Jemena Electricity Networks (Vic) Ltd

2021-26 Electricity Distribution Price Review Regulatory Proposal

RIN attachment

Basis of Preparation

Basis of Preparation
Schedule 1

Jemena
bringing energy to life

Schedule 1 – 5.1(a)(ii)

Base information		Population approach				
Item	**Information**	**Actual historical and/or estimated historical, or forecast**	**Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)**	**Source**	**Methodology**	**Assumptions**
Schedule 1	5.1(a)(ii)(A) Replacement due to aging of existing assets (e.g. condition, obsolesce, etc.) that should be largely captured by this form of replacement modelling (calendar years 2016-2018 only). Note: This category includes assets replaced due to in service failure.	Actual	N/A	The data is sourced from SAP ERP PM Orders & Object Lists. For every replacement that occurs, a related PM Order is raised in SAP ERP. Once the work is complete the asset register is provided to GIS team with the details. The asset details are updated in GIS which is automatically pushed to SAP.	The following BO Report is run to extract the required details where ASM436 – JEN RIN Assets Replaced by Asset Characteristics (REPEX 2.2.2) The logic for determination of replacement volume is to extract PM Orders associated with projects linked to appropriate replacement activities (MAT Codes) and the attached object lists of those orders. The object list of the order provides the linked equipment (associated equipment type) which have been replaced. The characteristics of equipment are extracted from SAP ERP to identify the category required by the template. The orders are filtered by: - “Date Removed” of the asset is in the date range 01.01.2016 to 31.12.2018 [Calendar years 2016, 2017 and 2018] - **MAT Codes relating to condition driven asset replacements.** - PM Order System Status = REL, TECO, CLSD - Equipment Type - Equipment Characteristics - Functional Location Characteristics	None

Base information		Population approach				
Item	Information	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
Schedule 1	5.1(a)(ii)(B) Replacements due to other factors (calendar years 2016-2018 only). This category covers replacements driven by capital recoverable works such as elective undergrounding and asset relocation.	Actual	N/A	The data is sourced from SAP ERP PM Orders & Object Lists. For every replacement that occurs, a related PM Order is raised in SAP ERP. Once the work is complete the asset register is provided to GIS team with the details. The asset details are updated in GIS which is automatically pushed to SAP.	The following BO Report is run to extract the required details where ASM436 - JEN RIN Assets Replaced by Asset Characteristics (REPEX 2.2.2) The logic for determination of replacement volume is to extract PM Orders associated with projects linked to appropriate replacement activities (MAT Codes) and the attached object lists of those orders. The object list of the order provides the linked equipment (associated equipment type) which have been replaced. The characteristics of equipment are extracted from SAP ERP to identify the category required by the template. The orders are filtered by: - “Date Removed” of the asset is in the date range 01.01.2016 to 31.12.2018 [Calendar years 2016, 2017 and 2018] - **MAT Codes relating to Capital Recoverable Works** - PM Order System Status = REL, TECO, CLSD - Equipment Type - Equipment Characteristics - Functional Location Characteristics	None
Schedule 1	5.1(a)(ii)(C) Additional assets replaced due to the augmentation, extension, development of the network and new	Actual	N/A	The data is sourced from SAP ERP PM Orders & Object Lists. For every replacement that occurs, a related PM Order is raised	The following BO Report is run to extract the required details where ASM436 - JEN RIN Assets Replaced by Asset Characteristics (REPEX 2.2.2) The logic for determination of replacement volume is to extract PM Orders associated with projects linked to	None

Base information		Population approach				
Item	Information	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
	customer connections (calendar years 2016-2018 only).			in SAP ERP. Once the work is complete the asset register is provided to GIS team with the details. The asset details are updated in GIS which is automatically pushed to SAP.	appropriate replacement activities (MAT Codes) and the attached object lists of those orders. The object list of the order provides the linked equipment (associated equipment type) which have been replaced. The characteristics of equipment are extracted from SAP ERP to identify the category required by the template. The orders are filtered by: - "Date Removed" of the asset is in the date range 01.01.2016 to 31.12.2018 [Calendar years 2016, 2017 and 2018] - **MAT Codes relating to network augmentation and new customer connection activities.** - PM Order System Status = REL, TECO, CLSD - Equipment Type - Equipment Characteristics - Functional Location Characteristics	
Schedule 1	5.1(a)(ii)(D) Additional assets due to other factors (and a description of those factors)	N/A	N/A	There are no additional factors that contribute to asset replacements.		

Schedule 1 – 5.1(b)

Base information		Population approach				
Item	Information	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
Schedule 1	5.1(b)	JEN has not prepared information in response to this paragraph in respect of the previous or current regulatory periods for which it can provide a basis of preparation.				

7.5(b)(iii) Non-Network Alternatives

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
Schedule 1. 7.5(b)(iii)	Non-Network Alternatives	Actual (CY16-CY18)	N/A	Invoices sourced from JEN's billing system	Payments to two generators were made in the current period. The value of these payments has been captured via the actual invoices.	N/A

12. Alternative control services

Base information		Population approach				
Paragraph	Information / Section	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
12.4	Charges for each alternative control service listed in response to paragraphs 13, 14 and 15 in the current regulatory period.	Actual	n/a	JEN annual pricing proposals for the period 2016-2020.	The charges were prepared in accordance with the rule requirements and the distribution determination for the current regulatory period. Refer to the relevant models for fee-based and quoted services, metering services and public lighting services that form JEN's annual pricing proposals that were submitted to and approved by the AER.	n/a
12.5	The total revenue earned for alternative control services in response to paragraphs 13, 14 and 15 in the current regulatory period.	Actual	n/a	JEN Basis of Preparation of the (BoP) Economic Benchmarking RINs for the period 2016-2018.	The total revenue earned each year for fee-based and quoted services (paragraphs 13), metering services (paragraphs 14) and public lighting services (paragraphs 15) in the current regulatory period was reported in template 3.1 of the Economic Benchmarking RINs for CY2016-18. The revenue was obtained from JEN's billing systems where a monthly report is produced from each billing system to record quantities and revenue billed. The monthly data was then summated for RIN reporting. For further details, refer to the related BoPs we submitted for the 2016-2018 Economic Benchmarking RINs.	n/a

Base information		Population approach				
Paragraph	Information / Section	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
12.6	The labour rate(s) used to calculate the charges for the current regulatory period for each alternative control service listed in response to paragraphs 13, 14 and 15.	n/a	n/a	JEN regulatory proposal for 2016-2020 regulatory period; and JEN annual pricing proposals for the period 2016-2020.	The details of labour rates used to calculate the charges in the current regulatory period were submitted to the AER in our regulatory proposal for 2016-2020. The labour rates are adjusted annually through the pricing proposals.	n/a
12.7	The cost of materials required to provide alternative control service listed in response to paragraphs 13, 14 and 15 for the current regulatory period.	n/a	n/a	JEN regulatory proposals for 2016-2020.	The cost of materials required to provide alternative control service in the current regulatory period were submitted to the AER in our regulatory proposal for 2016-2020. The labour rates are adjusted annually through the pricing proposals.	n/a

13. Fee based and quoted alternative control services

Base information		Population approach				
Paragraph	Information / Section	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
13.2	Charges for each fee based and quoted alternative control services in the current regulatory control period.	Actual	n/a	2015-19 JEN annual pricing proposals	The charges were prepared in accordance with the rule requirements and the distribution determination for the current regulatory period. Refer to the relevant models for fee-based and quoted services that form JEN's annual pricing proposals that were submitted to the AER.	n/a

