

AusNet Electricity Services Pty Ltd

**AER Category Analysis
Regulatory Information Notice**

2015 Regulatory Year Basis of Preparation

Basis of Preparation

2015 Regulatory Year

1. Overview

This Basis of Preparation document supports the preparation and reporting of the 2015 Regulatory Year data presented in AusNet Electricity Services Pty Ltd ("AusNet Electricity Services") reports entitled '2015 AusNet Services category analysis data - Actual Information', '2015 AusNet Services category analysis data - Estimated Information', '2015 AusNet Services category analysis data - Consolidated Information' and 'Other Supporting Information' ("the Reports"). The Reports provide data solely for the use of the Australian Energy Regulator ("AER") to perform benchmarking activities under the AER's Better Regulation program.

The Australian parent entity of the Company was formerly AusNet Services (Distribution) Ltd, a company incorporated in Australia, which was part of a listed stapled group trading as AusNet Services. On 18 June 2015, AusNet Services completed a legal entity restructure under which the existing stapled entities became wholly owned by a new listed company (AusNet Services Ltd). As a result of the restructure, the ultimate parent of the Company is AusNet Services Ltd.

The Reports have been prepared in accordance with the 'Regulatory Information Notice issued under section Division 4 of Part 3 of the National Electricity (Victoria) Law' ("RIN") issued by the AER 7 March 2014 and other authoritative pronouncements of the AER.

AusNet Electricity Services' Regulatory Year is the period 1 January 2015 to 31 December 2015 ("Regulatory Year"). Data included in the Reports has been provided for the 2015 Regulatory Year. All financial data included in the Reports is presented in Australian dollars. Non-financial data is stated as per the measures specified in the Reports.

The AusNet Services' Group owns and operates 3 regulated networks – an electricity distribution network, a gas distribution network, and an electricity transmission network. Employees of the AusNet Services Group work across the 3 regulated networks and there are shared costs and overhead and other corporate costs that cannot be directly allocated to a particular network. These costs are proportioned amongst AusNet Services' 3 regulated networks, as well as unregulated businesses, based on an Activity Based Costing ("ABC") survey process completed by all cost centre managers and in accordance with AusNet Services' Cost Allocation Methodology ("CAM"). For the first 4 months of the 2015 regulatory year this was completed on a quarterly basis and for the remaining 8 months, it was completed monthly on a reviewed and streamlined cost centre structure.

Materiality has been applied throughout the Reports and Basis of Preparation. Materiality is defined as information that if omitted, misstated or not disclosed has the potential, individually or collectively to influence the economic decisions of users.

The Reports require inputs to be allocated between Standard Control Services and Alternative Control Services.

Standard Control Services are defined as per the National Electricity Rules ("NER"). For clarity, Standard Control Services capture services only available through the network (typically provided to all customers or a broad class of customers) recovered through general network tariffs.

Basis of Preparation

2015 Regulatory Year

Alternative Control Services are defined in the NER. By way of context, Alternative Control Services are intended to capture electricity distribution services provided at the request of, or for the benefit of, specific customers with regulatory oversight of prices. Alternative control services are electricity distribution services that are a direct control service but not a standard control service.

In conformity with AER requirements, the preparation of the Reports requires the use of certain critical management estimates. For the purpose of preparing the Reports, 'estimated information' is defined as information presented in the Reports whose presentation is not materially dependent on information recorded in accounting records or other records used in the normal course of business, and whose presentation for the purpose of the RIN is contingent on judgments and assumptions for which there are valid alternatives, which could lead to a materially different presentation in the Reports.

Where estimated information has been presented, the circumstances and the basis for the estimate, including the approach used, assumptions made and reasons why the estimate is AusNet Electricity Services' best estimate has also been set out below. Estimates are considered to be managements' best estimate based on the data available. Estimates will often not equal the related actual results and estimates have only been made for the purpose of disclosing the information required under the RIN. Considerations of the cost and efficiency of preparation as well as the reliability and accuracy of data available have been taken into account in determining the best methodology to determine the estimates.

'Actual Information' is defined as information materially dependent on information recorded in historical accounting records or other records used in the normal course of business, and whose presentation is not contingent on judgments and assumptions for which there are valid alternatives, which could lead to a materially different presentation. Any information or allocation which has been calculated via the ABC survey process is considered actual information, as this is in accordance with the AER-approved CAM.

AusNet Services implemented a new Enterprise Resource Planning system (SAP) effective 4 May 2015. Therefore in many instances, the data presented in the Templates has been sourced (for the January to April months period) from the same systems as used for the 2014 Category Analysis submission; and the May to December months period data has been sourced from the new system. The new system consolidates a number of systems and was designed to record actual data in a manner to support the preparation of the Regulatory Accounts, this has had no impact on the CAM. When referring to Financial Systems, the first 4 months refers to Oracle and the remaining 8 months refers to SAP. These circumstances have been explained in the basis of preparation where applicable.

To the extent applicable, the information reported has been prepared in a manner consistent with the policies and methodologies applied in preparing the Annual Regulatory Accounts. There were no changes in Accounting Policies in the 2015 Regulatory Year which had a material impact on the information presented.

The preparation methodologies and information sources adopted in the preparation of the Reports are set out below.

Basis of Preparation

2015 Regulatory Year

Contents

| | |
|--------------------------------------|----|
| 2.1 Expenditure Summary | 5 |
| 2.2 Repex | 7 |
| 2.3 Augex | 13 |
| 2.5 Connections..... | 19 |
| 2.6 Non-network | 24 |
| 2.7 Vegetation management | 33 |
| 2.8 Maintenance | 39 |
| 2.9 Emergency Response..... | 51 |
| 2.10 Overheads Expenditure..... | 53 |
| 2.11 Labour | 56 |
| 2.12 Input tables | 64 |
| 4.1 Public lighting | 68 |
| 4.2 Metering | 72 |
| 4.3 Fee-based Services | 76 |
| 4.4 Quoted Services | 78 |
| 5.2 Asset age profile | 79 |
| 5.3 MD - Network level | 83 |
| 5.4 MD & utilisation - spatial | 85 |
| 6.3 Sustained Interruptions..... | 88 |

Basis of Preparation

2015 Regulatory Year

2.1 Expenditure Summary

Capital Expenditure (“Capex”) includes all costs that are directly attributable to bringing an asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

Operating Expenditure (“Opex”) reported is the costs of operating and maintaining the network (excluding all Capex).

Table 2.1.1 - Standard control services capex, Table 2.1.2 - Standard control services opex, Table 2.1.3 - Alternative control services capex and Table 2.1.4 - Alternative control services opex

The information reported was prepared using Capex and Opex data extracted from the Financial Systems. The expenditure reported in Total Capex and Total Opex in Table 2.1.1 to Table 2.1.4 is mutually exclusive and collectively exhaustive.

The expenditure reported for the following categories relate to direct costs only and excludes expenditure on overheads -

- Replacement expenditure;
- Connections;
- Augmentation Expenditure;
- Non-network;
- Vegetation management;
- Emergency Response;
- Metering;
- Public Lighting;
- Fee and Quoted; and
- Maintenance.

Information reported in Tables 2.1.1 to 2.1.4 is estimated information where the corresponding template information is considered estimated information. Total Capex and Opex have been reported on an ‘as incurred’ basis. All expenditure has been presented in nominal dollars.

The sum of each of the Capex and Opex line items in the Tables in 2.1 Expenditure Summary equals the total Capex and Opex in all templates from 2.2 Repex to 2.10 Overheads and Templates 4.1 Public Lighting to 4.4 Quoted Services.

The Overheads reported in the Expenditure Summary Template for Alternative Control Services do not align with the overheads reported in Template 2.10 Overheads. This is due to limitations within Template 2.10 which prevent all overheads being included. In the Expenditure Summary template, Alternative Control Overheads have been classified as Network Overheads where the corresponding operating costs have been disclosed as network operating costs in AusNet Electricity Services’ Annual Regulatory Accounts. All other Alternative Control Services Overheads have been disclosed as Corporate Overheads. This is in accordance with the AER requirements for Template 2.10 Overheads.

Basis of Preparation

2015 Regulatory Year

The Capex Alternative Control 'balancing item' line includes capital contributions (which are required to be removed to reconcile to the Annual Regulatory Accounts) and Alternative Control Capex which is double counted within the Alternative Control Services templates.

The Capex Standard Control 'balancing item' line includes capital contributions which are not included within the templates.

