available in 2008 was not consistent with following years, however the total

Year	Methodology & Assumptions
	population was consistent. By calculating the variation between 2008 and 2009 for total lights, this percentage was then used to calculate the change in Major/Minor Lights. **NUMBER OF POLES INSTALLED (000'S)** **METHODOLOGY** • Per definition light installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp. The installation may also include: Poles dedicated to public lighting services. • Methodology to determine number of installed poles dedicated to public lighting was achieved by subtracting the total number of dedicated public lighting poles from the previous year's total. • minor road lights is based on 'Cost Sharing' equal to '1' **ASSUMPTIONS** • Assumption made that total dedicated poles is the subtraction of the previous year, however in some cases public lighting assets were permanently disconnected. • Actual installation data is not available as new assets are generally installed as part of a larger project. Data provided is the only indicative detail available. **TOTAL COST ($000'S)** **METHODOLOGY** • This balance was extracted directly from SAP based on the identification of function codes 119 and 120 which are applicable for public lighting new installations. • No assumptions required
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**MAJOR ROAD LIGHT INSTALLATION VOLUME (000'S)** • Business does not currently record number of new lights installed. • The only usable data available was calculating the net difference between the current reportable year and the preceding year. This is not reflective of actual new public lights, only the change from year to year. **MINOR ROAD LIGHT INSTALLATION VOLUME (000'S)** • Business does not currently record number of new lights installed. • The only usable data available was calculating the net difference between the current reportable year and the preceding year. This is not reflective of actual new public lights, only the change from year to year. **NUMBER OF POLES INSTALLED (000'S)** • Business does not currently record number of new poles installed. • The only usable data available was calculating the net difference between the current reportable year and the preceding year. This is not reflective of actual new public poles, only the change from year to year. **TOTAL COST ($000'S)** • Data was not estimated
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**MAJOR ROAD LIGHT INSTALLATION VOLUME (000'S)** **Approach used:** • Based on total expenditure for asset category – light installation, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset installations; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light installations. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light installations **Assumptions made:** • Total light installation expenditure has been allocated across sub-categories as no other further allocation was possible. **MINOR ROAD LIGHT INSTALLATION VOLUME (000'S)** **Approach used:** • Based on total expenditure for asset category - light installation, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset installations; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light installations. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light installations **Assumptions made:** • Total light installation volumes were based on net difference to the previous year as no other data was available. **NUMBER OF POLES INSTALLED (000'S)** **Approach used:** • Based on total expenditure for asset category – light installation, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset installations; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light installations. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light installations **Assumptions made:** • Total light pole installation volumes were based on net difference to the previous year as no other data was available. **TOTAL COST ($000'S)** • Data was not estimated
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	No other reliable data is available for the period required.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.1 Public Lighting	
Table name: 4.1.2 LIGHT REPLACEMENT – VOLUME OF WORKS AND EXPENDITURE	
Asset Group	**Asset Category**
Public Lighting by : Asset Type; Current Year	(ALL Categories)
BOP ID	CAPAL4.1BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 Powercor must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Powercor's proposed revenue requirements.
17.2 Powercor is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.
17.3 Powercor is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.
17.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
17.5 Powercor must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Powercor.
17.6 Powercor must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.
17.7 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.
17.8 In the basis of preparation, Powercor must explain how the average unit cost for public lighting services was estimated.

Definitions
Light replacement The cost of replacement on a major or minor road of any of the following public lighting assets:
· Luminaires
· Brackets
· Lamps
· Poles dedicated to public lighting services; and
· Underground or overhead cabling dedicated to public lighting services.
Light replacement should be estimated as the replacement of public lighting assets with their modern equivalent, where the public lighting assets have reached the end of their economic life.

Major road: Roads on which the visual requirements of motorists are dominant (e.g. traffic routes). Typically the responsibility of a state or territory road authority.
Minor road: Roads on which the visual requirements of pedestrians are dominant (e.g. local roads and lighting that is applicable to areas other than roads outdoor public areas, e.g. outdoor shopping). Typically the responsibility of a local Government authority.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RI, 4.1.1 Current Population of Lights by light type. We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 the data provided for public lighting services reconcile to internal planning models
17.2 not applicable
17.3 not applicable

17.4 we have reported total expenditure data as a gross amount
17.5 we have provided data for non-contestable, regulated public lighting services
17.6 not applicable
17.7 not applicable
17.8 not applicable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

MAJOR ROAD LIGHT REPLACEMENT VOLUME (000'S)

2009	2010	2011	2012	2013	2014	2015

MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)

2009	2010	2011	2012	2013	2014	2015

NUMBER OF POLES REPLACED (000'S)

2009	2010	2011	2012	2013	2014	2015

TOTAL COST ($000'S)

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

MAJOR ROAD LIGHT REPLACMENT VOLUME (000'S)

- The source data was extracted from Streetlight Manager (Salesforce) to list total number of lanterns replaced.

MINOR ROAD LIGHT REPLACMENT VOLUME (000'S)

- The source data was extracted from Streetlight Manager (Salesforce) to list total number of lanterns replaced.

NUMBER OF POLES REPLACED (000'S)

- The source data was extracted from SAP for all steel poles only replaced as part of maintenance activities
- The source data for poles replaced as part of fault activities was provided by an internal spread sheet as no other method was available. Data is only available for 2012-2014.

TOTAL COST ($000'S)

- The source data was extracted from SAP – Finance based on function code allocation for each reportable year.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**MAJOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** **METHODOLOGY** • Per definition, light replacement *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps* • Per definition, major road lights is based on 'Cost Sharing' not equal to '1' **ASSUMPTIONS** • Actual cost of luminaire replacement is not historically available and has been calculated by assuming that only one luminaire is required for each Pole / Column : Major & Minor Replacements. • Allowance made for luminaires replaced as part of other pole replacements (non-steel). **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** **METHODOLOGY**

	• Per definition, light replacement *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps* • Per definition, minor road lights is based on 'Cost Sharing' equal to '1' **ASSUMPTIONS** • Actual cost of luminaire replacement is not historically available and has been calculated by assuming that only one luminaire is required for each Pole / Column : Major & Minor Replacements. • Allowance made for luminaires replaced as part of other pole replacements (non-steel). **NUMBER OF POLES REPLACED (000'S)** **METHODOLOGY** • Per definition, light replacement *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps • Dedicated public lighting poles* • Methodology to determine number of replaced poles dedicated to public lighting was achieved by total asset replacements and asset failure volumes. **ASSUMPTIONS** • Assumption that only steel poles are dedicated to Public Lighting with regard to replacements. (Other poles dedicated to public lighting were unable to be identified.) **TOTAL COST ($000'S)** **METHODOLOGY** • This balance was extracted directly from SAP based on the identification of function code 140 which are applicable for public lighting new installation for public lighting replacements. • No assumptions required
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**MAJOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** **METHODOLOGY** • Per definition, light replacement *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps* • Per definition, major road lights is based on 'Cost Sharing' not equal to '1' • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. **ASSUMPTIONS** • Actual cost of luminaire replacement is not historically available and has been calculated by assuming that only one luminaire is required for each Pole / Column : Major & Minor Replacements. • Allowance made for luminaires replaced as part of other pole replacements (non steel). **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** **METHODOLOGY** • Per definition, light replacement *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps* • Per definition, minor road lights is based on 'Cost Sharing' equal to '1' • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. **ASSUMPTIONS** • Actual cost of luminaire replacement is not historically available and has been calculated by assuming that only one luminaire is required for each Pole / Column : Major & Minor Replacements. • Allowance made for luminaires replaced as part of other pole replacements (non-steel). **NUMBER OF POLES REPLACED (000'S)** **METHODOLOGY** • Per definition, light replacement *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps • Dedicated public lighting poles* • Methodology to determine number of replaced poles dedicated to public lighting was achieved by total asset replacements and asset failure volumes. • Streetlight Manager (Salesforce) has provided greater accuracy of data however it was only available for eight months. This data has been extrapolated for the full 12 month period. **ASSUMPTIONS** • Assumption that only steel poles are dedicated to Public Lighting with regard to replacements. (Other poles dedicated to public lighting were unable to be identified.) **TOTAL COST ($000'S)** **METHODOLOGY**

	• This balance was extracted directly from SAP based on the identification of function code 140 which are applicable for public lighting new installation for public lighting replacements. No assumptions required

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**MAJOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • Business does not currently record number of new lights replaced in the required format. **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • Business does not currently record number of new lights replaced in the required format **NUMBER OF POLES REPLACED (000'S)** • Business does not currently record number of new poles replaced in the required format. **TOTAL COST ($000'S)** • Data was not estimated
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**MAJOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • Business does not currently record number of new lights replaced in the required format. • Salesforce data was available from May 2015 to Dec 2015 and was extrapolated for the full year **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • Business does not currently record number of new lights replaced in the required format • Salesforce data was available from May 2015 to Dec 2015 and was extrapolated for the full year **NUMBER OF POLES REPLACED (000'S)** • Business does not currently record number of new poles replaced in the required format. • Salesforce data was available from May 2015 to Dec 2015 and was extrapolated for the full year **TOTAL COST ($000'S)** Data was not estimated

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**MAJOR ROAD LIGHT REPLACMENT VOLUME (000'S)** **Approach used:** • Based on total expenditure for asset category – light replacement, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light replacements **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light replacements **Assumptions made:** • Total light replacement expenditure has been allocated across sub-categories as no other further allocation was possible. **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** **Approach used:** • Based on total expenditure for asset category – light replacement, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
	• Using an estimate ensured that costs were allocated appropriately light replacements **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light replacements **Assumptions made:** • Total light replacement expenditure has been allocated across sub-categories as no other further allocation was possible. **NUMBER OF POLES REPLACEMENT (000'S)** **Approach used:** • Based on total expenditure for asset category – light replacement, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Data was available for pole replacements in 2012-2013. This was used as a guide to ensure that volumes were allocated appropriately across 2009-2011. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Data was available for pole replacements in 2012-2013, however minimal data was available for 2009-2011. **Assumptions made:** • Total light replacement expenditure has been allocated across sub-categories as no other further allocation was possible. • Where data was available for pole replacements in 2012-2013, it was used as a guide for calculating volumes of poles replaced in 2009-2011. **TOTAL COST ($000'S)** • Data was not estimated
2010	**MAJOR ROAD LIGHT REPLACMENT VOLUME (000'S)** • As per 2009 **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • As per 2009 **NUMBER OF POLES REPLACEMENT (000'S)** **Approach used:** • Based on total expenditure for asset category – light replacement, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Data was available for pole replacements in 2012-2013. This was used as a guide to ensure that volumes were allocated appropriately across 2009-2011. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Data was available for pole replacements in 2012-2013, however minimal data was available for 2009-2011. **Assumptions made:** • Total light replacement expenditure has been allocated across sub-categories as no other further allocation was possible. • Where data was available for pole replacements in 2012-2013, it was used as a guide for calculating volumes of poles replaced in 2009-2011. **TOTAL COST ($000'S)** • As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2011	**MAJOR ROAD LIGHT REPLACMENT VOLUME (000'S)** • As per 2009 **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • As per 2009 **NUMBER OF POLES REPLACEMENT (000'S)** **Approach used:** • Based on total expenditure for asset category – light replacement, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Data was available for pole replacements in 2012-2013. This was used as a guide to ensure that volumes were allocated appropriately across 2009-2011. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Data was available for pole replacements in 2012-2013, however minimal data was available for 2009-2011. **Assumptions made:** • Total light replacement expenditure has been allocated across sub-categories as no other further allocation was possible. • Where data was available for pole replacements in 2012-2013, it was used as a guide for calculating volumes of poles replaced in 2009-2011. **TOTAL COST ($000'S)** • As per 2009
2012	**MAJOR ROAD LIGHT REPLACMENT VOLUME (000'S)** • As per 2009 **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • As per 2009 **NUMBER OF POLES REPLACEMENT (000'S)** **Approach used:** • Based on total expenditure for asset category – light replacement, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Data was available for pole replacements in 2012-2013 and was used. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Data was available for pole replacements in 2012-2013 and was used. **Assumptions made:** • Total light replacement expenditure has been allocated across sub-categories as no other further allocation was possible. • Where data was available for pole replacements in 2012-2013, it was used. **TOTAL COST ($000'S)** • As per 2009
2013	**MAJOR ROAD LIGHT REPLACMENT VOLUME (000'S)** • As per 2009 **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • As per 2009 **NUMBER OF POLES REPLACEMENT (000'S)** **Approach used:** • Based on total expenditure for asset category – light replacement, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements; cost allocation is completed historically to asset

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
	category with little or no detail of sub-categories. • Data was available for pole replacements in 2012-2013 and was used. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Data was available for pole replacements in 2012-2013 and was used. **Assumptions made:** • Total light replacement expenditure has been allocated across sub-categories as no other further allocation was possible. • Where data was available for pole replacements in 2012-2013, it was used. **TOTAL COST ($000'S)** • As per 2009
2014	**MAJOR ROAD LIGHT REPLACMENT VOLUME (000'S)** • As per 2009 **MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)** • As per 2009 **NUMBER OF POLES REPLACEMENT (000'S)** **Approach used:** • Based on total expenditure for asset category – light replacement, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacements; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Data was available for pole replacements in 2014 and was used. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Data was available for pole replacements in 2014 and was used. **Assumptions made:** • Total light replacement expenditure has been allocated across sub-categories as no other further allocation was possible. • Where data was available for pole replacements in 2014, it was used. **TOTAL COST ($000'S)** As per 2009
2015	**As per 2014**

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	No other reliable data is available for the period required.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.1 Public Lighting	
Table name: 4.1.2 LIGHT MAINTENANCE – VOLUME OF WORKS AND EXPENDITURE	
Asset Group	**Asset Category**
Public Lighting by : Asset Type; Current Year	(ALL Categories)
BOP ID	CAPAL4.1BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 Powercor must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Powercor's proposed revenue requirements.
17.2 Powercor is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.
17.3 Powercor is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.
17.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
17.5 Powercor must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Powercor.
17.6 Powercor must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.
17.7 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.
17.8 In the basis of preparation, Powercor must explain how the average unit cost for public lighting services was estimated.

Definitions
Light maintenance
The operating cost associated with the repair and inspection of the following public lighting assets on a major or minor road:· Luminaires· Brackets· Lamps
· Poles dedicated to public lighting services; and
· Underground or overhead cabling dedicated to public lighting services.
Light maintenance should include the operational repairs and inspection of the public lighting assets, not including capital expenditure.
Major road:
Roads on which the visual requirements of motorists are dominant (e.g. traffic routes). Typically the responsibility of a state or territory road authority.
Minor road:
Roads on which the visual requirements of pedestrians are dominant (e.g. local roads and lighting that is applicable to areas other than roads outdoor public areas, e.g. outdoor shopping). Typically the responsibility of a local Government authority.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 4.1.1 Current Population of Lights by light type. We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 the data provided for public lighting services reconcile to internal planning models
17.2 not applicable
17.3 not applicable

17.4 we have reported total expenditure data as a gross amount
17.5 we have provided data for non-contestable, regulated public lighting services
17.6 not applicable
17.7 not applicable
17.8 not applicable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

MAJOR ROAD LIGHT REPLACEMENT VOLUME (000'S)

2009	2010	2011	2012	2013	2014	2015

MINOR ROAD LIGHT REPLACEMENT VOLUME (000'S)

2009	2010	2011	2012	2013	2014	2015

NUMBER OF POLES REPLACED (000'S)

2009	2010	2011	2012	2013	2014	2015

TOTAL COST ($000'S)

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

MAJOR ROAD LIGHT MAINENANCE VOLUME (000'S)

- The source data was extracted from Streetlight Manager (Salesforce) to list total number of maintenance activities completed.

MINOR ROAD LIGHT MAINTENANCE VOLUME (000'S)

- The source data was extracted from Streetlight Manager (Salesforce) to list total number of maintenance activities completed.

NUMBER OF POLES MAINTENANCE (000'S)

- Poles are replaced as part of replacement only

TOTAL COST ($000'S)

- The source data was extracted from SAP – Finance based on function code allocation for each reportable year.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**MAJOR ROAD LIGHT MAINTENANCE VOLUME (000'S)** **METHODOLOGY** • Per definition, light maintenance *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps* • Per definition, major road lights is based on 'Cost Sharing' not equal to '1' **ASSUMPTIONS** • Actual volume of luminaire maintenance has been calculated using data extracted from PLFMS **MINOR ROAD LIGHT MAINTENANCE VOLUME (000'S)** **METHODOLOGY** • Per definition, light maintenance *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps* • Per definition, minor road lights is based on 'Cost Sharing' equal to '1' **ASSUMPTIONS** • Actual volume of luminaire maintenance has been calculated using data extracted from PLFMS

	NUMBER OF POLES MAINTENANCE (000'S) **METHODOLOGY** • Poles are part of Light Replacement and not included in Light Maintenance. **TOTAL COST ($000'S)** **METHODOLOGY** • This balance was extracted directly from SAP based on the identification of function codes 313, 380 and 450 which are applicable for public lighting maintenance. • A percentage of direct costs was also allocated using total public lighting as a percentage of total expenditure. This cost allocation method was considered appropriate by the AER in the Financial RIN and is in accordance with Powercor's cost allocation methodology. • No assumptions required.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**MAJOR ROAD LIGHT MAINTENANCE VOLUME (000'S)** **METHODOLOGY** • Per definition, light maintenance *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps* • Per definition, major road lights is based on 'Cost Sharing' not equal to '1' **ASSUMPTIONS** • Actual volume of luminaire maintenance has been calculated using data extracted from Streetlight Manager (Salesforce) **MINOR ROAD LIGHT MAINTENANCE VOLUME (000'S)** **METHODOLOGY** • Per definition, light maintenance *on a major or minor road of any of the following public lighting assets:• Luminaires• Brackets• Lamps* • Per definition, minor road lights is based on 'Cost Sharing' equal to '1' **ASSUMPTIONS** • Actual volume of luminaire maintenance has been calculated using data extracted from Streetlight Manager (Salesforce) **NUMBER OF POLES MAINTENANCE (000'S)** **METHODOLOGY** • Poles are part of Light Replacement and not included in Light Maintenance. **TOTAL COST ($000'S)** **METHODOLOGY** • This balance was extracted directly from SAP based on the identification of function codes 313, 380 and 450 which are applicable for public lighting maintenance. • A percentage of direct costs was also allocated using total public lighting as a percentage of total expenditure. This cost allocation method was considered appropriate by the AER in the Financial RIN and is in accordance with Powercor's cost allocation methodology. No assumptions required.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**MAJOR ROAD LIGHT MAINTENANCE VOLUME (000'S)** • Business does currently record number of lights maintained however it is not complete. **MINOR ROAD LIGHT MAINTENANCE VOLUME (000'S)** • Business does currently record number of lights maintained however it is not complete. **NUMBER OF POLES MAINTENANCE (000'S)** • Poles are part of Light Replacement and not included in Light Maintenance. **TOTAL COST ($000'S)** • Data was not estimated
2010	As per 2009
2011	As per 2009
2012	As per 2009

2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**MAJOR ROAD LIGHT MAINTENANCE VOLUME (000'S)** **Approach used;** • Based on total expenditure for asset category – light maintenance, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset maintenance; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light maintenance. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light maintenance **Assumptions made:** • Total light maintenance expenditure has been allocated across sub-categories as no other further allocation was possible. **MINOR ROAD LIGHT MAINTENANCE VOLUME (000'S)** **Approach used;** • Based on total expenditure for asset category – light maintenance, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset maintenance; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light maintenance. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light maintenance **Assumptions made:** • Total light maintenance expenditure has been allocated across sub-categories as no other further allocation was possible. **NUMBER OF POLES MAINTENANCE (000'S)** **Approach used;** • Poles are part of Light Replacement and not included in Light Maintenance.. **TOTAL COST ($000'S)** • Data was not estimated
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	No other reliable data is available for the period required.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.1 Public Lighting	
Table name: 4.1.2 Descriptor Metrics Annually	
Service/ Service Quality	**Descriptor Metric**
Quality of Supply	(ALL)
BOP ID	CAPAL 4.1BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 Powercor must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Powercor's proposed revenue requirements.
17.2 Powercor is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.
17.3 Powercor is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.
17.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
17.5 Powercor must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Powercor.
17.6 Powercor must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.
17.7 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.
17.8 In the basis of preparation, Powercor must explain how the average unit cost for public lighting services was estimated.

Definitions
Average: An arithmetic (simple) average unless a weighted average is specified.
GSL: The minimum guaranteed service level which customers are entitled to receive from distributions', as defined in each NEM jurisdiction's energy regulation, the relevant distribution determination, or the distribution's own charter.
GSL payments Voluntary or mandated payments made by DNSPs to a customer when the customer received service at a level worse than the prescribed GSL service level. DNSPs must make GSL payments in accordance with the relevant jurisdictional energy regulation.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 4.1.2 Descriptor Metrics Annually – Quality of Supply. We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 not applicable
17.2 not applicable
17.3 not applicable
17.4 not applicable
17.5 we have provided data for non-contestable, regulated public lighting services
17.6 not applicable
17.7 we have provided data for GSL's as a GSL scheme currently exists
17.8 not applicable

We have provided 'Mean days to rectify/replace public lighting assets (days)'
We have provided 'Volume of customer complaints (0's)' that relate to public lighting.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

MEAN DAYS TO RECTIFY/REPLACE PUBLIC LIGHTING ASSETS (DAYS)

- Source data was from Streetlight Manager (Salesforce) - Fault Lighting Reported Faults Statistics Report and recorded on the Annual RIN Statement for each reportable year.

VOLUME OF GSL BREACHES (0'S)

- Source data was from Streetlight Manager (Salesforce) – Fault Lighting Reported Faults Statistics Report and recorded on the Annual RIN Statement for each reportable year.

GSL PAYMENTS ($000'S)

- Source data was from SAP – Finance report and recorded on Annual RIN Statement for each reportable year.

VOLUME OF CUSTOMER COMPLAINTS (0'S)

- Source data was from SAP – CARE System used to record customer complaints for each reportable year.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**MEAN DAYS TO RECTIFY/REPLACE PUBLIC LIGHTING ASSETS (DAYS)** • Data was available on Annual RIN Statement for each reportable year. • No other methodology or assumption was required. **VOLUME OF GSL BREACHES (0'S)** • Data was available on Annual RIN Statement for each reportable year. • No other methodology or assumption was required. **GSL PAYMENTS ($000'S)** • Data was available on Annual RIN Statement for each reportable year. • No other methodology or assumption was required. **VOLUME OF CUSTOMER COMPLAINTS (0'S)** • Source data was from SAP – CARE System used to record customer complaints for each reportable year. • No other methodology or assumption was required.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No estimate required
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009

2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No estimate required
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No estimate required
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.1 Public Lighting	
Table name: 4.1.3 Cost Metrics	
Road Type	**Light Type**
Major Road Light Installation	(ALL)
Minor Road Light Installation	(ALL)
BOP ID	CAPAL 4.1BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 Powercor must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Powercor's proposed revenue requirements.
17.2 Powercor is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.
17.3 Powercor is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.
17.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
17.5 Powercor must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Powercor.
17.6 Powercor must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.
17.7 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.
17.8 In the basis of preparation, Powercor must explain how the average unit cost for public lighting services was estimated.

Definitions
Light installation:
The installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp.
The installation may also include:
• Poles dedicated to public lighting services and
• Underground or overhead cabling dedicated to public lighting services.
Major road:
Roads on which the visual requirements of motorists are dominant (e.g. traffic routes). Typically the responsibility of a state or territory road authority.
Minor road:
Roads on which the visual requirements of pedestrians are dominant (e.g. local roads and lighting that is applicable to areas other than roads outdoor public areas, e.g. outdoor shopping). Typically the responsibility of a local Government authority.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 4.1.3 Cost Metrics – Average Unit Cost ($). We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 the data provided for public lighting services reconcile to internal planning models
17.2 not applicable
17.3 not applicable
17.4 we have reported total expenditure data as a gross amount

17.5 we have provided data for non-contestable, regulated public lighting services
17.6 not applicable
17.7 not applicable
17.8 we have explained how the average unit cost of public lighting services was estimated.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

MAJOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)

- The source data was extracted from GIS system listing all billable lights on the last day of the reportable year.
- Source data for financial information was provided by Finance extracted from SAP for function codes 119 & 120 that relate directly to Installation.

MINOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)

- The source data was extracted from GIS system listing all billable lights on the last day of the reportable year.
- Source data for financial information was provided by Finance extracted from SAP for function codes 119 & 120 that relate directly to Installation.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**MAJOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)** **METHODOLOGY** • Per definition, light *installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp.* • Per definition, major road lights is based on 'Cost Sharing' not equal to '1' • Average cost was calculated based on the average cost of Light Replacements (actual volumes of new luminaires is unknown) **ASSUMPTIONS** • Assumption made that total light installed for reported year was the net difference between the reportable year and the preceding year. • Actual major road data was not available for the purposes of calculating an average cost. Average cost of light replacements was used. • Average cost for light installation is inclusive of luminaire, bracket and lamp. • Assumed that only one light was installed per bracket. **MINOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)** **METHODOLOGY** • Per definition, light *installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp.* • Per definition, major road lights is based on 'Cost Sharing' equal to '1' • Average cost was calculated based on the average cost of light replacements (actual volumes of new luminaires is unknown) **ASSUMPTIONS** • Assumption made that total light installed for reported year was the net difference between the reportable year and the preceding year. • Actual major road data was not available for the purposes of calculating an average cost. Average cost of light replacements was used.

	• Average cost for light installation is inclusive of luminaire, bracket and lamp. • Assumed that only one light was installed per bracket.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	**MAJOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)** **METHODOLOGY** • Per definition, light *installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp.* • Per definition, major road lights is based on 'Cost Sharing' not equal to '1' • Average cost was calculated based on the average cost of Light Replacements (actual volumes of new luminaires is unknown) **ASSUMPTIONS** • Assumption made that total light installed for reported year was the net difference between the reportable year and the preceding year. • Actual major road data was not available for the purposes of calculating an average cost. Average cost of light replacements was used. • Average cost for light installation is inclusive of luminaire, bracket and lamp. • Assumed that only one bracket was installed for every two lights. **MINOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)** **METHODOLOGY** • Per definition, light *installation on a major or minor road for the purpose of establishing new: Luminaires, including associated components such as bracket and lamp.* • Per definition, major road lights is based on 'Cost Sharing' equal to '1' • Average cost was calculated based on the average cost of light replacements (actual volumes of new luminaires is unknown) **ASSUMPTIONS** • Assumption made that total light installed for reported year was the net difference between the reportable year and the preceding year. • Actual major road data was not available for the purposes of calculating an average cost. Average cost of light replacements was used. • Average cost for light installation is inclusive of luminaire, bracket and lamp. • Assumed that only one bracket was installed for every four lights.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**MAJOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)** • Business does not currently record number or cost of individual new lights installed. • Previous project management of public lighting installations generally involved greater than one new light installed. • The only usable data available was calculating the net difference between the current reportable year and the preceding year. This is not reflective of actual new public lights, only the change from year to year. This could not be used for calculation of average costs for light installation. **MINOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)** • Business does not currently record number or cost of individual new lights installed. • Previous project management of public lighting installations generally involved greater than one new light installed. • The only usable data available was calculating the net difference between the current reportable year and the preceding year. This is not reflective of actual new public lights, only the change from year to year. This could not be used for calculation of average costs for Light Installation.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009

2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**MAJOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)** **Approach used:** • Based on the average unit cost of Light Replacements, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset installations; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light installations and provided an average cost. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light installations which meant that Light Replacements had to be used for calculation of average cost. **Assumptions made:** • Total light installation expenditure has been allocated across sub-categories as no other further allocation was possible. • No allowance was made for other sub-category costs incurred. **MINOR ROAD LIGHT INSTALLATION AVERAGE UNIT COST ($)** **Approach used:** • Based on the average unit cost of Light Replacements, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset installations; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light installations and provided an average cost. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light installations which meant that Light Replacements had to be used for calculation of average cost. **Assumptions made:** • Total light installation expenditure has been allocated across sub-categories as no other further allocation was possible. • No allowance was made for other sub-category costs incurred.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other method was possible.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.1 Public Lighting	
Table name: 4.1.3 Cost Metrics	
Road Type	**Light Type**
Major Road Light Replacement	(ALL)
Minor Road Light Replacement	(ALL)
BOP ID	CAPAL 4.1BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 Powercor must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Powercor's proposed revenue requirements.
17.2 Powercor is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.
17.3 Powercor is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.
17.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
17.5 Powercor must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Powercor.
17.6 Powercor must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.
17.7 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.
17.8 In the basis of preparation, Powercor must explain how the average unit cost for public lighting services was estimated.

Definitions
Light replacement:
The cost of replacement on a major or minor road of any of the following public lighting assets:
• Luminaires
• Brackets
• Lamps
• Poles dedicated to public lighting services; and
• Underground or overhead cabling dedicated to public lighting services.
Light replacement should be estimated as the replacement of public lighting assets with their modern equivalent, where the public lighting assets have reached the end of their economic life.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 4.1.3 Cost Metrics – Average Unit Cost ($). We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 the data provided for public lighting services reconcile to internal planning models
17.2 not applicable
17.3 not applicable
17.4 we have reported total expenditure data as a gross amount
17.5 we have provided data for non-contestable, regulated public lighting services
17.6 not applicable
17.7 not applicable
17.8 we have explained how the average unit cost of public lighting services was estimated.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

MAJOR ROAD LIGHT REPLACEMENT AVERAGE UNIT COST ($)

- The source data was extracted from Streetlight Manager (Salesforce) to list total number of lanterns replaced.
- Source data for financial information was provided by Finance extracted from SAP for function codes 140 that relate directly to Replacement.