14. Metering alternative control services

Base information		Population approach				
Paragraph	Information / Section	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
14.1	Provide information on costs, volumes of meters and work, total opex and the revenue earned relating to metering alternative control services for the current regulatory period.	Actual	n/a	JEN Basis of Preparation (BoP) of the Category Analysis RINs for the period 2016-2018; JEN's billing system; and JEN Basis of Preparation (BoP) of the Economic Benchmarking RINs for the period 2016-2018	Refer to the relevant sections in each of the BoPs for Category Analysis RINs for the 2016-2018 period in relation to costs including total opex. For the revenue earned, refer to the relevant BoP for the 2016-2018 Economic Benchmarking RINs. Briefly, the reported revenue was obtained from JEN's billing systems where a monthly report was produced from the relevant billing system.	n/a
14.2	Provide descriptions of various matters related to metering services.	n/a	n/a		A basis of preparation is not applicable relevant for this paragraph.	n/a
14.3	Provide the number of customers receiving metering services for the forthcoming regulatory control period.	Actual	n/a	JEN annual pricing proposals for the period 2016-2020.	Refer to the relevant *Jemena – Tariff Approval* models for metering charges that form JEN's annual pricing proposals submitted to the AER.	n/a

15. Public lighting alternative control services

Base information		Population approach				
Paragraph	Information / Section	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
15.1	Specify which items are capex and opex for each year of the current regulatory period.	n/a	n/a	JEN Basis of Preparation (BoP) for Category Analysis RIN for CY2016-18.	Refer to section 4.1 in each of the BoPs we provided in relation Category Analysis RIN for CY2016-18. The sections describes how the capex and opex amounts reported in template 4.1 were collected and prepared. It specifies which items are capex and opex.	n/a
15.2	Unit costs of materials used for the provision of public lighting services in the current regulatory period.	Actual	n/a	JEN Basis of Preparation (BoP) for Category Analysis RIN for CY2016-18.	For details on how the data was prepared, refer to relevant sections in BoPs for each of the Category Analysis RIN for CY2016-18. The unit cost for a light replacement (inclusive all material costs, except for the dedicated poles) by light type are reported in template 4.1. The total cost of pole replacements and volumes of poles replaced each year are reported in template 2.2.	n/a
15.3	Provide the depreciation period in years for each type of luminaire.	n/a	n/a	n/a	Not applicable. The depreciation periods are set in the 2016-20 Price Determination.	n/a
15.4	Provide the bulk change cycle in years for lamps and photoelectric cells.	n/a	n/a	n/a	Not applicable. They are defined in the Public Lighting Code issued by the Essential Services Commission.. The depreciation periods are set in the 2016-20 Price Determination.	n/a

Base information		Population approach				
Paragraph	Information / Section	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
15.5	Provide details of the average replacement age of each type of luminaire.	Actual	n/a	JEN Basis of Preparation (BoP) for Category Analysis RIN for CY2016-18.	Refer to section 2.8.1 in each of the BoPs for CY 2016-18. It describes the source of the data and how the data is used to calculate the average age of the asset.	n/a
15.6	Provide the number of luminaires, by type, for the current and forthcoming regulatory control periods.	Actual	n/a	JEN Basis of Preparation (BoP) for Category Analysis RIN for CY2016-18.	Refer to section 4.1 in each of the BoPs for CY 2016-18. It describes the relevant reports run to determine the number of lights by light type.	n/a
15.7	Provide the number of luminaires, poles and brackets replaced per year, for the current and forthcoming regulatory control periods.	Actual	n/a	JEN Basis of Preparation (BoP) for 2016-2018 Category Analysis RINs.	Refer to section 2.2.1 in each of the BoPs for CY 2016-18. It describes the Business Objects (BO) reports and how the data extracted from JEN SAP ERP system; and the method used to determine the volumes of replaced assets.	n/a
15.8	Provide details, including assumptions used, for any other costs that are incurred for the provision of public lighting services.	n/a	n/a	JEN regulatory proposal for 2016-2020.	Refer to the our regulatory proposal for 2016-20.	n/a
15.9	Models that underpins proposed charges for the forthcoming regulatory control period.	n/a	n/a	n/a	Paragraph 1.6 does not seek a basis of preparation for forecast information and therefore a BoP is not required.	n/a

Base information		Population approach				
Paragraph	Information / Section	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
15.10	Number of public lighting customers in each year of the current regulatory period.	Actual	n/a	JEN's billing systems	The number of public lighting customers is extracted from our billing system.	n/a

24. Regulatory Asset Base

Base information		Population approach				
Paragraph	Information / Section	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
24.1	Regulatory Asset Base	Actual and forecast	n/a	JEN - Att 07-04 Regulatory asset base - 20200131 – Public JEN – Att 07-21 SCS RFM CY16-CY20 – 20200131 – Public	The RAB has been rolled forward over the current regulatory period in accordance with clauses 6.5.1(e) and S6.2 of the NER, using the AER's Roll Forward Model (RFM). Relevantly, the calculation of the RAB roll forward includes adjustments for: • where applicable, the difference between actual and forecast net Capex in CY2015 • new Capex, net of capital contributions and asset disposals • straight-line depreciation and indexation.	n/a
24.2	Regulatory Asset Base	n/a	n/a	n/a	JEN has adopted AER's roll forward model and there were no departure from the underlying methods in the RFM.	n/a
24.4	Regulatory Asset Base	n/a	n/a	n/a	Allocation of actual capex, asset disposal and customer contribution across asset classes in the RFM are consistent with those reported in the Annual Reporting RIN.	n/a

25. Depreciation

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
25.1 (a)	Depreciation Schedule	Actual and forecast	n/a	JEN – Att 07-18 SCS Depreciation model CY16-HY21 – 20200131 – Public	We are proposing to continue the year-on-year tracking approach to calculating regulatory depreciation for new assets consistent with the approach adopted by the AER in JEN's 2016-20 EDPR final determination. The year-by-year tracking method is a well-accepted methodology which incorporates the timing of new additions for each asset class in the relevant regulatory year, providing more granular and accurate information on the remaining economic asset lives. To continue applying the year-on-year tracking approach, we have used the depreciation models provided by the AER in September and October 2019 which account for the intervening period.	n/a
25.2	Depreciation Schedule	n/a	n/a	n/a	JEN has adopted AER's roll forward model and PTRM and there were no departure from the underlying methods in the RFM & PTRM.	n/a

26. Corporate Tax Allowance

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
26.5	Corporate Tax Allowance	Actual and forecast	n/a	JEN – Att 07-17 SCS RFM CY16-HY21 – 20200131 – Public JEN – Att 07-21 SCS RFM CY16-CY20 – 20200131 – Public	We have estimated the roll forward of the TAB consistent with the AER's 2016-20 Final Decision and approved RFM. (AER, Jemena Electricity Networks 2016-21 Final Decision, Attachment 8 Corporate income tax, May 2016.)	n/a
26.6	Corporate Tax Allowance	n/a	n/a	n/a	JEN has not proposed any departure from the AER's tax allowance guidelines.	n/a
26.8	Corporate Tax Allowance	n/a	n/a	n/a	JEN has proposed zero for the forecast of immediate expensing of capital expenditure in line with current practices.	n/a

Basis of Preparation
Workbook 1

Jemena
bringing energy to life

2.16 SCS – Opex by driver

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
2.16.1	Standard Control Services – Opex By Driver	Actual Historical (2018 only)	N/A	JEN's 2018 response to the Annual Reporting RIN.	'Base year total opex, excluding category specific' is calculated as total opex less GSL and DMIA payments as reported in JEN's annual RIN response. 'Category specific' is calculated by adding the GSL and DMIA payments as reported in JEN's annual RIN response. All figures shown have been converted to the June 2021 dollar basis required by the template using annual CPI (ABS, all groups CPI inflation series A2325846C, weighted average for the eight capital cities).	N/A

6.1 Telephone answering

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
6.1.1	Telephone Answering Data	Actual Historical	N/A	The Interactive Voice Response (**IVR**) system operated by the Aegis Call Centre is the source of information. The statistics are reported to JEN on a monthly basis.	The historical data provided for 2015 to 2018 in Table 6.1.1 matches what has previously been submitted as part of the Annual RIN template STPIS Daily Performance i.e. template 1c in 2015 and template 6.7 between 2016 and 2018 with the additional exclusion of STPIS Clause 3.3 (b). There were no STPIS 3.3 (a) event between 2015 and 2018. JEN had one MED during this period, which is listed below: 9/10/2016 Number of calls received and Number of calls answered in 30 seconds are extracted from the JEN Daily worksheet of the Aegis report. Number of calls answered in 30 seconds is under the heading 'ANS < Thres'. This column of data is copied directly into the relevant column in Table 6.7.1 including the performance on MED. Number of calls received is calculated based on the AER definition in the STPIS that is excluding:	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					• calls to payment lines and automated interactive services • calls abandoned by the customer within 30 seconds of the call being queued for response by a human operator i.e. Calls to a fault line forwarded to an operator (ACC) excluding Calls abandoned within 30 seconds (Abd < Threshold) =ACC - Abd < Threshold For the new exclusion in the new STPIS scheme (3.3a, para.8 extracted below), the respective data has not been captured and thus not excluded from the historical data provided in Table 6.1.1 of the RIN for the EDPR. (8) Load interruptions caused or extended by a direction from state or federal emergency services, provided that a fault in, or the operation of, the network did not cause, in whole or part, the event giving rise to the direction.	