The 'balancing items' are considered estimated information due to the estimated financial information included in calculating the templates which are being reconciled.

Amounts reported as capital contributions ("capcons") were extracted from the Annual Regulatory Accounts.

Values reported in Tables 2.1.2 to 2.1.4 in the summary sheet reconcile to the Annual Regulatory Accounts at the total Capex and Opex level. In relation to Table 2.1.1, capcons are required to be removed from the total Capex line in order to reconcile to the Annual Regulatory Accounts.

Table 2.1.5 - Dual function assets capex and Table 2.1.6 - Dual function assets opex

This table has been completed as zero as there are no dual function assets owned by AusNet Electricity Services.

Basis of Preparation

2015 Regulatory Year

2.2 Repex

Replacement Expenditure (“Repex”) is 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.

The following definitions have been applied in the preparation of the data:

| Asset Type | Definition |
|---------------------|---|
| Poles | 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 | Horizontally oriented structures and their 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 and pillars. It excludes any pole mounted assets that are included in any other asset group. |
| Service lines | Includes assets that provide a physical link and associated assets between the distribution network and a customer's premises. |
| 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. This does not include instrument transformers as defined in the National Electricity Rules. It also does not include auxiliary transformers. |
| Switchgear | 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. |

Basis of Preparation

2015 Regulatory Year

| | |
|--|--|
| SCADA and Network Control and Protection systems replacement | Replacement expenditure associated with SCADA and network control hardware, software and associated IT systems. Includes replacement of protection and control systems and communication systems. This excludes all costs associated with SCADA and Network Control Expenditure that exist within gateway devices (routers, bridges etc.) at corporate offices. Protection systems have the meaning prescribed in the National Electricity Rules. |
| Other | These are assets or refurbishments which are not captured in the AER categories. The 2015 RIN combines the following categories reported in the 2014 RIN into the new category of "Measuring Transformers": <ul style="list-style-type: none"> • Capacitive Voltage Transformers; • Current Transformers; • Magnetic Voltage Transformers; and • Voltage Transformers. No additional "Other" categories have been added in the 2015 Regulatory Year. |

Table 2.2.1 – Replacement Expenditure, Volumes and Asset Failures by Asset Category

Replacement expenditure and volumes have been provided for the prescribed standardised asset categories.

Capex and associated non-financial information has been reported against the Regulatory Year on an 'as incurred' basis. Expenditure reported is the costs directly attributable to replacement of the asset and excludes expenditures on overheads. All Capex has been presented in nominal dollars.

The sum of the asset group replacement expenditures is equal to the total replacement expenditure in Template 2.1 Expenditure Summary.

Replacement Expenditure

Preparation Methodology

January to April 2015:

For the period January to April 2015, a report was generated in Oracle showing all projects on a replacement work code. The project list was reviewed by a subject matter expert to ensure all material replacement projects were identified. The work code and project descriptions were used to classify the information into the relevant data Asset Categories. Where necessary, the judgement of a SME was applied to determine categorisations and the data was supplemented with project documentation to inform classifications.

May to December 2015:

Basis of Preparation

2015 Regulatory Year

A report was generated from SAP (BI) showing all capital projects which incurred costs during the period May 2015 to December 2015. All projects included on the replacement expenditure work code were aggregated. An appropriate SME performed a review of all material projects to ensure material replacement projects were identified.

A report was also generated in SAP providing work order details (including project number, project description, assembly code, 'floc' (functional location), 'equipment' and 'notification') and also the corresponding costs ("work order report"). The report was filtered to show all data on the replacement projects identified in the BI report and was filtered to exclude all costs which were capitalised finance or overhead in nature (to report direct costs only).

The data on the work order report was grouped to the relevant Asset Group using the work order assembly code. Assembly codes represent type of asset and type of work performed. The knowledge of an SME was used to translate the assembly codes into the prescribed Asset Group and where possible, the Asset Category. In some instances, assembly codes were not considered reliable. For these exceptions, project information was used to categorise the work order data into Asset Groups.

Work orders are linked to notification information. The notification "floc" was used to categorise the data in each Asset Group into the relevant Asset Categories. Notifications represent the item of work performed. In the case of 'Overhead Conductors' when notification floc was not available, the work order cost item floc was used instead. When required, equipment data related to the floc was also used to identify the correct Asset Category. To derive the costs to report, the amounts for each Asset Category were summed.

Costs can also be coded directly to a network order on a project. The work order report did not provide the total direct costs for replacement expenditure. A report of network order costs by project was generated in SAP and filtered to capture replacement projects identified in the BI report. Capital finance and overhead costs were removed from the data extracted using General Ledger accounts. The remaining direct network order costs were mapped to the relevant replacement projects using project numbers. The knowledge and judgement of a SME was applied to determine categorisations and where necessary.

Project expenditure was allocated directly into the relevant Asset Category except for zone substation rebuild projects. Zone substation rebuild projects comprise expenditure in several asset categories. Expenditure for these rebuild projects was allocated into asset categories based on the cost estimate prepared for the project business case.

A number of accounting adjustments were required to be processed in the financial data. Where work order details were available, these adjustments were processed against work orders. Where no work order information was available, the adjustments were processed against the project and the categorisation of these costs followed the above work order or project classification process.

The sum of the work order report, the network order report and the adjustments provided the total value of the expenditure to be reported for the 8 month period.

Basis of Preparation

2015 Regulatory Year

Estimated Information:

The Asset Replacement Expenditure data provided is considered estimated information due to the judgments made to align the AusNet Electricity Services' asset categories with the categories required by AER.

This is considered to be management's best estimate based on the data available.

Asset Replacements (Quantity)

Preparation Methodology

Asset replacement quantities (except for power transformers) were calculated by dividing total expenditure in each Asset Category by the unit replacement rate for that category. For most categories the unit rates applied were derived using the 2014 Category Analysis Replacement Expenditure information (2014 Asset Replacement quantity / 2014 Asset Category cost). In some categories, a corresponding 2014 rate was not available. In these cases, a unit rate for a similar item was used or the unit rate used to prepare AusNet Services EDPR submission.

Asset replacement quantities for power transformers were counted from zone substation rebuild projects completed during 2015, using project documentation.

Estimated Information:

All Asset Replacement Quantity data is considered estimated information due to the preparation process outlined above.

A new asset management system was implemented during the 2015 Regulatory Year. As the new system only provides a portion of the information required (8 months of data), the calculation of data using unit rates is considered to provide a more reliable estimate for the 12 month period.

This is considered to be management's best estimate based on the data available.

Asset Failures (Quantity)

Preparation Methodology:

Asset Failure Quantities were estimated. The ratio of Replacement Expenditure in 2014 (per the 2014 Replacement Expenditure template) to Replacement Expenditure in 2015 was calculated. This ratio was applied to the 2014 Asset Failures for each Asset Group to derive the total number of Asset Failures for each Asset Group. This was allocated to the 2015 Asset Categories in proportion to the Asset Replacement quantities. This calculation derives an estimated number of failures in the 2015 Regulatory Year in each Asset Category.

Estimated Information:

All Asset Failure Quantity data is considered estimated information due to the preparation process outlined above.

Basis of Preparation

2015 Regulatory Year

A new asset management system was implemented during the 2015 Regulatory Year. As the new system only provides a portion of the information required (8 months of data), the calculation of data using the ratio approach is considered to provide a more reliable estimate for the 12 month period.

This is considered to be management's best estimate based on the data available.

Table 2.2.2 – Selected Asset Characteristics

'Asset Volumes Currently in Commission' and 'Replacement Volumes' of certain asset groups have been provided by the specified aggregated metrics.

Network Type metric (CBD, Urban, Rural Long, Rural Short)

Preparation Methodology:

AusNet Electricity Services does not capture quantities of replacement of assets in Network Type (CBD, Urban, Rural Long, Rural Short) categories. Because of this, the data provided in this table has been estimated.

Data in relation to 'Asset Volumes Currently in Commission' and 'Asset Replacements' has been sourced from Table 2.2.1 Repex and Template 5.2 Asset Age Profile respectively.

The quantity information included in Table 2.2.1 has been allocated into Feeder Type (Poles, Overhead Conductors and Underground Cables) metrics. These metrics have been split into Network Type (CBD, Urban, Rural Long, Rural Short) on a percentage allocation basis. The percentages applied were derived by calculating the percentage split of feeder lengths into CBD, Urban, Rural Long, Rural Short as per the data included in the AER Economic Benchmarking data submission (Template 3.7 Operating Environment).