MINOR ROAD LIGHT REPLACEMENT AVERAGE UNIT COST ($)

- The source data was extracted from Streetlight Manager (Salesforce) to list total number of lanterns replaced.
- Source data for financial information was provided by Finance extracted from SAP for function codes 140 that relate directly to Replacement.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**MAJOR ROAD LIGHT REPLACEMENT AVERAGE UNIT COST ($)** **METHODOLOGY** • Per definition, light replacement on a major or minor road for the purpose of replacement of public lighting assets with their modern equivalent, where the public lighting assets have reached the end of their economic life. • Per definition, major road lights is based on 'Cost Sharing' not equal to '1' • Average cost was calculated based on the average cost of Light Replacements (both failure replacements and maintenance replacements) **ASSUMPTIONS** • Assumption made that total light replacement for reported year was not historically available and has been calculated by assuming that only one luminaire is required for each Pole / Column : Major & Minor Replacements • Actual major road data for failure replacements was available and used, however maintenance replacement data was based on total number of steel poles replaced. Together these volumes were used to calculate an average cost. • Average cost for light replacement is inclusive of luminaire and lamp. It is assumed that the bracket would be re-used. • Assumed that only one light was installed per replacement, regardless of bracket used. **MINOR ROAD LIGHT REPLACEMENT AVERAGE UNIT COST ($)** **METHODOLOGY** • Per definition, light replacement on a major or minor road for the purpose of replacement of public lighting assets with their modern equivalent, where the public lighting assets have reached the end of their economic life. • Per definition, minor road lights is based on 'Cost Sharing' equal to '1' • Average cost was calculated based on the average cost of Light Replacements (both failure replacements and maintenance replacements) **ASSUMPTIONS** • Assumption made that total light replacement for reported year was not historically available and has been calculated by assuming that only one luminaire is required for each Pole / Column : Major & Minor Replacements • Actual minor road data for failure replacements was available and used, however maintenance replacement data was based on total number of steel poles replaced. Together these volumes were used to calculate an average cost.

	• Average cost for light replacement is inclusive of luminaire and lamp. It is assumed that the bracket would be re-used. • Assumed that only one light was installed per replacement, regardless of bracket used.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**MAJOR ROAD LIGHT REPLACEMENT AVERAGE UNIT COST ($)** • Business does not currently record number or cost of individual replacement lights installed. • Current management of public lighting replacements required for Maintenance activities only recorded steel poles replaced. • Current management of public lighting replacements required for Failure activities has detail of volumes replaced however there is no linked financial detail. **MINOR ROAD LIGHT REPLACEMENT AVERAGE UNIT COST ($)** • Business does not currently record number or cost of individual replacement lights installed. • Current management of public lighting replacements required for Maintenance activities only recorded steel poles replaced. • Current management of public lighting replacements required for Failure activities has detail of volumes replaced however there is no linked financial detail.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**MAJOR ROAD LIGHT REPLACEMENT AVERAGE UNIT COST ($)** **Approach used:** • Based on the average unit cost of Light Replacements, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset replacement for maintenance activities, cost allocation is completed historically by a percentage allocation to asset category with little or no detail of sub-categories. • Business does retain some detail of asset replacement for failure activities; however cost allocation is completed historically by allocation to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately to light replacements and provided an average cost. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light installations which meant that Light Replacements had to be used for calculation of average cost. **Assumptions made:** • Total light installation expenditure has been allocated across sub-categories as no other further allocation was possible. • No allowance was made for other sub-category costs incurred. **MINOR ROAD LIGHT REPLACEMENT AVERAGE UNIT COST ($)** **Approach used:**

	• Based on the average unit cost of Light Replacements, estimation was used to establish allocation to sub-categories as actual costs were not available. • Business does not retain detail of asset installations; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately light installations and provided an average cost. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for light installations which meant that Light Replacements had to be used for calculation of average cost. **Assumptions made:** • Total light installation expenditure has been allocated across sub-categories as no other further allocation was possible. No allowance was made for other sub-category costs incurred. No actual data regarding the total number and type of new installations is available currently that can be directly attributable to actual expenditure. Materials can be sourced via internal logistics or directly from manufacturers. Basing the average cost on Asset Failures appears to be the only way to obtain a value. However as mentioned previously, Asset Failures required task lists to be maintained regularly and updated with new tasks as required. These task lists have not been maintained for the required reporting years. Data is not available for Asset Replacements and New Installations.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No other method was possible.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 4.1 Public Lighting	
Table name: 4.1.3 Cost Metrics	
Road Type	**Light Type**
Major Road Light Maintenance	(ALL)
Minor Road Light Maintenance	(ALL)
BOP ID	CAPAL 4.1BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 Powercor must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Powercor's proposed revenue requirements.
17.2 Powercor is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.
17.3 Powercor is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.
17.4 Powercor must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.
17.5 Powercor must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Powercor.
17.6 Powercor must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.
17.7 Powercor is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.
17.8 In the basis of preparation, Powercor must explain how the average unit cost for public lighting services was estimated.

Definitions
Light maintenance:
The operating cost associated with the repair and inspection of the following public lighting assets on a major or minor road:• Luminaires• Brackets• Lamps
• Poles dedicated to public lighting services; and
• Underground or overhead cabling dedicated to public lighting services.
Light maintenance should include the operational repairs and inspection of the public lighting assets, not including capital expenditure.
Routine maintenance
Costs (opex) of recurrent/programmed activities undertaken to maintain assets, performed regardless of the condition of the asset. Costs of activities predominantly directed at discovering information on asset condition, and often undertaken at intervals that can be predicted.
Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are:
· routine in nature; and
· indiscriminately carried out for a pre-defined set of assets; and
· scheduled to occur at pre-defined intervals.
May include activities to inspect, survey, audit, test, repair, alter, or reconfigure assets. A pre-defined interval may be based on the number of times the asset has operated, or any other measure, if the future timing of the maintenance based on the measure can be predicted with a reasonable level of certainty. Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system.

Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response. May include:
· functional and intrusive testing of assets, including spares and equipment;
· helicopter, vehicle, and foot patrols, including negotiation of landowner access;
· asset surveys;
· environmental testing;
· painting of network assets;
· re-conductoring lines
· indoor and outdoor maintenance of substations including lawn mowing, weed control, fencing; Includes load monitoring and switching activities attributable to routine asset maintenance.

Non-routine maintenance

Costs (opex) of activities predominantly directed at managing asset condition or rectifying defects (excluding emergency call-outs). The timing of these activities depends on asset condition and decisions on when to maintain or replace the asset, which may vary over time and across NSPs. Activities to maintain asset condition and/or to maintain the capacity of the distribution system to distribute electricity, and where the activities are not routine in nature. The non-routine activities may be undertaken in a discriminate manner for individual assets.
Excludes routine asset maintenance activities. Excludes activities that are designed to increase or improve the capacity of the distribution system to distribute electricity, except where the increase or improvement is incidental to the maintenance of the distribution system. Excludes asset removal, asset replacement, new asset installation, vegetation management, and emergency response. May include:
· activities to inspect, survey, audit, test, repair, alter, or reconfigure assets
· functional and intrusive testing of assets, including spares and equipment;
Includes load monitoring and switching activities attributable to non-routine asset maintenance.

Maintenance cycle:

The planned or actual duration between two consecutive maintenance works on an asset

Inspection cycle:

The planned or actual duration between two consecutive inspections of an asset

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN, 4.1.3 Cost Metrics – Average Unit Cost ($). We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
17. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES
17.1 the data provided for public lighting services reconcile to internal planning models
17.2 not applicable
17.3 not applicable
17.4 we have reported total expenditure data as a gross amount
17.5 we have provided data for non-contestable, regulated public lighting services
17.6 not applicable
17.7 not applicable
17.8 we have explained how the average unit cost of public lighting services was estimated.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

ROUTINE MAINTENANCE AVERAGE UNIT COST ($)

- The source data was extracted from Streetlight Manager (Salesforce) via report to list total number of lanterns repaired / maintained for routine and non-routine maintenance.
- Source data for financial information was provided by Finance extracted from SAP for function codes 313, 380 & 450 that relate directly to routine and non-routine maintenance.

NON-ROUTINE MAINTENANCE AVERAGE UNIT COST ($)

- The source data was extracted from Streetlight Manager (Salesforce) via report to list total number of lanterns repaired / maintained for routine and non-routine maintenance.

- Source data for financial information was provided by Finance extracted from SAP for function codes 313, 380 & 450 that relate directly to routine and non-routine maintenance.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**ROUTINE MAINTENANCE AVERAGE UNIT COST ($)** **METHODOLOGY** • Per definition, light maintenance should include the operational repairs and inspection of the public lighting assets, not including capital expenditure. • Costs were allocated based on the total volume of routine maintenance based on asset category financial allocation to function code 380 (Pole Inspection) and 450 (Bulk Lamp Replacement). • Average cost was calculated based on the total expenditure for routine maintenance reported divided by the total number routine maintenance activities in each reportable year. **ASSUMPTIONS** • Actual volume of luminaire routine maintenance has been calculated using data extracted from PLFMS and an allocation method for bulk lamp replacement of the total lamp population. **NON-ROUTINE MAINTENANCE AVERAGE UNIT COST ($)** **METHODOLOGY** • Per definition, light maintenance should include the operational repairs and inspection of the public lighting assets, not including capital expenditure. • Costs were allocated based on the total volume of non-routine maintenance based on asset category financial allocation to function code 313 (Public Lighting Faults). • Average cost was calculated based on the total expenditure for non-routine maintenance reported divided by the total number routine maintenance activities in each reportable year. **ASSUMPTIONS** • Actual volume of luminaire non-routine maintenance has been calculated using data extracted from PLFMS
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	**ROUTINE MAINTENANCE AVERAGE UNIT COST ($)** • Business does not currently record number or cost of bulk lamp replacement or pole inspections on an individual basis. • Management of public lighting bulk lamp replacement programs are issued as a package of work based on municipality. • The only usable data available was calculating the average number of lamps replaced in a given year based on a four yearly cycle. **NON-ROUTINE MAINTENANCE AVERAGE UNIT COST ($)** • Business currently records the volume of non-routine maintenance which is inclusive of all non-capital activities • Management of public lighting non-routine maintenance generally involves lamp and PE cell replacement, however other operational expenses such as faulty cables, vandalism etc. are also included
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009

2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	**ROUTINE MAINTENANCE AVERAGE UNIT COST ($)** **Approach used;** • Based on total expenditure for asset category – routine maintenance. • Business does not retain detail of routine maintenance; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately routine maintenance average cost. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were not available for routine maintenance **Assumptions made:** • Total light maintenance expenditure has not been allocated across sub-categories as no other further allocation was possible. **NON-ROUTINE MAINTENANCE AVERAGE UNIT COST ($)** **Approach used;** • Based on total expenditure for asset category – non-routine maintenance. • Business does not retain detail of asset maintenance; cost allocation is completed historically to asset category with little or no detail of sub-categories. • Using an estimate ensured that costs were allocated appropriately non-routine maintenance average cost. **Options considered:** • Investigation into the current asset category allocation revealed that the business has not historically been required to report on sub-category allocation. • Using the total asset category expenditure as the basis was the only practical way of ensuring that sub-categories reconciled to higher levels. • Volumes were available for non-routine maintenance, however types of activities varied greatly. **Assumptions made:** • Total light maintenance expenditure has not been allocated across sub-categories as no other further allocation was possible.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	**3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.**
2009	No other method was possible.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

4.2 Metering

Tab name: 4.2 Metering	
Table name: 4.2.1 - METERING DESCRIPTOR METRIC (All)	
BOP ID	CAPAL4.2BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN as outlined in section A above. Average meter volumes in this template are calculated using audited data previously provided to the AER and excludes any contestable metering volumes and unregulated volumes.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
All volumes are originally obtained from CIS and have been previously provided to the AER as outlined below:
2009 – 2010 –. Meter population information was not requested in the Annual RINs until 2011, however the 2009 and 2010 actual volumes were reported in the Volumes template within the Audited 2011-15 AER AMI Budget Application - final decision
2011 – 2012 – Based on audited regulatory accounts, which have been derived from reports from CIS.

2013	– Based on audited regulatory accounts, which have been derived from reports from CIS.
2014	– Based on audited regulatory accounts, which have been derived from reports from CIS.
2015	– Based on unaudited regulatory accounts, which have been derived from reports from CIS.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Average volumes calculated using actual 2008 and 2009 closing balance volumes provided in the 2011-15 AER AMI Budget Application – Final Decision The meter volumes are based on the physical capability of the meter as opposed to the meter read type. This is consistent with all previously supplied and reported meter volume data e.g. Annual RIN and AMI Budget Applications. Almost all physical Capex is captured and reported by meter types outlined in the Category RIN, and therefore is the most accurate way to report metering costs. Any other method would involve allocations. If we were to classify our meter costs by the meter read type, we will have some issues such as how to allocate Meter Purchase expenditure to a meter type. Physical meter purchases are based on the physical meter capability. As it is not yet deployed it does not have a meter read type status.
2010	Average volumes calculated using actual 2009 and 2010 closing balance volumes provided in the 2011-15 AER AMI Budget Application – Final Decision
2011	Average volumes calculated using actual 2010 closing balance volumes provided in the 2011-15 AER AMI Budget Application – Final Decision and the actual 2011 closing balance volumes provided in 2012 Annual RIN
2012	Average volumes calculated using actual 2011 and 2012 closing balance volumes provided in the 2012 Annual RIN
2013	Average volumes calculated using actual 2012 and 2013 closing balance volumes provided in the 2013 Annual RIN
2014	Average volumes calculated using actual 2013 and 2014 closing balance volumes provided in the 2014 Annual RIN
2015	Average volumes calculated using actual 2014 and 2015 closing balance volumes provided in the 2015 Annual RIN

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 – Cost Metrics	
Service Subcategory	**Meter Type**
Meter Purchase (Prescribed Metering) expenditure and volumes	METER TYPE 4 METER TYPE 5 METER TYPE 6
BOP ID	CAPAL4.2BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN;

Meter purchase the direct material cost of purchasing the meter unit for installation or replacement. This includes the cost of delivery to Powercor's store, including testing of equipment and inclusion of spare parts.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
2009 – 2015 – Based on audited regulatory accounts derived from SAP reports.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	All meter purchase expenditure and volumes are based on the physical capability of the meter and are sourced directly from the 2009-13 annual RINs.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. The reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 – Cost Metrics	
Service Subcategory	**Meter Type**
Meter Testing (Alternative Control Service and Prescribed Metering) - Expenditure and Volumes	METER TYPE 4 METER TYPE 5 METER TYPE 6
BOP ID	CAPAL4.2BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN
Meter types – (based on physical capability of the meter)
Meter Type 4 – AMI meter – meter capable of being read remotely
Meter Type 5 – Manually read interval meter
Meter Type 6 – Basic, manually read accumulation meter

Meter testing - Routine testing, for the purposes of complying with AEMO's metrology procedure, including the ongoing and regular maintenance testing, compliance testing and in-service testing of metering installation components initiated by the responsible person or Metering Provider to fulfil their obligations in accordance with S7.3 of the Rules.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
2009-2015 – Based on audited regulatory accounts, which have been derived from reports from SAP and Meter Volumes and Dollars by Function code – Summary Report – from SAP BI Integrated Planning (IP).

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	In Powercor's systems, Meter Testing expenditure (as submitted in the Annual RIN's) is not captured by meter type categories specified within the Category RIN. Therefore these costs were allocated to a meter type based on a number of assumptions as follows: Cost and volume allocations CT Meter Inspection – no CT inspection/tests conducted this year Code Test D/C meter Single Phase - allocated to type 5 & 6 meter types using the average cumulative single phase meter population in table 4.2.1. Code Test CT meter - allocated to type 5 & 6 meter types using the average cumulative population of CT connected meters in table 4.2.1. Code Test D/C meter Poly Phase - allocated to type 5 & 6 meter types using the average cumulative population of CT connected meters in table 4.2.1. Code Test Current Transformers (Set of 3) – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1.
2010	Cost and volume allocations CT Meter Inspection – allocated to type 5 & 6 meter types using the average cumulative population of CT connected meters in table 4.2.1. Code Test D/C meter Single Phase - allocated to type 5 & 6 meter types using the average cumulative single phase meter population in table 4.2.1. Code Test CT meter - allocated to type 5 & 6 meter types using the average cumulative population of CT connected meters in table 4.2.1. Code Test D/C meter Poly Phase - allocated to type 5 & 6 meter types using the average cumulative population of CT connected meters in table 4.2.1. Code Test Current Transformers (Set of 3) – conducted regardless of the meter type. Allocated using the cumulative average population of type 4,5 and 6 meters installed as per table 4.2.1 Cost and volume allocations CT Meter Inspection This activity ceased as type 5 &6 meters began to be replaced with new type 4 meters, therefore any testing was conducted on type 4 meters. Code Test D/C meter Single Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test CT meter - allocated to type 5 & 6 meter types using the average cumulative population of CT connected meters in table 4.2.1.

	Code Test D/C meter Poly Phase This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test Current Transformers (Set of 3) – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1
2011	Cost and volume allocations CT Meter Inspection – This activity ceased as type 5 &6 meters began to be replaced with new type 4 meters; therefore any testing was conducted on type 4 meters. Code Test D/C meter Single Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test CT meter - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test D/C meter Poly Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test Current Transformers (Set of 3) – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1 Customer Initiated Meter Testing – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1.
2012	Cost and volume allocations CT Meter Inspection – This activity ceased as type 5 &6 meters began to be replaced with new type 4 meters; therefore any testing was conducted on type 4 meters. Code Test D/C meter Single Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test CT meter - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test D/C meter Poly Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test Current Transformers (Set of 3) – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1 Customer Initiated Meter Testing – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1.
2013	Cost and volume allocations CT Meter Inspection – This activity ceased as type 5 &6 meters began to be replaced with new type 4 meters; therefore any testing was conducted on type 4 meters. Code Test D/C meter Single Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test CT meter - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test D/C meter Poly Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test Current Transformers (Set of 3) – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1 Customer Initiated Meter Testing – conducted regardless of the meter type. Allocated using the average

	cumulative population of type 4,5 and 6 meters installed as per table 4.2.1.
2014	Cost and volume allocations CT Meter Inspection – This activity ceased as type 5 &6 meters began to be replaced with new type 4 meters; therefore any testing was conducted on type 4 meters. Code Test D/C meter Single Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test CT meter - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test D/C meter Poly Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test Current Transformers (Set of 3) – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1 Customer Initiated Meter Testing – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1.
2015	Cost and volume allocations CT Meter Inspection – This activity ceased as type 5 &6 meters began to be replaced with new type 4 meters; therefore any testing was conducted on type 4 meters. Code Test D/C meter Single Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test CT meter - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test D/C meter Poly Phase - This activity ceased on type 5& 6 meters as the population began to be replaced with new type 4 meters (includes data validation testing). Code Test Current Transformers (Set of 3) – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1 Customer Initiated Meter Testing – conducted regardless of the meter type. Allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Testing costs are not captured by Type4-6 meter types in Powercor's systems
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	In most cases, the average meter population volumes reported in table 4.2. 1 is used to allocate meter testing costs to a meter type (outlined in section D). These assumptions have been validated by subject matter experts responsible for meter testing within the business.
2010	Ibid

2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Meter population data provides a reasonable basis for allocation of the meter testing volumes and expenditure. Type 5 & 6 meters ceased to be tested during the AMI rollout program as meters were scheduled to be replaced in the near future. Therefore all meter testing volumes and expenditure (where appropriate) was allocated to type 4 meters and also included data validation/testing.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 – Cost Metrics	
Service Subcategory	**Meter Type**
Meter Investigation (Alternative Control Service and Prescribed Metering) - Expenditure & Volumes	METER TYPE 4 METER TYPE 5 METER TYPE 6
BOP ID	CAPAL4.2BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
Meter types – (based on physical capability of the meter)
Meter Type 4 – AMI meter – meter capable of being read remotely
Meter Type 5 – Manually read interval meter
Meter Type 6 – Basic, manually read accumulation meter

This template is compliant to the definitions specified in the CA RIN, including both company initiated back-office, and site investigations and customer requested investigations, excluding any activity deemed to be contestable by the AER.

Meter investigation The cost to investigate a metering request at a given supply point i.e. Interval data analysis; meter malfunction; wiring transposition (polarity) investigation; contestable metering investigation and meter tampering or bypass.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
2009-2015 – Based on audited regulatory accounts, which have been derived from reports from SAP and Meter Volumes and Dollars by Function code – Summary Report – from SAP BI Integrated Planning (IP).

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	In Powercor's systems, Meter Investigation expenditure (as submitted in the Annual RIN's) is not captured by meter type categories specified within the Category RIN. Therefore these costs were allocated to a meter type based on a number of assumptions as follows: **Cost and volume allocations** Back-office investigations - costs allocated using the cumulative average population of type 4, 5 and 6 meters installed as per table 4.2.1. The volumes are based on hours spent on investigations.
2010	**Cost and volume allocations** back-office investigations - costs allocated using the average cumulative population of type 4,5 and 6 meters installed as per table 4.2.1. The volumes are based on hours spent on investigations. on-site investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits.
2011	**Cost and volume allocations** back-office investigations - costs allocated using the average cumulative population of type 4, 5 and 6 meters installed as per table 4.2.1. The volumes are based on hours spent on investigations. on-site investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits. customer requested investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits.
2012	**Cost and volume allocations** back-office investigations - costs allocated using the average cumulative population of type 4, 5 and 6 meters installed as per table 4.2.1. The volumes are based on hours spent on investigations. on-site investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits. customer requested investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits.
2013	**Cost and volume allocations** back-office investigations - costs allocated using the average cumulative population of type 4, 5 and 6 meters installed as per table 4.2.1. The volumes are based on hours spent on investigations. on-site investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits. logging-work – (minimal cost) 100% related to and allocated to type 6 meters. customer requested investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits.

2014	**Cost and volume allocations** back-office investigations - costs allocated using the average cumulative population of type 4, 5 and 6 meters installed as per table 4.2.1. The volumes are based on hours spent on investigations. on-site investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits. logging-work – (minimal cost) 100% related to and allocated to type 6 meters. customer requested investigations - allocated using the average population of type 4, 5 and 6 meters installed as per table 4.2.1. Volumes are captured as actual physical site visits.
2015	**ibid**

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Meter investigation costs and volumes are not captured by Type4-6 meter types in Powercor's systems therefore requiring some estimated form of allocation
2010	ibid
2011	ibid
2012	ibid
2013	ibid
2014	ibid
2015	ibid

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	In most cases, the average meter population volumes reported in table 4.2.1 is used to allocate meter investigation costs to a meter type (outlined in section D). These assumptions have been validated by Subject Matter Experts responsible for meter investigation within the business.
2010	ibid
2011	ibid
2012	ibid
2013	ibid
2014	ibid
2015	ibid

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Meter population data provides a reasonable basis for allocation of meter investigation volumes and expenditure.
2010	ibid
2011	ibid
2012	ibid
2013	ibid
2014	ibid
2015	ibid

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 – Cost Metrics	
Service Subcategory	**Meter Type**
Scheduled Meter Reading (Prescribed Metering) - Volumes and Expenditure	METER TYPE 4 METER TYPE 5 METER TYPE 6
BOP ID	CAPAL4.2BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN;

Meter types – (based on physical capability of the meter)
Meter Type 4 – AMI meter – meter capable of being read remotely
Meter Type 5 – Manually read interval meter
Meter Type 6 – Basic, manually read accumulation meter

Scheduled Meter Reading The scheduled collection of energy data from a metering installation on a cycle that equates to the end-use customer's billing cycle, usually monthly or quarterly.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Expenditure:
2009 – 2013 –Meter Data Services (MDS) Expenditure is based on audited regulatory accounts, which have been derived from SAP reports.

Volumes:
obtained from CISOV and have been previously provided to the AER as outlined below:
2009 – 2010: Based on audited 2011-15 AER AMI Budget Application - final decision. Meter read type information was not requested in the Annual RINs until 2011, however the 2009 and 2010 actual read type volumes were reported in the Volumes template within the Audited 2011-15 AER AMI Budget Application - final decision
2011 – 2012: Based on volumes reported in the audited regulatory accounts (AMI template), which have been derived from reports from CISOV.
2013: Based on volumes reported in the audited regulatory accounts, (AMI template) which have been derived from reports from CISOV.
2014: Based on volumes reported in the audited regulatory accounts, (AMI template) which have been derived from reports from CISOV.
2015: Based on volumes reported in the audited regulatory accounts, (AMI template) which have been derived from reports from CISOV.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Average annual meter read type volumes are calculated using previously reported meter read type information from either the audited Annual RINS or the Audited Budget application that contained 2008-10 actual meter read type volumes. The average annual volume of meters by read type is converted into an estimated number of meter reads by multiplying quarterly read meters by 4 and monthly read meters by 12. Total Scheduled meter reading costs as reported in the annual RINs is allocated to a meter type using the estimated meter read volumes.
2010	Please refer to 2009
2011	Please refer to 2009
2012	Please refer to 2009
2013	Please refer to 2009
2014	Please refer to 2009
2015	Please refer to 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Scheduled read volumes and expenditure is not captured by meter type in our systems and therefore needs to be estimated.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Refer to comments made under section D
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Estimating meter read volumes and using this to allocate expenditure to meter types is considered to be an efficient and effective method proving good representation of actual costs incurred by meter type.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 – Cost Metrics	
Service Subcategory	**Meter Type**
Special Meter Reading (Alternative Control Service) - Volumes and Expenditure.	METER TYPE 4 METER TYPE 5 METER TYPE 6
BOP ID	CAPAL4.2BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN.

Meter types – (based on physical capability of the meter)
Meter Type 4 – AMI meter – meter capable of being read remotely
Meter Type 5 – Manually read interval meter
Meter Type 6 – Basic, manually read accumulation meter

Special meter reading*:* An actual *meter reading* performed to support an out of cycle customer billing or consumption request.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for period from 2009 to 2015 was obtained from the relevant general ledgers within SAP

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Direct costs (includes Re-Energisation De-Energisation, Special Read) were derived from the escalated 2008 Corporate Management fee including margin. The total direct costs were proportioned between Re-En De-En and Special Read based on the percentage of volume of each service to the total revenue volume which we billed to the customers. Indirect costs were determined by proportion of Corporate Overheads and Depreciation allocated to this service.
2010	Direct costs (includes Re-Energisation De-Energisation Special Read) were derived from the escalated 2008 Corporate Management fee including margin. The total direct costs were proportioned between Re-En De-En and Special Read based on the percentage of volume of each service to the total revenue volume which we billed to the customers. Indirect costs were determined by proportion of Corporate Overheads and Depreciation allocated to this service.
2011	Direct costs (includes Re-Energisation De-Energisation, Special Read) were derived from escalated 2008 Corporate Management fee including margin. The total direct costs were proportioned between Re-Energisation De-Energisation and Special Read based on the percentage of volume of each service to the total revenue volume which we billed to the customers. Indirect costs were determined by proportion of Corporate Overheads allocated to this service.
2012	Direct costs (includes Manual and Remote Re-Energisation De-Energisation, Special Read) were derived from total costs captured within specific areas of SAP, proportioned between Manual and Remote Re-Energisation De-Energisation and Special Read based on the percentage of volume of each service to the total revenue volume which we billed to the customers. Indirect costs were determined by proportion of Corporate Overheads allocated to this service.
2013	Refer 2012
2014	Refer 2012
2015	Refer 2012

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Internal Corporate Overheads not allocated directly to each individual Service Type. As Corporate Overheads are applicable to all Service types, a method of allocation is required to fully capture service type costs.
2010	Ibid
2011	Ibid
2012	Internal Corporate Overheads not allocated directly to each individual Service Type. As Corporate Overheads are applicable to all Service types, a method of allocation is required to fully capture service type costs.
2013	Refer 2012
2014	Refer 2012
2015	Refer 2012

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Proportion of Corporate overheads allocated to this service is determined by percentage of this service costs to the total ACS activity costs. The AMI meter program commenced in 2009, however it was not until the middle of 2012 when remote special meter read capabilities were fully available and the required systems and process were in place. Therefore total 2009 special meter reading expenditure is allocated to meter types using the cumulative average meter population from table 4.2.1.
2010	The AMI meter program commenced in 2009, however it was not until the middle of 2012 when remote special meter read capabilities were fully available and the required systems and process were in place. Therefore total 2010 special meter reading expenditure is allocated to meter types using the cumulative average meter population from table 4.2.1.
2011	The AMI meter program commenced in 2009, however it was not until the middle of 2012 when remote special meter read capabilities were fully available and the required systems and process were in place. Therefore total 2011 special meter reading expenditure is allocated to meter types using the cumulative average meter population from table 4.2.1.
2012	From 2012, Type 4 meters became capable of completing special readings remotely as systems and processes were implemented. Special Meter Reading expenditure was therefore allocated to a meter type using the annual meter read type closing balances, excluding remotely read type 4 meters (as the manual read/site visit cost was no longer applicable).
2013	From 2013, Type 4 meters became capable of completing special readings remotely as systems and processes were implemented. Special Meter Reading expenditure was therefore allocated to a meter type using the annual meter read type closing balances, excluding remotely read type 4 meters (as the manual read/site visit cost was no longer applicable).
2014	Refer to 2013
2015	Refer to 2013

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	It is the only reasonable and reliable allocation basis available
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 – Cost Metrics	
Service Subcategory	**Meter Type**
New Meter Installation (Alternative Control Service) - Volumes and Expenditure.	METER TYPE 4 METER TYPE 5 METER TYPE 6
BOP ID	CAPAL4.2BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16. METERING ALTERNATIVE CONTROL SERVICES

16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria..

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN.