7.4 Shared Assets

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
7.4.1	Total unregulated revenue earned with shared assets	FY2012 Estimated	No specific general ledger was set up to capture various types of un-regulated revenue. The billing amounts are considered the best estimate.	Sourced from available billing invoices.	Summation of all available billing amounts for Joint Use of Poles and Dark Fibre Cables.	Billed amounts properly reflect all revenue earned.
		FY2013 – FY2018 Estimated	JEN records invoices in SAP general ledger on a calendar year basis. Due to timing issues in generation of invoices, calendar year data is split 50:50 basis to populate numbers to financial years in this table. The basis adopted and the results are considered the best estimate.	JEN uses SAP General Ledger to capture revenue. The data agrees to underlying calendar year trial balances (**TB**) and supporting documents.	Data is extracted from SAP's general ledger on a calendar year basis and exported into Excel. Calendar year data is split 50:50 basis to populate numbers to respective financial years in this table. The report output provides the data required by the table in this template.	JEN SAP General Ledger revenue data reflects all revenue earned for each calendar year.
		FY2019 Estimated	JEN records invoices in SAP general ledger on a calendar year basis. Due to timing issues in generation of invoices, calendar year data is split 50:50 basis to populate numbers to financial years in this table.	JEN uses SAP General Ledger to capture revenue. The data agrees to underlying	Data is extracted from SAP's general ledger on a calendar year basis and exported into Excel. Calendar year data is split 50:50 basis to populate numbers to financial years in this table.	JEN SAP General Ledger revenue data reflect all revenue earned for each calendar year.

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
			However, data for calendar year CY2019 is only up to 31 Oct 19. Further amounts are expected to be invoiced in the period Nov 19 and Dec 19, but are not considered material. The basis adopted and the results are considered the best estimate.	calendar year TB and supporting documents. However, data for calendar year CY2019 is only up to 31 Oct 19.	The report output provides the data required by the table in this template.	

Basis of Preparation
Workbook 2

Jemena
bringing energy to life

2.2 REPEX

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
2.2 REPEX	Expenditure – Staking Wooden Poles	2018 Actual 2009-2017 total expenditure is actual as reported in previous RINs 2009-2017 expenditure split by voltage category is estimated	Total staking expenditure is actual. The split of expenditure by voltage category is not captured in Jemena systems for the 2009-2017 period and is therefore estimated based on overall population of wood poles for each voltage category. Staking expenditure is actual for 2018 calendar year due to availability of Business Objects reporting capability that Jemena deployed in 2018. Analysis of actual volumes for 2018 (split by voltage category) has shown that the staking of poles for each voltage category is closely proportional to the population of wood poles in each voltage category. Therefore this method was used to estimate expenditure and volumes by voltage category for 2009-2017 period.	The data is sourced from SAP ERP PM Orders, Order Costs & Object Lists. For every replacement that occurs, a related PM Order is raised in SAP ERP. Once the work is complete the asset register is provided to GIS team with the details. The asset details are updated in GIS which is automatically pushed to SAP. The cost incurred for completing the work is	**2018 Expenditure** The following BO Report is run to extract the required details ASM465 - JEN RIN Staked Pole Replacement Cost (REPEX 2.2.1). The logic for determination of expenditure is to extract PM Orders associated with projects linked to appropriate replacement activities (MAT Codes) and the attached object lists of those orders. The cost posted on the orders using the controlling documents are also extracted to be split by equipment type and characteristics. The object list of the order provides the linked equipment (associated equipment type) which have been replaced. The characteristics of equipment are extracted from SAP ERP to identify the category required by the template. The cost documents are filtered by: - “Posting Period” of the controlling document is in the period of 01.2018 to 12.2018 [All Periods of 2018]	None

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
			JEN is not aware of a superior estimation technique.	recorded on the order which eventually settles to WBS of the related project.	- "Date Installed" of the asset is in the date range 01.01.2018 to 31.12.2018 [Calendar year 2018] - MAT Codes - PM Order System Status = REL, TECO, CLSD - Controlling documents business transaction = NOT KOAO (Exclude settlements) - Controlling Area = 3000 - Equipment Type - Equipment Characteristics - Functional Location Characteristics **2009-2017 Expenditure** Total annual expenditure and volumes are actual as submitted in JEN's annual CA RIN responses. The split of volumes and expenditure by voltage category is not captured in Jemena systems for the 2009-2017 period and is therefore estimated based on overall population of wood poles for each voltage category. The methodology used is to apportion the total annual volumes and expenditure in accordance	

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					with wood pole population in each voltage category.	
	Expenditure – Staked Pole Replaced with New Pole	Actual 2012-2018 Estimated 2009-2011	Expenditure is not captured in legacy SAP system for the period 2009-2011. Expenditure was estimated using the actual replacement volumes and average unit rate for the period 2012-2018. This is considered best estimate due to unit rate remaining fairly constant (on average) over the period 2012-2018.	The data is sourced from SAP ERP PM Orders, Order Costs & Object Lists. For every replacement that occurs, a related PM Order is raised in SAP ERP. Once the work is complete the asset register is provided to GIS team with the details. The asset details are updated in GIS which is automatically pushed to SAP. The cost incurred for completing the work is	**2012-2018** The logic for determination of expenditure is to extract PM Orders associated with projects linked to appropriate replacement activities (MAT Codes) and the attached object lists of those orders. The cost posted on the orders using the controlling documents are also extracted to be split by equipment type and characteristics. The object list of the order provides the linked equipment which have been replaced. The characteristics of equipment are extracted from SAP ERP to identify the category required by the template. **2009-2011** Expenditure was estimated using the actual replacement volumes and average unit rate for the period 2012-2018.	None

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
				recorded on the order which eventually settles to WBS of the related project.		
	Asset Replacements – Staking Wooden Poles	**2018** Actual **2009-2017** total volumes are actual as reported in previous RINs **2009-2017** volumes split by voltage category are estimated	Total staking volumes are actual. The split of expenditure by voltage category is not captured in Jemena systems for the 2009-2017 period and is therefore estimated based on overall population of wood poles for each voltage category. Staking volumes are actual for 2018 calendar year due to availability of Business Objects reporting capability that Jemena deployed in 2018. Analysis of actual volumes for 2018 (split by voltage category) has shown that the staking of poles for each voltage category is closely proportional to the population of wood poles in each voltage category. Therefore this method was used to estimate volumes by voltage category for 2009-2017 period.	The data is sourced from SAP ERP PM Orders & Object Lists. For every replacement that occurs, a related PM Order is raised in SAP ERP. Once the work is complete the asset register is provided to GIS team with the details. The asset details are updated in GIS which is automatically pushed to SAP.	**2018 Volumes** The following BO Report is run to extract the required details where ASM436 - JEN RIN Assets Replaced by Asset Characteristics (REPEX 2.2.2) The logic for determination of replacement volume is to extract PM Orders associated with projects linked to appropriate replacement activities (MAT Codes) and the attached object lists of those orders. The object list of the order provides the linked equipment (associated equipment type) which have been replaced. The characteristics of equipment are extracted from SAP ERP to identify the category required by the template. The orders are filtered by: - “Date Removed” of the asset is in the date range 01.01.2018 to 31.12.2018 [Calendar year 2018] - MAT Codes	None