'Conductor Length by Material Type' is based on the proportion of conductor in each material type in 2014. These proportions were applied to the asset volumes from the corresponding categories in Template 5.2 Asset Age Profile.

The total Transformer MVA information was sourced from the 2015 Economic Benchmarking RIN in Template 3.5 Physical Assets.

The total MVA replaced was calculated using the transformers replaced reported in Repex 2.2. The MVA replaced for each category was calculated by multiplying the number of transformers replaced by the average size of transformer in each repex category. The categories were then summed to provide the total. The average size of transformers was calculated using data sourced from Internal Document AMS 20-58 Distribution Transformers.

Assets disposed was calculated in the same way as MVA replaced except that a number of distribution transformers and two zone substation transformers were replaced with larger capacity transformers. The original (smaller) capacity transformer sizes were used in the calculation of MVA disposed.

Basis of Preparation

2015 Regulatory Year

Estimated Information:

Information reported is considered estimated information based on the percentage allocation methodologies described above and assumptions applied in deriving MVA Disposed.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

2.3 Augex

Projects relating to the augmentation of AusNet Electricity Services' network have been included in Template 2.3 Augex. Augmentation has the meaning prescribed in the National Electricity Rules, and also includes work relating to improving the quality of the network, for example, to meet regulatory obligations. Augmentation expenditure does not include gifted assets.

Data Preparation Methodology

For the period January to April 2015, information was sourced from the Asset Additions report from the Fixed Asset Register in Oracle. For the period May to December 2015, information was sourced from the Asset Additions report from the Fixed Asset Register in SAP.

The fixed asset reports included quantities, total costs, project numbers and in most cases included work code details. Where work code numbers were not included in the data extract, the project numbers and the detailed Fixed Asset Register were used to obtain the work codes for asset additions.

The fixed asset reports were filtered based on Augmentation work codes and the relevant data aggregated. A SME performed a review (at a project level), to ensure all material projects met the prescribed augmentation works definition. Adjustments were made where necessary to ensure all relevant Augmentation information was captured.

The data provided is on an 'asset complete' basis (which includes life to date costs for assets completed in the 2015 Regulatory Year). This has been used as a proxy for 'project complete' information as it provides more accurate and complete data and is considered to better align with when assets are in use.

In the reports generated from Oracle, assets are assigned a standardised 'profile' and 'segment' code which identifies the asset type. The AusNet Services' Fixed Asset Capitalisation policy was used to translate the 'profile' and 'segment' codes into asset categories.

In the reports generated from SAP, assets are assigned a standardised 'Regulatory Asset Tag ("RAT")' and 'Class' which identifies the asset type. An Oracle to SAP mapping document was used to translate the 'RAT' and 'Class' codes into asset categories (consistent with the Oracle mapping).

Engineering expertise was used to allocate each of the asset categories into the asset groupings as required by Tables 2.3.1, 2.3.2 and 2.3.3. This allocation is considered estimated information as the Fixed Asset Register profiles and segments could not be directly assigned to the prescribed AER categories. The category allocations were performed by SMEs based on project knowledge and the AER definitions. Allocations performed are consistent with prior Regulatory Years.

Estimated Information:

Due to the estimates and assumptions applied, data included in Tables 2.3.1, 2.3.2 and 2.3.3 is considered estimated information.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

Table 2.3.1— Augex asset data – Substations

Table 2.3.2 — Augex asset data - Sub-transmission Lines

Table 2.3.1 includes augmentation works on any substation in AusNet Electricity Services' network on a project close basis. Each row represents data for an augmentation project for an individual substation.

Augmentation works on sub-transmission lines includes any lines or cables notionally operating at subtransmission voltages.

Preparation Methodology - Non-Financial Information:

Information in relation to Substation Type, Project Type and Project trigger was determined by Engineering planning advice. Project triggers selected relate to the primary project trigger. Project Types have been selected from the prescribed drop downs.

'Voltage', 'Substation Ratings' and 'MVA/MVAR Added' for Table 2.3.1 were obtained from the internal policy document AMS 20-101 'Zone-Substation Transformer Cyclic Rating'. The 'Rating' or 'MVA added' refers to the equipment's normal cyclic rating (for substations).

The cyclic rating of a transformer is the peak MVA rating of the transformer based on daily loading of the transformer for a prolonged period, considered to be three months for a zone substation transformer. For this rating, the higher than normal loss of life is used.

For substation ratings, 'Pre' refers to the relevant characteristic prior to the augmentation work and 'Post' refers to the relevant characteristic after the augmentation work. Where a metric does not undergo any change, or where the project relates to the establishment of a new substation, only the 'Post' column has been completed.

Voltage was obtained from the internal policy document AMS 20-24 'Subtransmission Line and Station Data for Planning Purposes'. 'Route line length' was obtained from the Fixed Asset Register data (SAP & Oracle).

'Poles/Towers Added', 'Poles/Towers Upgraded', 'Circuit kms Added', 'Circuit kms Upgraded', 'Units Added' and 'Years Incurred' was obtained from the Fixed Asset Register reports. For material projects, 'Units Added' was reviewed for reasonableness and any required adjustments were made.

In relation to Installation Volumes, the data reported comprises of external labour hours and internal labour hours.

- External labour hours have been estimated based on SME knowledge. Using SME knowledge, the monthly project hours spent by contractors was estimated for the last 8 months of the 2015 year. The external contractor costs for the corresponding 8 month period were determined using an SAP project report. Based on this data, an external contractor average hourly rate was calculated and applied to the external labour costs for the assets capitalised in the 2015 Regulatory Year. This provided an estimate of external labour installation hours.

Basis of Preparation

2015 Regulatory Year

- The internal labour hours have been calculated by summing the number of hours incurred on the project for the last 8 months of 2015 from an SAP project report. The internal labour costs for the corresponding 8 month period were also determined using the SAP project report. Based on this data, an internal labour average hourly rate was calculated and applied to the labour costs for the assets capitalised in the 2015 Regulatory Year. This provided an estimate of external labour installation hours.

An estimate of the installation hours was required as the fixed asset register does not provide this data. The total hours were allocated into the Tables 2.3.1 and 2.3.2 in proportion to the percentage of the total project expenditure allocated to these Tables.

Preparation Methodology - Financial information:

Projects have been separately included in these tables where the total cumulative spend on project assets completed in 2015 is greater than or equal to \$5 million (in nominal dollars).

Projects with a total cumulative spend on project assets completed in 2015 less than \$5 million (in nominal dollars) have been grouped and shown as 'non-material projects'.

Costs and project information for augmentation works where the assets have not been completed by 31 December 2015 but expenditure has been incurred prior to 31 December 2015 have not been recorded.

Expenditure has been reported in 'real' (2015) terms. This was derived by applying CPI rates obtained from the Australian Bureau of Statistics website to the project costs reported, based on the years in which costs accumulated on the relevant projects.

A report was generated from the Financial Systems showing the years in which the material projects incurred costs. The percentage of the total cost incurred each year was calculated. The calculated percentages were applied to the asset complete costs to allocate project expenditure into the years in which costs were incurred. Based on this, the 'real term' asset costs were estimated.

For the 'non-material' projects, the allocation of the total 'asset complete' expenditure into the years incurred was estimated based on the material projects cost allocation. This estimate was required as the 'as incurred' data can only be allocated on a total project basis (due to system limitations) and non-material projects are reported across all Augex tables - depending on the assets completed. CPI rates were applied to the estimated allocation of yearly costs to derive an estimate of the 'non-material' costs in real terms.

In accordance with the RIN guidance, only direct costs are required to be recorded. This information was estimated due to limitations in relation Financial System reports. A calculation was performed based on the material projects - to determine the proportion of overhead costs to total costs (per the 'as incurred' Financial System report). The material projects costs were scaled to remove the overhead percentage. This percentage was also applied to the total immaterial expenditure to derive an estimate of the direct costs only on non-material projects. This calculation assumes that the percentage of direct costs for all projects is consistent with the percentage in material projects sampled.

Basis of Preparation

2015 Regulatory Year

In relation to Installation Costs, the data reported comprises external labour costs and internal labour costs. A report was generated in SAP showing the total costs incurred on the projects for the last 8 months of the 2015 year. Using general ledger account costs, the percentage of costs incurred that were contractor in nature and labour in nature were calculated. These percentages were applied to the cost of assets capitalised in the 2015 year to provide an estimate of the installation (labour) component.