Connections expenditure- The costs to establish new connection assets and upgrades to existing connections assets necessary to meet customer connection requests. This excludes alterations to existing connection assets.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
2009-15 Based on audited regulatory accounts, which have been derived from reports from SAP, SAP, Meter Volumes and Dollars by Function code – Summary Report – from SAP BI Integrated Planning (IP) and SAP Business Intelligence (BI) - Operating Expenditure reports.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	In accordance to the definition of connections expenditure- the New Connections (NC) expenditure is inclusive of all costs associated with installing a new connection to a premise, corporate management fee and overheads and margins associated with providing these services. New Connection labour/installation volumes and costs are recorded by the three meter types (as specified in the Category RIN) in Powercor's systems, and aligns to previously provided data including the audited Annual RINs. All new meter installation expenditure and volumes are based on the physical capability of the meter and physically allocated to meter types this was in the Category RIN.
2010	Please refer to 2009.
2011	Please refer to 2009. Includes an adjustment to subtract out an adjustment for remote energisation which is separately disclosed.
2012	Please refer to 2011.
2013	Please refer to 2011.
2014	Please refer to 2011
2015	Please refer to 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	- Total margin and overhead costs for New Connections are pooled together and allocated by direct costs splits, as these costs not directly applied to the service types. - Internal Management Fee not allocated directly to each individual Service Type (i.e. NC). As Management Fee is applicable to all Service types, a method of allocation is required to fully capture service type costs.
2010	See explanation for 2009.
2011	See explanation for 2009.
2012	See explanation for 2009.
2013	See explanation for 2009.
2014	See explanations for 2009
2015	See explanations for 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	- Total margin and overhead costs for New Connections are pooled together and allocated by direct costs splits, as these costs not directly applied to the service types. - Internal management fee has been allocated also on a pro-rata basis based on Total Alternate Control Services expenditure.
2010	See explanation for 2009.
2011	See explanation for 2009.
2012	See explanation for 2009.
2013	See explanation for 2009.
2014	See explanations for 2009.
2015	See explanations for 2009.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This was seen as the most appropriate allocation methodology for allocating these types of costs.
2010	See explanation for 2009.
2011	See explanation for 2009.
2012	See explanation for 2009.
2013	See explanation for 2009.
2014	See explanations for 2009.
2015	See explanations for 2009.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 – Cost Metrics	
Service Subcategory	**Meter Type**
Meter Replacement (Alternative Control Service and Prescribed Metering) - Expenditure and Volumes	METER TYPE 4 METER TYPE 5 METER TYPE 6
BOP ID	CAPAL4.2BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template **is** compliant to the definitions specified in the CA RIN. It contains both prescribed metering and ACS costs reconciling with amounts reported in the 2009-15 annual RINs

Meter types – (based on physical capability of the meter)
Meter Type 4 – AMI meter – meter capable of being read remotely
Meter Type 5 – Manually read interval meter
Meter Type 6 – Basic, manually read accumulation meter

Meter Replacement The replacement cost of a meter and associated equipment at a site with existing metering infrastructure. This activity should be estimated as the replacement of a meter with its modern equivalent, where the meter has reached the end of its economic life. Replacement is a non-demand driven activity where the existing asset cannot be efficiently maintained to meet its service performance requirement.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
2009-2015 – Based on audited regulatory accounts, which have been derived from a report from SAP Business Intelligence (BI) - Meter Volumes and Dollars by Function Code – Summary Report.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	In Powercor's systems, Meter Replacement expenditure and volumes (as submitted in the Annual RIN's) is captured by meter type categories specified within the Category RIN. Details of the expenditure/volumes recorded here are as follows: • includes the labour/installation cost; • excludes the meter purchase expenditure as this is already captured under service sub category Meter Purchase. • includes any associated meter material costs other than the meter • includes meter fault replacements, company and customer initiated meter replacements (including AMI rollout expenditure/volumes) Expenditure and volumes are allocated to a meter type based on the physical capability of the meter, not the meter read type.
2010	Ibid
2011	Also Includes AMI Bring Forward replacements. Amounts reported here reconcile to amounts reported in the annual RIN. As this relates 100% to type 4 metering, no estimates are required this relates 100% to type 4 metering, no estimates are required.
2012	Ibid
2013	ibid
2014	Ibid
2015	Ibid

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 Cost Metrics	
Service Subcategory	**Meter Type**
Meter Maintenance (Prescribed Metering) - Volumes and Expenditure	METER TYPE 4 METER TYPE 5 METER TYPE 6
BOP ID	CAPAL4.2BOP9

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Meter maintenance
The cost to repair a meter currently deployed in the field. Meter maintenance costs should include the expenditure related to operational repairs of the meter unit, not including capex.

16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN as meters are generally not repaired as they are either covered by warranty (2009-15) or replaced with a new meter that is deemed to be capex and intended to be excluded

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: **2009 – 2015:** No costs have been reported under Meter Maintenance.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Meter Faults are reported under meter replacements, as they are a physical meter replacement. The meters are under a 5 year warranty period and any faulty meters will be sent back to the vendor. The age of >95% the existing meter population is <=5 years old. Faulty meters are therefore not repaired they are replaced with a new meter and treated as CAPEX. The removed meters are sent back to the meter vendors, then returned to stores and redeployed.
2010	Ibid
2011	Ibid
2012	Ibid
2013	ibid
2014	ibid
2015	ibid

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

AER CATEGORY ANALYSIS RIN

Tab name: 4.2 Metering	
Table name: 4.2.2 Cost Metrics	
Service Subcategory	**Meter Type**
Remote Meter Reading (Prescribed Metering) - Volumes and Expenditure	METER TYPE 4
BOP ID	CAPAL4.2BOP10

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
We confirm that the data provided complies with the instructions and definitions specified in the CA RIN.

Meter types – (based on physical capability of the meter)
Meter Type 4 – AMI meter – meter capable of being read remotely
Meter Type 5 – Manually read interval meter
Meter Type 6 – Basic, manually read accumulation meter

Remote meter reading*:* The use of remotely read interval metering infrastructure to perform meter reading and special meter reading.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data is consistent with volumes previously supplied to the AER as either part of the AMI Budget Application or the Annual RINs sourced from SAP.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Volumes:** represents the average meters read remotely as per 2011-15 AMI Budget Application AER Final Determination or the annual RIN as opposed to the number of remote reads as the meters are read 4 times per day. **Cost:** Expenditure reported/allocated here reconciles back to the MDS expenditure reported in the Annual RINs (total scheduled meter reading and remote meter reading). Includes Meter Reading, back-office and any direct AMI Program costs. A proportion of these costs are allocated to type 4 meters based on the population of meters being read as type 4. Again, where a physically installed type 4 meter was being read as a type 5 or a type 6 is not included in these costs; these costs are included under category: Scheduled Meter Reading.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Opex Costs are not captured by meter type category in our systems like CAPEX and therefore estimates are required to allocate these costs and volumes to meter types.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	A proportion of indirect costs has been allocated based on the proportion of meters being read remotely. Any cost associated to direct resources engaged on the AMI Program (recorded and identifiable) to deal with Type 4 meter MDS issues was allocated 100% to Type 4 metering.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Meter read type population by meter Type is a simple and efficient method to allocate costs.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 Cost Metrics	
Service Subcategory	**Meter Type**
Remote Meter Re-Configuration (Alternative Control Service) - Expenditure and Volumes	METER TYPE 4
BOP ID	CAPAL4.2BOP11

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
We confirm that the data provided complies with the instructions and definitions specified in the CA RIN.

Remote meter configuration*:* A change to the software in the meter that enables changes to parameters for a specific meter function. Examples of meter reconfigurations may include:
- changing the switching times for controlled loads
- changes associated with the installation of embedded generation and/or the premium feed-in tariff

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for period from 2011 to 2015 was obtained from the relevant general ledgers within SAP

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	Direct costs were determined by revenue volumes which were billed to the customers multiplied by unit rate which includes average internal labour costs based on Motion study. These costs are wholly relating to Type 4 meters. Amounts reported here reconcile with amounts reported within the annual RIN
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	As total costs associated with this service were not captured separately, a unit rate is required to calculate the associated costs.
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Unit rate was derived based on average amount of time taken to perform each task of the service multiplied by internal labour rate.
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	It is the only reasonable and reliable allocation basis available
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
type 4 meters only capable of performing remote re-configurations from 2011 in line with the AMI program deliverables.

Tab name: 4.2 Metering	
Table name: 4.2.2 Cost Metrics	
Service Subcategory	**Meter Type**
Other Metering (Alternative Control Service and Prescribed Metering) - Expenditure	METER TYPE 4 METER TYPE 5 METER TYPE 6 METER TYPE 7
BOP ID	CAPAL4.2BOP12

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN.

Other costs (metering) - The costs of performing metering services which are not already included in the following meter services:
• Meter purchase
• Meter testing
• Meter investigation
• Scheduled meter reading
• Special meter reading
• New meter installation
• Meter replacement
• Meter maintenance

Costs for meter data services, which apply to meter types 4–7 should be reported in the meter associated works category

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

2009-15 – Based on audited regulatory accounts, which have been derived from reports from SAP Business Intelligence (BI) Depreciation report and SAP BI Capital report.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	In Powercor's systems, there are a number of Operating expenditure (Opex) items that do not fit into the required categories in table 4.2.2. These costs as reported in the Annual RIN's however are not captured by meter type categories used within the Category RIN. In 2009, AMI project management fees ($12M) were treated as operating expenditure (OPEX) within the 2009 annual RIN. From 2010 when meters and communication devices were rolled out, project management cost were capitalised, becoming part of the metering RAB. All of the 2009 cost relates to the AMI project and is therefore allocated to type 4 metering.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Other costs are easily identifiable and previously reported within the annual RINs. These costs are not however recorded by meter type and therefore an estimate is required to report them this way.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	- Costs identifiable as AMI project related were allocated 100% to type 4 metering and any indirect costs were allocated using the cumulative meter population. - Project management costs are allocated 100% to type 4 metering as they relate to the AMI program. Cost reported as "other metering" mostly relates to: • Type 7 Unmetered Supply Audits (UMS) – 100% of the expenditure/volumes relates to type 7 meters
2010	Cost reported as "other metering" mostly relates to: • Meter Program and/or Time-switch resets – 100% Type 6 meters – meter time-switch resets

	• Type 7 Unmetered Supply Audits (UMS) – 100% of the expenditure/volumes relates to type 7 meters
2011	Cost reported as "other metering" mostly relates to: • Meter Program and/or Time-switch resets – 100% Type 6 meters – meter time-switch resets • Type 7 Unmetered Supply Audits (UMS) – 100% of the expenditure/volumes relates to type 7 meters
2012	Cost reported as "other metering" mostly relates to: • Type 5 & 6 (Non AMI) meter stock write-off as per AMI OIC - allocated using average Type 5-6 meter population in table 4.2.1 • Meter Program and/or Time-switch resets – 100% Type 4 meters – meter reprograming/resets
2013	Cost reported as "other metering" mostly relates to: • Company Initiated Meter Replacements or Abolishment's (non-customer requested activity) – allocated using average Type 4-6 meter population in table 4.2.1 • Meter Program and/or Time-switch resets – 100% Type 4 meters – meter reprograming/resets
2014	Cost reported as "other metering" mostly relates to: • Company Initiated Meter Replacements or Abolishment's (non-customer requested activity) – allocated using average Type 4-6 meter population in table 4.2.1 Meter Program and/or Time-switch resets – 100% Type 4 meters – meter reprograming/resets
2015	Cost reported as "other metering" mostly relates to: • Company Initiated Meter Replacements or Abolishment's (non-customer requested activity) – allocated using average Type 4-6 meter population in table 4.2.1 Meter Program and/or Time-switch resets – 100% Type 4 meters – meter reprograming/resets

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	This was seen as the most appropriate allocation methodology for allocating these types of costs.
2010	Ibid
2011	Ibid
2012	Ibid
2013	Ibid
2014	Ibid
2015	Ibid

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 Cost Metrics	
Service Subcategory	**Meter Type**
IT Infrastructure Capex ($000's)	Meter Type 4
BOP ID	CAPAL4.2BOP13

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

16. METERING ALTERNATIVE CONTROL SERVICES

16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services . This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Meter type 4 Remotely read interval meter with communications functionality that is:
• designed to transmit metering data to a remote location for data collection; and
• does not, at any time, require the presence of a person at, or near, the meter for the purposes of data collection or data verification (whether this occurs manually as a walk-by reading or through the use of a vehicle as a close proximity drive-by reading), including, but not limited to, an interval meter that transmits metering data via direct dialup, satellite, the internet, general packet radio service, power line carrier, or any other equivalent technology.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN

Non-network IT & Communications Expenditure
Is all non-network expenditure directly attributable to IT and communications assets including replacement, installation, operation, maintenance, licensing, and leasing costs but excluding all costs associated with SCADA and Network Control Expenditure that exist beyond gateway devices (routers, bridges etc.) at corporate offices.

IT & Communications Expenditure includes:
• costs associated with SCADA and Network Control that exist at the Corporate office side of gateway devices (routers, bridges etc.). For example, this would include cost associated with SCADA master systems/control room and directly related equipment

• IT & Communications Expenditure related to management, dispatching and coordination, etc. of network work crews (e.g. phones, radios etc.).
• any common costs shared between the SCADA and Network Control Expenditure and IT & Communications

Expenditure categories with no dominant driver related to either of these expenditure categories. For example, a dedicated communications link used for both corporate office communications and network data communications with no dominant driver for incurring the expenditure attributable to either expenditure category should be reported as IT & Communications Expenditure.
• expenditure related to network metering recording and storage at non network sites (i.e. corporate offices/sites)
• Sub categories of Non-network IT& Communications Expenditure are:
• Client Devices Expenditure
• Recurrent Expenditure (excluding any client devices expenditure)
• Non-Recurrent Expenditure (excluding any client devices expenditure).

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
All data from Business Intelligence reports containing Data form SAP reconciling to amounts reported in the Annual RINs

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	For CAPEX we have used BI Capital report for functions codes 205 (IT METERING ASSETS). All amounts in this BI report sourced from SAP are related to type 4 IT system development as part of the AMI program.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 Cost Metrics	
Service Subcategory	**Meter Type**
IT Infrastructure Opex ($000's)	Meter Type 4
BOP ID	CAPAL4.2BOP14

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16. METERING ALTERNATIVE CONTROL SERVICES

16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Meter type 4 Remotely read interval meter with communications functionality that is:
• designed to transmit metering data to a remote location for data collection; and
• does not, at any time, require the presence of a person at, or near, the meter for the purposes of data collection or data verification (whether this occurs manually as a walk-by reading or through the use of a vehicle as a close proximity drive-by reading), including, but not limited to, an interval meter that transmits metering data via direct dialup, satellite, the internet, general packet radio service, power line carrier, or any other equivalent technology.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN
Non-network IT & Communications Expenditure

Is all non-network expenditure directly attributable to IT and communications assets including replacement, installation, operation, maintenance, licensing, and leasing costs but excluding all costs associated with SCADA and Network Control Expenditure that exist beyond gateway devices (routers, bridges etc.) at corporate offices.

IT & Communications Expenditure includes:
· costs associated with SCADA and Network Control that exist at the Corporate office side of gateway devices (routers, bridges etc.). For example, this would include cost associated with SCADA master systems/control room and directly related equipment
· IT & Communications Expenditure related to management dispatching and coordination, etc. of network work crews (e.g. phones, radios etc.).

· any common costs shared between the SCADA and Network Control Expenditure and IT & Communications

Expenditure categories with no dominant driver related to either of these expenditure categories. For example, a dedicated communications link used for both corporate office communications and network data communications with no dominant driver for incurring the expenditure attributable to either expenditure category should be reported as IT & Communications Expenditure.
· expenditure related to network metering recording and storage at non network sites (i.e. corporate offices/sites)
· Sub categories of Non-network IT& Communications Expenditure are:
· Client Devices Expenditure
· Recurrent Expenditure (excluding any client devices expenditure)
· Non-Recurrent Expenditure (excluding any client devices expenditure).

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
All data from SAP, Business Intelligence and Integrated planning reports reconciling to amounts reported in the Annual RINs

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	For OPEX we have used SAP, Business Intelligence and Integrated planning reports . All costs in these reports show IT opex expenditure relating to the AMI program which is 100% type 4 related.
2010	See 2009
2011	See 2009
2012	See 2009
2013	See 2009
2014	See 2009
2015	See 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 Cost Metrics	
Service Subcategory	**Meter Type**
Communications Infrastructure (CAPEX)	Meter Type 4
BOP ID	CAPAL4.2BOP15

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN.
Non-network IT & Communications Expenditure
Is all non-network expenditure directly attributable to IT and communications assets including replacement, installation, operation, maintenance, licensing, and leasing costs but excluding all costs associated with SCADA and Network Control Expenditure that exist beyond gateway devices (routers, bridges etc.) at corporate offices.

IT & Communications Expenditure includes:
· costs associated with SCADA and Network Control that exist at the Corporate office side of gateway devices (routers, bridges etc.). For example, this would include cost associated with SCADA master systems/control room and directly related equipment
· IT & Communications Expenditure related to management, dispatching and coordination, etc. of network work crews (e.g. phones, radios etc.).
· any common costs shared between the SCADA and Network Control Expenditure and IT & Communications

Expenditure categories with no dominant driver related to either of these expenditure categories. For example, a dedicated communications link used for both corporate office communications and network data communications with no dominant driver for incurring the expenditure attributable to either expenditure category should be reported as IT & Communications Expenditure.
· expenditure related to network metering recording and storage at non network sites (i.e. corporate offices/sites)
· Sub categories of Non-network IT& Communications Expenditure are:
· Client Devices Expenditure
· Recurrent Expenditure (excluding any client devices expenditure)
· Non-Recurrent Expenditure (excluding any client devices expenditure).

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
2009 – 2015 – Based on audited regulatory accounts, which have been derived from reports from SAP and Meter Volumes and Dollars – Summary Report – from SAP BI Integrated Planning (IP).

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Metering related communications Infrastructure cost is separately reported in SAP. Costs reported here relate to Mesh communications devices including access points and relays used to remotely read type 4 AMI Meters. Amounts reported here reconcile with the amounts reported in the annual RINs
2010	Please refer to 2009
2011	Please refer to 2009
2012	Please refer to 2009
2013	Please refer to 2009
2014	Please refer to 2009
2015	Please refer to 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable

2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not applicable

Tab name: 4.2 Metering	
Table name: 4.2.2 Cost Metrics	
Service Subcategory	**Meter Type**
Communications Infrastructure OPEX (Prescribed Metering)	Meter Type 4
BOP ID	CAPAL4.2BOP16

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
16.1 Powercor must ensure that the data provided for metering services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.

16.2 Powercor is not required to distinguish expenditure for metering services between standard or alternative control services in regulatory template 4.2.

16.3 Powercor is not required to distinguish expenditure for metering services as either capex or opex in regulatory template 4.2.

16.4 Powercor must report data for non-contestable, regulated metering services. This includes work performed by third parties on behalf of Powercor.

16.5 Powercor must not report data in relation to metering services which have been classified as contestable by the AER.

16.6 For guidance, the definition of meter type 4 is provided in appendix F. This will include metering assets and services such as those introduced with the Advanced Metering Infrastructure rollout in Victoria.

Please provide a Response in this box:
This template is compliant to the definitions specified in the CA RIN. We have prepared the template in line with the definitions below

Non-network IT & Communications Expenditure
Is all non-network expenditure directly attributable to IT and communications assets including replacement, installation, operation, maintenance, licensing, and leasing costs but excluding all costs associated with SCADA and Network Control Expenditure that exist beyond gateway devices (routers, bridges etc.) at corporate offices.

IT & Communications Expenditure includes:
• costs associated with SCADA and Network Control that exist at the Corporate office side of gateway devices (routers, bridges etc.). For example, this would include cost associated with SCADA master systems/control room and directly related equipment
• expenditure related to network metering recording and storage at non network sites (i.e. corporate offices/sites)

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
2009 – 2015 – Based on audited regulatory accounts, which have been derived from reports from SAP and Meter Volumes and Dollars – Summary Report – from SAP BI Integrated Planning (IP).

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Metering related communications Infrastructure cost is separately reported in SAP. Costs reported here relate to the communications backhaul costs to remotely read type 4 AMI Meters. Costs specifically relate to using Telstra's 3G networks to transfer data from the ~800 access points back to the company's systems. Amounts reported here reconcile with amounts reported within the annual RINs
2010	Please refer to 2009
2011	Please refer to 2009
2012	Please refer to 2009
2013	Please refer to 2009
2014	Please refer to 2009
2015	Please refer to 2009 – No devises installed in 2015

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

4.3 Ancillary Services – Fee-based Services

Tab name: 4.3 Ancillary Services - Fee-based Services	
Table name: 4.3.1 Cost Metrics for fee-based services	
Service	**Service Subcategory**
Common Fee-based Services	Energisation
BOP ID	CAPAL4.3BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

"Appendix E: Principles and Requirements"
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

"Appendix F: Definitions"
· Energisation: The closing of a connection in order to allow the flow of energy to the premises.

Please provide a Response in this box:
Based on the definition of Energisation services, Powercor has not provided any services therefore no data has been provided..

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Based on the definition of Energisation services, Powercor has not provided any services therefore there is no source data.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not Applicable (Powercor did not provide this service)
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable (Powercor did not provide this service)
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable (Powercor did not provide this service)
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable (Powercor did not provide this service)
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Powercor did not provide Energisation services.

Tab name: 4.3 Ancillary services – Fee-based services	
Table name: 4.3.1 - Cost Metrics for Fee – Based Services	
SERVICE	**SERVICE SUBCATEGORY**
COMMON FEE-BASED SERVICES	De-Energisation
BOP ID	CAPAL4.3BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

Common fee-based services
Those fee-based services which are provided by all DNSPs, including:
· Energisation
· De-energisation
· Re-energisation

"Appendix F: Definitions"
De-energisation: The opening of a connection in order to prevent the flow of energy to the premises.

Please provide a Response in this box:
Powercor applies a Disconnection (includes Disconnections for Non Payment (DNP)) charge when a request is received to disconnect at a supply point. The service requires that all supply assets remain at the customer's installation. If at the time of disconnection it is discovered that the installation has been damaged or is defective and will be unsafe to energise if a future reconnection occurs, other charges to correct the defect may be applicable. These charges will be based on the nature of the works required.

In a normal instance a de-energisation is performed by a special reader. However, there are scenarios where a Service Truck Visit may be required in its place and accordingly a Service Truck Visit (Section D.1.3.1) charge will be applied.

The information provided complies with section 15 of Appendix E, and aligns with the definitions provided in Appendix F.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volume

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Expenditure and volume data for period from 2009 to 2015 was obtained from the relevant general ledgers within SAP

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Expenditure** Direct costs (includes Re-En De-En, Special Read) were derived from 2008 Corporate Overheads. These costs were proportioned between Re-En De-En and Special Read based on the percentage of volume of each service to the total volume which we billed to the customers. Indirect costs were determined by proportion of Corporate Overheads and Depreciation allocated to this service. **Volume:** Volume information has been extracted directly from SAP
2010	Refer to 2009
2011	Refer to 2009
2012	**Expenditure** Total costs are comprised of: • Corporate Overheads related to Special Readings, allocated based on revenue split between Re-Energisation, De-Energisation and Special Reads, based on the assumption that the revenue split is reflective of the underlying costs of performing the services. Corporate overheads indirectly allocated based on expenditure, under the assumption that Corporate Overheads are incurred at the same rate as Expenditure.
2013	Refer 2011
2014	**Expenditure** Direct costs (includes Re-En De-En, Special Read) were derived from 2008 Corporate Overheads. These costs were proportioned between Re-En De-En and Special Read based on the percentage of revenue of each service to the total revenue which we billed to the customers. Indirect costs were determined by proportion of Corporate Overheads and Depreciation allocated to this service. **Volume:** Volume information has been extracted directly from SAP
2015	Refer 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Internal Corporate Overheads not allocated directly to each individual Service Type. As Corporate Overheads

	are applicable to all Service types, a method of allocation is required to fully capture service type costs.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Proportion of Corporate overheads allocated to this service is determined by percentage of this service costs to the Total Alternate Control Services expenditure, based on the assumption that Corporate Overheads are incurred at the same rate as service costs.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The estimate was seen as being the most reflective of costs incurred.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.3 Ancillary services – Fee-based services	
Table name: 4.3.1 - Cost Metrics for Fee – Based Services	
SERVICE	**SERVICE SUBCATEGORY**
COMMON FEE-BASED SERVICES	Re-Energisation
BOP ID	CAPAL4.3BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.
Common fee-based services
Those fee-based services which are provided by all DNSPs, including:
· Energisation
· De-energisation
· Re-energisation

"Appendix F: Definitions"

Re-energisation: The *energisation* of a premises after their *de-energisation*. Does not include alterations or new installation of meters or services.

Please provide a Response in this box:
Powercor applies an Energisation charge when customers moving into an existing premise where supply assets are installed and the site was previously de-energised.

Three options for energisation are available:
1. Reconnections (same day) business hours only;
2. Reconnections (incl. Customer Transfer) business hours; and
3. Reconnections (incl. Customer Transfer) after hours.

The information provided complies with section 15 of Appendix E, and aligns with the definitions provided in Appendix F.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volume

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: Expenditure and volume data for period from 2009 to 2015 was obtained from the relevant general ledgers within SAP

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Expenditure:** Direct costs (includes Re-En De-En, Special Read) were derived from 2008 Corporate Overheads. These costs were proportioned between Re-En De-En and Special Read based on the percentage of volume of each service to the total volume which we billed to the customers. Indirect costs were determined by proportion of Corporate Overheads and Depreciation allocated to this service. **Volume:** Volume information has been extracted directly from SAP
2010	Refer to 2009
2011	Refer to 2009
2012	Total costs are comprised of: • Corporate Overheads related to Special Readings, allocated based on revenue split between Re-Energisation, De-Energisation and Special Reads, based on the assumption that the revenue split is reflective of the underlying costs of performing the services. Corporate overheads indirectly allocated based on expenditure, under the assumption that Corporate Overheads are incurred at the same rate as Expenditure.
2013	Refer 2012
2014	**Expenditure:** Direct costs (includes Re-En De-En, Special Read) were derived from 2008 Corporate Overheads. These costs were proportioned between Re-En De-En and Special Read based on the percentage of revenue of each service to the total revenue which we billed to the customers. Indirect costs were determined by proportion of Corporate Overheads and Depreciation allocated to this service. **Volume:** Volume information has been extracted directly from SAP
2015	Refer 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Internal Corporate Overheads not allocated directly to each individual Service Type. As Corporate Overheads are applicable to all Service types, a method of allocation is required to fully capture service type costs.
2010	Refer 2009

2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Proportion of Corporate overheads allocated to this service is determined by percentage of this service costs to the Total Alternate Control Services expenditure, based on the assumption that Corporate Overheads are incurred at the same rate as service costs.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The estimate was seen as being the most reflective of costs incurred.
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.3 Ancillary services – Fee-based services	
Table name: 4.3.1 - Cost Metrics for Fee – Based Services	
SERVICE	**SERVICE SUBCATEGORY**
MISCELLANEOUS FEE-BASED SERVICES	PV Installation
BOP ID	CAPAL4.3BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
"Appendix E: Principles and Requirements"
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

"Appendix F: Definitions".
Fee-based services
Fee-based services are provided for the benefit of individual customers rather than uniformly supplied to all network customers. Some services of this type are homogenous in nature and scope. This means that these services are provided on a fixed fee basis.
These services may, in some jurisdictions, be classified as ancillary network services charged on a fixed fee basis.

Please provide a Response in this box:
Powercor applies the PV Installation charge when prior to connection of small scale embedded generation to Powercor Australia's network. This charge specifically covers the inspection of the customer's site to ensure safe connection to the network and includes anti-islanding test.

The information provided complies with section 15 of Appendix E, and aligns with the definitions provided in Appendix F.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volumes

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Expenditure and volume information data for period from 2011 to 2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not Applicable
2010	Not Applicable
2011	**Expenditure** The SAP financial system is used to extract the information required to state the DNSP PV Installation information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **Volume:** Volume information has been extracted directly from SAP
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	No estimated data.
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	No estimated data.
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	No estimated data.

2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
No service provided for PV for year 2009 and 2010.

Tab name: 4.3 Ancillary services – Fee-based services	
Table name: 4.3.1 - Cost Metrics for Fee – Based Services	
SERVICE	**SERVICE SUBCATEGORY**
MISCELLANEOUS FEE-BASED SERVICES	Remote De-Energisation
BOP ID	CAPAL4.3BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

Common fee-based services
Those fee-based services which are provided by all DNSPs, including:
· Energisation
· De-energisation
· Re-energisation

Please provide a Response in this box:
Powercor applies the Remote De-energisation charge when a request is received to de-energise a customer that has smart metering and related infrastructure is in place. Remote de-energisation is defined as the use of the AMI/smart metering infrastructure communications system to control a supply contactor inside the meter such that the customer is disconnected from the DNSP's network (also referred to as 'disconnection')

The information provided complies with section 15 of Appendix E, and aligns with the definitions provided in Appendix F.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volume

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Expenditure and volume data for period from 2012 to 2015 was obtained from the relevant general ledgers within SAP

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	**Expenditure** Direct costs (includes Manual and Remote Re-En De-En, Special Read) were derived from total costs captured within specific areas of SAP, proportioned between Manual and Remote Re-En De-En and Special Read based on the percentage of volume of each service to the total revenue volume which we billed to the customers. **Volume:** Volume information has been extracted directly from SAP
2013	Refer 2012
2014	**Expenditure** Direct costs (includes Manual and Remote Re-En De-En, Special Read) were derived from total costs captured within specific areas of SAP, proportioned between Manual and Remote Re-En De-En and Special Read based on the percentage of revenue of each service to the total revenue which was billed to the customers. **Volume:** Volume information has been extracted directly from SAP
2015	Refer 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	As individual service volume was not captured separately, a method of allocation is required to proportion the total costs between Manual and Remote Re-En De-En and Special Read services.
2013	Refer 2012
2014	Refer 2012
2015	Refer 2012

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Allocation method used to proportion the total costs was based on the percentage of volume of each service to the total volume which we billed to the customers, based on the assumption that the proportion of volume is

	reflective of the proportion of costs incurred.
2013	Refer 2012
2014	Refer 2012
2015	Refer 2012

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	It is the estimate that is most reflective of how costs are incurred.
2013	Refer 2012
2014	Refer 2012
2015	Refer 2012

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
No service provided for Remote De-Energisation for period from 2009 to 2011.

Tab name: 4.3 Ancillary services – Fee-based services	
Table name: 4.3.1 - Cost Metrics for Fee – Based Services	
SERVICE	**SERVICE SUBCATEGORY**
MISCELLANEOUS FEE-BASED SERVICES	Remote Re-Energisation
BOP ID	CAPAL4.3BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

Common fee-based services
Those fee-based services which are provided by all DNSPs, including:
· Energisation
· De-energisation
· Re-energisation

Please provide a Response in this box:
Powercor applies the Remote Re-energisation charge when a request is received to re-energise a customer that has smart metering and related infrastructure is in place. Remote re-energisation is defined as the use of the AMI/smart metering infrastructure communications system to control a supply contactor inside the meter such that the customer is connected to the DNSP's network (also referred to as 'connection').

The information provided complies with section 15 of Appendix E, and aligns with the definitions provided in Appendix F.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volume

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Expenditure and volume data for period from 2012 to 2015 was obtained from the relevant general ledgers within SAP

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	**Expenditure** Direct costs (includes Manual and Remote Re-En De-En, Special Read) were derived from total costs captured within specific areas of SAP, proportioned between Manual and Remote Re-En De-En and Special Read based on the percentage of volume of each service to the total revenue volume which we billed to the customers. **Volume:** Volume information has been extracted directly from SAP
2013	Refer 2012
2014	**Expenditure** Direct costs (includes Manual and Remote Re-En De-En, Special Read) were derived from total costs captured within specific areas of SAP, proportioned between Manual and Remote Re-En De-En and Special Read based on the percentage of revenue of each service to the total revenue which was billed to the customers. **Volume:** Volume information has been extracted directly from SAP
2015	Refer 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	As individual service volume was not captured separately, a method of allocation is required to proportion the total costs between Manual and Remote Re-En De-En and Special Read services.
2013	Refer 2012
2014	Refer 2012
2015	Refer 2012

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Allocation method used to proportion the total costs was based on the percentage of volume of each service to the total volume which we billed to the customers, based on the assumption that the proportion of volume is

	reflective of the proportion of costs incurred.
2013	Refer 2012
2014	Refer 2012
2015	Refer 2012

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	It is the estimate that is most reflective of how costs are incurred.
2013	Refer 2012
2014	Refer 2012
2015	Refer 2012

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
No service provided for Remote Re-Energisation for period from 2009 to 2011.