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
			JEN is not aware of a superior estimation technique.		- PM Order System Status = REL, TECO, CLSD - Equipment Type - Equipment Characteristics - Functional Location Characteristics **2009-2017 Volumes** Total annual volumes are actual as submitted in annual RINs. The split of volumes by voltage category is not captured in Jemena systems for the 2009-2017 period and is therefore estimated based on overall population of wood poles for each voltage category. The methodology used is to apportion the total annual volumes and expenditure in accordance with wood pole population in each voltage category.	
	Asset Replacements – Staked Pole Replaced with New Pole	Actual	N/A	The data is sourced from SAP ERP PM Orders & Object Lists. For every replacement that occurs, a related	The logic for determination of replacement volume is to extract PM Orders associated with projects linked to appropriate replacement activities (MAT Codes) and the attached object lists of those orders. The object list of the order provides the linked equipment (associated equipment type) which have been replaced.	None

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
				PM Order is raised in SAP ERP. Once the work is complete the asset register is provided to GIS team with the details. The asset details are updated in GIS which is automatically pushed to SAP.	The characteristics of the equipment are extracted from SAP ERP to identify the category required by the template.	
	Asset Failures – Staking Wooden Poles	Actual	N/A	The data is sourced from SAP ERP Notifications. For every failure that occurs, a related notification is raised in SAP ERP. The notifications for these assets are created against the specific	The following BO Report is run to extract the required details for all the categories ASM462 JEN RIN Asset Failures (REPEX 2.2.1) The notifications are filtered by: - "Notification date" in the date range 01.01.2018 to 31.12.2018 [Calendar year 2018] - Notification type = Z1, Z2 - Notification Priority = 1 - Associated Order Type = ZM10 - Cause Code Group - Object Part Code Group	None

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
				equipment that requires replacement. This allows the attributes of each asset class to be analysed and reported on.	- Equipment Type - Equipment Characteristics - Functional Location Characteristics **2009-2017 Volumes** Total annual failure volumes are actual as submitted in annual RINs.	
	Asset Failures – Staked Pole Replaced with New Pole		N/A	The data is sourced from SAP ERP Notifications. For every failure that occurs, a related notification is raised in SAP ERP. The notifications for these assets are created against the specific equipment that requires replacement. This allows the	The following BO Report is run to extract the required details for all the categories ASM462 JEN RIN Asset Failures (REPEX 2.2.1) The notifications are filtered by: - "Notification date" in the date range 01.01.2018 to 31.12.2018 [Calendar year 2018] - Notification type = Z1, Z2 - Notification Priority = 1 - Associated Order Type = ZM10 - Cause Code Group - Object Part Code Group - Equipment Type - Equipment Characteristics - Functional Location Characteristics	None

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
				attributes of each asset class to be analysed and reported on.	**2009-2017 Volumes** Total annual failure volumes are actual as submitted in annual RINs.	

2.5 Connections

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
2.5	Expenditure – Standard Control Services (**SCS**) Data for 2009-13	Estimated Historical	JEN's Category Analysis (**CA**) RIN responses submitted each year report total connection expenditure—i.e. the sum of SCS and Alternative Control Services (**ACS**) connection gross expenditure. With Workbook 2 requiring SCS connection net expenditure only, further calculations are needed. The SCS connection net expenditure is estimated at a connection classification level as it is calculated using	Annual CA RIN responses and JEN's response to AER's Information Request (IR13) during the 2016-20 EDPR process.	2009-13 • JEN provided the AER in 2015 with JEN's expenditure, including Connection ACS expenditure in response to IR13. The methodologies used for each connection classification are: • Connection gross expenditure (SCS) = Connection gross expenditure (ALL from CA RINs) less Connection gross expenditure (ACS) • Connection net expenditure (SCS) = Connection gross expenditure (SCS) less Capital contributions (SCS)	For 2009-13, it is assumed that the capital contributions for each connection classification are directly proportional to the gross capital expenditure for each connection classification.

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
			capital contributions data which is estimated. The reason and basis for this estimate are set out for Expenditure – Standard Control Services – Capital Contributions below.			
	Expenditure – Standard Control Services (SCS) Data for 2014-17	Estimated Historical	The historical expenditure were classified as estimates in JEN's annual CA RIN responses.	JEN's ERP system (SAP) and annual CA RIN responses submitted	2014-17 • JEN commenced in 2012/13 the use of Maintenance Activity Type (**MAT**) code to better capture expenditure. • With that, SCS and ACS Connection expenditure can be clearly distinguished. • ACS Connection expenditure is relevant to Residential connections only. • Therefore, Residential connection attributable to ACS (distinguished via the use of MAT code) are excluded from Template 2.5 (Workbook 2).	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					• Other categories of Connections expenditure are as per annual CA RIN responses submitted. The methodologies used are: • Connection gross expenditure (SCS) = mapping of relevant MAT codes as described above • Connection net expenditure (SCS) = Connection gross expenditure (SCS) less Capital contributions (SCS)	
	Expenditure – Standard Control Services (SCS) Data for 2018	Actual Historical	N/A	JEN's ERP system (SAP) and annual CA RIN responses submitted	2018 • JEN commenced in 2012/13 the use of Maintenance Activity Type (**MAT**) code to better capture expenditure. • With that, SCS and ACS Connection expenditure can be clearly distinguished. • ACS Connection expenditure is relevant to Residential connections only. • Therefore, Residential connection attributable to ACS (distinguished	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					via the use of MAT code) are excluded from Template 2.5 (Workbook 2). • Other categories of Connections expenditure are as per annual CA RIN responses submitted. The methodologies used are: • Connection gross expenditure (SCS) = mapping of relevant MAT codes as described above • Connection net expenditure (SCS) = Connection gross expenditure (SCS) less Capital contributions (SCS)	
	Expenditure – Standard Control Services – Capital Contributions Data for 2009-13	Estimated Historical	For 2009-13, JEN's systems only recorded capital contributions at a connection sub-category level, not a (more granular) connection classification level. JEN has therefore needed to apply assumptions to disaggregate recorded	SAP captures revenue associated with capital contributions. The general ledger accounts in SAP collects the capital contributions based on the activity to which it relates (MAT code). These aggregate into Work Breakdown Structures	2009-13 • Capital contributions from SAP were available at a two-letter MAT code level (Residential projects, Business projects or Subdivision projects) • These capital contributions were then allocated into the template by volume-weighting the capital	For 2009-13, it is assumed that the capital contributions for each connection classification are directly proportional to the gross capital expenditure for each connection classification.

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
			capital contributions into the connection classifications. JEN is not aware of a superior estimation methodology.	(**WBS**) which in turn aggregates the capital contribution at a project level. Master data that is part of the WBS is used to categorise the data into the appropriate regulatory categories as required by the tables within the templates.	contribution by Gross Connection (SCS) expenditure	
	Expenditure – Standard Control Services – Capital Contributions Data for 2014-17	Estimated Historical	The historical expenditure were classified as estimates in JEN's annual CA RIN responses.		2014-17 • Capital contributions from SAP were available at a three-letter MAT code level (e.g. Business – HV projects) • These capital contributions were then allocated into the Template by volume-weighting the capital contribution by Gross Connection (SCS) expenditure	N/A
	Expenditure – Standard Control Services – Capital Contributions Data for 2018	Actual Historical	N/A		2018 • Capital contributions from SAP were available at a three-letter MAT code level (e.g. Business – HV projects) • These capital contributions were then allocated into the Template by volume-weighting the capital	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					contribution by Gross Connection (SCS) expenditure	
	New Connections – Standard Control Services (volume)	Actual Historical	N/A	JEN's annual CA RIN responses submitted	Residential • Pole to pit works (SCS) do not directly result in connections. • Therefore, there is zero SCS connection volume to be reported in Workbook 2. Commercial/ Industrial and Subdivision • all Commercial/Industrial and Subdivision connections are SCS connections. Embedded Generation • All works are ACS connections. New/Existing connections for Commercial/ Industrial • A sample of 2018 projects was selected to determine the percentage split between New and Existing connections	It is assumed that the percentage split between New and Existing connections obtained from a sample of 2018 projects remains consistent across the years reported.