An estimate of the installation costs was required as the fixed asset register does not provide this data. The installation costs were converted to 'real terms' using the same approach outlined above for material costs. The total hours were allocated into the Tables 2.3.1 and 2.3.2 in proportion to the percentage of the total project expenditure allocated to these Tables.

Under 'Total Expenditure' for transformers, switchgear, capacitors and other plant items, only the procurement cost of the equipment has been included, not the installation costs. Other plant items are defined as all equipment involved in utilising or transmitting electrical energy that are not transformers, switchgear or capacitors.

'Total Expenditure' for poles/towers includes the procurement costs of the equipment and civil works, but not installation costs. 'Total Expenditure' for civil works does not include civil works expenditure relating to poles/towers. 'Total Expenditure' for lines, cables and 'other plant item' includes procurement costs but not installation costs. 'Other plant items' is defined as all equipment involved in utilising or transmitting electrical energy that are not poles/towers (including pole top or tower structures), lines or cables.

Information reported in relation to Related Party Contracts and Related Party Margins has been extracted directly from the Annual Regulatory Account workings. The costs reported are also included in the Total Direct Expenditure reported.

Estimated Information:

Based on the information outlined above, all financial data provided is estimated information. This is considered to be management's best estimate based on the data available.

Table 2.3.3— Augex data - HV/LV Feeders and Distribution Substations

Table 2.3.3 contains information prepared on an 'asset complete' basis. This has been used as a proxy for 'as incurred' project data. This assumption has been applied as the information required is not available on an 'as incurred' basis. The 'Units Added' or 'Units Upgraded' figures are not recorded until a project is complete. Similarly, financial information is not attributed to a specific asset until a project is complete.

Estimated Information:

Based on the above, all Descriptor Metrics and Cost Metrics reported in Table 2.3.3 are considered estimated information.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

2.3.3.1 Descriptor Metrics

'Units Added' and 'Units Upgraded' were obtained directly from Fixed Asset Register reports.

2.3.3.2 Cost Metrics

Expenditure has been recorded on an 'asset complete' basis in nominal dollars.

In accordance with the RIN guidance, only direct costs are required to be recorded. This information was estimated due to limitations in relation Financial System reports. A calculation was performed based on the material project disclosed in Table 2.3.1 and 2.3.2 to determine the proportion of overhead costs to total costs (per the 'as incurred' Financial System report). This percentage was applied to the expenditure in Table 2.3.3.2 to derive an estimate of the direct costs only. This calculation assumes that the percentage of direct costs for all projects is consistent with the percentage in the material project sampled.

'HV Feeder Augmentations – Overhead Lines' and 'HV Feeder Augmentations – Underground Cables'

- Financial information was sourced from Fixed Asset Register reports and was prepared in accordance with the 'Preparation Methodology' outlined above.
- Data reported in this category is the summation of the costs of all HV feeder augmentation assets, where the assets were completed in the 2015 Regulatory Year and the total project expenditure (on assets completed in the 2015 Regulatory Year) was greater than or equal to \$0.5 million. *HV Feeder Non-Material Projects*
- Financial information was sourced from Fixed Asset Register reports and was prepared in accordance with the 'Preparation Methodology' outlined above.
- Data reported in this category is the summation of the costs of all HV feeder augmentation assets, where the assets were completed in the 2015 Regulatory Year and the total project expenditure (on assets completed in the 2015 Regulatory Year) was less than \$0.5 million.

LV Feeder Augmentations – Overhead Lines & LV Feeder Augmentations – Underground Cables

- Financial information was sourced from Fixed Asset Register reports and was prepared in accordance with the 'Preparation Methodology' outlined above.
- Data reported in this category is the summation of the costs of all LV feeder augmentation assets, where the assets were completed in the 2015 Regulatory Year and the total project expenditure (on assets completed in the 2015 Regulatory Year) was greater than or equal to \$50,000.

LV Feeder Non-Material Projects

- Financial information was sourced from Fixed Asset Register reports and was prepared in accordance with the 'Preparation Methodology' outlined above.
- Data reported in this category is the summation of the costs of all HV feeder augmentation assets, where the assets were completed in the 2015 Regulatory Year and the total project expenditure (on assets completed in the 2015 Regulatory Year) was less than \$50,000.

Basis of Preparation

2015 Regulatory Year

Distribution Substation Augmentations – Pole Mounted, Ground Mounted and Indoor

- The information reported is the summation of assets completed on augmentation projects on Distribution Substations (under the 3 specified types) during the 2015 Regulatory Year.
- Financial data was sourced from Fixed Asset Register reports for the Augmentation work codes. Data was obtained at a total distribution substation level. Using information from the GIS System, the annual installed units of Pole Mounted, Ground Mounted and Indoor Distribution Substations was obtained. The unit data was used to allocate the total distribution substation costs into the required categories using a percentage allocation basis. The data provided is considered an estimate due to the allocation approach discussed above. This was required as expenditure into the prescribed categories is not available.

Estimated Information:

Based on the information outlined above, all financial data provided is estimated information. This is considered to be management's best estimate based on the data available.

Table 2.3.4 – Augex Data – Total Expenditure

Preparation Methodology:

Total augmentation expenditure has been recorded for each prescribed asset category.

Using the Fixed Asset Register report (used to prepare Tables 2.3.1 to 2.3.3), the percentage of total Augex costs allocated into the 'Augmentation Capex' categories was calculated.

An 'as incurred' project report was generated from the Financial System using the augmentation project work codes. This report provided direct costs only. The calculated Augmentation Capex percentages were applied to the 'as incurred' report to derive an estimate of Total Augex Expenditure on an 'as incurred' basis in the required categories.

Table 2.3.4 does not reconcile to the total of Tables 2.3.1 to 2.3.2 as the data is prepared on an 'as incurred' basis (whereas Tables 2.3.1 to 2.3.2 are prepared on a 'project close' basis) and an estimation has been performed to derive direct costs only. Additionally, there are differences in the data as Templates 2.3.1 and 2.3.2 are presented in real terms. This is consistent with the requirements of the RIN.

Estimated Information:

Information reported in Table 2.3.4 is considered estimated information due to the calculations performed to derive the 'as incurred' Augex category allocations. These calculations were performed based on percentages of 'project close' augmentation data which are also considered estimated information.

This data is required to be estimated as system reports generated on an 'as incurred' basis do not provide sufficient augmentation works identifiers to classify the costs into the required categories.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

2.5 Connections

Connections expenditure, connection rating and connection voltage have been reported for all distribution substations installed for complex connection projects. Data provided relates to non-contestable, regulated connection services (as defined in the National Electricity Rules) and includes work performed by third parties on behalf of AusNet Electricity Services. It excludes negotiated connection services and contestable works (including gifted assets in contestable works; gifted assets are not distinguishable in business systems).

All Expenditure has been presented in nominal dollars and has not been distinguished between standard and alternative control services. Expenditure data has been reported as a gross amount (by not subtracting customer contributions, i.e., cash contributions, from expenditure data).

Data reported in Template 2.5 Connections is distinct from data reported in Template 2.3 Augex.

AusNet Electricity Services records all customer connection costs (including augmentation costs where these are required and paid for by a customer) against specific cost codes (distinct from augmentation works cost codes). In many instances these cost codes do not align with the AER Connection definitions. At the highest level, allocations were undertaken according to the following mapping.

| AusNet Electricity Services' Codes | AER Connection Subcategory |
|---|---|
| Old Code | New Code |
| 104 | 1012 MEDIUM DENSITY HOUSING |
| 107 | 1013 U/GROUND SERVICE INSTALLATION |
| 108 | 1014 BUSINESS SUPPLY PROJECTS |
| 109 | 1016/1017 PRIVATE ELECTRIC LINE REPLACEMENT |
| 110 | 1018/1019 LOW DENSITY HOUSING |
| 118 | 1015 Embedded Generation Projects |

*A small amount of standard control costs from 112 METERS T/SWITCHES & SERVICES 1020 New Service and 1021 New Meter connections are allocated on the same basis.

For the 4 months data was sourced from legacy systems consistent with 2104 using under the old work codes, for the 8 months it was sourced from SAP. This data has been combined for full year reporting.