Tab name: 4.3 Ancillary Services - Fee-based Services	
Table name: 4.3.1 Cost Metrics for fee-based services	
Service	**Service Subcategory**
Miscellaneous Fee-based Services	Wasted Truck Visits
BOP ID	CAPAL4.3BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Miscellaneous fee-based services - Those fee-based services that are provided by some but not all DNSPs. This would include, among other services, service truck visits and wasted service truck visits.
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for *fee-based* and *quoted services* reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In *regulatory templates* 4.3 and 4.4, Powercor must list all the *fee-based* and *quoted services* that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each *fee-based* and *quoted service* listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

Please provide a Response in this box:
Wasted truck visits are where Powercor receives a request for a service truck and:
• the crew arrives to find the site is not ready for the scheduled work within 15 minutes of arriving;
• the truck attendance is no longer required once on site; or
• 24 hours notice is not provided for a cancellation.

A Wasted Truck Visit charge will then apply.

Once the site is ready for the Service Truck Visit another appointment needs to be booked and the normal Service Truck Visit charge applies.

Business hours and after hours charges apply where appropriate.

The information provided complies with section 15 of Appendix E, and aligns with the definitions provided in Appendix F.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volumes

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for period from 2009 to 2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor. The original volume related data was sourced from CISOV.(Customer Information System Open Vision - our customer records management system.)

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not Applicable
2010	Not Applicable
2011	**Expenditure:** The SAP financial system is used to extract the information required to state the DNSP Wasted Truck visit information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **Volumes** Volumes extracted directly from CIS-OV
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

No information was collated for Wasted Truck in 2009 and 2010. Wasted Truck Expenditure is not expected to trend consistently, therefore using 2011-2015 data as a basis of estimate for 2009 and 2010 would not provide information that reflects the costs incurred. No other reasonable basis of estimation was identified.

Tab name: 4.3 Ancillary Services - Fee-based Services	
Table name: 4.3.1 Cost Metrics for fee-based services	
Service	**Service Subcategory**
Miscellaneous Fee-based Services	Service Truck Visits
BOP ID	CAPAL4.3BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Miscellaneous fee-based services - Those fee-based services that are provided by some but not all DNSPs. This would include, among other services, service truck visits and wasted service truck visits.
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for *fee-based* and *quoted services* reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In *regulatory templates* 4.3 and 4.4, Powercor must list all the *fee-based* and *quoted services* that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each *fee-based* and *quoted service* listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

Please provide a Response in this box:
Powercor Service truck visit charges apply when a service crew is requested for up to an hour.
A service truck visit charge is applied in a number of circumstances including;
• Disconnection of complex site
• Reconnection of complex site
• Metering Additions or Alternations
• Shutdowns

In the situation that a service truck visit is required for larger scale after hours works a Quoted Services charge will apply i.e. 'After hours truck by appointment')

Customers are not charged when a service truck is sent to attend emergency and fault calls, unless the customer is clearly at fault, for example, not checking that main switch or safety switch is on.

In the instance where a service truck visit is requested and the truck arrives to find the site is not ready for work to be carried out then a Wasted Truck Visit charge will apply

The information provided complies with section 15 of Appendix E, and aligns with the definitions provided in Appendix F.
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B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volumes

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for period from 2009 to 2015 to has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor.

The original volume related data was sourced from CISOV. (Customer Information System Open Vision - our customer records management system.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Expenditure** The SAP financial system is used to extract the information required to state the DNSP Service Truck Visit information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology. **Volumes** Volumes extracted directly from CIS-OV
2010	Refer 2009
2011	Refer 2009
2012	Refer 2009
2013	Refer 2009
2014	Refer 2009
2015	Refer 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable

2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 4.3 Ancillary Services - Fee-based Services	
Table name: 4.3.1 Cost Metrics for fee-based services	
Service	**Service Subcategory**
Miscellaneous Fee-based Services	Reserve Feeder
BOP ID	CAPAL4.3BOP9

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

Please provide a Response in this box:
Complied with Quoted services requirements as per the Notice Appendix E section 15. Reserve Feeder service is negotiated with customers specifically requesting continuity of electricity supply should the feeder providing normal supply to their connection experience interruption.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volume

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
To determine revenue the billing system CIS Open Vision uses the contracts National Metering Identifier (NMI) to provide the tariff information.

A number of inputs are used to determine expenditure.
Demand Billed – The billing system CIS Open Vision uses the contracts NMI to determine the Demand Billed (kVA).
Marginal cost of reinforcement analysis – customer contribution model based on an approved 2010 sample of

completed projects expenditure and adjusted for CPI.
Maintenance expenditure – from the annual RIN submission which is sourced from SAP.
RAB replacement value – taken from 2004 RAB uplifted for CPI .
Expenditure is calculated by multiplying the replacement cost with the maintenance percentage. The replacement cost is determined by multiplying the demand billed by the marginal cost of reinforcement. The maintenance percentage is determined by calculating the maintenance expenditure as a percentage of the total RAB replacement value.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	**Expenditure** Apply a marginal cost of reinforcement to the total demand of Kilo Volt Amps (kva's) for reserve feeder contracts to calculate a total reinforcement cost. Then apply the maintenance percentage which is calculated by taking current year's maintenance expenditure divided by the current years RAB adjusted for CPI. **Volume** Volume information is based on the number of customer contracts obtained directly from CISO\V
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Need to calculate the maintenance on reserve feeders as actual maintenance is not recorded down to the asset level only a % can be applied to the total reinforcement costs of current reserve feeder contracts.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Apply a marginal cost of reinforcement to the total demand of kva's for reserve feeder contracts to calculate a total reinforcement cost. Then apply the maintenance percentage which is calculated by taking current year's maintenance expenditure divided by the current years RAB replacement value adjusted for CPI. This is under the assumption that the maintenance percentage applied to the replacement cost will represent the operating and maintenance expenditure for reserve feeder.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Require an estimate of the maintenance value but as we don't record actual maintenance down to the asset level, the data is based on an estimate. By applying a maintenance percentage to the replacement value it best represents the level of maintenance expenditure incurred for reserve feeders as this service is similar to other feeders.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

4.4 Ancillary Services – Quoted Services

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 - COST METRICS FOR QUOTED SERVICES	
Service	**Service Subcategory**
Quoted Services	Recoverable Works – Expenditure and Volumes Connections
BOP ID	CAPAL4.4BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES

15.1 Powercor must ensure that the data provided for *fee-based* and *quoted services* reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In *regulatory templates* 4.3 and 4.4, Powercor must list all the *fee-based* and *quoted services* that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each *fee-based* and *quoted service* listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* between *standard* or *alternative control services* in *regulatory templates* 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* as either *capex* or *opex* in *regulatory templates* 4.3 and 4.4.

Response:

15.1	NOT APPLICABLE to Powercor as per AER advice
15.2	NOT APPLICABLE Recoverable Works was standard control under G14
15.3	Complies
15.4	Complies
15.5	Complies – Recoverable works was capex under G14

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volumes

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report will need to be provided.

Response: Source expenditure was from the Regulatory RIN for 2009 to 2015. The source average unit price was from SAP Business Intelligence report for Customer Projects. The volume was estimated from the combination of the total expenditure and unit price.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	1. Recoverable works (asset relocations) is the work completed by Powercor following a customer request to alter or rearrange the distribution assets. This work is not normally part of a supply project where an electricity supply is made available to a customer. 2. Powercor function codes 116 relates to customer requests for recoverable works including asset relocations. 3. The Regulatory RIN report was used for the direct expenditure for the years 2009 to 2015 for function code 116. 4. The SAP CPM BI report provided average direct costs of completed projects within function code 116 for the years 2009 to 2015. Note this does not include capture of all projects so is a sample only. Percentage capture was of the total reported regulation RIN was considered to be a fair indication of the average cost per project. 5. The average unit cost from the SAP CPM Business Intelligence report have been used to calculate the number of physicals required to align with the regulation RIN expenditure.
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009 The expenditure for VBRC projects and volumes were considered when calculating the average cost and volumes.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The RIN expenditure does not contain the number of physicals only expenditure. Not all projects are captured in the CPM Business Intelligence report so the number of physicals has to be estimated to align with the reported RIN
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009
2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	See D
2010	See D
2011	See D
2012	See D
2013	See D
2014	See D
2015	See D

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The estimate for volumes used actual source data therefore the calculation was considered the best estimate
2010	Refer to 2009
2011	Refer to 2009
2012	Refer to 2009

2013	Refer to 2009
2014	Refer to 2009
2015	Refer to 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 - COST METRICS FOR QUOTED SERVICES	
Service	**Service Subcategory**
Quoted Services	Emergency Recoverable Works (Asset Damage)
BOP ID	CAPAL4.4BOP2

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of Notice in this box:
15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor 's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4

Please provide a Response in this box:
Complied with Quoted services requirements as per the Notice Appendix E section 15. Emergency Recoverable Works is a quoted service that may be applied to recover the costs associated with works that are required to restore Powercor's distribution network to its standard operating level following an incident caused by an identifiable 3rd party.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volume

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Expenditure – customer orders booked to SAP expenditure function code 146 as per the RIN submission
Volumes – based on the number of orders in expenditure

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not Applicable
2010	Not Applicable
2011	Expenditure is based on actual data sourced from SAP. Volumes have been defined as the number of customer orders received in SAP expenditure function code 146.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Since data for volumes has not been captured it is assumed that the best estimate of volumes is by using the number of customer orders per SAP expenditure function code 146.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	The assumption that the number of customer orders received in expenditure best represents the volumes of Emergency Recoverable Works because the expenditure account is used solely for this service and expenditure is recorded against individual order numbers for each customer.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	The assumption that the number of customer orders received in expenditure best represents the volumes of Emergency Recoverable Works because the expenditure account is used solely for this service.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: In 2009-2010 Emergency Recoverable data was captured under Batons/Shutdown/Electrical Inspect/Meter Test & Recovery in line with previous reporting requirements to the AER under p 15.1 and 15.2 of the RIN. These years have been reported separately in the RIN templates under Batons/Shutdowns.

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 Cost Metrics for quoted services	
Service	**Service Subcategory**
Quoted Services	ACS After Hours (AH) Service Truck
BOP ID	CAPAL4.4BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Quoted services

15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

Please provide a Response in this box:
After Hours Service truck visit is a service which attracts a Quoted Service charge. The charge is applied to larger scale works requiring an after-hours service truck appointment longer than 1 hour in duration. Examples of types of work include:
• Disconnection of complex site (refer section D.1.1.3)
• Reconnection of complex site (refer section D.1.1.4)
• Metering Additions or Alternations
• Shutdowns (includes preparation works).

(as per the definition from the 2014 General Service Charge Pricing Schedule)

The information provided in the template complies with the requirements of the Category Analysis RIN Notice (CA RIN)

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for quoted services and cost allocations for the years 2011-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor. The original volume related data was sourced from CISOV.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	Volume information has been extracted directly from SAP The SAP financial system is used to extract the information required to state the DNSP After Hours Service Truck information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology.
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

No information was collated for After Hours Service Truck visits in 2009 and 2010.

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 Cost Metrics for quoted services	
Service	**Service Subcategory**
Quoted Services	ACS Supply Abolishment
BOP ID	CAPAL4.4BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Quoted services
Quoted Services are services for which costs are recovered through quoted prices as the nature and scope of these services are specific to individual customers' needs and vary from customer to customer.
These services may, in some jurisdictions, be classified as ancillary network services charged on a quoted basis.

15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES
15.1 Powercor must ensure that the data provided for fee-based and quoted services reconciles to internal planning models used in generating Powercor's proposed revenue requirements.
15.2 In regulatory templates 4.3 and 4.4, Powercor must list all the fee-based and quoted services that were listed in the annual tariff proposal of each relevant year.
15.3 In the basis of preparation, Powercor must provide a description of each fee-based and quoted service listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.
15.4 Powercor is not required to distinguish expenditure for fee-based and quoted services between standard or alternative control services in regulatory templates 4.3 and 4.4.
15.5 Powercor is not required to distinguish expenditure for fee-based and quoted services as either capex or opex in regulatory templates 4.3 and 4.4.

Please provide a Response in this box:
A Quoted Service charge is applied to requests for supply abolishments; this involves the permanent removal of Powercor's supply assets.

The information provided in the template complies with the requirements of the Category Analysis RIN Notice (CA RIN)

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The data for quoted services and cost allocations for the years 2011-2015 has been sourced from the SAP accounting system. SAP is the primary financial reporting system and is the source of providing the audited statutory accounts for Powercor. The original volume related data was sourced from CISOV.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	The SAP financial system is used to extract the information required to state the DNSP Supply Abolishment information by category and regulatory segment. Using the audited statutory accounts for Powercor, the business uses cost elements within SAP in order to allocate costs between the regulatory segments in accordance with the cost allocation methodology.
2012	Refer 2011
2013	Refer 2011
2014	Refer 2011
2015	Refer 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
No information was collated for Supply Abolishment's in 2009 and 2010.

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 - COST METRICS FOR QUOTED SERVICES	
Service	**Service Subcategory**
Quoted Services	Audit Design & Construction Charge
BOP ID	CAPAL4.4BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of Notice in this box:

15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES

15.1 Powercor must ensure that the data provided for *fee-based* and *quoted services* reconciles to internal planning models used in generating Powercor 's proposed revenue requirements.

15.2 In *regulatory templates* 4.3 and 4.4, Powercor must list all the *fee-based* and *quoted services* that were listed in the annual tariff proposal of each relevant year.

15.3 In the basis of preparation, Powercor must provide a description of each *fee-based* and *quoted service* listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.

15.4 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* between *standard* or *alternative control services* in *regulatory templates* 4.3 and 4.4.

15.5 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* as either *capex* or *opex* in *regulatory templates* 4.3 and 4.4

Please provide a Response in this box:

Complied with Quoted services requirements as per the Notice Appendix E section 15. Audit Design & Construction is a quoted service that may be applied where Powercor's review, approval or acceptance of works undertaken by third parties is requested by the third party or is deemed necessary by Powercor.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Expenditure – customer orders booked to SAP expenditure function code 478 as per the RIN submission
Volumes – based on the number of orders in expenditure

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	SAP function code 478 is used for both Audit Design and Specification & Design. Costs have been assigned based on the customer request type category being either Audit or Specification. The remaining unallocated costs have been pro-rated based on the Audit percentage of the total function code. Volumes have been defined as the number of customer orders received in SAP expenditure function code 478 with an Audit Design customer request type.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Since data for volumes has not been captured it is assumed that the best estimate of volumes is by using the number of customer orders per SAP expenditure function code 478.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Expenditure in function code 478 are either assigned to Audit Design or Specification and Design, with some additional costs unallocated to either service, therefore a pro rata approach is used on the remaining expenditure to ensure all expenditure is fully allocated. The assumption that the number of customer orders received in expenditure best represents the expenditure and volumes of Audit Design & Construction.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Majority of expenditure has been assigned to customer request type Audit Design with the remaining expenditure pro-rated across Audit Design and Specification and Design. The assumption that the number of customer orders received in expenditure best represents the volumes of Audit Design & Construction
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: In 2009-2010 Audit Design & Construction data was captured under Batons/Shutdown/Electrical Inspect/Meter Test & Recovery in line with previous reporting requirements to the AER under p 15.1 and 15.2 of the RIN. These years have been reported separately in the RIN templates under Batons/Shutdowns.

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 - COST METRICS FOR QUOTED SERVICES	
Service	**Service Subcategory**
Quoted Services	Specification & Design Enquiry Charge
BOP ID	CAPAL4.4BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of Notice in this box:

15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES

15.1 Powercor must ensure that the data provided for *fee-based* and *quoted services* reconciles to internal planning models used in generating Powercor 's proposed revenue requirements.

15.2 In *regulatory templates* 4.3 and 4.4, Powercor must list all the *fee-based* and *quoted services* that were listed in the annual tariff proposal of each relevant year.

15.3 In the basis of preparation, Powercor must provide a description of each *fee-based* and *quoted service* listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.

15.4 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* between *standard* or *alternative control services* in *regulatory templates* 4.3 and 4.4.

15.5 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* as either *capex* or *opex* in *regulatory templates* 4.3 and 4.4.

Please provide a Response in this box:

Complied with Quoted services requirements as per the Notice Appendix E section 15. Specification & Design is a quoted service that may be applied where Powercor determines an element of detailed design is required to fairly assess the costs so that an Offer for Connection Services can be issued to a customer as required under the Electricity Distribution Licence.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Expenditure – customer orders booked to SAP expenditure function code 478 as per the RIN submission
Volumes – based on the number of orders in expenditure

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	SAP function code 478 is used for both Audit Design and Specification & Design. Costs have been assigned based on the customer request type category being either Audit or Specification. The remaining unallocated costs have been pro-rated based on the Specification Design percentage of the total function code. Volumes have been defined as the number of customer orders received in SAP expenditure function code 478 with an Specification Design customer request type.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Since data for volumes has not been captured it is assumed that the best estimate of volumes is by using the number of customer orders per SAP expenditure function code 478.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Expenditure in function code 478 are either assigned to Audit Design or Specification and Design, with some additional costs unallocated to either service, therefore a pro rata approach is used on the remaining expenditure to ensure all expenditure is fully allocated. The assumption that the number of customer orders received in expenditure best represents the expenditure and volumes of Specification and Design.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Majority of expenditure has been assigned to customer request type Specification and Design with the remaining expenditure pro-rated across Audit Design and Specification and Design. The assumption that the number of customer orders received in expenditure best represents the volumes of Specification and Design.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: In 2009-2010 Specification & Design data was captured under Batons/Shutdown/Electrical Inspect/Meter Test & Recovery in line with previous reporting requirements to the AER under p 15.1 and 15.2 of the RIN. These years have been reported separately in the RIN templates under Batons/Shutdowns.

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 - COST METRICS FOR QUOTED SERVICES	
Service	**Service Subcategory**
Quoted Services	High Load Escorts
BOP ID	CAPAL4.4BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of Notice in this box:

15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES

15.1 Powercor must ensure that the data provided for *fee-based* and *quoted services* reconciles to internal planning models used in generating Powercor 's proposed revenue requirements.

15.2 In *regulatory templates* 4.3 and 4.4, Powercor must list all the *fee-based* and *quoted services* that were listed in the annual tariff proposal of each relevant year.

15.3 In the basis of preparation, Powercor must provide a description of each *fee-based* and *quoted service* listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.

15.4 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* between *standard* or *alternative control services* in *regulatory templates* 4.3 and 4.4.

15.5 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* as either *capex* or *opex* in *regulatory templates* 4.3 and 4.4.

Please provide a Response in this box:

Complied with Quoted services requirements as per the Notice Appendix E section 15. High Load Escort is a quoted service charge as reported in regulatory reporting which applies when a 3rd party requires ensuring safe clearance of overhead lines to allow high load vehicles to pass along roads.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volume

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Revenue – from SAP general ledger 367390 as per the RIN submission
Expenditure – the associated expenditure in the orders booked to revenue SAP as per the RIN submission
Volumes – based on the number of orders in revenue SAP

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not Applicable
2010	Not Applicable
2011	Expenditure is based on actual data sourced from SAP. Volumes have been defined as the number of customer orders received in SAP revenue account 367390.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Since data for volumes has not been captured it is assumed that the best estimate of volumes is by using the number of customer orders per SAP revenue account 367390.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	The assumption that the number of customer orders received in revenue best represents the volumes of High Load Escorts because the revenue account is used solely for High Load Escorts. The number of customer orders in expenditure was considered however the expenditure account is also used for low voltage so an order could be split over the two services.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	The assumption that the number of customer orders received in revenue best represents the volumes of High Load Escorts because the revenue account is used solely for High Load Escorts.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: In 2009-2010 High Load Escort data was captured under Batons/Shutdown/Electrical Inspect/Meter Test & Recovery in line with previous reporting requirements to the AER under p 15.1 and 15.2 of the RIN. These years have been reported separately in the RIN templates under Batons/Shutdowns.

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 - COST METRICS FOR QUOTED SERVICES	
Service	**Service Subcategory**
Quoted Services	Low Voltage Mains
BOP ID	CAPAL4.4BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of Notice in this box:

15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES

15.1 Powercor must ensure that the data provided for *fee-based* and *quoted services* reconciles to internal planning models used in generating Powercor 's proposed revenue requirements.

15.2 In *regulatory templates* 4.3 and 4.4, Powercor must list all the *fee-based* and *quoted services* that were listed in the annual tariff proposal of each relevant year.

15.3 In the basis of preparation, Powercor must provide a description of each *fee-based* and *quoted service* listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.

15.4 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* between *standard* or *alternative control services* in *regulatory templates* 4.3 and 4.4.

15.5 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* as either *capex* or *opex* in *regulatory templates* 4.3 and 4.4.

Please provide a Response in this box:

Complied with Quoted services requirements as per the Notice Appendix E section 15. Low Voltage is a quoted service charge as reported in regulatory reporting which applies when a customer requests coverage of powerlines for safety reasons.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	2011	2012	2013	2014	2015

Volume

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Revenue – from SAP general ledger 367105 as per the RIN submission
Expenditure – the associated expenditure in the orders booked to revenue SAP as per the RIN submission
Volumes – based on the number of orders in revenue SAP

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not Applicable
2010	Not Applicable
2011	Expenditure is based on actual data sourced from SAP. Volumes have been defined as the number of customer orders received in SAP revenue account 367105.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Since data for volumes has not been captured it is assumed that the best estimate of volumes is by using the number of customer orders per SAP revenue account 367105.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	The assumption that the number of customer orders received in revenue best represents the volumes of Low Voltage because the revenue account is used solely for Low Voltage. The number of customer orders in expenditure was considered however the expenditure account is also used for High Load Escorts so an order could be split over the two services.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable
2010	Not Applicable
2011	The assumption that the number of customer orders received in revenue best represents the volumes of Low Voltage because the revenue account is used solely for Low Voltage.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: In 2009-2010 Low Voltage data was captured under Batons/Shutdown/Electrical Inspect/Meter Test & Recovery in line with previous reporting requirements to the AER under p 15.1 and 15.2 of the RIN. These years have been reported separately in the RIN templates under Batons/Shutdowns.

Tab name: 4.4 Ancillary Services - Quoted Services	
Table name: 4.4.1 - COST METRICS FOR QUOTED SERVICES	
Service	**Service Subcategory**
Quoted Services	Regulated Fee
BOP ID	CAPAL4.4BOP9

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of Notice in this box:

15. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES

15.1 Powercor must ensure that the data provided for *fee-based* and *quoted services* reconciles to internal planning models used in generating Powercor 's proposed revenue requirements.

15.2 In *regulatory templates* 4.3 and 4.4, Powercor must list all the *fee-based* and *quoted services* that were listed in the annual tariff proposal of each relevant year.

15.3 In the basis of preparation, Powercor must provide a description of each *fee-based* and *quoted service* listed in regulatory templates 4.3 and 4.4. In each services' description, Powercor must explain the purpose of each service and detail the activities which comprise each service.

15.4 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* between *standard* or *alternative control services* in *regulatory templates* 4.3 and 4.4.

15.5 Powercor is not required to distinguish expenditure for *fee-based* and *quoted services* as either *capex* or *opex* in *regulatory templates* 4.3 and 4.4.

Please provide a Response in this box:

Complied with Quoted services requirements as per the Notice Appendix E section 15. Regulated Fees is revenue received from billing the Regulator approved Excluded Service Charges associated with Customer Connection Projects.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

Expenditure

2009	2010	~~2011~~	~~2012~~	~~2013~~	~~2014~~	~~2015~~

Volumes

2009	2010	~~2011~~	~~2012~~	~~2013~~	~~2014~~	~~2015~~

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Expenditure – customer orders booked to SAP expenditure function code 478 as per the RIN submission

Volumes – based on the number of orders raised in expenditure

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Expenditure is based on actual data sourced from SAP. Volumes have been defined as the number of customer orders received in SAP expenditure function code 478.
2010	As per 2009
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Since data for volumes has not been captured it is assumed that the best estimate of volumes is by using the number of customer orders per SAP expenditure function code 478.
2010	As per 2009
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The assumption that the number of customer orders received in expenditure best represents the volumes of Recovery Fees because the expenditure account is used solely for this service and expenditure is recorded against individual order numbers for each customer.
2010	As per 2009
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The assumption that the number of customer orders received in expenditure best represents the volumes of Recovery Fees because the expenditure account is used solely for this service.
2010	As per 2009
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: From 2011 this account was separated into individual accounts for each service in line with reporting requirements to the AER under p 15.1 and 15.2 of the RIN. These years have been reported separately in the RIN templates under each service.

AER Category Analysis RIN

Powercor Australia Ltd

Basis of Preparation documents

PART D

Year ended 31 December 2015

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5.2 Asset Age Profile

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
POLES BY: HIGHEST OPERATING VOLTAGE ; MATERIAL TYPE; STAKING (IF WOOD)	
STAKING OF A WOODEN POLE	
<= 1 KV; WOOD	
> 1 KV & <= 11 KV; WOOD	
> 11 KV & <= 22 KV; WOOD	
> 22 KV & <= 66 KV; WOOD	
<= 1 KV; CONCRETE	
> 1 KV & <= 11 KV; CONCRETE	
> 11 KV & <= 22 KV; CONCRETE	
> 22 KV & <= 66 KV; CONCRETE	
<= 1 KV; STEEL	
> 1 KV & <= 11 KV; STEEL	
> 11 KV & <= 22 KV; STEEL	
> 22 KV & <= 66 KV; STEEL	
STAY POLES	
PUBLIC LIGHTING BY: ASSET TYPE ; LIGHTING OBLIGATION	
POLES / COLUMNS ; MAJOR ROAD ; STANDARD CONTROL	
POLES / COLUMNS ; MINOR ROAD ; STANDARD CONTROL	
BOP ID	CAPAL5.2BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

APPENDIX F: DEFINITIONS

Installed assets – quantity currently in commission by year
The number of assets currently in commission and the year they were installed.

Poles
These are vertically oriented assets that provide load bearing structural support for overhead conductors or other lines assets. This also includes associated pole top structures, such as cross-arms and insulators where these are replaced in conjunction with a pole replacement project It excludes other pole mounted assets that are included in any other asset group, notably pole mounted substations and pole mounted switchgear such as links, fuses, air break switches etc.

Please provide a Response in this box:
The information provided complies with section 6 of Appendix E and complies with the definition in Appendix F.

For the year 2015 the data was obtained utilising a GIS (Geographical Information System) query that traces the in-service network connectivity model in GIS, to determine the poles located within the Powercor service territory.

The information obtained from GIS enables categorisation of poles by Owner, Voltage, Material, Staking status and Age.

This methodology meets the requirements of this Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL[1] data green; and ESTIMATED[2]/derived data red

2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
For Powercor (PAL), the Geographical Information System (GIS) is the originating data source (i.e. from where the

[1] ''Actual Information" is defined as: "Information presented in response to the Notice whose presentation is Materially dependent on information recorded in Powercor's historical accounting records or other records used in the normal course of business, and whose presentation for the purposes of the Notice is not contingent on judgments and assumptions for which there are valid alternatives, which could lead to a Materially different presentation in the response to the Notice.

'Accounting records' include trial balances, the general ledger, subsidiary accounting ledgers, journal entries and documentation to support journal entries. Actual financial information may include accounting estimates, such as accruals and provisions, and any adjustments made to the accounting records to populate Powercor's regulatory accounts and responses to the Notice. 'Records used in the normal course of business', for the purposes of non-financial information, includes asset registers, geographical information systems, outage analysis systems, and so on."

[2] "Estimated Information" is defined as "Information presented in response to the Notice whose presentation is not Materially dependent on information recorded in Powercor's historical accounting records or other records used in the normal course of business, and whose presentation for the purposes of the Notice is contingent on judgments and assumptions for which there are valid alternatives, which could lead to a Materially different presentation in the response to the Notice."

data is obtained).

For 2013, the source data is the same data that was used to complete the AER Annual RIN Reports (non-Financial), tab "5. General Information".

For the year 2014 & 2015 the data was obtained using a new BI (Business Intelligence) report called the "Asset Installation" report".

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	The total quantity of in-commission poles was obtained from Powercor's GIS on the 2/12/2013. It was necessary to obtain this asset data, 29 calendar days prior to the end of the year, in order to allow sufficient time to collate and prepare the end of year reports to meet all 2013 reporting deadlines. This is Powercor's standard practice. Powercor's GIS records all poles within the same data set. Non Powercor owned poles and out of service poles were excluded from the reported quantities. The age profile of poles contains a number of records where the installation date of the asset is unknown or incorrect. Our detailed methodology for distributing these assets across the known population is contained within an internal document as per below • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) In summary for the 2013 pole age profile, a base age profile was established for each class of pole using the known installation or staking date of that asset. For each of these classes of poles a number of records existed where the installation date was Unknown or incorrect. These Unknown assets were allocated across the base age profile on a pro-rata basis for each class of pole. Due to rounding in the allocation of these Unknown assets there were a number of assets which are left over (the sum of those allocated is less than the total number of poles). This is corrected by adding the difference across those years with the greatest number of assets. This provides the age profile of poles. The allocation of Public Lighting poles between Major and Minor roads is based on the proportion of lights installed in each road classification.
2014	The total quantity of in-commission poles was obtained from Powercor's GIS via the new BI (Business Intelligence) report called the "Asset Installation Report" on the 1/1/2015. Powercor's GIS records all poles within the same data set. Non Powercor owned poles and out of service poles were excluded from the reported quantities. The age profile of poles contains a number of records where the installation date of the asset is unknown or incorrect. Our detailed methodology for distributing these assets across the known population is contained within an internal document as per below • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc)

	In summary for the 2014 pole age profile, a base age profile was established for each class of pole using the known installation or staking date of that asset. For each of these classes of poles a number of records existed where the installation date was Unknown or incorrect. These Unknown assets were allocated across the base age profile on a pro-rata basis for each class of pole. This methodology assumes that the age of the Unknown assets can reasonably be expected to be represented by the age profile of the Known assets. Due to rounding in the allocation of these Unknown assets there were a number of assets which are left over (the sum of those allocated is less than the total number of poles). This is corrected by adding the difference across those years with the greatest number of assets. This provides the age profile of poles. The allocation of Public Lighting poles between Major and Minor roads is based on the proportion of lights installed in each road classification.
2015	As per 2014 with Asset Installation Report from 6/1/2016.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	Whilst the vast majority of pole installation dates are recorded accurately, there are a number of records where the installation date of the asset is either not recorded or recorded inaccurately against a default year. An estimate of pole ages is required for those poles without a known accurate installation date. The information contained within GIS about poles does not provide details relating to road classifications for Public Lighting poles; hence an estimate is required for these.
2014	Refer 2013
2015	As per 2013.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	The age profile of poles contains a number of records where the installation date of the asset is unknown or incorrect. Our detailed methodology for distributing these assets across the known population is contained within an internal document as per below • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) In summary, for the 2013 pole age profile, a base age profile was established for each class of pole using the known installation or staking date of that asset. For each of these classes of poles a number of records existed where the installation date was Unknown or incorrect. • These Unknown assets were allocated across the base age profile on a pro-rata basis for each class of pole. • Due to rounding in the allocation of these Unknown assets there were a number of assets which are left over (the sum of those allocated is less than the total number of poles). o This is corrected by adding the difference across those years with the greatest number of assets.