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					• This percentage split is applied to 2009-2018 volume data to determine New connection, except for “Complex connection sub-transmission” and 2018 “Complex connection HV (customer connected at HV)” where the connections are known and allocated to New connection. New/Existing connections for Subdivision • All are allocated to New connection as these works are in greenfield sites	

2.6 Non-network expenditure

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
2.6.5	Non-Network Expenditure Information & Communications Technology - Capex	Actual Costs Estimated split into Recurrent vs. Non-recurrent Estimated split of project activities into Programs of Work	Actual costs have been used for each project activity. Judgement has been applied to split the projects into Recurrent and Non-recurrent activities based on the AER's definitions of these terms. Where projects have involved a mix of such activities or where a larger Non-recurrent project has supplanted what would otherwise have been Recurrent activity, the default approach has been to categorise the projects as Non-recurrent. Judgement has been applied in allocating the projects to the programs of work. There may be instances where individual projects contain a mix of costs. For example, there have been historical projects where infrastructure hardware has been acquired as part of larger application upgrade. In cases where the projects have not been specifically focussed on one area of responsibility the projects have been assigned to the Program that best reflects the nature of the project and which represents the majority of the costs within that project.	JEN uses SAP to capture costs. PM orders in SAP collect costs data including labour costs, equipment and software purchases and external party costs. These costs then aggregate in SAP in Work Breakdown Structures (higher level cost collectors). These projects with their associated rolled up costs have then been classified into the respective categories as noted.	Project costing data is downloaded using the data extraction tool Business Objects (**BO**) and exported into Excel. BO reports have been developed to cater to the required details in this template. These reports extract data from Jemena's Business Warehouse which sources the data from the SAP ERP environment. Once in Excel the project data has been categorised into Programs of Work to fit into the RIN and classified as to whether they are recurring activities or not.	Professional judgement has been used to split projects into Recurrent and Non-recurrent categories and then allocate projects to programs of work.

2.10 Overheads

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
2.10.1	Network overheads expenditure	CY2009 - CY2016 Estimate Opex – Standard Control Services Opex - Alternative Control Services Capex – Standard Control Services Capex - Alternative Control Services Other Distribution Services – Negotiated Services	Although JEN was able to source total network overheads by SCS, ACS, Negotiated and Unregulated service categories, JEN did not collect capitalised network overhead costs at these levels as required by the notice. JEN provided its best estimate for these categories by developing allocators to allocate costs into these categories. JEN is not aware of a superior estimate technique to disclose the costs in these categories.	JEN uses its Enterprise Resource Planning (**ERP**) system, SAP to collect costs. These can be in the form of GL accounts and other functionalities such as Work Break Down Structures (**WBS**) and Networks/Activities. WBS and Networks are used to collect to costs a lower level.	JEN uses various functions within its ERP system to collect costs. External supplier costs are captured into its ERP system by receipting costs against JEN issued purchase orders. JEN records its operational overhead costs in cost centres which align to the JEN network. From these costs centres JEN capitalises of these costs, in accordance with accounting standards principles and internal policies or charge some to opex and maintenance activities, with the residual costs allocated over the regulatory categories. Capitalised Overheads JEN capitalises some of its overheads, sourced from the network type activities (generally Operational and Asset Management in nature). Operational allocations are usually driven by the uses of direct time writing to an activity and can take the shape of allocation. (Described below under DSA activities) JEN's ERP system is designed to apply a level of overheads to its capex activities (WBS/Networks) JEN applies this by calculating a percentage overhead to be applied over the capex spend for the year. The calculation used is:	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		Other Distribution Services – Unregulated Services			*Direct Budget Overheads ÷ Total Budget Capex Program = Applied Overhead %* Examples of these are: – Direct Support Activities – capex nature (**DSA**) – It is not practical for Program Managers and Snr Management to record time against a multitude of specific cost collectors. They time write to catch all cost collectors, which is then distributed over the specific cost collectors usually based on the underlying direct costs of the respective cost collectors. – Asset Management – Residual costs (costs not cleared in cost centres) are similarly allocated to regulatory defined categories, using surveys or underlying allocators. <u>Opex and Maintenance overheads.</u> JEN collects its overheads in cost centres and allocates overheads to capex, opex and maintenance type activities. A similar practice as described above applies to Maintenance type activities, where percentage overheads are calculated and applied to these activities. These are embedded as part of the total direct cost of the activity. As the notice requires only direct costs to be disclosed in all maintenance type templates, overhead components are disclosed in the network overhead	

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					section of template 2.10 and split into the six mandatory RIN categories on the same basis described above. There are some exceptions where JEN analyses data at a lower level to allocate overheads. This is usually required due to system and organisational changes over the years. An example is where JEN changed and upgraded it ERP systems, cost centre master data (names and identifiers) changed. As organisational changes occurred, employee cost centre changed making it difficult track employee movements.	
2.10.1	Network overheads expenditure	CY2017 Actual Opex – Standard Control Services Opex - Alternative Control Services Capex – Standard Control Services	N/A	Network overhead expenditure is actual information that is extracted from the SAP ERP system and which forms part of JEN's audited responses to the Annual Reporting RIN.	JEN's cost collection process uses SAP functionality to collect costs into WBS elements at the macro level. PM Orders are set up to collect costs at a micro level. These PM orders/activities are designed to collect costs based on the activity on which an employee works and to accept any external costs associated with that activity. WBS element codes are also designed to identify the regulatory category, e.g. standard control services, public lighting, metering, ancillary services, negotiated and unregulated services. JEN uses time writing to capture internal labour costs. Where practical and appropriate, all employees time write to a PM order or to a client e.g., JEN. These form the direct costs incurred for a respective activity. JEN allocates overheads to these activities based on its internal policies and in accordance with the AER-approved CAM. External supplier costs are captured by	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		Capex - Alternative Control Services Other Distribution Services – Negotiated Services Other Distribution Services – Unregulated Services			receipting costs against Jemena-issued purchase orders that identify the appropriate cost collector. *Network Overheads Opex (SCS & ACS):* Network overheads are recorded at a cost centre level or in a specific project at the source of origination, JAM. Network overheads charged to JEN from JAM are recorded in designated projects within JEN. Each network overhead accounting record in SAP for relevant JEN projects contains the details of the related JAM cost centre or specific project. *Capitalised Network Overheads (SCS & ACS):* JEN capitalises a portion of its overheads, sourced from the network type activities (generally Operational and Asset Management in nature). JEN's ERP system is designed to apply a level of overheads by various overhead functions to the direct costs of capex activities (PM order/activity). JEN calculates a percentage of overhead to be applied to the capex spend for the year. The calculation used is: *Direct Budget Overheads ÷ Total Budget Capex Program = Percentage of Applied Overhead* Examples of these are:	