Private Electric Line replacement contains Connections expenditure relating to the undergrounding of a private line. It includes only the component from the distribution system to the property boundary. The customer is responsible for the entire cost of the undergrounding on their property.

Low Density Housing connects mostly single lot developments (including where an existing single lot is being subdivided) together with some small number of multi-lot developments. Therefore, Low Density Housing was allocated using an extract from the connection project estimation database that provided a count of single and multi-lot developments that were physically complete (supply available) in the 4 months January to April. Direct costs attributed to these completed projects were sourced from Oracle for the period January to April.

Similar information was extracted from SAP using a project management report that provided a count and direct cost of both single and multi-lot developments that were physically complete (supply available) in the 8 months May to December. From these extracts, an estimated percentage split was generated for

Basis of Preparation

2015 Regulatory Year

both costs (applied to 'as incurred' cost data) and volumes (applied to volume data). Splits were reviewed by SMEs.

Small scale solar connections are not included in embedded generation.

Alternative control service connections and Private Electric Line replacement were allocated using the ratio of residential to commercial gross connections reported for 2015. This ratio was obtained from an extract of the Customer Information System and the percentage split was applied to both costs and volumes.

2.5.1 Descriptor Metrics

Preparation Methodology:

Underground/Overhead splits have been calculated as follows:

| AusNet Electricity Services' Codes | AER Connection Subcategory |
|---|--|
| New Code | |
| 1012 MEDIUM DENSITY HOUSING | Split performed with historical Overhead/Underground lines asset count in Fixed Asset Register |
| 1013 U/GROUND SERVICE INSTALLATION | All underground |
| 1014 BUSINESS SUPPLY PROJECTS | Split performed with historical Overhead/Underground lines asset count in Fixed Asset Register |
| 1016/1017 PRIVATE ELECTRIC LINE REPLACEMENT | All underground |
| 1018/1019 LOW DENSITY HOUSING | Split performed with historical Overhead/Underground lines asset count in Fixed Asset Register |
| 1015 Embedded Generation Projects | Fixed Asset Register project specific analysis |

Underground/Overhead splits for medium Density Housing, Business Supply Projects and Low Density Housing are based on historical 2014 Fixed Asset data as there is insufficient 2015 Fixed Asset data to provide meaningful Underground/Overhead splits. The historical Underground/Overhead splits used in this instance to determine the number of underground and overhead connections reported in Table 2.5.1 are considered management's best estimate.

'MVA added' for distribution substations has been estimated for connection services by multiplying the number of substations in each cost code by an assumed standard for the class of customers in the cost code supplied by distribution planning SMEs (1MVA for business supply projects, 0.5MVA for medium density housing and 0.2MVA for low density housing).

The number and cost of substations for each AusNet Electricity Services cost code has been estimated from an extract of the Fixed Asset Register. No other AusNet Services system contains asset data that can be identified as Customer Connection Capex.

For HV and LV augmentation metrics, 'kms added' refers to the net addition of circuit line length resulting from the augmentation work of complex connections. Costs and circuit length was estimated from an

Basis of Preparation

2015 Regulatory Year

extract of the Fixed Asset Register. No other AusNet Services system contains asset data that can be identified as Customer Connection Capex.

Mean days to connect residential customers to AusNet Services' low voltage distribution network was estimated from extracts from the Customer Information System.

The data reported in 'Volume of Customer Complaints relating to Connection Services' was extracted directly from the AusNet Electricity Services' Issues Management System data base and is considered actual information.

In relation to the 'Volume of GSL Breaches for residential customers' and 'GSL Payments', data is recorded in AusNet Services' SAP software. Within SAP, the 'Review GSL Products' module holds the relevant information for these metrics. Once data has been entered into SAP, it is manually transferred to GSL spreadsheet maintained by the New Connections team. This spreadsheet is used to populate the 'Volume of GSL Breaches for residential customers' and 'GSL Payments'. AusNet Electricity Services' procedure document 'GSL Reporting' contains detailed instructions for these operations.

Cost per lot is estimated by dividing the costs from Table 2.5.2 by the number of lots generated from an extract of the connection project estimation database system (for 4 months to April) and a project management report from SAP (for 8 months to December).

Estimated Information:

All information in Table 2.5.1 is considered an estimate except for GSL and customer complaint data. In particular, cost data included in Table 2.5.1 is on an 'as commissioned' basis as it is sourced from the Fixed Asset Register. This is only indicative of the incurred costs.

This is considered to be management's best estimate based on the data available.

2.5.2 Cost Metrics by Connection Classification

Connections expenditure is 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.

Preparation Methodology:

Total direct costs (including customer contributions) by cost code have been taken from information supporting the audited Annual Regulatory Accounts. Alternative control connection costs have also been taken from Template 4.3 Fee-based Services.

Total connection volumes were estimated using extracts from both the Connection Project Estimation database and SAP project information system. Alternative control connection volumes were taken from information supporting the audited Annual Regulatory Accounts.

AusNet Electricity Services has not captured the costs or volumes in the Simple/Complex categories. Therefore, an extract from the Fixed Asset Register has been used to estimate the cost (by direct cost) and volume (by number of projects) splits required.

Basis of Preparation

2015 Regulatory Year

The percentage splits estimated have been applied to the 'as incurred' costs extracted from the Annual Regulatory Accounts and the project volumes (projects closed) from the Connection Project Estimation database and SAP project information system. This method has been applied consistently to each cost code with the exception of medium density housing which uses a 4-year historical average of LV/HV voltage splits in lieu of sufficient Fixed Asset data for 2015.

The financial asset register filters used for the allocation are set out in the table below.

| AusNet Electricity Services' Code | Asset Register filter | AER Connection Classification |
|---|--|--|
| | | RESIDENTIAL |
| Alternative Control Residential Connections 107 U/GROUND SERVICE INSTALLATION 109 PRIVATE ELECTRIC LINE REPLACEMENT 1013 Underground Service Installation 1016 Private Electric Line Replacement | * n/a (see section 2.5) | SIMPLE CONNECTIONS |
| 107 U/GROUND SERVICE INSTALLATION 109 PRIVATE ELECTRIC LINE REPLACEMENT 110 LOW DENSITY HOUSING 1013 Underground Service Installation 1016 Private Electric Line Replacement - Residential 1018 Complex Residential Supply Projects 1019 Low Density Housing -Subdivision | * Projects with just LV costs | COMPLEX CONNECTION LV |
| 110 LOW DENSITY HOUSING 1018 Complex Residential Supply Projects 1019 Low Density Housing -Subdivision | Projects with HV costs (projects may or may not also contain LV costs) | COMPLEX CONNECTION HV (NO UPSTREAM ASSET WORKS) |
| | | COMMERCIAL/INDUSTRIAL |
| Alternative Control Commercial Connections 109 PRIVATE ELECTRIC LINE REPLACEMENT 1016 Private Electric Line Replacement - Residential | * n/a (see section 2.5) | SIMPLE CONNECTIONS |
| 109 PRIVATE ELECTRIC LINE REPLACEMENT 108 BUSINESS SUPPLY PROJECTS 1016 Private Electric Line Replacement - Residential 1014 Commercial/Industrial Supply Projects | * Projects with just LV costs | COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT LV, MINOR HV WORKS) (\$000'S) |
| 108 BUSINESS SUPPLY PROJECTS 1014 Commercial/Industrial Supply Projects | Projects with HV and LV costs | COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT LV, UPSTREAM ASSET WORKS) (\$000'S) |
| 108 BUSINESS SUPPLY PROJECTS 1014 Commercial/Industrial Supply Projects | Projects with just HV costs | COMPLEX CONNECTION HV (CUSTOMER CONNECTED AT HV) (\$000'S) |

Basis of Preparation

2015 Regulatory Year

| AusNet Electricity Services' Code | Asset Register filter | AER Connection Classification |
|---|--|---|
| 110 LOW DENSITY HOUSING 1018 Complex Residential Supply Projects 1019 Low Density Housing -Subdivision | Projects with just ST costs | COMPLEX CONNECTION SUB-TRANSMISSION (\$000'S) |
| | | SUBDIVISION |
| 104 MEDIUM DENSITY HOUSING 110 LOW DENSITY HOUSING 1012 Medium Density Housing 1018 Complex Residential Supply Projects 1019 Low Density Housing -Subdivision | Projects with just LV costs | COMPLEX CONNECTION LV |
| 104 MEDIUM DENSITY HOUSING 110 LOW DENSITY HOUSING 1012 Medium Density Housing 1018 Complex Residential Supply Projects 1019 Low Density Housing -Subdivision | Projects with HV costs (projects may or may not also contain LV costs) | COMPLEX CONNECTION HV (NO UPSTREAM ASSET WORKS) |
| | No data available to distinguish so included above | COMPLEX CONNECTION HV (WITH UPSTREAM ASSET WORKS) |
| | | EMBEDDED GENERATION |
| | No new customer connected | SIMPLE CONNECTION LV |
| 118 COGENERATION PROJECTS 1015 Embedded Generation Projects | Projects with HV and LV costs | COMPLEX CONNECTION HV (SMALL CAPACITY) |
| | No new customer connected | COMPLEX CONNECTION HV (LARGE CAPACITY) |

*The exception was the split of Underground Service Installation and Private Electric Line Replacement. Half the projects were considered residential SIMPLE CONNECTIONS and half residential COMPLEX CONNECTION LV on the basis that undergrounding on one side of the street does not have to cross the road (simple) while connections on the other side of the street have to be connected under the street (complex). The cost split is based on an assumption that a complex job cost 44% more than a simple job in line with SME advice underpinned by existing contractor rates.