	This provides the age profile of poles. The allocation of Public Lighting poles between Major and Minor roads is based on the proportion of public lights installed in each road classification.
2014	As per 2013
2015	As per 2013

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	The selected approach to profiling the age of assets was undertaken and documented by consultants engaged for this purpose in 2012 and is the best approach we have to apportion those records where the installation date of the asset is unknown or incorrect. The information contained within GIS about poles does not provide details relating to road classifications for Public Lighting poles, so the allocation of Public Lighting poles between Major and Minor roads is based on the proportion of lights installed in each road classification
2014	As per 2013
2015	As per 2013

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
OVERHEAD CONDUCTORS BY: HIGHEST OPERATING VOLTAGE; NUMBER OF PHASES (AT HV)	
<= 1 kV	
> 1 kV & <= 11 kV	
> 11 kV & <= 22 kV; SWER	
> 11 kV & <= 22 kV; SINGLE-PHASE	
> 11 kV & <= 22 kV; MULTIPLE-PHASE	
> 22 kV & <= 66 kV SUB TRANS 22kV	
> 22 kV & <= 66 kV SUB TRANS 66kV	
> 66 kV & <= 132 kV	
> 132 kV	
PUBLIC LIGHTING CONDUCTOR	
SERVICE LINES BY: CONNECTION VOLTAGE; CUSTOMER TYPE; CONNECTION COMPLEXITY	
LV OVERHEAD SERVICE CABLE	
BOP ID	CAPAL5.2BOP3

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

APPENDIX F: DEFINITIONS

Overhead conductors
These assets have the primary function of distributing power, above ground, within the distribution network. It excludes any pole mounted assets that are included in any other asset group.

Overhead service wire
A length of overhead conductor that runs from a distribution pole to a distribution customer's, excluding customer which are other network service providers, connection point.

Please provide a Response in this box:
The information provided complies with section 6 of Appendix E and complies with the definition in Appendix F.

For the year 2015 the data was obtained utilising a GIS (Geographical Information System) query that traces the in-service network connectivity model in GIS, to determine the circuit line length, which includes all spurs. Each circuit element was evaluated in its own right, for example:

- SWER lines, single-phase lines, and three-phase lines counted as one line
- Double circuit lines counted as two lines

Note:-

- Although this methodology does not use the suggested Route Length methodology it does deliver the network circuit length using the criteria specified in this Information Notice.
- Overhead elements associated with communication, protection & control and unmetered loads were excluded Overhead elements in the DNSP's area that are owned by other DNSP were excluded.

This methodology meets the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report, etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

For Powercor (PAL), the Geographical Information System (GIS) is the originating data source (i.e. from where the data is obtained).

For 2013, the source data is the same data that was used to complete the AER Annual RIN Reports (non-Financial), tab "5. General Information".

For the year 2014 & 2015 the data was obtained using a new BI (Business Intelligence) report called the "Asset Installation" report".

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	N/A
2010	N/A
2011	N/A
2012	N/A

2013	The total quantity of in-commission overhead conductors was obtained from Powercor's GIS on the 2/12/2013. It was necessary to obtain this asset data, 29 calendar days prior to the end of the year, in order to allow sufficient time to collate and prepare the end of year reports to meet all 2013 reporting deadlines. This is Powercor's standard practice. Powercor's GIS records HV, LV and Service conductors separately. Non Powercor owned conductors and out of service cables were excluded from the reported quantities. The overhead conductor lengths reported are those recorded as computed lengths in GIS. The age profile of overhead conductors contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor AER RIN Asset Installation Asset Age Profiling Document (10 Age Profiling 2012 Description.doc) The age profile for the 2013 data is based on the profile provided in the 2012 AER Annual RIN Reports (non-Financial) tab 3. Asset Installations. Data for 2013 has been added and minor reductions have occurred in earlier years where conductor has been replaced or retired. It is understood that the 2012 Conductor Age profile is based on historical work done for previous EDPR submissions. a. Service lines with voltage levels above Low Voltage (LV) cannot be reported, as Powercor does not record the required detail in GIS b. Customer Type and Connection Complexity are not recorded for any class of Service Lines c. Any "Conductor" assets connecting customers to the DNSP Network at voltages above LV are recorded within the data for *Overhead Conductors By: Highest Operating Voltage; Number of Phases (At High Voltage).*
2014	The total quantity of in-commission overhead conductors was obtained from Powercor's GIS via the new BI (Business Intelligence) report called the "Asset Installation Report" on the 1/1/2015. Powercor's GIS records HV, LV and Service conductors separately. Out of service cables were excluded from the reported quantities. The overhead conductor lengths reported are those recorded as computed lengths in GIS. The age profile of overhead conductors contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor AER RIN Asset Installation Asset Age Profiling Document (10 Age Profiling 2012 Description.doc) The age profile for the 2014 data is based on the profile provided in the 2012 AER Annual RIN Reports (non-Financial) tab 3. Asset Installations. Data for 2014 has been added and minor reductions have occurred in earlier years where conductor has been replaced or retired. It is understood that the 2012 Conductor Age profile is based on historical work done for previous EDPR submissions. a. Service lines with voltage levels above Low Voltage (LV) cannot be reported, as Powercor does not record the required detail in GIS b. Customer Type and Connection Complexity are not recorded for any class of Service Lines c. Any "Conductor" assets connecting customers to the DNSP Network at voltages above LV are recorded

	within the data for *Overhead Conductors By: Highest Operating Voltage; Number of Phases (At High Voltage).*
2015	For 2015 LV Overhead Service conductor Age profile has been adjusted to report the number of services installed instead of the total length of services installed. All other overhead conductor age profiles are based on length as per 2014 from the Asset Installation Report dated 6/1/2016.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	Whilst the vast majority of conductor installation dates are recorded accurately, there are a number of records where the installation date of the asset is either not recorded or recorded inaccurately against a default year. An estimate of conductor age is required for those conductor segments without a known accurate installation date.
2014	As per 2013
2015	As per 2013.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Reference should be made to the documents listed in section D as to the methodology of distributing these overhead conductors without a known accurate installation date across the known age profile.
2010	N/A
2011	N/A
2012	N/A
2013	Reference should be made to the documents listed in section D as to the methodology of distributing these overhead conductors without a known accurate installation date across the known age profile.
2014	As per 2013
2015	For 2015 the LV Overhead Service conductor Age profile has been adjusted to report the number of LV Overhead Services installed instead of the total length of LV Overhead Services installed. The Total population of LV Overhead Services was determined from GIS. The reported 2015 age profile for LV Overhead Services has been based on the profile reported in the 2014 Category RIN, apportioned to match the total number of services in service at the end of 2015. • The LV Overhead Services reported to be installed during 2015 was sourced directly from GIS. • The total number of LV Overhead Services, reported to be installed from 1911 to 2014 is based on the total number recorded in GIS, as at 6/1/2016, minus the number installed during 2015. • The total number of LV Overhead services installed has been apportioned across 1911 to 2014, using the same proportions as the age profile reported in the 2014 Category RIN report. All other overhead conductor age profiles are based on the same methodology used in 2014 and are from the Asset Installation Report dated 6/1/2016.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	N/A
2010	N/A
2011	N/A

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2012	N/A
2013	The selected approach to profiling the age of assets was undertaken and documented by consultants engaged for this purpose in 2012 and is the best approach we have to apportion those records where the installation date of the asset is unknown or incorrect.
2014	As per 2013
2015	As per 2013.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

Data has not been provided for Service Lines by *Connection Voltage (above Low Voltage (LV), Customer Type and Connection Complexity,* as these attributes are not recorded in GIS.

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
Asset Group	**Asset Category**
UNDERGROUND CABLES BY: HIGHEST OPERATING VOLTAGE	[ALL]
Service lines	LV UG service cable
BOP ID	CAPAL5.2BOP4

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

APPENDIX F: DEFINITIONS

Simple residential connection low voltage

Single/multi-phase customer connection service; and /or:

· one span of overhead service wire or standard underground service; and/or

· an overhead road crossing.

Simple commercial/industrial connection low voltage

Single/multi-phase customer service connection and, as an example, may involve the following:

· one or more spans of overhead service wire;

· road crossing (overhead or underground).

· small LV extension or augmentation of overhead and/or underground mains.

Complex residential connection low voltage

Single/multi-phase customer connection services which are not simple customer connections and, as an example, may involve the following:

· greater than one span of overhead service wire

· extension or augmentation of the LV feeder, overhead and/or underground;

· road crossing (overhead or underground).

· Notes: This also includes the reconfiguration of LV network assets (not including any HV asset works) as a result of specific requests for connection specifications.

Complex residential connection high voltage

Single/multi-phase customer connection services which are not simple customer connections or complex type low voltage connections and, as an example, may involve the following:

· extension or augmentation of the HV feeder, overhead and/or underground;

· installation of a distribution substation (pole mounted, ground types);

· extension or augmentation of the LV feeder, overhead and/or underground;

· greater than one span of overhead service wire;

· road crossing (overhead or underground).

Notes: This also includes the reconfiguration of HV network assets (not including any LV asset works) as a result of specific requests for connection.

Complex commercial/industrial connection high voltage (customer connected at LV, minor HV works)
Multi-phase customer connection service at LV which are not simple connections and, as an example, may involve the following:
· the installation of a distribution substation (pole mounted, ground types, or indoor types);
· overhead and/or underground HV feeder extension or augmentation associated with the connection of the substation but excluding major feeder extensions or augmentation;
· installation of LV mains associated with the new substation.

Complex commercial/industrial connection high voltage – connecting HV customers
Multi-phase customer connections where the customer is supplied at HV and, as an example, may include the following:
· large extension or augmentations of the HV feeders;
· installation of a high voltage switching station or switch room.

Complex commercial/industrial connection sub-transmission
Multi-phase customer connections where the customer is connected via feeders operating between 33kV and 132kV inclusive and, as an example, may include any of the following:
· extension or augmentation of the Sub-transmission network;
· installation of switching stations, switch rooms or similar facilities.

Complex subdivision connection low voltage
Single/multi-phase customer connection and, as an example, may include the following:
· extension or augmentation of overhead or underground LV feeders including road crossings.

Complex subdivision connection high voltage (no upstream asset works)
Multi-phase customer connection which are not simple connections and, as an example, may include the following:
· extension or augmentation of HV feeders;
· installation of one or more distribution substations;
· installation of LV mains.
Notes: Each subsequent connection of a residential premises within a new estate will be treated as a connection. The subdivision category excludes civil works (that is, the cost of trenching, excavation, backfilling or re-instatement within the subdivision development).

Installed assets – quantity currently in commission by year
The number of assets currently in commission and the year they were installed.

Underground cables
These assets have the primary function of distributing power, below ground, within the distribution network. This includes cable ends, joints, terminations and associated hardware and equipment (e.g. surge diverters, etc.), cable tunnels, ducts, pipes, pits.

Please provide a Response in this box:

The information provided complies with section 6 of Appendix E and complies with the definition in Appendix F.

The actual installed quantities of underground cables, currently in commission, have been provided by operating voltage, in accordance with the requested asset sub-categorisation to the extent possible.

One additional sub-category has been added for Public Lighting underground (supply) cables.

a. These cables operate at low voltage, but are considerably smaller in size than typical LV distribution cable.

LV underground service cables are identified in Powercor's Geographical Information System (GIS).

b. The installed quantities (number of) of LV underground services, currently in commission, are provided with no further breakdown of the type or nature of the service.

- Service lines with voltage levels above Low Voltage (LV) cannot be reported, as Powercor does not record the required detail in GIS
- Customer Type and Connection Complexity are not recorded for any class of Service Lines
- Any "Conductor" assets connecting customers to the DNSP Network at voltages above LV are recorded within the data for *Underground Cables By: Highest Operating Voltage*

This methodology meets the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

The details of underground cables and services, currently in commission, were obtained from Powercor's Geographical Information System (GIS).

For the year 2015 the data was obtained using a new BI (Business Intelligence) report called the "Asset Installation" report"

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	The total quantity of in-commission underground cables was obtained from Powercor's GIS on the 2/12/2013. It was necessary to obtain this asset data, 29 calendar days prior to the end of the year, in order to allow sufficient time to collate and prepare the end of year reports to meet all 2013 reporting deadlines. This is Powercor's standard practice. Powercor's GIS records HV and LV cables separately. Non Powercor owned cables and out of service cables were excluded from the reported quantities. The underground cable lengths reported are those recorded as computed lengths in GIS. a. The length reported is the sum of the computed length in each sub-category except for three phase cable runs that utilise a separate single core cable for each phase. o In the latter case the total computed cable length was divided by three, enabling consistent cable length reporting regardless of the actual cable configuration installed. b. Where a cable voltage was unknown, the quantity of cable was apportioned across the other cable voltages, in direct proportion with the known sub-category quantities. c. Where an LV cable type was unknown, the quantity of cable was apportioned across the other LV cable types, in direct proportion with the known sub-category quantities. The age profile of underground cables contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) A known age profile was previously established for assets installed from 1910 to 2009. • The underground cable data, for the years 2010 to 2012, was based on the difference between the total cable length reported in 2009 and the total cable length recorded at the end of 2012. • The cable lengths were allocated to each of the years from 2010 to 2012 in the same proportions as the pole age profile for that period. o If more cable was recorded in 2012 than 2009, then the additional cable length was allocated to each of the years from 2010 to 2012 in the same proportion as the poles installed during

	that period. ○ If less cable was recorded in 2012 than 2009, then no cable was reported as installed from 2010 to 2012. The 2013 age profile (as at 2/12/2013) is based on an adjustment of the profile reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1. The reported 2013 age profile has been based on the profile reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1, updated to match the total length of cable in service at 2/12/2013, • The cable length reported to be installed during 2013 was sourced directly from GIS. • The total cable, reported to be installed from 1911 to 2012 is based on the total length recorded in GIS, as at 2/12/2013, minus the length installed during 2013. • The total cable length has been apportioned across 1911 to 2012, using the same proportions as the age profile reported in the 2012 Annual RIN report.
2014	The total quantity of in-commission underground cable was obtained from Powercor's GIS via the new BI (Business Intelligence) report called the "Asset Installation Report" on the 1/1/2015. Powercor's GIS records HV and LV cables separately. Out of service cables were excluded from the reported quantities. The underground cable lengths reported are those recorded as computed lengths in GIS. a. The length reported is the sum of the computed length in each sub-category except for three phase cable runs that utilise a separate single core cable for each phase. ○ In the latter case the total computed cable length was divided by three, enabling consistent cable length reporting regardless of the actual cable configuration installed. b. Where a cable voltage was unknown, the quantity of cable was apportioned across the other cable voltages, in direct proportion with the known sub-category quantities. c. Where an LV cable type was unknown, the quantity of cable was apportioned across the other LV cable types, in direct proportion with the known sub-category quantities. The age profile of underground cables contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) The reported 2014 age profile has been based on the profile reported in the 2013 Category RIN, updated to match the total length of cable in service at the end of 2014. • The cable length reported to be installed during 2014 was sourced directly from GIS. • The total cable, reported to be installed from 1911 to 2013 is based on the total length recorded in GIS, as at 1/1/2015, minus the length installed during 2014. • The total cable length has been apportioned across 1911 to 2013, using the same proportions as the age profile reported in the 2013 Category RIN report.
2015	For 2015 LV UG Service cable Age profile has been adjusted to report the number of services installed instead of the total length of services installed. All other underground cable age profiles are based on length as per 2014 from the Asset Installation Report dated 6/1/2016.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	The underground cable installation year data, recorded in GIS and other Powercor databases, is incomplete. Some installation years are unknown as a result of unpopulated fields and the use of default dates, the most common being 1/1/1970. This made it necessary to estimate the missing installation years.
2014	As per 2013
2015	As per 2013

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	The age profile of underground cables contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) A known age profile was previously established for assets installed from 1910 to 2009. • The underground cable data, for the years 2010 to 2012, was based on the difference between the total cable length reported in 2009 and the total cable length recorded at the end of 2012. • The cable lengths were allocated to each of the years from 2010 to 2012 in the same proportions as the pole age profile for that period. o If more cable was recorded in 2012 than 2009, then the additional cable length was allocated to each of the years from 2010 to 2012 in the same proportion as the poles installed during that period. o If less cable was recorded in 2012 than 2009, then no cable was reported as installed from 2010 to 2012. The 2013 age profile (as at 2/12/2013) is based on an adjustment of the profile reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1. The reported 2013 age profile has been based on the profile reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1, updated to match the total length of cable in service at 2/12/2013, • The cable length reported to be installed during 2013 was sourced directly from GIS. • The total cable, reported to be installed from 1911 to 2012 is based on the total length recorded in GIS, as at 2/12/2013, minus the length installed during 2013. The total cable length has been apportioned across 1911 to 2012, using the same proportions as the age profile reported in the 2012 Annual RIN report.
2014	The age profile of underground cables contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) The reported 2014 age profile has been based on the profile reported in the 2013 Category RIN, updated to match the total length of cable in service at the end of 2014. • The cable length reported to be installed during 2014 was sourced directly from GIS. • The total cable, reported to be installed from 1911 to 2013 is based on the total length recorded in

	GIS, as at 1/1/2015, minus the length installed during 2014. • The total cable length has been apportioned across 1911 to 2013, using the same proportions as the age profile reported in the 2013 Category RIN report.
2015	For 2015 the LV UG Service cable Age profile has been adjusted to report the number of LV UG Services installed instead of the total length of LV UG Services installed. The Total population of LV UG Services was determined from GIS. The reported 2015 age profile for LV UG Services has been based on the profile reported in the 2014 Category RIN, apportioned to match the total number of cables in service at the end of 2015. • The LV UG Services reported to be installed during 2015 was sourced directly from GIS. • The total number of cables, reported to be installed from 1911 to 2014 is based on the total number recorded in GIS, as at 6/1/2016, minus the number installed during 2015. • The total number of cables installed has been apportioned across 1911 to 2014, using the same proportions as the age profile reported in the 2014 Category RIN report. All other underground cable age profiles are based on the same methodology used in 2014 and are from the Asset Installation Report dated 6/1/2016.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	The selected approach to profiling the age of assets was undertaken and documented by consultants engaged for this purpose in 2012 and is the best approach we have to apportion those records where the installation date of the asset is unknown or incorrect.
2014	As per 2013.
2015	As per 2013.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

Data for the years 2009-2012 is not applicable to this Information Notice, as the request was for a single asset age profile. The age profile submitted is based on 2013 – 2015 data as described in Section D

The installed quantities of in-commission underground services are unable to be provided by the sub-categories requested.

a. Powercor's underground service asset records are not specified by development type, e.g. residential, commercial/industrial, subdivision.
    - Additionally, the service records are not specified by the nature of the development e.g. simple or complex.

b. Powercor has reported the total number of LV service cables, by installation year, without any further breakdown.

c. The higher voltage underground service cables are unable to be identified separately, but are included in the underground cables section, by highest operating voltage.

Tab name: 5.2 Asset Age Profile	
Table name: TABLE 5.2.1 Asset Age Profile	
Asset Group	**Asset Category**
Transformers	[ALL]
BOP ID	CAPAL5.2BOP5

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

APPENDIX F: DEFINITIONS

Installed assets – quantity currently in commission by year
The number of assets currently in commission and the year they were installed.

Transformers

These are assets used to transform between voltage levels within the network. This includes all its components such as the cooling systems and tap changing equipment (where installed). It excludes any pole mounted assets that are included in any other asset group. For the avoidance of doubt, this does not include instrument transformers as defined in the National Electricity Rules. It also does not include auxiliary transformers.

Auxiliary transformer
A transformer installed normally within a substation to provide power supply to substation auxiliaries, such as controls, motors, and communication facilities.

Please provide a Response in this box:

The information provided complies with section 6 of Appendix E and complies with the definition in Appendix F.

The actual installed quantities of transformers, currently in commission, have been provided by highest operating voltage as well as the highest nameplate rating.

One additional sub-category has been added:

- **Auto-Transformers**
  - These did not fit into any of the standard sub-categories.

This methodology meets the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
The details of distribution and auto transformers were obtained from Powercor's Geographical Information System (GIS).

For the year 2015 the data was obtained using a new BI (Business Intelligence) report called the "Asset Installation" report". The quantities and operating voltages for Zone Substation (ZSS) transformers were obtained from Powercor's GIS and asset management system SAP R/3.

The ratings of ZSS transformers were obtained from the document entitled 'PAL2015 - Zone Substation Cyclic Ratings (MVA) Table – Issue Date 15/12/2015'. This document is produced by the Powercor Network Planning and Development group and is published on Powercor's intranet.

D. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	**Distribution Transformers** The total quantity of in-commission transformers was obtained from Powercor's GIS on the 2/12/2013. It was necessary to obtain this asset data, 29 calendar days prior to the end of the year, in order to allow sufficient time to collate and prepare the end of year reports to meet all 2013 annual reporting deadlines. This is

Powercor's standard practice.

Only in-service (in-commission) transformers were included in the reported quantities.

Where transformer voltages, capacities or phase types were unknown, the quantity of transformers was apportioned across the known voltages, capacities or phase types, in direct proportion with the quantities of the known sub-categories. The resulting numbers were then subsequently rounded to provide whole numbers.

The age profile of transformers contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile.

- CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc)

A known age profile was previously established for assets installed from 1910 to 2009.

- The transformer data for the years 2010 to 2012 was based on the difference between the total population numbers reported in 2009 and those recorded at the end of 2012.
- The transformer numbers were allocated to each of the years from 2010 to 2012 in the same proportions as the pole age profile for that period.
    - If more transformers were recorded in 2012 than 2009, then the additional quantities were allocated to each of the years from 2010 to 2012 in the same proportion as the poles installed during that period.
    - If fewer transformers were recorded in 2012 than 2009, then no transformers were reported as installed from 2010 to 2012.

The 2013 age profile (as at 2/12/2013) is based on an adjustment of the profile reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1.

- The reported 2013 age profile has been based on the profile reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1, updated to match the total number of distribution transformers in commission at 2/12/2013
- The distribution transformer quantities reported to be installed during 2013 are sourced directly from GIS.

The total of distribution transformers quantities reported to be installed from 1911 to 2012 is based on the total population recorded in GIS as at 2/12/2013, minus those installed during 2013.

- The total quantities have been apportioned across 1911 to 2012, using the same proportions as the age profile reported in the 2012 Annual RIN report.
- The quantities in each year have been rounded to provide whole numbers.

Zone Substation Transformers

The installed quantities of zone substation transformers have been obtained from Powercor's asset management system SAP R/3. These transformers are identified as Object type ='STN_TRANS'. The installation year was taken from the field labelled 'ConstYr'.

- Only in-service (in-commission) transformers were included in the reported quantities.

The ratings of zone substation transformers were taken from the highest nameplate rating as contained in the document titled 'CP2012 - Zone Substation Cyclic Ratings (MVA) Table – Issue Date 28/11/2013'.

Auto Transformers

The installed quantities of auto transformers, currently in commission, were obtained from Powercor's GIS.

- Only those auto transformers which are verified as owned by Powercor have been reported
- Only in-service (in-commission) transformers were included in the reported quantities.
- The installation dates are the same as was reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1.

2014	**Distribution Transformers** The total quantity of in-commission transformers was obtained from Powercor's GIS via the new BI (Business Intelligence) report called the "Asset Installation Report" on the 1/1/2015. Only in-service (in-commission) transformers were included in the reported quantities. Where transformer voltages, capacities or phase types were unknown, the quantity of transformers was apportioned across the known voltages, capacities or phase types, in direct proportion with the quantities of the known sub-categories. This methodology assumes that the age of the Unknown age transformers can reasonably be expected to be represented by the age profile of the Known age transformers. The resulting numbers were then subsequently rounded to provide whole numbers. The age profile of transformers contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) The total of distribution transformers quantities reported to be installed from 1911 to 2013 is based on the total population recorded in GIS, as at 1/1/2015, minus those installed during 2014. • The total quantities reported to be installed during 2014 was sourced directly from GIS. • The total quantities have been apportioned across 1911 to 2013, using the same proportions as the age profile reported in the 2013 Category RIN report. • The quantities in each year have been rounded to provide whole numbers. **Zone Substation Transformers** The installed quantities of zone substation transformers have been obtained from Powercor's GIS and asset management system SAP R/3. The SAP R/3 transformers are identified as Object type ='STN_TRANS'. The installation year was taken from the field labelled 'ConstYr'. • Only in-service (in-commission) transformers owned by Powercor were included in the reported quantities. The ratings of zone substation transformers were taken from the highest nameplate rating as contained in the document titled 'PAL 2015 - Zone Substation Cyclic Ratings (MVA) Table – Issue Date 15/1/2015'. **Auto Transformers** The installed quantities of auto transformers, currently in commission, were obtained from Powercor's GIS. • Only those auto transformers which are verified as owned by Powercor have been reported • Only in-service (in-commission) transformers were included in the reported quantities. • The installation dates are the same as was reported in the 2013 Category RIN Report.
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	Whilst the vast majority of distribution transformer installation dates are recorded accurately, there are a number of records where the installation date of the asset is either not recorded or recorded inaccurately against a default year. An estimate of ages is required for those distribution transformers without a known

	accurate installation date.
2014	As per 2013
2015	AS per 2013.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	Reference should be made to the documents listed in section D as to the methodology of apportioning transformers without a known accurate installation date across the known age profile. The age profile of transformers contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) A known age profile was previously established for assets installed from 1910 to 2009. • The transformer data for the years 2010 to 2012 was based on the difference between the total population numbers reported in 2009 and those recorded at the end of 2012. • The transformer numbers were allocated to each of the years from 2010 to 2012 in the same proportions as the pole age profile for that period. o If more transformers were recorded in 2012 than 2009, then the additional quantities were allocated to each of the years from 2010 to 2012 in the same proportion as the poles installed during that period. o If fewer transformers were recorded in 2012 than 2009, then no transformers were reported as installed from 2010 to 2012. The 2013 age profile (as at 2/12/2013) is based on an adjustment of the profile reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1. • The reported 2013 age profile has been based on the profile reported in the 2012 Annual RIN Report (non-financial), tab 3 Asset Installation, table 1, updated to match the total number of distribution transformers in commission at 2/12/2013 • The distribution transformer quantities reported to be installed during 2013 are sourced directly from GIS. The total of distribution transformers quantities reported to be installed from 1911 to 2012 is based on the total population recorded in GIS as at 2/12/2013, minus those installed during 2013. • The total quantities have been apportioned across 1911 to 2012, using the same proportions as the age profile reported in the 2012 Annual RIN report. The quantities in each year have been rounded to provide whole numbers.
2014	Reference should be made to the documents listed in section D as to the methodology of apportioning transformers without a known accurate installation date across the known age profile. The age profile of transformers contains a number of records where the installation date of the asset is unknown or incorrect. Reference should be made to the document below for the methodology of distributing these across the known age profile. • CitiPower and Powercor RIN Asset Age Profiling Assumptions Document (10 Age Profiling 2012 Description.doc) The total of distribution transformers quantities reported to be installed from 1911 to 2013 is based on the total population recorded in GIS, as at 1/1/2015, minus those installed during 2014. • The total quantities reported to be installed during 2014 was sourced directly from GIS.

	• The total quantities have been apportioned across 1911 to 2013, using the same proportions as the age profile reported in the 2013 Category RIN report. • The quantities in each year have been rounded to provide whole numbers.
2015	AS per 2014.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	The selected approach to profiling the age of assets was undertaken and documented by consultants engaged for this purpose in 2012, and is the best approach we have to apportion those records where the installation date of the asset is unknown or incorrect.
2014	As per 2013.
2015	As per 2013.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile - Where No Asset Quantities are Reported	
ASSET CATEGORY	**VARIABLE NAME**
POLES	> 66 KV & < ≈ 132 KV; WOOD > 132 KV; WOOD > 66 KV & < ≈ 132 KV; CONCRETE > 132 KV; CONCRETE > 1 KV & < ≈ 11 KV; STEEL > 66 KV & < ≈ 132 KV; STEEL > 132 KV; STEEL
OVERHEAD CONDUCTORS	> 11 kV & < ≈ 22 kV ; SINGLE-PHASE > 66 kV & < ≈ 132 kV > 132 kV
UNDERGROUND CABLES	> 22 KV & < ≈ 33 KV > 66 KV & < ≈ 132 KV > 132 KV
SERVICE LINES	< ≈ 11 KV ; COMMERCIAL & INDUSTRIAL ; SIMPLE TYPE < ≈ 11 KV ; RESIDENTIAL ; COMPLEX TYPE < ≈ 11 KV ; COMMERCIAL & INDUSTRIAL ; COMPLEX TYPE < ≈ 11 KV ; SUBDIVISION ; COMPLEX TYPE > 11 KV & < ≈ 22 KV ; COMMERCIAL & INDUSTRIAL > 11 KV & < ≈ 22 KV ; SUBDIVISION > 22 KV & < ≈ 33 KV ; COMMERCIAL & INDUSTRIAL > 22 KV & < ≈ 33 KV ; SUBDIVISION > 33 KV & < ≈ 66 KV ; COMMERCIAL & INDUSTRIAL > 33 KV & < ≈ 66 KV ; SUBDIVISION > 66 KV & < ≈ 132 KV ; COMMERCIAL & INDUSTRIAL > 66 KV & < ≈ 132 KV ; SUBDIVISION > 132 KV ; COMMERCIAL & INDUSTRIAL > 132 KV ; SUBDIVISION
TRANSFORMERS	POLE MOUNTED ; < ≈ 22KV ; > 600 KVA ; SINGLE PHASE KIOSK MOUNTED ; < ≈ 22KV ; < ≈ 60 KVA ; SINGLE PHASE KIOSK MOUNTED ; < ≈ 22KV ; > 600 KVA ; SINGLE PHASE GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > ≈ 22 KV & < ≈ 33 KV ; < ≈ 15 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > ≈ 22 KV & < ≈ 33 KV ; > 15 MVA AND < ≈ 40 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > ≈ 22 KV & < ≈ 33 KV ; > 40 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 66 KV & < ≈ 132 KV ; < ≈ 100 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 66 KV & < ≈ 132 KV ; > 100 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 132 KV ; < ≈ 100 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 132 KV ; > 100 MVA
BOP ID	CAPAL5.2BOP6

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

Please provide a Response in this box:

No asset quantities are reported by Powercor for the following categories because the Powercor network asset information systems does not provide or has no records of assets in these categories.