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					– Direct Support Activities that are capital (e.g. Capex Program Management and Planning in nature. It is not practical for Program Managers and Senior Management to record time against a multitude of specific cost collectors. They time write to a "bucket" cost collector, which is then distributed over the specific cost collectors usually based on the underlying direct costs of the respective cost collectors. *Other Distribution Services - Negotiated and Unregulated Services:* Consistent with SCS & ACS network overheads above. Negotiated and Unregulated regulatory classifications are based on WBS element codes.	
2.10.1	Network overheads expenditure	CY2018 Actual Opex – Standard Control Services Opex - Alternative Control Services	N/A	Network overhead expenditure is actual information that is extracted from the SAP ERP system and which forms part of JEN's audited responses to the Annual Reporting RIN.	In addition to methodology report under CY2017 above, JEN also enhanced its Regulatory Reporting capability by developing a suite of reports that were designed to provide data that facilitates the population of the annual RIN templates. Project Cost information is extracted from SAP's business warehouse (**BW**) using a data extraction tool, Business Objects (**BO**) and exported into Excel. BO reports were developed based on a requirement to provide data that will populate the tables within these	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		Capex – Standard Control Services Capex - Alternative Control Services Other Distribution Services – Negotiated Services Other Distribution Services – Unregulated Services			templates. The reports use underlying data models and queries to report the data. JEN executes the BO Reports that are associated with the templates, based on the report selection criteria. The report output provides the data required by the table in this template.	
2.10.2	Corporate overheads expenditure	CY2009 - CY2013 Actual Opex – Standard Control Services	N/A	Corporate overheads reported are actuals that reconcile with the underlying JEN audited calendar year accounts as reported in JEN's annual Regulatory	*Corporate Overheads Opex SCS:* Corporate overheads are recorded at a cost centre level or in a specific project at the source of origination, JAM. Corporate overheads charged to JEN from JAM are recorded in designated projects within JEN. Each corporate overhead accounting record in SAP for relevant JEN projects contains the details of the related JAM cost centre or specific project.	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		Capex – Standard Control Services		Accounting Statements or RIN responses. Actual data is captured in relevant cost centres that can be mapped to the variable.	*Capitalised Corporate Overheads SCS:* Refer to Capitalised Network Overheads SCS & ACS above.	
2.10.2	Corporate overheads expenditure	CY2014 - CY2017 Actual Opex – Standard Control Services Opex - Alternative Control Services Capex – Standard Control Services Capex - Alternative Control Services Other Distribution Services –	N/A	Corporate overhead expenditure is actual information extracted from the SAP ERP system, which reconcile with the Enterprise Support Function allocation which forms part of the audited annual RIN.	JEN's cost collection process uses SAP functionality to collect costs into WBS elements at the macro level. PM Orders are set up to collect costs at a micro level. These PM orders/activities are designed to collect costs based on the activity on which an employee works and to accept any external costs associated with that activity WBS element codes are also designed to identify the regulatory category. JEN uses time writing to capture internal labour costs. Where practical and appropriate, all employees time write to a PM order or to a client e.g., JEN. These form the direct costs incurred for a respective activity. JEN allocates overheads to these activities based on its internal policies and in accordance with the AER-approved CAM. External supplier costs are captured by receipting costs against Jemena issued purchase orders that identify the appropriate cost collector. *Corporate Overheads Opex SCS & ACS:* Corporate overheads are recorded at a cost centre level or in a specific project at the source of origination, JAM.	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		Negotiated Services Other Distribution Services – Unregulated Services			Corporate overheads charged to JEN from JAM are recorded in designated projects within JEN. Each corporate overhead accounting record in SAP for relevant JEN projects contains the details of the related JAM cost centre or specific project. *Capitalised Corporate Overheads SCS & ACS:* Refer to Capitalised Network Overheads SCS & ACS above. *Other Distribution Services - Negotiated and Unregulated Services:* Consistent with SCS & ACS corporate overheads above. Negotiated and Unregulated regulatory classifications are based on WBS element codes.	
2.10.2	Corporate overheads expenditure	CY2018 Actual Opex – Standard Control Services Opex - Alternative Control Services Capex – Standard Control Services	N/A	Corporate overhead expenditure is actual information extracted from the SAP ERP system, which reconcile with the Enterprise Support Function allocation which forms part of the audited annual RIN.	In addition to methodology report under CY2017 above, JEN also enhanced its Regulatory Reporting capability by developing a suite of reports that were designed to provide data that facilitates the population of the annual RIN templates. Project Cost information is extracted from SAP's BW using a data extraction tool, BO and exported into Excel. BO reports were developed based on a requirement to provide data that will populate the tables within these templates. The reports use underlying data models and queries to report the data.	N/A

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		Capex - Alternative Control Services Other Distribution Services – Negotiated Services Other Distribution Services – Unregulated Services			JEN executes the BO Reports that are associated with the templates, based on the report selection criteria. The report output provides the data required by the table in this template.	

2.11 Labour

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
2.11.3 Opex	Labour/non-labour expenditure split – standard control services - opex	CY2009 – CY2015 Actual Labour expenditure outsourced to related parties	n/a	Labour expenditure is actual information that reconciles with the underlying JEN audited calendar year accounts reflected in JEN's annual Regulatory Accounting Statements or RIN responses.	JEN uses SAP to capture costs associated with capital and operating expenditure. PM orders in SAP collect costs based on the activity on which an employee works and the activity to which external costs are associated. These aggregate into Work Breakdown Structures (higher level cost collector) which in turn aggregates the costs at a project level. Master data that is part of the WBS is used to categorise the data into the appropriate Regulatory categories as required by the tables within the templates. JEN uses time writing functionality in SAP to capture internal labour costs. Where practical and appropriate, all employees time write to an activity/PM order or to a client e.g. JEN. These form the direct costs incurred for a respective activity. External costs are good receipted against purchase orders issued to external vendors. Purchase orders contain the PM order and WBS Element information. JEN capitalises network overheads based on a percentage of direct costs.	n/a
2.11.3 Opex	Labour/non-labour expenditure split – standard	CY2009 – CY2015 Estimate	Although JEN was able to source total SCS non-labour, JEN did not record uncontrollable	Total non-labour expenditure is actual information that reconciles with the	JEN uses SAP to capture costs associated with capital and operating expenditure.	n/a

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
	control services - opex	Controllable non-labour expenditure	non-labour expenditure as required by the notice. The amount reported is the difference between total non-labour expenditure less uncontrollable non-labour expenditure. As uncontrollable non-labour expenditure is estimated information, the controllable non-labour expenditure is also estimated information. Refer below for estimation of uncontrollable non-labour expenditure. JEN provided its best estimate for this category. JEN is not aware of a superior estimate technique.	underlying JEN audited calendar year accounts reflected in JEN's annual Regulatory Accounting Statements or RIN responses. Refer below for estimation of uncontrollable non-labour expenditure.	PM orders in SAP collect costs based on the activity on which an employee works and the activity to which external costs are associated. These aggregate into Work Breakdown Structures (higher level cost collector) which in turn aggregates the costs at a project level. Master data that is part of the WBS is used to categorise the data into the appropriate Regulatory categories as required by the tables within the templates. External costs are good receipted against purchase orders issued to external vendors. Purchase orders contain the PM order and WBS Element information. JEN capitalises network overheads based on a percentage of direct costs. The amount reported is the difference between total non-labour expenditure less uncontrollable labour expenditure.	