Estimated Information:

All information in Table 2.5.2 is considered an estimate. Estimates have been provided as the information requested is not separately captured by AusNet Electricity Services and therefore requires judgment by management on how information should be obtained and presented.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

2.6 Non-network

Non-network expenditure reported relates to direct Opex and direct Capex costs only. Capex and associated non-financial information has been reported on an 'as incurred' basis. All Capex and Opex have been presented in nominal dollars.

Table 2.6.1 Non-network Expenditure

ICT and Communications Expenditure

Non-network IT & Communications Expenditure which is directly attributable to IT and communications assets including replacement, installation, operation, maintenance, licensing, and leasing costs at corporate offices have been reported. All costs associated with SCADA and Network Control Expenditure that exist beyond gateway devices have been excluded.

Expenditure reported has been allocated between 'Recurrent', 'Non-recurrent' and 'Client Devices Expenditure'.

Recurrent expenditure is all IT & communications expenditure that returns time after time, excluding any expenditure reported as Client Devices Expenditure. Temporally, expenditure that would be expected to be reasonably consistent from regulatory period to regulatory period would be classified as recurrent expenditure.

Non-recurrent expenditure is all IT & Communications Expenditure that is not Recurrent expenditure excluding any expenditure reported under 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 and thin client interfaces and handheld end user computing devices including smart phones.

Non-network IT & Communications Expenditure has been split between Capex and Opex.

Preparation Methodology:

Opex:

Using data extracted from the Financial Systems for the preparation of the Annual Regulatory Accounts, the total direct costs for IT and Communications Expenditure was calculated. The total expenditure included costs for both the Electricity Distribution business and Gas Distribution business. Based on information obtained in the ABC surveys, the total Electricity Distribution IT and Communications Expenditure was calculated for the 2015 Regulatory Year.

Non-recurrent operating costs identified by a suitable SME at the AusNet group level were similarly scaled for Electricity Distribution. The Recurrent portion is calculated by deducting this non-recurrent portion from the Electricity Distribution IT and Communications Expenditure

Basis of Preparation

2015 Regulatory Year

Capex:

A list of projects and the associated financial information relating to Standard Control Services (“SCS”) (excluding overheads) was extracted from the workings to the Annual Regulatory Accounts and from the Financial Systems. An appropriate expert performed an assessment of the nature of each of the projects (recurrent expenditure, non-recurrent expenditure or client device expenditure) and based on this assessment, the expenditure was classified into the prescribed categorisations in Table 2.6.1.

Estimated Information:

Opex and Capex:

The allocation of Total IT and Communications expenditure between recurrent and non-recurrent expenditure was estimated based on the judgment of a SME, as this information is not separately captured in the Financial System.

This is considered to be management’s best estimate based on the data available.

Motor Vehicles

Motor Vehicle Expenditure is all expenditure directly attributable to motor vehicles including the purchase, replacement, operation and maintenance of motor vehicle assets registered for use on public roads and excluding mobile plant and equipment. It excludes expenditure on vehicles not generally moved large distances on public roads under their own power.

| | |
|---|---|
| <i>Car</i> | Cars are Motor Vehicles other than those that comply with the definition of Light commercial vehicle, Heavy commercial vehicle, or Elevated Work Platform. Motor vehicles are any motor vehicle registered for use on public roads excluding motor vehicles not generally moved large distances on public roads under their own power (e.g. tractors, forklifts, backhoes, bobcats and any other road registered mobile plant). |
| <i>Heavy Commercial Vehicle (HCV)</i> | Heavy commercial vehicles (HCVs) are Motor Vehicles that are registered for use on public roads excluding Elevated Work Platform (HCVs) that: <ul style="list-style-type: none"> ➤ 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. |
| <i>Light Commercial Vehicle (LCV)</i> | Light commercial vehicles (LCVs) are Motor Vehicles that are registered for use on public roads excluding Elevated Work Platforms that: <ul style="list-style-type: none"> ➤ 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. |
| <i>Elevated Work Platform (EWP - HCV)</i> | Elevated Work Platform (EWP - HCV) are HCV’s that have permanently attached elevating work platforms. |
| <i>Elevated Work Platform (EWP - LCV)</i> | Elevated Work Platform (EWP - LCV) are LCV’s that have permanently attached elevating work platforms. |

Basis of Preparation

2015 Regulatory Year

Preparation Methodology:

Opex:

A report was generated from the Fleet System showing the total Motor Vehicle expenditure for the 2015 Regulatory Year. The report provides operating expenditure for each motor vehicle and specifies vehicle type. Vehicle types were aggregated into the prescribed categories in Table 2.6.1 to determine total Opex by vehicle type. Motor Vehicle expenditure by vehicle type incorporated costs related to both the Electricity Distribution business and the Gas Distribution Business combined. Information from the ABC surveys was used to derive an estimate of the motor vehicle expenditure (by vehicle type) in the Electricity Distribution business.

The resultant information was scaled by the SCS use percentage. This was calculated based on information contained in the Annual Regulatory Accounts. The percentage applied was calculated based on the amount of Operating Costs relating to SCS divided by the total Operating Costs for the 2015 Regulatory Year less AMI Costs. AMI costs have been excluded from this calculation as the AMI program does not incur significant motor vehicle expenditure.

Capex:

A fixed asset additions list was generated in the Financial Systems (fixed asset register) which provided details of all motor vehicles acquired during the 2015 Regulatory Year. A motor vehicle report was generated from the Fleet System which provided additional information as to the motor vehicle type of vehicles purchased. Using the additional Fleet System data, the fixed asset register information was allocated into the prescribed vehicle categorisations. Only vehicles relating to the Electricity Distribution business were included.

The capex data was then scaled by the SCS use percentage. This was calculated based on information contained in the Annual Regulatory Accounts. The percentage applied was calculated based on the amount of Operating Costs relating to SCS divided by the total Operating Costs for the 2015 Regulatory Year less AMI Costs. AMI costs have been excluded from this calculation as the AMI program does not incur significant motor vehicle expenditure.

Estimated Information:

Opex and Capex:

Data reported for Motor Vehicle Capex and Opex is considered estimated information due to the estimation of the percentage of expenditure relating to SCS use. This is required to be estimated as the data is not separately captured in the Financial or Fleet Systems.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

Buildings and Property Expenditure

Expenditure directly attributable to non-network buildings and property assets has been reported, 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 to personal chattels (e.g. furniture).

Total Buildings and Property expenditure has been reported split between Capex and Opex.

Preparation Methodology:

Opex:

Using data extracted from the Financial Systems for the preparation of the Annual Regulatory Accounts, Buildings and Property expenditures recorded in Building Services and Property Services cost centres were firstly analysed by GL Accounts to ensure that only GL Accounts which met the AER category analysis definition for Buildings and Property expenditure were included (directly attributable to the replacement, installation, operation and maintenance of non-network buildings, fittings and fixtures). Expenditures which met this definition were then allocated to Standard Control Services based on the ABC surveys, due to the shared nature of these expenditures.

Capex:

A project report was generated in the Financial System using the relevant Buildings and Property work codes and cost codes. The project report was reviewed to determine whether any projects met the definition of Buildings and Property expenditure. Projects which did not meet the definition were included in the 'Other Expenditure' section as per below.