The Powercor network does not use all of the standard voltages in those ranges provided and are limited to 11kV, 12.7kV (SWER), 22kV and 66kV only.

ASSET CATEGORY	VARIABLE NAME
POLES	> 66 KV & < ≈ 132 KV; WOOD > 132 KV; WOOD > 66 KV & < ≈ 132 KV; CONCRETE > 132 KV; CONCRETE > 1 KV & < ≈ 11 KV; STEEL > 66 KV & < ≈ 132 KV; STEEL > 132 KV; STEEL
OVERHEAD CONDUCTORS	> 11 kV & < ≈ 22 kV ; SINGLE-PHASE > 66 kV & < ≈ 132 kV > 132 kV
UNDERGROUND CABLES	> 22 KV & < ≈ 33 KV > 66 KV & < ≈ 132 KV > 132 KV
SERVICE LINES	< ≈ 11 KV ; COMMERCIAL & INDUSTRIAL ; SIMPLE TYPE < ≈ 11 KV ; RESIDENTIAL ; COMPLEX TYPE < ≈ 11 KV ; COMMERCIAL & INDUSTRIAL ; COMPLEX TYPE < ≈ 11 KV ; SUBDIVISION ; COMPLEX TYPE > 11 KV & < ≈ 22 KV ; COMMERCIAL & INDUSTRIAL > 11 KV & < ≈ 22 KV ; SUBDIVISION > 22 KV & < ≈ 33 KV ; COMMERCIAL & INDUSTRIAL

ASSET CATEGORY	VARIABLE NAME
	> 22 KV & < ≈ 33 KV ; SUBDIVISION > 33 KV & < ≈ 66 KV ; COMMERCIAL & INDUSTRIAL > 33 KV & < ≈ 66 KV ; SUBDIVISION > 66 KV & < ≈ 132 KV ; COMMERCIAL & INDUSTRIAL > 66 KV & < ≈ 132 KV ; SUBDIVISION > 132 KV ; COMMERCIAL & INDUSTRIAL > 132 KV ; SUBDIVISION
TRANSFORMERS	POLE MOUNTED ; < ≈ 22KV ; > 600 KVA ; SINGLE PHASE KIOSK MOUNTED ; < ≈ 22KV ; < ≈ 60 KVA ; SINGLE PHASE KIOSK MOUNTED ; < ≈ 22KV ; > 600 KVA ; SINGLE PHASE GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > ≈ 22 KV & < ≈ 33 KV ; < ≈ 15 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > ≈ 22 KV & < ≈ 33 KV ; > 15 MVA AND < ≈ 40 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > ≈ 22 KV & < ≈ 33 KV ; > 40 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 66 KV & < ≈ 132 KV ; < ≈ 100 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 66 KV & < ≈ 132 KV ; > 100 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 132 KV ; < ≈ 100 MVA GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > 132 KV ; > 100 MVA

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Not applicable

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	No asset quantities are reported by Powercor for the previously listed categories (in section A.) because the Powercor network asset information systems does not provide or has no records of assets in these categories. The Powercor network does not use all of the standard voltages in those ranges provided and are limited to 11kV, 12.7kV (SWER), 22kV and 66kV only.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	No asset quantities are reported by Powercor for the previously listed categories (in section A.) because the Powercor network asset information systems does not provide or has no records of assets in these categories. The Powercor network does not use all of the standard voltages in those ranges provided and are limited to 11kV, 12.7kV (SWER), 22kV and 66kV only.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As per 2009

2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	No asset quantities are reported by Powercor for the previously listed categories (in section A.) because the Powercor network asset information systems does not provide or has no records of assets in these categories. The Powercor network does not use all of the standard voltages in those ranges provided and are limited to 11kV, 12.7kV (SWER), 22kV and 66kV only.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	No asset quantities are reported by Powercor for the previously listed categories (in section A.) because the Powercor network asset information systems does not provide or has no records of assets in these categories. The Powercor network does not use all of the standard voltages in those ranges provided and are limited to 11kV, 12.7kV (SWER), 22kV and 66kV only.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

No asset quantities are reported by Powercor for the previously listed categories (in section A.) because the Powercor network asset information systems does not provide or has no records of assets in these categories. The Powercor network does not use all the standard voltages in those ranges provided and are limited to 11kV, 12.7kV (SWER), 22kV and 66kV only.

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
Asset Group	**Asset Category**
Switchgear by: Highest Operating Voltage; Switch Function	< = 11 kV ; Switch
	< = 11 kV ; Circuit Breaker
	> 11 kV & < = 22 kV ; Switch
	> 33 kV & < = 66 kV ; Switch
	> 33 kV & < = 66 kV ; Circuit Breaker
BOP ID	CAPAL5.2BOP7

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

Response:

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

Please provide a Response in this box:
a) N/A
b) N/A
c) Sub categorisation not applicable to this asset category
d) Sub categorisation not applicable to this asset category

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
- Raw equipment data extracted from SAP by Query including Object Type:
  - ACR
  - Step Switch
  - Station Earth Switch
  - Station Link
  - Station Switch
  - Circuit Breaker
- Raw equipment data extracted from GIS by Query"
  - HV Switch

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Methodology was to extract data from the SAP asset management system to locate and identify the type and construction year of the required assets As some of the assets will not have a known construct year and in the absence of other verified data that would allow assessment and estimation of the relevant construct year the chosen methodology has been to apportion the number of unknown construct year data assets across the known age profile of the rest of the population. This has been considered reasonable in terms of appropriately representing the age profile of the total asset < ≈ 11 KV ; OPERATIONAL SWITCH Raw equipment data extracted from SAP by Query including Object Type, Construct Year, Operating Voltage, MaintPlant A pivot table was created from this raw data Data summarised in the pivot table using MaintPlant = PAL and MaintPlant = CP Data further summarised in the pivot table using operating voltage 11KV, 22KV or 66KV Data further summarised in the pivot table using Object type = D_SWITCH, STN_SWITCH Data filtered to ensure only Powercor assets identified and counted (MaintPlant = "PAL") Resultant data reviewed to ensure that Construct Year is valid or blank Assets totalled by Construct year for those with non blank data summing the results for Object Type = D_SWITCH and STN_SWITCH and Operating Voltage = 11KV The age profile for the total number of assets in the required asset category was constructed using the age

	profile of 11kV circuit breakers added to the age profile of 22kV circuit breakers as a proxy. To achieve this the total number of assets was apportioned across the years according to the proxy profile. The resultant age profile was used to populate the table
2014	Methodology was to extract data from the SAP / GIS systems to locate and identify the type and construction year of the required assets. Some of these assets will not have a known construct year and require approximation to populate the age profile. This was achieved by firstly, for assets created after the 2003 SAP conversion project, ensuring that the asset construction year was populated with the created year if currently unknown. Then in the absence of other verified data that would allow assessment and estimation of the relevant construct year the chosen methodology has been to apportion the number of unknown construct year data assets on top of the pre 2003 known age profile via the use of a key profile. The key profile used is that of >11 kV < = 22 kV; Circuit Breaker as this category has a known profile. This has been considered reasonable in terms of appropriately representing the age profile of the total asset The resultant age profile was used to populate the table
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	For those assets with blank Construct year Blank Construct year data indicates that the data was not available in the SAP asset management system. This could be a result of the data not being entered or inadvertently overwritten with blanks during previous database system migrations or upgrades. For blanks, data was unable to be verified to confirm actual year of construction No other consistent basis was available to estimate individual construct year data Actual know recorded data has been used wherever possible
2014	For those assets with blank Construct year • Blank Construct year data indicates that the data was not available in the SAP asset management system. This could be a result of the data not being entered or inadvertently overwritten with blanks during previous database system migrations or upgrades. • For blanks, data was unable to be verified to confirm actual year of construction • No other consistent basis was available to estimate individual construct year data • Actual know recorded data has been used wherever possible
2015	As per 2014

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Methodology was to extract data from the SAP asset management system to locate and identify the type and

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
	construction year of the required assets As most of the assets will not have a known construct year and in the absence of other verified data that would allow assessment and estimation of the relevant construct year the chosen methodology has been to apportion the total number of assets across the proxy age profile established by adding the profiles for 11kV and 22kV circuit breakers. This has been considered reasonable in terms of appropriately representing the age profile of the total asset < ≈ 11 KV ; OPERATIONAL SWITCH Raw equipment data extracted from SAP by Query including Object Type, Construct Year, Operating Voltage, MaintPlant A pivot table was created from this raw data Data summarised in the pivot table using MaintPlant = PAL and MaintPlant = CP Data further summarised in the pivot table using operating voltage 11KV, 22KV or 66KV Data further summarised in the pivot table using Object type = D_SWITCH, STN_SWITCH Data filtered to ensure only Powercor assets identified and counted (MaintPlant = "PAL") Resultant data reviewed to ensure that Construct Year is valid or blank Assets totalled by Construct year for those with non blank data summing the results for Object Type = D_SWITCH and STN_SWITCH and Operating Voltage = 11KV The age profile for the total number of assets in the required asset category was constructed using the age profile of 11kV circuit breakers added to the age profile of 22kV circuit breakers as a proxy. To achieve this the total number of assets was apportioned across the years according to the proxy profile. The resultant age profile was used to populate the table
2014	Methodology was to extract data from the SAP / GIS systems to locate and identify the type and construction year of the required assets. Some of these assets will not have a known construct year and require approximation to populate the age profile. This was achieved by firstly, for assets created after the 2003 SAP conversion project, ensuring that the asset construction year was populated with the created year if currently unknown. SAP captures the system creation time stamp by default. Then in the absence of other verified data that would allow assessment and estimation of the relevant construct year the chosen methodology has been to apportion the number of unknown construct year data assets on top of the pre 2003 known age profile via the use of a key profile. The key profile used is that of < = 11 kV; Circuit Breaker as this category has a known profile. Apportioning was not applied to post 2003 data as the use of the SAP created date eliminated any missing data for these assets, hence any apportioning would clearly miss represent the population. This has been considered reasonable in terms of appropriately representing the age profile of the total asset
2015	As per 2014

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	No other reliable data is readily available for the substitution of blanks in the construct year data The equipment data in SAP is updated from time to time when new data becomes available from any source. That new data is verified and if appropriate written into SAP. The queries undertaken to provide the raw data for this asset age profile use the current available data from the SAP asset management database

	The reason for selecting and using the proxy age profile is that the age profiles for 11kV and 22kV circuit breakers are relatively complete with known data and the summation would most effectively represent the expected age profile of the required assets
2014	No other reliable data is readily available for the substitution of blanks in the construct year data The equipment data in SAP is updated from time to time when new data becomes available from any source. That new data is verified and if appropriate written into SAP. The queries undertaken to provide the raw data for this asset age profile use the current available data from the SAP asset management database The reason for selecting and using the proxy age profile is that the key profile complete with known data and would most effectively represent the expected age profile of the required assets
2015	As per 2014

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
Asset Group	**Asset Category**
Switchgear by: Highest Operating Voltage; Switch Function	> 11 KV & < ≈ 22 KV ; CIRCUIT BREAKER
BOP ID	CAPAL5.2BOP8

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

Response:

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

Please provide a Response in this box:

a) N/A
b) N/A
c) Sub categorisation not applicable to this asset category
d) Sub categorisation not applicable to this asset category

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

- > 11 KV & < ≈ 22 KV ; CIRCUIT BREAKER
- Raw equipment data extracted from SAP by Query including Object Type
- Raw equipment data extracted from CBRM

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2013
2010	As per 2013
2011	As per 2013
2012	As per 2013
2013	Methodology was to extract data from the SAP asset management system to locate and identify the type and construction year of the required assets As some of the assets will not have a known construct year and in the absence of other verified data that would allow assessment and estimation of the relevant construct year the chosen methodology has been to apportion the number of unknown construct year data assets across the known age profile of the rest of the population. This has been considered reasonable in terms of appropriately representing the age profile of the total asset > 11 KV & < ≈ 22 KV ; CIRCUIT BREAKER • Raw equipment data extracted from SAP by Query including Object Type and Construct Year • A pivot table was created from this raw data • Data summarised by Object Type = CB_22KV • Data filtered to exclude circuit breakers not connected to the network (GIS STATUS does not equal "not connected") • Data filtered to ensure only Powercor assets identified and counted (Company Code equals "4550") • Resultant data reviewed to ensure that Construct Year is valid or blank • Assets totalled by Construct year for those with non blank data • The total number of Assets with blank Construct Year data was apportioned across the age profile derived from those assets with non blank Construct year • The resultant age profile was used to populate the table
2014	Data was extracted from the SAP asset management system and CBRM asset evaluation system to identify the type and construction year of the required assets. The combining of these data sources produced a complete profile for this asset class.
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2013
2010	As per 2013
2011	As per 2013
2012	As per 2013
2013	For those assets with blank Construct year • Blank Construct year data indicates that the data was not available in the SAP asset management system. This could be a result of the data not being entered or inadvertently overwritten with blanks during previous database system migrations or upgrades. • For blanks, data was unable to be verified to confirm actual year of construction • No other consistent basis was available to estimate individual construct year data • Actual know recorded data has been used wherever possible
2014	Actual data was used.
2015	As per 2014

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2013
2010	As per 2013
2011	As per 2013
2012	As per 2013
2013	Methodology was to extract data from the SAP asset management system to locate and identify the type and construction year of the required assets As some of the assets will not have a known construct year and in the absence of other verified data that would allow assessment and estimation of the relevant construct year the chosen methodology has been to apportion the number of unknown construct year data assets across the known age profile of the rest of the population. This has been considered reasonable in terms of appropriately representing the age profile of the total asset > 11 KV & < ≈ 22 KV ; CIRCUIT BREAKER • Raw equipment data extracted from SAP by Query including Object Type and Construct Year • A pivot table was created from this raw data • Data summarised by Object Type = CB_22KV • Data filtered to exclude circuit breakers not connected to the network (GIS STATUS does not equal “not connected”) • Data filtered to ensure only Powercor assets identified and counted (Company Code equals “4550”) • Resultant data reviewed to ensure that Construct Year is valid or blank • Assets totalled by Construct year for those with non blank data • The total number of Assets with blank Construct Year data was apportioned across the age profile derived from those assets with non blank Construct year • The resultant age profile was used to populate the table
2014	Actual data was used.
2015	As per 2014

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	As per 2013
2010	As per 2013
2011	As per 2013
2012	As per 2013
2013	No other reliable data is readily available for the substitution of blanks in the construct year data The equipment data in SAP is updated from time to time when new data becomes available from any source. That new data is verified and if appropriate written into SAP. The queries undertaken to provide the raw data for this asset age profile use the current available data from the SAP asset management database

2014	Actual data was used.
2015	As per 2014

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
Asset Group	**Asset Category**
Switchgear by: Highest Operating Voltage; Switch Function	> 22 kV & < = 33 kV ; SWITCH
Switchgear by: Highest Operating Voltage; Switch Function	> 22 kV & < = 33 kV ; CIRCUIT BREAKER
Switchgear by: Highest Operating Voltage; Switch Function	> 66 kV & < = 132 kV ; SWITCH
Switchgear by: Highest Operating Voltage; Switch Function	> 66 kV & < = 132 kV ; CIRCUIT BREAKER
Switchgear by: Highest Operating Voltage; Switch Function	> 132 kV ; SWITCH
Switchgear by: Highest Operating Voltage; Switch Function	> 132 kV ; CIRCUIT BREAKER
BOP ID	CAPAL5.2BOP9

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

Please provide a Response in this box:

No asset quantities are reported by Powercor for the following categories

> 22 kV & < = 33 kV; SWITCH
> 22 kV & < = 33 kV; CIRCUIT BREAKER
> 66 kV & < = 132 kV; SWITCH
> 66 kV & < = 132 kV; CIRCUIT BREAKER
> 132 kV; SWITCH
> 132 kV ; CIRCUIT BREAKER

Powercor network does not contain assets in these categories.
The Powercor network does not use standard voltages in those ranges.

The Powercor Network HV network voltages are 11kV, 22kV and 66kV

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Not applicable

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Powercor network does not contain assets in these categories. The Powercor network does not use standard voltages in those ranges The Powercor Network HV network voltages are 11kV 22kV and 66kV
2014	Powercor network does not contain assets in these categories. The Powercor network does not use standard voltages in those ranges The Powercor Network HV network voltages are 11kV, 22kV and 66kV
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Powercor network does not contain assets in these categories. The Powercor network does not use standard voltages in those ranges The Powercor Network HV network voltages are 11kV, 22kV and 66kV
2014	Powercor network does not contain assets in these categories. The Powercor network does not use standard voltages in those ranges The Powercor Network HV network voltages are 11kV, 22kV and 66kV
2015	As per 2015

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Powercor network does not contain assets in these categories. The Powercor network does not use standard voltages in those ranges The Powercor Network HV network voltages are 11kV, 22kV and 66kV
2014	Powercor network does not contain assets in these categories. The Powercor network does not use standard voltages in those ranges The Powercor Network HV network voltages are 11kV, 22kV and 66kV
2015	As per 2014

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Powercor network does not contain assets in these categories. The Powercor network does not use standard voltages in those ranges The Powercor Network HV network voltages are 11kV, 22kV and 66kV
2014	Powercor network does not contain assets in these categories. The Powercor network does not use standard voltages in those ranges The Powercor Network HV network voltages are 11kV, 22kV and 66kV
2015	As per 2014

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

No asset quantities are reported by Powercor for the following categories

> 22 kV & < = 33 kV ; SWITCH
> 22 kV & < = 33 kV ; CIRCUIT BREAKER
> 66 kV & < = 132 kV ; SWITCH
> 66 kV & < = 132 kV ; CIRCUIT BREAKER
> 132 kV ; SWITCH
> 132 kV ; CIRCUIT BREAKER

Powercor network does not contain assets in these categories.
The Powercor network does not use standard voltages in those ranges.
The Powercor Network HV network voltages are 11kV, 22kV and 66kV

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
Asset Group	**Asset Category**
Switchgear by: Highest Operating Voltage; Switch Function	Other
Variable	**AER Definition**
Switchgear	These are assets used to control, protect and isolate segments of the network This includes disconnect switches, fuses, circuit breakers, links, reclosers, sectionalisers, ring main units, oil insulated fuses etc.
BOP ID	CAPAL5.2BOP10

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

6. ASSET AGE PROFILE
6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:
n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

Please provide a Response in this box:
The sub-category Other under switchgear includes:

- DISTRIBUTION FUSE / SURGE DIVERTER
- <= 1 kV CIRCUIT BREAKER
- > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH
- > 11 KV & < ≈ 22 KV; ISOLATORS, EARTHING SWITCH
- > 33 KV & < ≈ 66 KV; ISOLATORS, EARTHING SWITCH

as these assets did not fit within the existing sub-categories.

The data was extracted separately for each of the variables and then summated for the 'Other" sub category.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
DISTRIBUTION FUSE / SURGE DIVERTER

- Raw equipment data extracted SAP by Query including Object Type

<= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH

- Raw equipment data extracted from SAP by Query including Object Type:
  - ACR
  - Step Switch
  - Station Earth Switch
  - Station Link
  - Station Switch
  - Circuit Breaker
- Raw equipment data extracted from GIS by Query"
  - HV Switch

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	DISTRIBUTION FUSE / SURGE DIVERTER • The type and number of Fuse Units and Surge diverter units are recorded in SAP. • The individual year of manufacture is not recorded, however the period is, ie 2001-2011. • The age profile is based on units manufacture year not when they were installed on the Electricity Network. • It was assumed there was an even distribution of units across the manufacture period This analysis was carried out for each of the types of units, the number of all types of units per year were then summated to develop the age profile for Fuse Units and Surge Diverters <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH

	This asset configuration is new for 2014.
2010	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2011	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2012	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2013	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2014	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH Methodology was to extract data from the SAP / GIS systems to locate and identify the type and construction year of the required assets. Some of these assets will not have a known construct year and require approximation to populate the age profile. This was achieved by firstly, for assets created after the 2003 SAP conversion project, ensuring that the asset construction year was populated with the created year if currently unknown. Then in the absence of other verified data that would allow assessment and estimation of the relevant construct year the chosen methodology has been to apportion the number of unknown construct year data assets on top of the pre 2003 known age profile via the use of a key profile. The key profile used is that of >11 kV < = 22 kV; Circuit Breaker as this category has a known profile. This has been considered reasonable in terms of appropriately representing the age profile of the total asset The resultant age profile was used to populate the table

2015	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH Refer 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why was an estimate required, including why it is not possible to use actual data;
2009	DISTRIBUTION FUSE / SURGE DIVERTER An estimate was required as the only actual information available on the age of the unit is a time period ie 2001-2011 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2010	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2011	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2012	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2013	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2014	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH

	For those assets with blank Construct year • Blank Construct year data indicates that the data was not available in the SAP asset management system. This could be a result of the data not being entered or inadvertently overwritten with blanks during previous database system migrations or upgrades. • For blanks, data was unable to be verified to confirm actual year of construction • No other consistent basis was available to estimate individual construct year data • Actual know recorded data has been used wherever possible
2015	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH Refer 2014

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	DISTRIBUTION FUSE / SURGE DIVERTER In order to develop the age profile, the number and type of each unit was extracted; it was then assumed that there was an even distribution of units across the years of manufacturer. Example if the manufacture period was 10 years (2001-2011) and there were 100 units, the estimate was that 10 units were installed each year. <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2010	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2011	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2012	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2013	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009

	<= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2014	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH Methodology was to extract data from the SAP / GIS systems to locate and identify the type and construction year of the required assets. Some of these assets will not have a known construct year and require approximation to populate the age profile. This was achieved by firstly, for assets created after the 2003 SAP conversion project, ensuring that the asset construction year was populated with the created year if currently unknown. SAP captures the system creation time stamp by default. Then in the absence of other verified data that would allow assessment and estimation of the relevant construct year the chosen methodology has been to apportion the number of unknown construct year data assets on top of the pre 2003 known age profile via the use of a key profile. The key profile used is that of < = 11 kV; Circuit Breaker as this category has a known profile. Apportioning was not applied to post 2003 data as the use of the SAP created date eliminated any missing data for these assets, hence any apportioning would clearly miss represent the population. This has been considered reasonable in terms of appropriately representing the age profile of the total asset
2015	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH Refer 2014

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	DISTRIBUTION FUSE / SURGE DIVERTER The only other method to establish the age of the units would have been to link them to the age of the pole, this would be less accurate then the method selected. <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2010	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.

2011	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2012	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2013	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH This asset configuration is new for 2014.
2014	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH No other reliable data is readily available for the substitution of blanks in the construct year data The equipment data in SAP is updated from time to time when new data becomes available from any source. That new data is verified and if appropriate written into SAP. The queries undertaken to provide the raw data for this asset age profile use the current available data from the SAP asset management database The reason for selecting and using the proxy age profile is that the key profile complete with known data and would most effectively represent the expected age profile of the required assets
2015	DISTRIBUTION FUSE / SURGE DIVERTER Refer 2009 <= 1 kV CIRCUIT BREAKER; > 1 kV & <= 11 kV ISOLATORS, EARTHING SWITCH; > 11 KV & < ≈ 22 KV ; ISOLATORS, EARTHING SWITCH; > 33 KV & < ≈ 66 KV ; ISOLATORS, EARTHING SWITCH Refer 2014

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
Asset Group	**Asset Category**
Public Lighting by : Asset Type; Lighting Obligation	(ALL Categories)
BOP ID	CAPAL5.2BOP11

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

Definitions

Major road: Roads on which the visual requirements of motorists are dominant (e.g. traffic routes). Typically the responsibility of a state or territory road authority.

Minor road: Roads on which the visual requirements of pedestrians are dominant (e.g. local roads and lighting that is applicable to areas other than roads outdoor public areas, e.g. outdoor shopping). Typically the responsibility of a local Government authority.

Please provide a Response in this box:
With regard to the Final Distribution Category Analysis RIN issued 7th March 2014, 5.2.1 Asset Age Profile by asset category for Public Lighting. We have provided data that complies with the instructions and definitions specified in the requirements of the notice as follows:
6.1(a) We have provided asset sub-categories corresponding to the prescribed asset categories in Table 2.2.1.
(b) not applicable
(c) not applicable
(d) not applicable

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
LUMINAIRES ; MAJOR/MINOR ROAD ; STANDARD CONTROL :

- Based on data extracted from GIS (asset management system) from log saved on 01/01/15 listing all in service and billable luminaire details for Powercor and CitiPower.

BRACKETS ; MAJOR/MINOR ROAD ; STANDARD CONTROL

- No data is available (see F. No data provided)

LAMPS ; MAJOR/MINOR ROAD ; STANDARD CONTROL

- Based on data extracted from GIS (asset management system) from log saved on 01/01/15 listing all in service and billable luminaire details for Powercor and CitiPower.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2014
2010	As per 2014
2011	As per 2014
2012	As per 2014
2013	As per 2014
2014	LUMINAIRES ; MAJOR/MINOR ROAD ; STANDARD CONTROL **Methodology** • Per definition of "assets in commission" only in service and billable lights as at 1/1/15 were extracted from GIS. • Asset quantity recorded were allocated across the years 1910 – 2014 using information recorded relating to "year lantern manufactured" or "year lantern changed". **Assumptions** • Only in service and billable lights were reported • 'Cost Share Status' was used to separate between Major Road ('Cost Shared (4/10)(6/10)') and Minor Road ('Full Cost (Municipality)') in order to meet the definition of major/minor roads per the RIN. • Where 'Year Lantern Changed' = 1960, 1970 & 2001and 'Year Lantern Manufactured' varied, 'Year Lantern Manufactured was used in preference to 'Year Lantern Changed'. • Where 'Year Lantern Changed' ≠ 1960, 1970 & 2001, no change was made and 'Year Lantern Changed' was taken to represent the year the asset was commissioned. BRACKETS ; MAJOR/MINOR ROAD ; STANDARD CONTROL • No data is available

Year	Methodology & Assumptions
	LAMPS ; MAJOR/MINOR ROAD ; STANDARD CONTROL **Methodology** • Per definition of "assets in commission" only in service and billable lights as at 1/1/14 were extracted from GIS. • Asset quantities recorded were allocated across the years 1910 – 2014 using information recorded relating to "year lamp changed". **Assumptions** • 'Cost Share Status' was used to separate between Major Road ('Cost Shared (4/10)(6/10)') and Minor Road ('Full Cost (Municipality)') in order to meet the definition of major/minor roads per the RIN. • Where 'Cost Share Status' = 'Full Cost (VicRoads) or 'other', these were added to 'Cost Shared (4/10)(6/10)' *** Note: this only affected 14 lights in total
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2014
2010	As per 2014
2011	As per 2014
2012	As per 2014
2013	As per 2014
2014	As per 2014 • LUMINAIRES ; MAJOR/MINOR ROAD ; STANDARD CONTROL :Significant data was unusable due to 'default' dates being used for 'Date Lantern Changed' such as '1/01/1960', '1/01/1970' & '1/08/2001'. A separate field was also available 'Year Lantern Manufactured', this year was also compromised as it appeared that it had not been maintained throughout the time period. • Data was unable to be verified to confirm actual year of replacement due to data migration to GIS. • Data entered has not been consistently validated to ensure that accuracy was correctly entered. • Assumptions listed above were used to provide a slightly more accurate age profile of Luminaires, however there are still large gaps and default dates still used that distorts the data. BRACKETS ; MAJOR/MINOR ROAD ; STANDARD CONTROL • The business has not historically retained any data on brackets. We are unable to provide any usable data for this subsection. LAMPS ; MAJOR/MINOR ROAD ; STANDARD CONTROL • Data was unable to be verified to confirm actual year of replacement due to data migration to GIS. • Data entered has not been consistently validated to ensure that accuracy was correctly entered. Audits are currently undertaken to verify our metrology compliance, however there this additional information is not captured.
2015	As per 2014

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2014
2010	As per 2014
2011	As per 2014
2012	As per 2014
2013	As per 2014
2014	LUMINAIRES ; MAJOR/MINOR ROAD ; STANDARD **Assumptions** • 'Cost Share Status' was used to separate between Major Road ('Cost Shared (4/10)(6/10)') and Minor Road ('Full Cost (Municipality)') in order to meet the definition of major/minor roads per the RIN. The major and minor road classifications maintained within GIS relate to the type of globe used rather than

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
	the road location and hence these internal classifications did meet the definitions in the RIN. • Where 'Year Lantern Changed' = 1960, 1970 & 2001and 'Year Lantern Manufactured' varied, 'Year Lantern Manufactured was used in preference to 'Year Lantern Changed' in order to reduce the distortion caused by default dates as these were assumed to be more accurate dates. BRACKETS ; MAJOR/MINOR ROAD ; STANDARD CONTROL • No data is available LAMPS ; MAJOR/MINOR ROAD ; STANDARD CONTROL **Assumptions** • 'Cost Share Status' was used to separate between Major Road ('Cost Shared (4/10)(6/10)') and Minor Road ('Full Cost (Municipality)') in order to meet the definition of major/minor roads per the RIN. The major and minor road classifications maintained within GIS relate to the type of globe used rather than the road location and hence these internal classifications do meet the definitions in the RIN. Where 'Cost Share Status' = 'Full Cost (VicRoads) or 'other', these were added to 'Cost Shared (4/10)(6/10)' *** Note: this only affected 3 lights in total. This was because lights fully allocated to VicRoads were reasonably assumed to be on major roads and hence included in that category.
2015	As per 2014

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	As per 2014
2010	As per 2014
2011	As per 2014
2012	As per 2014
2013	As per 2014
2014	As noted above the method of estimation used most closely aligned with the requirements of RIN and provided the most reliable data.
2015	As per 2014

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

BRACKETS ; MAJOR/MINOR ROAD ; STANDARD CONTROL

- The business has not historically retained any data on brackets. We are unable to provide any usable data for this subsection.