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
2.11.3 Opex	Labour/non-labour expenditure split – standard control services - opex	CY2009 – CY2015 Estimate Uncontrollable non-labour expenditure	Although JEN was able to source total SCS non-labour, JEN did not record uncontrollable non-labour expenditure as required by the notice. JEN has assumed that the amount of uncontrollable non-labour expenditure it incurred in CY2016 was the same (in real terms) amount incurred in each of CY2009 to CY2015. JEN is not aware of a superior estimate technique to disclose the costs into this category.	For uncontrollable costs, JEN also sourced data from SAP ERP general ledger. The data provided here is based on data reported for CY2016 (adjusted for CPI each year).	JEN did not collect uncontrollable non-labour expenditure as required by the notice. JEN estimated its uncontrollable costs for CY2009 to CY2015 by extracting the information from opex project data and general ledger accounts for CY2016 (the earliest year this information was available for), in accordance with definitions included in the RIN Notice. It then used annual CPI (ABS, all groups CPI inflation series A2325846C, weighted average for the eight capital cities) to calculate this amount in nominal dollars for each of the relevant years.	The uncontrollable non-labour expenditure JEN incurred in CY2016 was the same (in real terms) amount incurred in each of CY2009 to CY2015.
2.11.3 Opex	Labour/non-labour expenditure split – standard control services - opex	CY2016 – CY2017 Actual Labour expenditure outsourced to related parties	n/a	Labour / Non-labour expenditure is actual information extracted from the SAP ERP system, which forms the basis of JEN's annual RIN responses.	JEN uses SAP to capture costs associated with capital and operating expenditure. PM orders in SAP collect costs based on the activity on which an employee works and the activity to which external costs are associated. These aggregate into Work Breakdown Structures (higher level cost collector) which in turn aggregates the costs at a project level. Master data that is part of the WBS is used to categorise	n/a

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		Controllable non-labour expenditure Uncontrollable non-labour expenditure			the data into the appropriate Regulatory categories as required by the tables within the templates. JEN uses time writing functionality in SAP to capture internal labour costs. Where practical and appropriate, all employees time write to an activity/PM order or to a client e.g. JEN. These form the direct costs incurred for a respective activity. External costs are good receipted against purchase orders issued to external vendors. Purchase orders contain the PM order and WBS Element information. External costs are good receipted against purchase orders issued to external vendors. Purchase orders contain the PM order and WBS Element information. JEN capitalises network and corporate overheads based on a percentage of direct costs. JEN identified its uncontrollable costs by extracting the information from opex project data and general ledger accounts, in accordance with definitions included in the RIN Notice.	
2.11.3 Opex	Labour/non-labour expenditure split – standard control services - opex	CY2018 Actual Labour expenditure	n/a		In addition to methodology stated above, JEN has enhanced its Regulatory Reporting capability by developing a suite of reports that were designed to provide data that facilitates the population of the annual RIN templates.	n/a

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		outsourced to related parties Controllable non-labour expenditure Uncontrollable non-labour expenditure			Project Cost information is extracted from SAP's business warehouse (**BW**) using a data extraction tool, Business Objects (**BO**) and exported into Excel. BO reports were developed based on a requirement to provide data that will populate the tables within these templates. The reports use underlying data models and queries to report the data. JEN executes the BO Reports that are associated with the templates, based on the report selection criteria. The report output provides the data required by the table in this template.	
2.11.3 Capex	Labour/non-labour expenditure split – standard control services - capex	CY2009 – CY2013 Actual Labour expenditure outsourced to related parties Controllable non-labour expenditure	n/a	Labour / Non-labour expenditure is actual information that reconciles with the underlying JEN audited calendar year accounts reflected in JEN's annual Regulatory Accounting Statements or RIN responses.	JEN uses SAP to capture costs associated with capital and operating expenditure. PM orders in SAP collect costs based on the activity on which an employee works and the activity to which external costs are associated. These aggregate into Work Breakdown Structures (higher level cost collector) which in turn aggregates the costs at a project level. Master data that is part of the WBS is used to categorise the data into the appropriate Regulatory categories as required by the tables within the templates. JEN uses time writing functionality in SAP to capture internal labour costs. Where practical and appropriate, all employees time write to an activity/PM order or to a client e.g. JEN. These form the direct costs incurred for a respective activity. External costs are good receipted	n/a

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
					against purchase orders issued to external vendors. Purchase orders contain the PM order and WBS Element information. JEN capitalises network overheads based on a percentage of direct costs.	
2.11.3 Capex	Labour/non-labour expenditure split – standard control services - capex	CY2014 – CY2015 Actual Labour expenditure outsourced to related parties Controllable non-labour expenditure	n/a	Labour / Non-labour expenditure is actual information extracted from the SAP ERP system, which reconciles to total SCS capex reported in JEN's audited annual RIN responses.	Refer methodology stated above. In addition, JEN capitalises corporate and network overheads based on a percentage of direct costs.	n/a
2.11.3 Capex	Labour/non-labour expenditure split – standard control services - capex	CY2016 – CY2017 Actual Labour expenditure outsourced to related parties	n/a	Labour / Non-labour expenditure is actual information extracted from the SAP ERP system, which forms the basis of JEN's annual RIN responses.	Refer methodology stated above.	n/a

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
		Controllable non-labour expenditure				
2.11.3 Capex	Labour/non-labour expenditure split – standard control services - capex	CY2018 Actual Labour expenditure outsourced to related parties Controllable non-labour expenditure	n/a	Labour / Non-labour expenditure is actual information extracted from the SAP ERP system, which forms the basis of JEN's annual RIN responses.	In addition to methodology stated above, JEN has enhanced its Regulatory Reporting capability by developing a suite of reports that were designed to provide data that facilitates the population of the annual RIN templates. Project Cost information is extracted from SAP's BW using a data extraction tool BO and exported into Excel. BO reports were developed based on a requirement to provide data that will populate the tables within these templates. The reports use underlying data models and queries to report the data. JEN executes the BO Reports that are associated with the templates, based on the report selection criteria. The report output provides the data required by the table in this template.	n/a

Basis of Preparation
Workbook 5

Jemena
bringing energy to life

7.5 EBSS

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
7.5.1.1	OPEX ALLOWANCE APPLICABLE TO EBSS (EBSS TARGET)	Actual	n/a	Opex allowance figures are sourced from the AER's final decision for JEN for the 2016-20 regulatory period.	The opex allowance figures are set out in the Efficiency Benefit Sharing Scheme model published as part of the AER's final decision for JEN for the 2016-20 regulatory period.	n/a
7.5.1.2	ACTUAL AND ESTIMATED OPEX APPLICABLE TO EBSS	CY2014 - CY2018 Actual Self insurance DMIA GSL Payments	n/a	Self insurance, DMIA and GSL Payments are actual information extracted from the SAP ERP system, which reconciles to expenditure reported in JEN's annual RIN responses.	JEN uses SAP to capture costs associated with operating expenditure. PM orders in SAP collect costs based on the activity on which an employee works and the activity to which external costs are associated. These aggregate into Work Breakdown Structures (higher level cost collector) which in turn aggregates the costs at a project level. Master data that is part of the WBS is used to categorise the data into the appropriate Regulatory categories as required by this table.	n/a
7.5.1.2	ACTUAL and ESTIMATED OPEX APPLICABLE TO EBSS	CY2014 - CY2018 Actual Movements in provisions related to opex	n/a	JEN uses SAP General Ledger to capture movement in provisions. The data agrees to underlying calendar year trial balances (TB)	Movement in Doubtful Debt and Claims/Compensation provisions (the difference between opening and closing balances of provisions reflected on JEN's Balance Sheet for each calendar year) are extracted from SAP's general ledger and exported into Excel.	n/a

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
				and supporting documents.		
7.5.1.2	ACTUAL and ESTIMATED OPEX APPLICABLE TO EBSS	CY2014 - CY2018 Actual Other adjustments or exclusions required by the EBSS	n/a	Asset scrapping expenditure reported in this table is actual information extracted from the SAP ERP system, which reconciles to expenditure reported in JEN's annual RIN responses.	JEN uses SAP to capture costs associated with operating expenditure. PM orders in SAP collect costs based on the activity on which an employee works and the activity to which external costs are associated. These aggregate into Work Breakdown Structures (higher level cost collector) which in turn aggregates the costs at a project level. Master data that is part of the WBS is used to categorise the data into the appropriate Regulatory categories as required by this table.	n/a

Basis of Preparation
Workbook 6

Jemena
bringing energy to life

CESS

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
	ACTUAL / ESTIMATE CAPEX	CY2016 – CY2018 Actual Total capex Customer Contributions Asset Disposals	n/a	Data reported are actual information extracted from the SAP ERP system, which reconciles to expenditure reported in JEN's annual RIN responses.	JEN uses SAP to capture costs associated with capital expenditure. PM orders in SAP collect costs based on the activity on which an employee works and the activity to which external costs are associated. These aggregate into Work Breakdown Structures (higher level cost collector) which in turn aggregates the costs at a project level. Master data that is part of the WBS is used to categorise the capex data as required by this table. Customer Contributions and Asset Disposals expenditure are extracted from JEN's general ledger and exported into Excel.	n/a