Estimated Information:

Information presented for both Capex and Opex was extracted from financial records. No estimates were required in relation to Buildings and Property non-network expenditure.

Other Expenditure

Other Expenditure consists of expenditure directly attributable to the following:

- Motor Vehicles which are not reported within 'Motor Vehicles Expenditure' as per above (e.g. trailers);
- Buildings and Property which is not reported within 'Buildings and Property Expenditure' as per above, such as real chattels (e.g. interests in land such as a lease); and
- Other general assets.

Preparation Methodology:

When determining the Motor Vehicle expenditure which meets the AER prescribed definitions, 'other' motor vehicle expenditure was identified. Expenditure reported relates to direct costs only.

Basis of Preparation

2015 Regulatory Year

When determining the Buildings and Property expenditure which meets the AER prescribed definitions, 'other' building and property expenditure was identified. Expenditure reported relates to direct costs only.

Using data extracted from the Financial System for the preparation of the Annual Regulatory Accounts, other general assets information was calculated. Expenditure reported relates to direct costs only.

Estimated Information:

All information is considered actual information except information relating to Motor Vehicles is considered estimated information due to the estimation of the percentage of SCS use - used to derive an estimate of the motor vehicle expenditure.

This is considered to be management's best estimate based on the data available.

Other Expenditure – Buildings and Property and General Equipment and Furniture

As \$1 million or more (nominal) in capital expenditure has been incurred during the 2015 Regulatory Year for 'General Equipment and Furniture' and 'Buildings and Property' respectively, these expenditures have been disclosed separately.

Preparation Methodology:

'Buildings and Property' capital expenditure and 'General Equipment and Furniture' capital expenditure were allocated based on the appropriate work codes and projects numbers set up in the Financial Systems. After they were reviewed for consistency with AER category analysis definitions, any applied capitalised overheads were deducted so that only direct costs were shown and a reconciliation with the Annual Regulatory Accounts was undertaken.

Estimated Information:

Information presented was extracted from financial records. No estimates were required.

Table 2.6.2 Annual Descriptor Metrics – IT & Communications Expenditure

Employee Numbers

Employee numbers are the average number of employees engaged in SCS work over the year scaled for time spent on SCS work. This metric does not include labour engaged under labour hire agreements.

Preparation Methodology:

A report showing the number of full time employees and equivalents (by month) was generated in the HR/Payroll System. and a simple average was calculated. This report included Employee Numbers in total across all AusNet Service businesses for the 2015 calendar year.

Using the December 2015 ABC survey, the headcount report was allocated between the Electricity, Gas, Transmission and Unregulated businesses. The ABC Survey information captures data relating to employees who do not work directly on projects. The information from ABC surveys has been applied to

Basis of Preparation

2015 Regulatory Year

all employees in a cost centre, assuming that the survey results are applicable to employees who are directly involved in projects as well as those that are not directly involved in projects.

The Electricity Distribution business headcount was further allocated into employees involved in SCS related work using an estimated percentage allocation. The SCS percentage allocation was calculated as the amount of Operating Costs relating to SCS divided by the Total Operating Costs excluding Unregulated Operating Costs. Information for the calculation was obtained from the Annual Regulatory Accounts.

Estimated Information:

The data reported is considered estimated information due to the assumptions involved in the percentage allocations as described above.

This is considered to be management's best estimate based on the data available.

User Numbers

User numbers are defined as active IT system log in accounts used for SCS.

Preparation Methodology:

The Total User Numbers (across the AusNet Services businesses) was extracted from the domain IT system on the 4 January 2016. The system is 'live' and as such, the data as at 31 December was unable to be generated. Using percentages calculated based on employee numbers, the User Numbers were split between the Electricity Distribution, Gas Distribution, Transmission and Unregulated businesses.

The SCS percentage was then applied to the User Numbers for Electricity Distribution to derive an estimate of the variables to be reported. The SCS percentage allocation was calculated as the amount of Operating Costs relating to SCS divided by the Total Operating Costs excluding Unregulated Operating Costs. Information for the calculation was obtained from the Annual Regulatory Accounts.

Estimated Information:

This information is considered estimated information as data extracted on 4 January 2016 has been used as a proxy for the information required. Also, approximate percentages were applied to derive an estimate of the devices owned by AusNet Electricity Services in relation to SCS.

This is considered to be management's best estimate based on the data available.

Client Devices

Device numbers are defined as the number of client devices used to provide standard control services scaled for standard control services use. Client Devices are hardware devices that accesses services made available by a server.

Basis of Preparation

2015 Regulatory Year

Preparation Methodology:

Information in relation to the number of laptops and desktop computers was obtained from ICT Desktop Support and is extracted from the Microsoft System Center Configuration Manager ("SCCM") system. The report provided the number of devices across the AusNet Services businesses.

Information in relation to handheld devices (smartphones and tablets) was obtained from a Lotus Notes database maintained by the AusNet Services IT Service Desk, and filtered to ensure that the list reflected devices acquired on or before 31 December 2015.

The reports described above were summed to provide the total number of Client Devices across the AusNet Services businesses.

Using the same percentages applied in allocating 'Employee Numbers', average Client Devices were split between the Electricity Distribution, Gas Distribution, Transmission, and Unregulated businesses. The SCS percentage was then applied to the Electricity Distribution Client Devices to derive an estimate of the variables to be reported. The SCS percentage allocation was calculated as the amount of Operating Costs relating to SCS divided by the Total Operating Costs excluding Unregulated Operating Costs. Information for the calculation was obtained from the Annual Regulatory Accounts.

Estimated Information:

Client device information is considered estimated information due the approximate percentages applied to derive an estimate of the devices owned by AusNet Electricity Services in relation to SCS.

An estimate was required as the information is not separately captured by the business.

This is considered to be management's best estimate based on the data available.

Table 2.6.3 Annual Descriptor Metrics – Motor Vehicles

Average Kilometres Travelled

Preparation Methodology:

Information was sourced from a report generated in the Fleet System. This report provided the kilometres travelled for each vehicle (owned and leased) for the 9 month period from 1 April 2015 to 31 December 2015. The report was unable to be generated on a calendar year basis as the data required is only tracked on an AusNet Services Financial Year basis. The report was filtered to exclude Transmission business vehicles and to exclude vehicles which did not meet the motor vehicle definitions prescribed by the AER.

The information extracted was extrapolated over 12 months to derive an estimate of the kilometres travelled in the 2015 Regulatory Year. The average kilometres per category was then calculated as the total (extrapolated) kilometres for all vehicles in each category, divided by the number of leased and owned vehicles in each category.

Basis of Preparation

2015 Regulatory Year

The average kilometers travelled per category was then scaled for SCS use. The percentage of SCS use that was applied was consistent with the 'Proportion of Total Fleet Expenditure Allocated as Regulatory Expenditure' as discussed below.

Estimated Information:

This information provided is considered estimated information due to the approximation of SCS use and the extrapolation of odometer data.

This is considered to be management's best estimate based on the data available.

Number Purchased, Number Leased and Number in Fleet

Preparation Methodology:

Information was sourced from a motor vehicle report generated from the Fleet System. The system report was analysed and Transmission business vehicles and vehicles which did not meet the prescribed Motor Vehicle definition were excluded.

The 'Number Purchased' was determined based on the Financial System Fixed Asset Register.

For the average 'Number Leased' and average 'Number in Fleet', the Fleet System report was used to derive the total number leased and total number in fleet as at 31 December 2015. Using data compiled in the 2014 Category Analysis submission (sourced from the Fleet System) the total number leased and total number in fleet as at 31 December 2014 was extracted. A simple average was calculated to determine the average number leased and average number in fleet.

The number of vehicles in the fleet purchased, the average number of vehicles leased and the average number of vehicles in the fleet were scaled for SCS use. The percentage of SCS use that was applied was consistent with the 'Proportion of Total Fleet Expenditure Allocated as Regulatory Expenditure' as discussed below.

Estimated Information:

This information provided is considered estimated information due to the approximation of SCS use.

This is considered to be management's best estimate based on the data available.

Proportion of Total Fleet Expenditure Allocated as Regulatory Expenditure

Preparation Methodology:

The 'Proportion of Total Fleet Expenditure Allocated as Regulatory Expenditure' was calculated based on information contained in the Annual Regulatory Accounts. The percentage reported is the amount of Operating Costs relating to SCS divided by the Total Operating Costs for the 2015 Regulatory Year less AMI Costs. AMI costs have been excluded from this calculation as the AMI program does not incur significant motor vehicle expenditure.