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	FIELD DEVICES - ZONE SUBSTATION RELAYS (ELECTROMECHANICAL)
BOP ID	CAPAL5.2BOP12

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Field device category as different equipment types that summate to the Field Devices Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Field Devices Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'FIELD DEVICES' incorporates the following sub Asset Categories :

- ZONE SUBSTATION RELAYS (ELECTROMECHANICAL)
- ZONE SUBSTATION RELAYS (ELECTRONIC)
- ZONE SUBSTATION RELAYS (DIGITAL)
- ZONE SUBSTATION CONTROL
- ZONE SUBSTATION RTU'S

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data is Sourced from the Relay Setting Information System (RESIS). SAP project data is used to qualify RESIS data.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2010	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2011	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2012	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2013	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2014	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	FIELD DEVICES - ZONE SUBSTATION RELAYS (ELECTRONIC)
BOP ID	CAPAL5.2BOP13

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Field device category as different equipment types that summate to the Field Devices Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Field Devices Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'FIELD DEVICES' incorporates the following sub Asset Categories :

- ZONE SUBSTATION RELAYS (ELECTROMECHANICAL)
- ZONE SUBSTATION RELAYS (ELECTRONIC)
- ZONE SUBSTATION RELAYS (DIGITAL)
- ZONE SUBSTATION CONTROL
- ZONE SUBSTATION RTU'S

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data is Sourced from the Relay Setting Information System (RESIS). SAP project data is used to qualify RESIS data.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2010	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2011	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2012	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2013	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2014	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable

2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	FIELD DEVICES - ZONE SUBSTATION RELAYS (DIGITAL)
BOP ID	CAPAL5.2BOP14

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Field device category as different equipment types that summate to the Field Devices Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Field Devices Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'FIELD DEVICES' incorporates the following sub Asset Categories :

- ZONE SUBSTATION RELAYS (ELECTROMECHANICAL)
- ZONE SUBSTATION RELAYS (ELECTRONIC)
- ZONE SUBSTATION RELAYS (DIGITAL)
- ZONE SUBSTATION CONTROL
- ZONE SUBSTATION RTU'S

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data is Sourced from the Relay Setting Information System (RESIS). SAP project data is used to qualify RESIS data.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2010	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2011	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2012	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2013	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2014	Data is Sourced from the Relay Setting Information System (RESIS) via a report of 'Applied Settings' to determine new or changed relay settings. This 'applied setting' data is obtained for the calendar year and is then manually filtered to remove any applied setting updates relating to retained equipment. Data from SAP relating to projects during the period was also utilised to ensure additions and retirements were correct for each period.
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable

2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	FIELD DEVICES - ZONE SUBSTATION CONTROLS
BOP ID	CAPAL5.2BOP15

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Field device category as different equipment types that summate to the Field Devices Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Field Devices Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'FIELD DEVICES' incorporates the following sub Asset Categories :

- ZONE SUBSTATION RELAYS (ELECTROMECHANICAL)
- ZONE SUBSTATION RELAYS (ELECTRONIC)
- ZONE SUBSTATION RELAYS (DIGITAL)
- ZONE SUBSTATION CONTROL
- ZONE SUBSTATION RTU'S

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data is Sourced from the Relay Setting Information System (RESIS) and Zone Substation Drawing system (ProjectWise).

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Asset details and quantities are obtained from the report of 'Applied Settings' for control equipment run from RESIS or through details gathered from zone substation drawings in Projectwise (note, not all control equipment has a setting in RESIS and therefore Projectwise drawings are used). Assets are allocated across the years based on the drawing dates from Projectwise. Project/drawing dates per Projectwise were considered approximate to the year of installation
2010	Refer 2009.
2011	Refer 2009.
2012	Refer 2009.
2013	Refer 2009.
2014	Refer 2009.
2015	Refer 2009.

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Asset data in RESIS does not provide installation dates for this particular asset category and hence Projectwise was the only available record with approximate dates
2010	Refer 2009.
2011	Refer 2009.
2012	Refer 2009.
2013	Refer 2009.
2014	Refer 2009.
2015	Refer 2009.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Assets are allocated across the years based on the drawing dates from Projectwise. Project/drawing dates per Projectwise were considered approximate to the year of installation.
2010	Refer 2009.
2011	Refer 2009.
2012	Refer 2009.
2013	Refer 2009.
2014	Refer 2009.
2015	Refer 2009.

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	There was no other practical method to determined age profile
2010	Refer 2009.
2011	Refer 2009.
2012	Refer 2009.
2013	Refer 2009.
2014	Refer 2009.
2015	Refer 2009.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	FIELD DEVICES - ZONE SUBSTATION RTU'S
BOP ID	CAPAL5.2BOP16

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Field device category as different equipment types that summate to the Field Devices Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Field Devices Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'FIELD DEVICES' incorporates the following sub Asset Categories :

- ZONE SUBSTATION RELAYS (ELECTROMECHANICAL)
- ZONE SUBSTATION RELAYS (ELECTRONIC)
- ZONE SUBSTATION RELAYS (DIGITAL)
- ZONE SUBSTATION CONTROL
- ZONE SUBSTATION RTU'S

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response: Data has been sourced from SCADA (Poweron Fusion) via reports of all connected field devices.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2011
2010	As per 2011
2011	Based on SCADA Report of connected Field devices run as at 31 Dec 2011. Using information included in the reports, allocate field devices as either relating CitiPower or Powercor and zone substations or distribution stations. Using engineering advice to spread RTU installs across most probable years of construction.
2012	Based on SCADA Report of connected Field Devices run as at 31 Dec. Using information included in the reports, allocate field devices as either relating CitiPower or Powercor and zone substations or distribution stations. The data as at 31 Dec is then compared to the same report from the previous year to identify the assets added in the year. In this year there is a step increase in quantities as all RTU's used as collector or control RTUs have now been added in. This has not been spread across the years of install as there is in sufficient information on install dates. In 2015 Control RTUs have now been removed from 2012 as there was a double up with RTUs counted in ZONE SUBSTATION CONTROL.
2013	Based on SCADA Report of connected Field Devices run as at 31 Dec. Using information included in the reports, allocate field devices as either relating CitiPower or Powercor and zone substations or distribution stations. The data as at 31 Dec is then compared to the same report from the previous year to identify the assets added in the year
2014	Based on SCADA Report of connected Field Devices run as at 31 Dec. Using information included in the reports, allocate field devices as either relating CitiPower or Powercor and zone substations or distribution stations. The data as at 31 Dec is then compared to the same report from the previous year to identify the assets added in the year
2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2011
2010	As per 2011
2011	SCADA is a dynamic and hence reports cannot be run retrospectively. Given SCADA report was first ran at the end of Dec 2011, Powercor has had to estimate the spread of this data for 2011 and earlier.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2011
2010	As per 2011
2011	The age profile for 2011 and earlier was based on the total known SCADA connections as of the end of 2011. Using engineering advice, RTU installations were spread across most probable years of construction.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	As per 2011
2010	As Per 2011
2011	This was the most practical method for determining an age profile
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	COMMUNICATION NETWORK ASSETS - DISTRIBUTION RTU'S
BOP ID	CAPAL5.2BOP17

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Communication Network Assets category as different equipment types that summate to the Communication Network Assets Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Communication Network Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'COMMUNICATION NETWORK ASSETS' incorporates the following sub Asset Categories :

- DISTRIBUTION RTU'S
- DISTRIBUTION FIELD DEVICE COMMUNICATIONS

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data has been sourced from SCADA (Poweron Fusion & TMRView) via reports of all connected field devices. SAP project data is used to qualify SCADA reports for 2011 and earlier.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2011
2010	As per 2011
2011	Based on a SCADA Report of connected field devices run as at 31 Dec 2011. Data from SAP relating to projects during the period 2011 and before was utilised in assisting with determining age of equipment across years. Field device types from the SCADA report was also utilised to allocate equipment across years on a proportional basis for the years 2011 and before.
2012	Based on SCADA Report of Connected Field devices run as at 31 Dec. Using information included in the reports allocate field devices as either relating CitiPower or Powercor and zone substations or distribution stations. The data as at 31 Dec is then compared to the same report from the previous year to identify the assets added in each year.
2013	As per 2012
2014	As per 2012
2015	As per 2012

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2011
2010	As per 2011
2011	SCADA is a dynamic and hence reports cannot be run retrospectively. Given SCADA report was first ran at the of end Dec 2011, Powercor has had to estimate the spread of this data for 2011 and earlier.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2011
2010	As per 2011
2011	The age profile for 2011 and earlier was based on the total known SCADA connections as of the end of 2011 and known completed projects that could be identified from SAP for 2011 and earlier. The balance was determined from equipment types from the SCADA report and allocated on a proportional basis across specific years based on engineering advice when a device type was being deployed within the business.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	As per 2011
2010	As per 2011
2011	This was the most practical method for determining an age profile.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
Asset Group	**Asset Category**
SCADA, Network Control and Protection Systems	Local Network Wiring Assets
SCADA, Network Control and Protection Systems	AFLC
BOP ID	CAPAL5.2BOP18

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

Please provide a Response in this box:
Powercor does not record separately identifiable data relating to Local Network Wiring Assets within SCADA, Network, Control and Protection Systems as wiring components are included within other asset types eg RTUs and Relays. Further, estimation techniques were considered impossible due to the lack of data and immeasurable number of assumptions required.
Powercor does not record separately identifiable data relating to AFLC assets.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Not Applicable

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not Applicable

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	Not applicable
2014	Not applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Powercor does not collect this data in any system. Local Network Wiring is always associated with Protection or Control systems and tested and replaced with these systems and is not replaced in isolation.

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	COMMUNICATIONS SITE INFRASTRUCTURE -ZONE SUBSTATION ANALOGUE COMMUNICATION
BOP ID	CAPAL5.2BOP19

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Communications Site Infrastructure category as different equipment types that summate to Communications Site Infrastructure Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Communications Site Infrastructure Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'COMMUNICATIONS SITE INFRASTRUCTURE' incorporates the following sub Asset Categories :

- ZONE SUBSTATION ANALOGUE COMMUNICATION
- ZONE SUBSTATION DIGITAL COMMUNICATION
- ZONE SUBSTATION ETHERNET COMMUNICATION

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from drawings within Projectwise drawing management system.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2011
2010	As per 2011
2011	Details of all zone substation equipment and equipment types relating to this asset category were extracted from Projectwise as at 31 Dec 2011. Purchase dates for equipment types were established from Projectwise or engineering experience. -Equipment was allocated for 2011 and earlier years based on the equipment types and known purchase dates. -Additional projects were tracked for subsequent years and updated as required. Note: there were no projects in 2012, 2013 and 2014.
2012	Additional projects were tracked for subsequent years and updated as required. Note: there were no projects in 2012, 2013 and 2014.
2013	As per 2012
2014	As per 2012
2015	Projects were tracked for subsequent years and updated as required. Note: there were no projects in 2015

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2011
2010	As per 2011
2011	Powercor was not required to report on asset quantities in this category during 2009/2010 hence there was no available data kept or stored for these years. Further, asset data in CitiPower's/Powercor's asset management system does not provide installation dates for this particular asset category and hence Projectwise was the only available record with approximate dates. As per 2009
2012	n/a
2013	n/a
2014	n/a
2015	n/a

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2011
2010	As per 2011
2011	Purchase dates for equipment types were established from Projectwise or engineering experience. Equipment was allocated for 2011 and earlier years based on the equipment types and known purchase dates. Where Projectwise could not provide dates, engineering experience was used to assess equipment type and nominate install date.
2012	n/a
2013	n/a
2014	n/a
2015	n/a

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	As per 2011
2010	As per 2011
2011	This was the most practical method to determine an age profile
2012	n/a
2013	n/a

2014	n/a
2015	n/a

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	COMMUNICATIONS SITE INFRASTRUCTURE - ZONE SUBSTATION DIGITAL COMMUNICATION
BOP ID	CAPAL5.2BOP20

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Communications Site Infrastructure category as different equipment types that summate to Communications Site Infrastructure Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Communications Site Infrastructure Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'COMMUNICATIONS SITE INFRASTRUCTURE' incorporates the following sub Asset Categories :

- ZONE SUBSTATION ANALOGUE COMMUNICATION
- ZONE SUBSTATION DIGITAL COMMUNICATION
- ZONE SUBSTATION ETHERNET COMMUNICATION

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from drawings within Projectwise drawing management system.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2011
2010	As per 2011
2011	Details of all zone substation equipment and equipment types relating to this asset category were extracted from Projectwise as at 31 Dec 2011. Purchase dates for equipment types were established from Projectwise or engineering experience. -Equipment was allocated for 2011 and earlier years based on the equipment types and known purchase dates. -Additional projects were tracked for subsequent years and updated as required.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2011
2010	As per 2011
2011	Powercor was not required to report on asset quantities in this category during 2009/2010 hence there was no available data kept or stored for these years. Further, asset data in CitiPower's/Powercor's asset management system does not provide installation dates for this particular asset category and hence Projectwise was the only available record with approximate dates.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2011
2010	As per 2011
2011	Purchase dates for equipment types were established from Projectwise or engineering experience. Equipment was allocated for 2011 and earlier years based on the equipment types and known purchase dates. Where Projectwise could not provide dates, engineering experience was used to assess equipment type and nominate install date.
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	As per 2011
2010	As per 2011
2011	This was the most practical method to determine an age profile
2012	As per 2011
2013	As per 2011
2014	As per 2011
2015	As per 2011

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	COMMUNICATIONS SITE INFRASTRUCTURE - ZONE SUBSTATION ETHERNET COMMUNICATION
BOP ID	CAPAL5.2BOP21

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Communications Site Infrastructure category as different equipment types that summate to Communications Site Infrastructure Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Communications Site Infrastructure Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'COMMUNICATIONS SITE INFRASTRUCTURE' incorporates the following sub Asset Categories :

- ZONE SUBSTATION ANALOGUE COMMUNICATION
- ZONE SUBSTATION DIGITAL COMMUNICATION
- ZONE SUBSTATION ETHERNET COMMUNICATION

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data has been sourced from the SCADA – Network Management System Tool. SAP project data is used to qualify Network Management System data.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The first SCADA Report of Ethernet Equipment Data run as at 31 Dec 2011. Projects/assets added in 2011 per SAP project data were deducted from the total quantity and the remainder allocated across 2008-2010. Assumed allocation for 2010 and earlier based on available SAP project data relating to projects occurring during the period.
2010	As per 2009
2011	SCADA Report of Ethernet Equipment Data run as at 31 Dec from Network Management System Tool. Projects/assets added in 2011 per SAP project data were deducted from the total quantity. The project data for this year was known as it related to current projects.
2012	SCADA Report of Ethernet Equipment Data run as at 31 Dec from Network Management System Tool. The data as at 31 Dec is then compared to the same report from the previous year to identify the assets added in each year.
2013	As per 2012
2014	As per 2012
2015	As per 2012

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The Network Management System Tool is a dynamic system and hence reports cannot be run retrospectively. Given SCADA Report of Ethernet ran as of end Dec was not run for this year, Powercor/CitiPower has had to estimate this data based on SAP project data.
2010	As per 2009
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Estimate for 2010 and earlier based on available SAP project data relating to projects occurring during the period.
2010	As per 2009
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	Reviewing the SAP project data was the most practical method of determining projects and scopes completed within a time period
2010	As per 2009
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	COMMUNICATION NETWORK ASSETS - DISTRIBUTION FIELD DEVICE COMMUNICATIONS
BOP ID	CAPAL5.2BOP22

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Communication Network Assets category as different equipment types that summate to the Communication Network Assets Category come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Communication Network Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'COMMUNICATION NETWORK ASSETS' incorporates the following sub Asset Categories:

- DISTRIBUTION RTU'S
- DISTRIBUTION FIELD DEVICE COMMUNICATIONS

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data has been sourced from SCADA (Poweron Fusion, TMRView & PQM Server) via reports of all connected field devices. SAP project data is used to qualify SCADA reports for 2011 and earlier.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2011
2010	As per 2011
2011	Based on a SCADA Report of connected field devices run as at 31 Dec 2011. Data from SAP relating to projects during the period 2011 and before was utilised in assisting with determining age of equipment across years. Field device types from the SCADA report was also utilised to allocate equipment across years on a proportional basis for the years 2011 and before. In Powercor all connected field devices have an associated communications device – this is determined from field device types installed.
2012	Based on SCADA Report of Connected Field devices run as at 31 Dec. Using information included in the reports allocate field devices as either relating CitiPower or Powercor and zone substations or distribution stations. The data as at 31 Dec is then compared to the same report from the previous year to identify the assets added in each year. In Powercor all connected field devices have an associated communications device – this is determined from field device types installed.
2013	As per 2012
2014	As per 2012
2015	As per 2012

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2011
2010	As Per 2011
2011	SCADA is a dynamic and hence reports cannot be run retrospectively. Given SCADA report was first ran at the of end Dec 2011, Powercor has had to estimate the spread of this data for 2011 and earlier.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2011
2010	As per 2011
2011	The age profile for 2011 and earlier was based on the total known SCADA connections as of the end of 2011 and known completed projects that could be identified from SAP for 2011 and earlier. The balance was determined from equipment types from the SCADA report and allocated on a proportional basis across specific years based on engineering advice when a device type was being deployed within the business.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	As per 2011
2010	As Per 2011
2011	This was the most practical method for determining an age profile
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	COMMUNICATION LINEAR ASSETS - FIBRE OPTIC CABLE
BOP ID	CAPAL5.2BOP23

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2*.2 as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Communication Linear Assets.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category 'COMMUNICATION LINEAR ASSETS a sub Asset Category has been specified to capture the installation of Fibre Optic Cable outside the Zone Substation 'FIBRE OPTIC CABLE.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Total fibre optic cable in network has been sourced from the PNI (Physical Network Inventory) module of GIS. GIS is Powercor/CitiPower's asset management system. Page: 84

This system captures all Fibre Optic Cable assets. SAP project data is used to qualify PNI data. SAP project data is also used to identify fibre projects undertaken during a period.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	As per 2011
2010	As per 2011
2011	Report run from PNI/GIS system which details fibre cable length installed against year and report run from

	PNI/GIS system which provides total fibre cable length installed in network. Data from SAP relating to projects undertaken during the period and some fibre cables with install dates recorded in PNI/GIS was utilised to apportion fibre cable length for each year. Balance of fibre cable length was apportioned across a number of years when fibre was known to being installed.
2012	Report run from PNI/GIS system which details cable length installed against year. From 2012, year of install dates are required to be set for fibre cables added to PNI/GIS.
2013	As per 2012.
2014	As per 2012.
2015	As per 2012 – Some data lengths for previous years have changed due to field audits and subsequent updating of PNI to improve data quality

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	As per 2011
2010	As Per 2011
2011	An estimate is required as not all fibre lengths captured in PNI/GIS have an install date included against an asset.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	As per 2011
2010	As Per 2011
2011	Known fibre projects identified through SAP was used to identify the time frame of a number of fibre installations however there was still an amount of cable that had to be apportioned. This balance was apportioned evenly across a number of years when fibre was known to being installed.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	As per 2011
2010	As per 2011
2011	It was considered that this method was the most practical and would provide a relatively accurate age profile.
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	MASTER STATION ASSETS - CLIENT
BOP ID	CAPAL5.2BOP24

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Master Station Assets category as different equipment types that summate to the Master Station Assets come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Master Station Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category ''MASTER STATION ASSETS' incorporates the following sub Asset Categories :

- CLIENT
- FEP
- PRINTER
- ROUTER
- SECURITY DEVICE
- SERVER
- SWITCH

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from an asset spreadsheet that is manually maintained by the SCADA Team when equipment is added and removed from the SCADA system. This spreadsheet lists all SCADA equipment for production and development systems and lists Asset Number and age.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Asset life is determined from the asset spreadsheet using the age listed in the spreadsheet to determine year of install. Equipment has been apportioned between Powercor and CitiPower. The assumption is a 70%/30% split based on the ratio of customers between the two businesses as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The equipment in the spreadsheet is not nominated to a business and both the production and development systems are used across both businesses.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis of the ratio split reflects the ratio of customers split across the two businesses. 70% Powercor and 30% CitiPower as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The split based on customers reflects the use of SCADA by operations and the relative amount of data for each network.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	MASTER STATION ASSETS - FEP
BOP ID	CAPAL5.2BOP25

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Master Station Assets category as different equipment types that summate to the Master Station Assets come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Master Station Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category ''MASTER STATION ASSETS' incorporates the following sub Asset Categories :

- CLIENT
- FEP
- PRINTER
- ROUTER
- SECURITY DEVICE
- SERVER
- SWITCH

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from an asset spreadsheet that is manually maintained by the SCADA Team when equipment is added and removed from the SCADA system. This spreadsheet lists all SCADA equipment for production and development systems and lists Asset Number and age.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Asset life is determined from the asset spreadsheet using the age listed in the spreadsheet to determine year of install. Equipment has been apportioned between Powercor and CitiPower. The assumption is a 70%/30% split based on the ratio of customers between the two businesses as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The equipment in the spreadsheet is not nominated to a business and both the production and development systems are used across both businesses.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis of the ratio split reflects the ratio of customers split across the two businesses. 70% Powercor and 30% CitiPower as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The split based on customers reflects the use of SCADA by operations and the relative amount of data for each network.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	MASTER STATION ASSETS - PRINTER
BOP ID	CAPAL5.2BOP26

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2*.2 as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Master Station Assets category as different equipment types that summate to the Master Station Assets come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Master Station Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category ''MASTER STATION ASSETS' incorporates the following sub Asset Categories :

- CLIENT
- FEP
- PRINTER
- ROUTER
- SECURITY DEVICE
- SERVER
- SWITCH

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from an asset spreadsheet that is manually maintained by the SCADA Team when equipment is added and removed from the SCADA system. This spreadsheet lists all SCADA equipment for production and development systems and lists Asset Number and age.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Asset life is determined from the asset spreadsheet using the age listed in the spreadsheet to determine year of install. Equipment has been apportioned between Powercor and CitiPower. The assumption is a 70%/30% split based on the ratio of customers between the two businesses as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The equipment in the spreadsheet is not nominated to a business and both the production and development systems are used across both businesses.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis of the ratio split reflects the ratio of customers split across the two businesses. 70% Powercor and 30% CitiPower as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The split based on customers reflects the use of SCADA by operations and the relative amount of data for each network.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	MASTER STATION ASSETS - ROUTER
BOP ID	CAPAL5.2BOP27

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Master Station Assets category as different equipment types that summate to the Master Station Assets come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Master Station Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category ''MASTER STATION ASSETS' incorporates the following sub Asset Categories :

- CLIENT
- FEP
- PRINTER
- ROUTER
- SECURITY DEVICE
- SERVER
- SWITCH

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from an asset spreadsheet that is manually maintained by the SCADA Team when equipment is added and removed from the SCADA system. This spreadsheet lists all SCADA equipment for production and development systems and lists Asset Number and age.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Asset life is determined from the asset spreadsheet using the age listed in the spreadsheet to determine year of install. Equipment has been apportioned between Powercor and CitiPower. The assumption is a 70%/30% split based on the ratio of customers between the two businesses as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The equipment in the spreadsheet is not nominated to a business and both the production and development systems are used across both businesses.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis of the ratio split reflects the ratio of customers split across the two businesses. 70% Powercor and 30% CitiPower as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The split based on customers reflects the use of SCADA by operations and the relative amount of data for each network.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	MASTER STATION ASSETS - SECURITY DEVICE
BOP ID	CAPAL5.2BOP28

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Master Station Assets category as different equipment types that summate to the Master Station Assets come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Master Station Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category ''MASTER STATION ASSETS' incorporates the following sub Asset Categories :

- CLIENT
- FEP
- PRINTER
- ROUTER
- SECURITY DEVICE
- SERVER
- SWITCH

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from an asset spreadsheet that is manually maintained by the SCADA Team when equipment is added and removed from the SCADA system. This spreadsheet lists all SCADA equipment for production and development systems and lists Asset Number and age.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Asset life is determined from the asset spreadsheet using the age listed in the spreadsheet to determine year of install. Equipment has been apportioned between Powercor and CitiPower. The assumption is a 70%/30% split based on the ratio of customers between the two businesses as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The equipment in the spreadsheet is not nominated to a business and both the production and development systems are used across both businesses.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis of the ratio split reflects the ratio of customers split across the two businesses. 70% Powercor and 30% CitiPower as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The split based on customers reflects the use of SCADA by operations and the relative amount of data for each network.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	MASTER STATION ASSETS - SERVER
BOP ID	CAPAL5.2BOP29

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Master Station Assets category as different equipment types that summate to the Master Station Assets come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Master Station Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category ''MASTER STATION ASSETS' incorporates the following sub Asset Categories :

- CLIENT
- FEP
- PRINTER
- ROUTER
- SECURITY DEVICE
- SERVER
- SWITCH

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from an asset spreadsheet that is manually maintained by the SCADA Team when equipment is added and removed from the SCADA system. This spreadsheet lists all SCADA equipment for production and development systems and lists Asset Number and age.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Asset life is determined from the asset spreadsheet using the age listed in the spreadsheet to determine year of install. Equipment has been apportioned between Powercor and CitiPower. The assumption is a 70%/30% split based on the ratio of customers between the two businesses as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The equipment in the spreadsheet is not nominated to a business and both the production and development systems are used across both businesses.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis of the ratio split reflects the ratio of customers split across the two businesses. 70% Powercor and 30% CitiPower as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The split based on customers reflects the use of SCADA by operations and the relative amount of data for each network.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 - Asset age profile	
ASSET GROUP	**ASSET CATEGORY**
SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS	MASTER STATION ASSETS - SWITCH
BOP ID	CAPAL5.2BOP30

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN)

Requirements of the notice:

[The requirements are taken from the CA RIN itself and the AER CA RIN Explanatory Statement. The intent of this section is for data providers to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

The requirements will need to be copied and pasted for each variable covered by this template. The data providers then respond using the 'response' box below.]

c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's *distribution system*, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in *regulatory template 2.2* as per its respective instructions.

Response: There is a need to clearly distinguish equipment types within the Master Station Assets category as different equipment types that summate to the Master Station Assets come from varying source systems and use varying methodologies for reporting. Each element is extracted individually and summated to the overarching Master Station Assets Category.

Within the Asset Group 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS', Asset Category ''MASTER STATION ASSETS' incorporates the following sub Asset Categories :

- CLIENT
- FEP
- PRINTER
- ROUTER
- SECURITY DEVICE
- SERVER
- SWITCH

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

Data was sourced from an asset spreadsheet that is manually maintained by the SCADA Team when equipment is added and removed from the SCADA system. This spreadsheet lists all SCADA equipment for production and development systems and lists Asset Number and age.

D. Methodology & Assumptions (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Asset life is determined from the asset spreadsheet using the age listed in the spreadsheet to determine year of install. Equipment has been apportioned between Powercor and CitiPower. The assumption is a 70%/30% split based on the ratio of customers between the two businesses as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Appendix E: Principles and Requirements Section 2.4(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The equipment in the spreadsheet is not nominated to a business and both the production and development systems are used across both businesses.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	The basis of the ratio split reflects the ratio of customers split across the two businesses. 70% Powercor and 30% CitiPower as published on the Powercor Website.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate.
2009	The split based on customers reflects the use of SCADA by operations and the relative amount of data for each network.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Not Applicable

Tab name: 5.2 Asset Age Profile	
Table name: 5.2.1 - Asset Age Profile	
Asset Group	**Asset**
SCADA	Automation Replacement Expenditure (FC166) - (No Age Profile Required)
BOP ID	CAPAL5.2BOP31

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

APPENDIX E: PRINCIPLES AND REQUIREMENTS

3. BASIS OF PREPARATION

3.1 Powercor must explain, for all information in the regulatory templates, the basis upon which Powercor prepared information to populate the input cells (basis of preparation).
3.2 The basis of preparation must be a separate document (or documents) that Powercor submits with its completed regulatory templates.
3.3 The basis of preparation must follow a logical structure that enables auditors, assurance practitioners and the AER to clearly understand how Powercor has complied with the requirements of this Notice.
3.4 At a minimum, the basis of preparation must:
(a) demonstrate how the information provided is consistent with the requirements of the Notice;
(b) explain the source from which Powercor obtained the information provided;
(c) explain the methodology Powercor used to provide the required information, including any assumptions Powercor made; and
(d) explain circumstances where Powercor cannot provide input for a variable using actual information, and therefore must provide estimated information:
(i) why an estimate was required, including why it was not possible for Powercor to use actual information;
(ii) the basis for the estimate, including the approach used, assumptions made and reasons why the estimate is Powercor's best estimate, given the information sought in the Notice.

6. ASSET AGE PROFILE

6.1 Table 5.2.1 instructions:

(a) Where Powercor provides asset sub-categories corresponding to the prescribed asset categories in Table 5.2.1, Powercor must ensure that the expenditure and asset replacement / asset failure volumes of these sub-categories reconcile to the higher level asset category. Powercor is required to insert additional rows and provide a clear indication of the asset category applicable to each sub-category. Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its instructions.

(b) In instances where Powercor is reporting expenditure associated with asset refurbishments/ life extensions capex it must insert additional rows at the bottom of the table for the relevant asset group to account for this. Powercor must provide the required data, applying the corresponding asset category name followed by the word "REFURBISHED". Powercor must provide corresponding replacement expenditure data in regulatory template 2.2 as per its respective instructions.

(c) In instances where Powercor considers that both the prescribed asset group categories and the asset sub-categorisation do not account for an asset on Powercor's distribution system, Powercor must insert additional rows below the relevant asset group to account for this. Powercor must provide the required data, applying a high level descriptor of the asset as the category name. The line item titled "OTHER - PLEASE ADD A ROW IF NECESSARY AND NOMINATE THE CATEGORY" illustrates this requirement. Powercor must provide corresponding age profile data in regulatory template 2.2 as per its respective instructions.

(d) In instances where Powercor wishes to provide asset sub-categories in addition to the specified asset categories in table 5.2.1, Powercor must provide a weighted average asset economic life, including mean and standard deviation that reconciles to the specified asset category in accordance with the following formula:

$$\text{Economic life of asset category} = \sum_{i=1}^{n} \left(\left(\frac{\text{value of asset sub-category}_i}{\text{total value of asset category}} \right) \times \text{economic life of asset sub-category}_i \right)$$

where:

n is the number of sub-categories to reconcile with the asset category

Asset values are determined by the asset category's contribution to the current replacement cost of the network. This being the most recent per unit cost of replacement for each asset, multiplied by the number of those assets in service and reported in the asset age profile.