Basis of Preparation
Workbook 7

Jemena
bringing energy to life

7.6 Indicative Impact on Distribution Charges & Electricity Bills (for Sections 7.6 and 7.6b)

Base information		Population approach				
Table number	Table name	Actual historical and/or estimated historical, or forecast	Reason for estimation / Basis for estimate (and reasons why the estimate is the best estimate)	Source	Methodology	Assumptions
7.6.1.1 A	Parameters by Tariff Type – Annual Usage per Customer	Estimated	2018 actual consumption figures are used because it provides the most recent completed year of actual data.	Consumption is based on actual data for residential and small business customers for 2018 sourced from Jemena's SAP system. **Residential Single Rate Tariff** • The data for consumption (kWh) of residential customers on the **A100** tariff is obtained from SAP ISU Business Warehouse. **Residential TOU Tariff** • The data for consumption (kWh) of residential customers on the **A10I** tariff is obtained from SAP ISU Business Warehouse. **Small Business Single Rate Tariff** • The data for consumption (kWh) of small business customers on the	**Residential Single Rate Tariff** Annual usage per customer is calculated as the average consumption of all residential customers on the **A100** tariff during 2018. **Residential TOU Tariff** Annual usage per customer is calculated as the average consumption of all residential customers on the **A10I** tariff during 2018. **Small Business Single Rate Tariff** Annual usage per customer is calculated as the average consumption of all small business customers on the **A200** tariff during 2018. **Small Business TOU Tariff**	n/a

				A200 tariff is obtained from SAP ISU Business Warehouse. **Small Business TOU Tariff** • The data for consumption (kWh) of small business customers on the **A210** tariff is obtained from SAP ISU Business Warehouse.	Annual usage per customer is calculated as the average consumption of all small business customers on the **A210** tariff during 2018.	
7.6.1.1 B	Parameters by Tariff Type – Typical Annual Electricity Bill	Forecast	n/a	**Residential Single Rate Tariff** • 2020 market offer rates from AGL (AGD128871MR), Energy Australia (TRU132007MR) and Origin's (OR2145333MR) websites. **Residential TOU Tariff** • 2020 market offer rates from AGL (AGD129228MR), Energy Australia (TRU132000MR) and Origin's (OR214590MR) website. **Small Business Single Rate Tariff** • 2020 market offer rates from AGL (AGD128881MS) and Origin's (OR2145354MS) websites.	**Residential Single Rate Tariff** The average 2020 retail bill for customers on the **A100** tariff is calculated as: *([Flat rate[1] ($/day)*365] + [(Usage rate[2] ($/kWh)/100)* Annual usage per customer (kWh)])*[Inflation]* **Residential TOU Tariff** Average retail bill for customers on the **A10l** tariff is calculated as: *([Flat rate[3] ($/day)*365] + [(Peak Usage rate[4] ($/kWh)/100)* Annual peak usage per customer (kWh)]+ [(Shoulder rate[5] ($/kWh)/100)* Annual shoulder usage per customer (kWh)] + [(Off-Peak Usage rate[6]*	**Converting to $real, December 2020** The average annual 2020 usage is assumed to be the same as 2018. The average annual bill for each tariff (A100, A10l, A200 and A210) is converted

1 The simple average residential flat rate for the sourced AGL, Energy Australia and Origin market offers.

2 The simple average residential usage rate for the sourced AGL, Energy Australia and Origin market offers.

3 The simple average residential flat rate for the sourced AGL, Energy Australia and Origin market offers.

4 The simple average residential peak usage for the sourced rate for AGL, Energy Australia and Origin market offers.

5 The simple average residential shoulder usage for the sourced rate for AGL, Energy Australia and Origin market offers.

6 The simple average residential off-peak usage rate for the sourced AGL, Energy Australia and Origin market offers.

				Small Business TOU Tariff • 2020 market offer rates from AGL (AGD129245MS) and Origin's (OR21455916MS) websites.	*($/kWh)/100)* Annual off-peak usage per customer (kWh)])*[Inflation]* **Small Business Single Rate Tariff** Average retail bill for customers on the A200 tariff is calculated as *([Flat rate[7] ($/day)*365] + [(Usage rate[8] ($/kWh)/100)* Annual usage per customer (kWh)])*[Inflation]* **Small Business TOU Tariff** Average retail bill for customers on the **A210** tariff is calculated as: *([Flat rate[9] ($/day)*365] + [(Peak Usage rate[10] ($/kWh)/100)* Annual peak usage per customer (kWh)]+ [(Off-Peak Usage rate[11] ($/kWh)/100)* Annual off-peak usage per customer (kWh)])*[Inflation]*	from nominal $2020 to real $December 2020 using the half year inflation factor for $2020. **Converting to $real, June 2021** The average annual bill for each tariff (A100, A10l, A200 and A210) is converted from $real December 2020 to $real, June 2021 using the $2021 half year inflation factor.

7 The simple average small business flat rate for the sourced AGL and Origin market offers..

8 The simple average small business usage rate for the sourced AGL and Origin market offers.

9 The simple average small business flat rate for the sourced AGL and Origin market offers.

10 The simple average small business peak usage rate for the sourced AGL and Origin market offers.

11 The simple average small business off-peak usage rate for the sourced AGL and Origin market offers.

7.6.1.1 C	Parameters by Tariff Type – Distribution Costs as a Proportion of a Typical Customer's Electricity Bill	Actual historical	n/a	**Residential Single Rate** • Distribution cost is obtained from JEN's CY20 AER approved DUOS price for the A100. **Residential TOU Tariff** Distribution cost is obtained from JEN's CY20 AER approved DUOS price for the A10I tariff. **Small Business Single Rate** • Distribution cost is obtained from JEN's CY20 AER approved DUOS price for the A200. **Small Business TOU Tariff** Distribution cost is obtained from JEN's CY20 AER approved DUOS price for the A210 tariff.	For each tariff type (residential single rate, residential TOU, small business single rate and small business TOU), the DUOS proportion is calculated as: *DUOS for each tariff type /Typical Electricity Bill[12]]*100*	
7.6.1.1 D	Parameters by Tariff Type – Distribution Bill Component	Calculated	n/a	n/a	The figures in the table are automatically populated from Tables 7.6.1.1.B and 7.6.1.1.C.	n/a
7.6.1.2	Indicative Annual Average Distribution Price Impact	Forecast	n/a	Forecast smoothed revenue real and nominal figures for CY20 are obtained from JEN's 2020 annual pricing proposal.	Energy delivered forecast number (MWh) for the FY21 intervening period is taking the half year average of CY20's forecast energy number.	**Converting to $real, December 2020**

[12] Electricity bill figures calculated in Table 7.6.1.1 B.

				Forecast smoothed revenue real and nominal figures for the interim period (1/1/21 – 30/6/21) are obtained from JEN's SCS PTRM FY21 Intervening period model. Forecast smoothed revenue real and nominal figures for FY22-FY26 are obtained from JEN's SCS PTRM FY22-26 model (this is for tab 7.6 in the template). Energy delivered forecast number (MWh) for CY20 is obtained from JEN's 2020 AER approved annual price submission.	Energy delivered forecast numbers (MWh) are obtained from forecasts carried out by applying Acil Allen's forecasted growth rates to energy delivered from FY21 to FY26.	The revenue numbers for 2020 are converted to $real, December 2020 by escalating to real $December 2020 using the half year inflation factor for $2020. **Converting to $real, June 2021** FY21 to FY26 revenue numbers are converted to $real, $June 2021 by escalating using $FY21 inflation factors[13].

[13] Revenue numbers are marginally different to those in Workbook 1 Sections 3.1.1 and 3.1.2. This is because the revenue numbers in Workbook 1 are sourced from our 5 year indicative price forecasts, which recover marginally less than our allowance.