Please provide a Response in this box:

Function Code 166 projects for Automation Replacement Expenditure in Powercor typically involved the installation of new:

- Automatic Circuit Reclosers (ACR's)
- Remote Control HV Switches
- Remote Control HV Sectionalisers
- Remote Control Ring Main Units (RMU's)

These assets are included in the respective Age Profiles for their asset classes, hence no asset Age Profiles are applicable for this Function Code.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Not applicable

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	These assets are already included in the respective Age Profiles for their asset classes, hence no asset Age Profiles are applicable for this Function Code.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	These assets are already included in the respective Age Profiles for their asset classes, hence no asset Age Profiles are applicable for this Function Code.
2010	As for 2009

2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	These assets are already included in the respective Age Profiles for their asset classes, hence no asset Age Profiles are applicable for this Function Code.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As per 2009

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	These assets are already included in the respective Age Profiles for their asset classes, hence no asset Age Profiles are applicable for this Function Code.
2010	As for 2009
2011	As for 2009
2012	As for 2009
2013	As for 2009
2014	As for 2009
2015	As per 2009

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:

These assets are already included in the respective Age Profiles for their asset classes, hence no asset Age Profiles are applicable for this Function Code.

Tab name: 5.2 Asset age profile	
Table name: 5.2.1 Asset age profile	
Asset Group	**Asset Category**
ALL	ALL (ECONOMIC LIFE (YEARS) - MEAN and STANDARD DEVIATION)
BOP ID	CAPAL5.2BOP32

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
No specific requirements in the RIN. Table 5.2.1 requests the Mean Economic Life and Standard Deviation of each Asset Category.

Please provide a Response in this box:
Data required was provided for each Asset Category containing Age Profile information.

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Mean Life and Standard Deviation data for the Asset Categories in Table 5.2.1 was obtained from Consultant's Reports Parsons Brinckerhoff (PB 2010), Accounting Lives (Financial Workbook) and Public Lighting Model (RAB).

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))
Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	The purpose of this methodology is to describe the process undertaken to allocate a Mean Life and Standard Deviation, year quantity as requested by the AER for Table 5.2.1 – Asset Age Profile. To ensure a consistent approach was applied in providing a Mean Life and Standard Deviation across each of the Asset groups, PB2010 consultant's report was utilised for the Mean Life and Standard Deviation values that were derived as part of the previous regulatory price determination. Where the data was available, this was taken as the most accurate and accepted value. An exception to this was the SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS category which was provided by the appropriate group.

	Where an Asset Category didn't map to the consulting report, the accounting lives taken from a financial workbook was used to determine the Mean Life of the asset. Similarly for PUBLIC LIGHTING, the Public Lighting Model (RAB) was used as a secondary source to the consulting report. In the absence of a Standard Deviation figure provided in the consulting report, an engineering rule of thumb was applied, being the square root of the mean life, to obtain the Standard Deviation. This ensures there was a consistent approach applied where there was an absence of information. To achieve the above, the following was undertaken: <u>PB 2010 Consulting Report</u> • Where applicable, a one to one mapping of asset categories based on the description was undertaken between the consulting report and 2014 Category Analysis RIN. • Where multiple categories in 2014 Category Analysis RIN matched up to a single description in the consulting report, the mean life and stand deviation (where available) where manually mapped. • Cell linking could not be achieved due to the formatting of the consulting report and therefor was manually entered into the final output sheet "PAL 5.2 Comparison FINAL". <u>Accounting Lives – Financial Workbook</u> • Where applicable, a one to one mapping of asset categories based on the description was undertaken between the Accounting Lives and 2014 Category Analysis RIN. • Cell linking could be achieved and was mapped to the final output sheet "PAL 5.2 Comparison FINAL". <u>Public Lighting Model (RAB)</u> • The public lighting model was used to provide a mean life for "Luminaries" of 20 years as this could not be obtained via the PB 2010 consulting report or the Account Life – Financial Workbook. The final comparison sheet, "PAL 5.2 Comparison FINAL", is a comparison between the PB2010 consulting report values and the Accounting Lives as a result of the category mapping. Column D (Mean Life) and Column E (Standard Deviation) contains a formula which selects the required value based on whether a value exists from the PB2010 consulting report. If a value didn't exist from the PB2010 consulting report, then the accounting life was selected along with the standard deviation calculated by the square root calculation.
2014	As per 2013
2015	As per 2013

E. <u>Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))</u>

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	A complete data-set of actual historical 'age on replacement' information is not available as the asset management systems and processes are not designed to capture all this information. This 'age on replacement is the essential actual data required to prepare actual mean and standard deviation of each asset sub-category.
2014	As per 2013
2015	As per 2013

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	The basis of the estimate is to largely rely on the work undertaken by consultants in 2010, when they previously estimated this information using a small amount of actual data available at the time. Where there was no information available from the consultant's report, the mean life of some asset sub-

	categories was taken as the accounting life.
2014	As per 2013
2015	As per 2013

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not applicable
2010	Not applicable
2011	Not applicable
2012	Not applicable
2013	This was the only option available.
2014	As per 2013
2015	As per 2013

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Data for the years 2009-2012 is not applicable to this Information Notice, as the request was for a single asset age profile.

5.3 Maximum Demand – Network Level

Tab name: 5.3 Maximum demand at network level	
Table name: 5.3.1 – Raw and Weather Corrected Coincident MD at Network Level	
(All Categories)	(All Categories)
BOP ID	CAPAL5.3BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:
Definition
Network coincident maximum demand
The load on the network at the time during which the network was experiencing its maximum demand for the relevant regulatory year.

8.4 Input maximum demand information at the network level in MW.
8.5 Powercor must provide inputs for 'Embedded generation' if it has kept and maintained historical data for embedded generation downstream of connection points and if it accounts for such embedded generation in its maximum demand forecast.
(a) Powercor must describe the type of embedded generation data it has provided. For example, Powecor may state that it has included scheduled, semischeduled and non-scheduled embedded generation. In this example, we would be able to calculate native demand by adding these figures to raw maximum demand.
(b) If Powercor has not kept and maintained historical data for embedded generation downstream of connection points, it may estimate the historical embedded generation data or shade the cells black. For the Regulatory Years including and after 2015 Powercor must provide embedded generation data. It must do similarly if it accounts for embedded generation in its system level maximum demand forecast.
8.6 Powercor must provide inputs for the appropriate cells if it has calculated historical and forecast weather corrected maximum demand.
(a) Powercor must describe its weather correction process in the basis of preparation. Powercor must describe whether the weather corrected maximum demand figures provided are based on raw adjusted maximum demand or raw unadjusted maximum demand or another type of maximum demand figure.
(b) Where Powercor does not calculate weather corrected maximum demand it may estimate the historical weather corrected data or shade the cells black. For the Regulatory Years including and after 2015 Powercor must provide weather corrected maximum demand in accordance with best regulatory practice weather correction methodologies.

Please provide a Response in this box:
The information provided in tables 5.3.1 is a summation of the raw unadjusted *maximum demand* measured at the transmission connection point demand measured at the time of peak demand of the whole Powercor network (coincident). The measured *maximum demand* complies with the definition in chapter 10 of the National Electricity Rules, version 60. Powercor does not weather correct the maximum demand at a Network level as this serves no useful purpose for system augmentation planning and capex forecasting for the business, hence these cells have not been populated and have been shaded black .
Embedded generation data consists of a mixture of gas, wind, solar, bio-mass and hydro generation and is all non-scheduled generation except for one wind farm which is semi-scheduled.
Information provided is consistent with the requirements of the Category Analysis RIN Notice

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:
Data originates from the wholesale metering database utilising system SAP BW on HANA – Production. All terminal station supply point data is summated to provide the Powercor network Maximum Demand.

Embedded generation data consists of a mixture of gas, wind, solar, bio-mass and hydro generation and is all non-scheduled generation except for one wind farm which is semi-scheduled.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	A template in SAP BW on HANA – Production summates all the terminal station connection point data by summating the data for all metering NMI's exit all terminal stations. From this a monthly summary spreadsheet is created which obtains the Network Coincident MD and the date and time this MD occurred. The date & time with the highest MD for the year (with measured exported embedded generation added on) is used to choose the 'Raw Network Coincident MD', 'Date MD occurred', 'Half Hour Time period MD Occurred' and 'Summer/Winter Peaking'. Another template captures all the exported 'Embedded Generation' into the network at that date & time. Powercor does not weather correct the maximum demand at a Network level as this serves no useful purpose for system augmentation planning and capex forecasting for the business, hence these cells have been shaded black
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The raw data provided is all actual data
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	As per 2009

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Not Applicable
2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Not Applicable

2010	Not Applicable
2011	Not Applicable
2012	Not Applicable
2013	Not Applicable
2014	Not Applicable
2015	Not Applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Weather corrected loads not provided as Powercor does not weather correct loads at a network level.

5.4 Maximum Demand & Utilisation - Spatial

Tab name: 5.4 Maximum demand and utilisation - spatial	
Table name: 5.4.1 Non-Coincident & Coincident Maximum Demand	
Network Level	**Forecasting Elements**
Zone Substation	(ALL)
BOP ID	PALCA5.4BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

Copy and paste the Requirements of the Notice in this box:

Definitions

Coincident maximum demand - The load on the specified network segment at the time during which the network was experiencing its maximum demand for the relevant regulatory year.

Non-coincident maximum demand - The load on the specified network segment, at the time during which the relevant network segment was experiencing its maximum demand for the relevant regulatory year. This is irrespective of whether the network was also experiencing maximum demand.

Requirements

8.1 Powercor must enter figures in yellow-shaded cells.
(a) Powercor must enter figures in orange-shaded cells where it collects such information. Further instructions are provided for specific items below.
8.2 For the 'Winter/Summer peaking' line item, the Powercor is to indicate the season in which the raw maximum demand occurred by entering 'Winter' or 'Summer' as appropriate.
8.3 Where the seasonality of Powercor's maximum demand (MD) does not correspond with the form of its regulatory years, Powercor must explain its basis of reporting MD in the basis of preparation. For example, if Powercor forecasts expenditure on a financial year basis but forecasts MD on a calendar year basis because of winter MD, Powercor would state that it reports MD on a calendar year basis and describe, for example, the months that it includes for any given regulatory year.
8.7 In table 5.4.1 (on regulatory template 5.4), Powercor must input maximum demand information for the indicated network segments.
(a) Powercor must insert rows into the tables for each component of its network belonging to that segment. Powercor must note instances where it decommissions components of its network belonging to that segment in the basis of preparation.
8.8 Where maximum demand in MVA occurred at a different time to maximum demand in MW, Powercor must enter maximum demand figures for both measures at the time maximum demand in MW occurred. In such instances, Powercor must enter the maximum demand in MVA in the basis of preparation, noting the regulatory year in which it occurred.
8.9 If either the MW or MVA measure is unavailable, calculate the power factor conversion as an approximation based on best engineering estimates.
8.10 If Powercor cannot use raw unadjusted maximum demand as the basis for the information it provides in table 5.4.1 (on regulatory template 5.4), it must describe the methods it employs to populate those tables. See clause 3.4(d) for further guidance.
8.11 Powercor must input the rating for each element in each network segment. For tables 5.4.1 and 5.4.2, rating refers to normal cyclic rating.
(a) Powercor must provide the seasonal rating that corresponds to the time of the raw adjusted maximum demand. For example, Powercor must provide the summer normal cyclic rating of the network segment if the raw adjusted maximum demand occurred in summer.
(b) Where Powercor does not keep and maintain rating information (for example, where the TNSP owns the assets to which such ratings apply), it may estimate this information or shade the cells black.
8.12 Powercor must provide inputs for 'Embedded generation' if it has kept and maintained historical data for embedded generation downstream of the specified network segment and/or if it accounts for such embedded generation in its maximum demand forecast.

(a) Powercor must allocate embedded generation figures to the appropriate element of the network segment under system normal conditions (consistent with the definition of raw adjusted maximum demand).
(b) Powercor must describe the type of embedded generation data it has provided. For example, Powercor may state that it has included scheduled, semi scheduled and non-scheduled embedded generation in the tables for connection points. In this example, we would be able to calculate native demand by adding these figures to the raw adjusted maximum demand figures.
(c) If Powercor has not kept and maintained historical data for embedded generation downstream of the specified network segment, it may estimate the historical embedded generation data or shade the cells black. For the Regulatory Years including and after 2015 Powercor must provide embedded generation data. It must do similarly if it accounts for embedded generation in its system level maximum demand forecast.
8.13 Powercor must provide inputs for the appropriate cells if it has calculated historical weather corrected maximum demand.
(a) Powercor must describe its weather correction process in the basis of preparation. Powercor must describe whether the weather corrected maximum demand figures provided are based on raw adjusted maximum demand or raw unadjusted maximum demand or another type of maximum demand figure.
(b) Where Powercor does not calculate weather corrected maximum demand it may estimate the historical weather corrected data or shade the cells black. For the Regulatory Years including and after 2015 Powercor must provide weather corrected maximum demand in accordance with best regulatory practice weather correction methodologies.
8.14 Tables requesting system coincident data are referring to the demand at that particular point on the network (e.g. zone substations) at the time of system (or network) peak.
(a) For example, table 5.4.1 (on regulatory template 5.4) requests information about the maximum demand on zone substations at the time of system or network peak.
(b) Conversely, non coincident data is the maximum demand at a particular point on the network (which may not necessarily coincide with the time of system peak). For example, table 5.4.1 (on regulatory template 5.4) requests information about non-coincident raw maximum demand at zone substations. In table 5.4.1 (on regulatory template 5.4), Powercor must provide information about the maximum demand at each zone substation in each year, which may not correspond to demand at the time of system peak.
(c) If Powercor does not record and/or maintain spatial maximum demand coincident to the system maximum demand, Powercor must provide spatial maximum demand coincident to a higher network segment. Powercor must specify the higher network segment to which the lower network segment is coincident to in the basis of preparation. For example, if Powercor does not maintain maximum demand data for zone substations coincident to the system maximum demand, Powercor may provide maximum demand data coincident to the connection point. In this example, Powercor would specify the relevant connection point in the basis of preparation.

Please provide a Response in this box:
The information provided in table 5.4.1 is consistent with the requirements of the CA RIN notice.

The non coincident maximum demand are the measured seasonal maximum demand per zone substation (summer or winter) and the coincident demand are the measured demand per zone substation at the time of the whole Powercor Network maximum demand.

In accordance with the RIN notice, the seasonality of the MD and POE calculation does not align with regulatory year as there is data included in the maximum demand calculation from November 2014 through December 2014 for the summer season. All other data used in the calculation has been taken from the 2015 calendar year.

The measured *maximum demand* complies with the definition in chapter 10 of the National Electricity Rules, version 60. Information provided is consistent with the requirements of the Category Analysis RIN Notice

B. Actual vs. Estimated Data colour coding
For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))
Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

FORECASTING ELEMENTS	UNIT	MAX DEMAND	Source
SUBSTATION RATING	MVA	NON-COINCIDENT	The substation rating is the system normal nameplate rating of the transformers installed at the zone substation. The zone substation ratings are reported in the annually in the 2015 Distribution Annual Planning Report (DAPR), Appendix C.
		COINCIDENT	
RAW ADJUSTED MD	MW	NON-COINCIDENT	All zone substation raw maximum demand data is sourced from the power quality Ion meters located at each zone substation. If Ion meter data is unavailable, then TrendScada data is used. For customer own zone substations, IEE metering data is used. Historically, Powercor does not report the coincident peak demand at the zone substation level. Therefore the coincident peak demand MW and MVA had to be sourced from historical Ion meter data, TrendScada and IEE metering records.
		COINCIDENT	
RAW ADJUSTED MD	MVA	NON-COINCIDENT	
		COINCIDENT	
DATE MD OCCURRED HALF HOUR TIME PERIOD MD OCCURRED		NON-COINCIDENT	Based on the date and time each zone substation maximum demand occurs.
		COINCIDENT	Based on the date and time of the Powercor Network maximum demand occurred.
WINTER/SUMMER PEAKING		NON-COINCIDENT	Determined by the maximum demand date of the zone substation.
		COINCIDENT	Determined by the Powercor Network maximum demand date.
ADJUSTMENTS - EMBEDDED GENERATION	MW	NON-COINCIDENT	The metered non coincident and coincident embedded generation demand data is sourced from our IEE metering database.
		COINCIDENT	
WEATHER CORRECTED MD 10% POE	MW	NON-COINCIDENT	The raw zone substation maximum demand figures are weather corrected using Powercor's POE calculator, to provide an estimated POE demand value.
		COINCIDENT	The estimated weather corrected coincident MD load is not provided as Powercor does not weather correct zone substation coincident MD's, as it is not required for best practice spatial augmentation planning.
WEATHER CORRECTED MD 10% POE	MVA	NON-COINCIDENT	Same as non-coincident 10% POE MW.
		COINCIDENT	The estimated weather corrected coincident MD load is not provided as Powercor does not weather correct zone substation coincident MD's.
WEATHER CORRECTED MD 50% POE	MW	NON-COINCIDENT	Same as non-coincident 10% POE MW.
		COINCIDENT	Same as coincident 10% POE MW.
WEATHER CORRECTED MD 50% POE	MVA	NON-COINCIDENT	Same as non-coincident 10% POE MW.
		COINCIDENT	Same as coincident 10% POE MVA.

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	The non-coincident zone substation maximum demand is the MW and corresponding MVA at the time when maximum demand in MW occurred. The coincident zone substation demand is the MW and corresponding MVA at the time when the Powercor Network maximum demand has occurred. When collecting the coincident demand data, an allowance for Eastern Standard Time (EST) is made as TrendScada and Ion Meter data is recorded in Eastern Standard Daylight Time (ESDT). The Category Analysis RIN, requested a half hour time period for when the maximum demand occurred, however all Powercor zone substation annual regulatory reporting is based on a non-coincident maximum demand at a 15 minute time interval. For the purpose of this report, all non-coincident maximum demand

	time data was rounded to the nearest half hour period. The non-coincident summer or winter peaking is determined by the date of when the maximum demand has occurred at the zone substation. The embedded generation data is the MW of generation, at the time of the non-coincident maximum demand and coincident demand of the zone substation. All embedded generation connected as a segment of the Powercor zone substation network, is non-scheduled and consists of a mixture of solar, hydro, wind, bio-gas and gas generation. The non-coincident weather corrected demand data is an estimate calculated using the Powercor Probability of Exceedance (POE) calculator. Based on the date the non-coincident maximum demand occurred; the corresponding temperature data taken from a Bureau of Meteorology (BOM) weather station closest to the zone substation is used to estimate a 10% and 50% POE weather corrected demand value. Along with the raw actuals, the weather corrected values are stored in the zone substation load forecasts. The Powercor POE calculator is in accordance with best practice methodologies for regulatory weather correction. As coincident zone substation demand is not required for best practice spatial augmentation planning, the weather corrected values are not calculated. Note: Powercor did not develop their zone substation POE calculator until 2010.
2010	As per 2009
2011	As per 2009
2012	As per 2009 Note: For 2012, the Powercor Network coincident peak demand occurred in November 2012, however majority of Powercor's zone substation non coincident maximum demands occurred during the summer of 2011/12 and winter 2012.
2013	As per 2009
2014	The non-coincident zone substation maximum demand is the MW and corresponding MVA at the time when maximum demand in MW occurred. The coincident zone substation demand is the MW and corresponding MVA at the time when the Powercor Network maximum demand has occurred. When collecting the coincident demand data, an allowance for Eastern Standard Time (EST) is made as TrendScada and Ion Meter data is recorded in Eastern Standard Daylight Time (ESDT). The Category Analysis RIN, requested a half hour time period for when the maximum demand occurred, however all Powercor zone substation annual regulatory reporting is based on a non-coincident maximum demand at a 15 minute time interval. For the purpose of this report, all non-coincident maximum demand time data was rounded to the nearest half hour period. The non-coincident summer or winter peaking is determined by the date of when the maximum demand has occurred at the zone substation. The embedded generation data is the MW of generation, at the time of the non-coincident maximum demand and coincident demand of the zone substation. All embedded generation connected as a segment of the Powercor zone substation network, is non-scheduled and consists of a mixture of solar, hydro, wind, bio-gas and gas generation. **From 2014 onwards:** An improved Probability of Exceedance (POE) calculator for both CitiPower / Powercor was implemented and used in 2014; The non-coincident weather corrected demand data is calculated using the PitiPower Probability of Exceedance (POE) calculator. Based on the date the non-coincident maximum demand occurred; the corresponding temperature data taken from a Bureau of Meteorology (BOM) weather station closest to the zone substation is used to calculate a 10% and 50% POE weather corrected demand value. Along with the raw actuals, the weather corrected values are stored in the zone substation load forecasts. The new CitiPower/Powercor POE calculator is in accordance with best practice methodologies for regulatory weather correction. As coincident zone substation demand is not required for best practice spatial augmentation planning, the weather corrected values are not calculated.

2015	As per 2014

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	Powercor did not develop their zone substation POE calculator until 2010, therefore in 2009 no weather corrected data is available.
2010	The weather corrected loads are an estimate using a Probability of Exceedance (POE) calculator. They have been labelled as estimates as they are calculated and not metered values. The raw zone substation maximum demands are temperature corrected to a 10% and 50% POE value using the average temperature that occurred on the day of the maximum demand.
2011	As per 2010
2012	As per 2010
2013	As per 2010
2014	The weather corrected loads are an estimate using a Probability of Exceedance (POE) calculator. They have been labelled as estimates as they are calculated and not metered values. The raw zone substation maximum demands are temperature corrected to a 10% and 50% POE value using the average temperature that occurred on the day of the non-coincident maximum demand.
2015	Not Applicable

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	Powercor did not develop their zone substation POE calculator until 2010, therefore in 2009 no weather corrected data is available.
2010	In 2010, Powercor developed a POE calculator used to estimate the 10% and 50% POE values for the non-coincident maximum demand per zone substation. Customer zone substations demands are not weather corrected as their individual load determines their demand requirement.
2011	As per 2010
2012	As per 2010
2013	As per 2010
2014	The Powercor POE calculator is used to estimate the 10% and 50% POE values for the non-coincident maximum demand per zone substation. As coincident zone substation demand is not required for best practice spatial augmentation planning, the weather corrected values are not calculated. Customer zone substations demands are not weather corrected as their individual load determines their demand requirement. Their raw non coincident and coincident demand value is substituted for the weather corrected POE values.
2015	Not applicable

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	Powercor did not develop their zone substation POE calculator until 2010, therefore in 2009 no weather corrected data is available
2010	This is the best approach as it utilises actual weather data corresponding to the surrounding area the zone substation supplies, allowing for a more accurate estimate of weather corrected demand at the zone substation level.
2011	As per 2010
2012	As per 2010
2013	As per 2010
2014	This is the best approach as it utilises actual weather data corresponding to the surrounding area the zone substation supplies, allowing for a more accurate estimate of weather corrected demand at the zone

	substation level.
2015	Not applicable

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response: Customer owned zone substation rating is not provided as the assets are not owned or operated by Powercor. They are connected to the network beyond the contracted point of supply.

6.3 Sustained Interruptions

Tab name: 6.3 Sustained Interruptions	
Table name: 6.3.1 - Sustained interruptions to supply	
Reason for interruption	**Detailed reason for interruption**
(All Categories)	(All Categories)
BOP ID	CAPAL6.3BOP1

A. Demonstrate how the information provided is consistent with the requirements of the Category Analysis RIN Notice (CA RIN) (refer AER Category Analysis RIN Schedule 2 Section 1.2(a))

Please note that you will need to copy and paste the requirements from the CA RIN itself. The requirements can be found in "Appendix E: Principles and Requirements", and "Appendix F: Definitions". **Only copy the requirements specific to the variables covered by this Basis of Preparation document**. The AER CA RIN Explanatory Statement can also provide additional detail as to why the AER requires this information.

The intent of this section is for you to demonstrate and confirm, that the data provided complies with the instructions and definitions specified in the CA RIN.

18. SUSTAINED INTERRUPTIONS TO SUPPLY

18.1 Regulatory Template 6.3 requires the input of both planned and unplanned interruptions to supply.

18.2 A sustained interruption is any loss of electricity supply to a customer associated with an outage of any part of the electricity supply network, including generation facilities and transmission networks, of more than 0.5 seconds, including outages affecting a single premises. The customer interruption starts when recorded by equipment such as SCADA or, where such equipment does not exist, at the time of the first customer call relating to the network outage. An interruption may be planned or unplanned, momentary or sustained. Does not include subsequent interruptions caused by network switching during fault finding. An interruption ends when supply is again generally available to the customer.

18.3 An unplanned event is an event that causes an interruption where the customer has not been given the required notice of the interruption or where the customer has not requested the outage.

18.4 An unplanned interruption is an interruption due to an unplanned event.

(a) The following events may be excluded when calculating the revenue increment or decrement under the service target performance incentive scheme (STPIS) when an interruption on the DNSP's distribution network has not already occurred or is concurrently occurring at the same time:

(1) load shedding due to a generation shortfall
(2) automatic load shedding due to the operation of under frequency relays following the occurrence of a power system under-frequency condition
(3) load shedding at the direction of the Australian Energy Market Operator (AEMO) or a system operator
(4) load interruptions caused by a failure of the shared transmission network
(5) load interruptions caused by a failure of transmission connection assets except where the interruptions were due to inadequate planning of transmission connections and the DNSP is responsible for transmission connection planning
(6) load interruptions caused by the exercise of any obligation, right or discretion imposed upon or provided for under jurisdictional electricity legislation or national electricity legislation applying to a DNSP.

(b) An event may also be excluded where daily unplanned SAIDI for the DNSP's distribution network exceeds the major event day boundary, as set out in appendix D of the STPIS, when the event has not been excluded under clause 3.3(a).

18.5 In completing table 6.3.1, Powercor must select a reason from the list provided for in column G. For Initial Regulatory Years, and the 2014 Regulatory Year, Powercor may, but is not required to, select a detailed reason from the list provided for in column G (marked with orange cells). For the 2015 Regulatory Year and thereafter, Powercor must select a detailed reason for each interruption.

Please provide a Response in this box:

The data provided is consistent with the source data used for reliability performance reporting over the past five years in the ESC/AER Annual RIN Reports.

As per the AER's issue register issued 7 March 2014, the reference to 0.5 seconds applies to interruptions not sustained interruptions. As a result, DNSPs should refer to references in template 6.3 which correctly refer to sustained interruptions being greater than 1 minute.

This methodology meets the requirements of this Information Notice to the best of our abilities.

B. Actual vs. Estimated Data colour coding

For each year, please shade ACTUAL data green; and ESTIMATED/derived data red

2009	2010	2011	2012	2013	2014	2015

C. Source (refer AER Category Analysis RIN Schedule 2 Section 1.2(b))

Please explain the source from where the data has been obtained for each year (i.e. GIS, SAP, OAS, Audited financial statements etc.). If the data has not been obtained from the *originating source* (e.g. it was sourced from a report such as the Annual Regulatory Performance Report etc.), the originating source for data in the performance report/RIN will need to be provided as well.

Response:

For Powercor (PAL), the originating data sources are:

- Powercor OMS (Outage Management System) 2009-2015
- ESC/AER Annual Reports 2009-2015
- AER STPIS Exclusion Determinations 2009-2015

D. Methodology & Assumptions (refer AER Category Analysis RIN Schedule 2 Section 1.2(c))

Please explain for each year, the methodology applied including any assumptions made to determine the final value populated in the RIN. Where applicable please reference the relevant processes and procedures used. If the same explanation applies over other years, just refer to the applicable year.

Year	Methodology & Assumptions
2009	Outage data was obtained directly from OMS for all Unplanned and Planned Sustained Interruptions. • This information provided the following data per outage - Date, Start Time, Feeder, Feeder Classification, Cause, Sub-Cause, Number of Customers Affected, Ave Cust Int Duration and Customer Minutes off Supply. Total Customer numbers were obtained from OMS. • These were used to calculate SAIDI and SAIFI at Category Level. The current STPIS scheme exclusions and MED Threshold determination criteria was applied to the 2009-2014 data to identify applicable outages. The AER 'Reason for Interruption' and 'Detailed Reason for Interruption' were matched to the applicable Powercor OMS Cause and Sub-cause Codes. • Where corresponding data was not available to match the AER 'Reason for Interruption' and 'Detailed Reason for Interruption', the field was left blank.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	Outage data was obtained directly from OMS for all Unplanned and Planned Sustained Interruptions. • This information provided the following data per outage - Date, Start Time, Feeder, Feeder Classification, Cause, Sub-Cause, Number of Customers Affected, Ave Cust Int Duration and Customer Minutes off Supply.

Year	Methodology & Assumptions
	Total Customer numbers were obtained from OMS. • These were used to calculate SAIDI and SAIFI at Category Level. The current STPIS scheme exclusions and MED Threshold determination criteria was applied to the 2015 data to identify applicable outages. The data from OMS is made available through a new Business Intelligence (BI) report called the "OM0060 – Sustained Outages" provides the data for this table. The data contained within this "OM0060 – Sustained Outages" report is calculated consistent with the methodology used for Annual & Category RIN reporting for 2009-2014. The AER 'Reason for Interruption' and 'Detailed Reason for Interruption' were matched to the applicablePowercor OMS Cause and Sub-cause Codes. The Detailed Reason for Interruption for Asset Failure outages has been supplied for 2015 via the new Business Intelligence (BI) report called "OM0060 – Sustained Outages" BI report. Refer "ITCR 31745 Sustained Outages RIN Report V2.0.docx" for detailed explanation relating to the build-up and calculations within this standard Business report.

E. Estimated or Derived Data (refer AER Category Analysis RIN Schedule 2 Section 1.2(d))

For those years where data has been estimated or derived from other data, please explain: (If the same explanation applies over other years, just refer to the applicable year.)

Year	1. why is an estimate was required, including why it is not possible to use actual data;
2009	The outage information contained in the Powercor OMS system as Cause/Sub-Cause does not match the 'Reasons for Interruptions' as requested by this Information Notice, therefore this information was not provided.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	Not Applicable.

Year	2. the basis for the estimate, including the approach used, options considered and assumptions made; and
2009	In the case of 'Reason for Interruption' and 'Detailed Reason for Interruption', the reasons as supplied by the AER were matched to the equivalent Powercor OMS Cause and Sub-Cause combination where possible. • To enable Powercor to populate the fields, OMS Cause/Sub-Cause for each case was matched to the equivalent AER Reason/Detailed Reason for Interruption where possible. • Where matching data was not available in the Powercor OMS system the field was left blank, therefore this information was not provided.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	Not Applicable.

Year	3. the reason(s) for the selected approach and why it is the best estimate, given the information sought in the Notice.
2009	The approach utilised existing data which is consistent with the source data used for reliability performance reporting over the past five years in the ESC/AER Annual RIN Reports. This Information Notice allows DNSP's to not provide 'Detailed Reason for Interruption' for cases in the

	years 2009-2013, if information is not available, therefore this information was not provided.
2010	As per 2009
2011	As per 2009
2012	As per 2009
2013	As per 2009
2014	As per 2009
2015	Not Applicable.

F. No data provided

For data that is not being provided (actual, estimated, derived) please provide the reason/s as to why it cannot be provided.

Response:
Data has been supplied for all required fields.