Basis of Preparation

2015 Regulatory Year

Estimated Information:

The percentage reported is considered estimated information as it has been assumed that the proportion of 'Total Fleet Expenditure Allocated to Regulatory Expenditure' is consistent with the proportion of Total Operating Expenditure Allocated to Regulatory Expenditure.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

2.7 Vegetation management

Vegetation management zones are segments of the distribution network distinguished from other vegetation management segments by material differences in recognised cost drivers.

An assessment of vegetation management zones has been performed taking into consideration areas where bushfire risk mitigation costs are imposed by legislation, regulation or ministerial order and areas of the network where other recognised drivers affect the costs of performing vegetation management work. The key driver of vegetation management costs across AusNet Services' businesses is the level of bushfire risk. Based on this, two vegetation management zones were identified in AusNet Electricity Services' network - high bush fire risk areas ("HBRA") and low bushfire risk areas ("LBRA").

The Electrical Safety (Electric Line Clearance) Regulations impose a material cost on performing vegetation management works. The cost of compliance is consistent with the information reported in Table 2.7.2.

There are no self-imposed standards per AusNet Services' Vegetation Management program.

Table 2.7.1 – Descriptor Metrics by Zone

Route Line Length within Zone

The route line length is the aggregated length in kilometers of 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 segments and does not include vertical components such as line sag.

Note – the route line length reported is the overhead route line length only. Underground route line length has been excluded from the data reported.

Preparation Methodology:

For the 2015 Regulatory Year, overhead line length data was extracted from the SDME Asset Management System ("SDME"). In SDME, overhead conductors are connected to poles (or nodes) which allow the calculation of span line lengths with single or multiple circuits. A report was generated from the SDME system which provided the information required for Overhead Route Line Length.

The split of total route line length between the HBRA and LBRA vegetation management zones was performed on a percentage allocation basis. The percentage applied was derived using line length information (split between HBRA 81% and LBRA 19%) from the Regulatory Impact Statement. The Short and Long Rural and Urban split (98% and 2% respectively) was also calculated based on line length information from the Regulatory Impact Statement.

Estimated Information:

The system does not distinguish route line length between the HBRA and LBRA zones; therefore an estimate is required. Using the percentage split from the Regulatory Impact Statement is considered the best allocation method available.

Basis of Preparation

2015 Regulatory Year

This is considered to be management's best estimate based on the data available.

Number of Maintenance Spans

The 'Number of maintenance spans' is the total count of spans in the network that are subject to active vegetation management practices in the relevant Regulatory Year.

Maintenance span is the network span that is subject to active vegetation management practices in the relevant year. Active vegetation management practices do not include inspection of vegetation maintenance spans where 'inspection' is only for the purpose of identifying trees or other vegetation that require trimming or removal and include vegetation scoping works.

Urban and CBD maintenance spans refers to CBD and urban areas that are subject to vegetation management practices in the relevant Regulatory Year. CBD and urban areas are consistent with CBD and urban customer classifications.

Rural maintenance spans refer to spans in rural areas that are subject to vegetation management practices in the relevant year. Rural spans include spans in short rural and long rural feeders.

Preparation Methodology:

Urban and Rural maintenance spans were determined using information extracted from the Vegetation Management system which was split into zone (HBRA and LBRA) and area category (Urban and Rural) using feeder data. 66kV sub-transmission lines are excluded from the information extract because feeder classifications do not apply to sub-transmission lines. The information is further disaggregated into maintenance spans and spans clear of vegetation.

Maintenance spans were determined as PT1 to PT365 per the system data (which denotes spans where vegetation maintenance is required in the next 365 days). The maintenance spans reported include only spans subject to action/cutting rather than inspection or assessment only.

Estimated Information:

No estimates were required.

Total Length of Maintenance Spans

Preparation Methodology:

HBRA: The 'Total Length of Maintenance Spans' was calculated by dividing the total line length in kilometers for HBRA's per the Regulatory Impact Statement by the total number of poles in HBRA's (per an extract from the Vegetation Management System in 2013 which corresponds with when the Regulatory Impact Statement was written) to derive an estimate of the average kilometer line length for each span in a HBRA. This average was multiplied by the number of HBRA maintenance spans (in Urban and CBD areas and rural areas respectively per the Vegetation Management System) to derive an estimate of 'Total Length of Maintenance Spans' in Urban and CBD areas and Rural areas in the 2015 Regulatory Year.

Basis of Preparation

2015 Regulatory Year

LBRA: The 'Total Length of Maintenance Spans' was calculated by dividing the total line length in kilometers for LBRAs per the Regulatory Impact Statement by the total number of poles in LBRAs (per an extract from the Vegetation Management System in 2013 which corresponds with when the Regulatory Impact Statement was written) to derive an estimate of the average kilometer line length for each span in a LBRA. This average was multiplied by the number of LBRA maintenance spans (in Urban and CBD areas and rural areas respectively per the Vegetation Management System) to derive an estimate of 'Total Length of Maintenance Spans' in Urban and CBD areas and Rural areas in the 2015 Regulatory Year.

Estimated Information:

Data provided is considered estimated information as it is not separately captured in the Vegetation Management System. The calculation performed assumes that there is one pole per maintenance span.

This is considered to be management's best estimate based on the data available.

Length of Vegetation Corridors

A Vegetation corridor is a tract of land along which vegetation is maintained in order to form a passageway along the route of a power line or lines that is free of vegetation encroachment into the asset clearance space. This does not include portions of the corridor where no managed vegetation exists or where vegetation is not managed.

Preparation Methodology:

The 'Length of Vegetation Corridors' is calculated by using information from the Vegetation Management System.

HBRA: For the 2015 Regulatory Year, the total number of urban and rural PT720 and RE (reassess) vegetation maintenance spans were obtained (which represent maintenance spans which require vegetation maintenance in the next 2 years and spans which need to be reassessed). This total was multiplied by the average length of a maintenance span (as derived in the calculation of 'Total Length of Maintenance Spans') to provide an estimate of the 'Length of Vegetation Corridors'.

LBRA: For the 2015 Regulatory Year, the total number of urban and rural PT720 and RE (reassess) vegetation maintenance spans was obtained (which represent maintenance spans which require vegetation maintenance in the next 2 years). This total was multiplied by the average length of a maintenance span (as derived in the calculation of 'Total Length of Maintenance Spans') to provide an estimate of the 'Length of Vegetation Corridors'.

Estimated Information:

The data provided is considered estimated information as it is not separately captured in the Vegetation Management System.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

Average Number of Trees per Maintenance Span

The 'Average number of trees per maintenance span' includes only trees that require active vegetation management to meet its vegetation management obligations. It excludes trees that only require inspections and no other vegetation management activities required to comply with AusNet Electricity Services' vegetation management obligations. Preparation Methodology:

Vegetation Management field staff record the number of trees actioned (PT1, PT30, PT180, PT365) in each span, into the VMS. Systems analysts run a query to quantify the average numbers of actioned trees per maintenance span across the HBRA and LBRA areas in Urban and CBD and Rural areas.

Estimated Information:

No estimates were required.

Average Frequency of Cutting Cycle

The cutting cycle is the average planned number of years (including fractions of years) between which cyclic vegetation maintenance is performed within vegetation management zones. It has been assumed that Cutting cycles are the same as Maintenance span cycles (the planned number of years (including fractions of years) between which cyclic vegetation maintenance is performed).

Preparation Methodology:

Information in relation to the average vegetation maintenance span cycles was obtained from the Vegetation Management system and also per the vegetation management plan. The cycle data provided was available in the HBRA and LBRA cutting frequencies.

Estimated Information:

No estimates were required.

Table 2.7.2 – Expenditure Metrics by Zone

Table 2.7.2 has been completed based on the two vegetation management zones identified above. Expenditure provided relates to direct costs; it excludes overhead expenditure and has been presented in nominal dollars. Annual vegetation management expenditure across all categories and zones sums to the total Vegetation Management expenditure in the 2015 Regulatory Year.

Preparation Methodology:

Expenditure recorded on Vegetation Management in the Distribution business is coded to specific project codes that align to different vegetation management functions. This data is posted to one work code in AusNet Electricity Services' financial systems.

To populate Table 2.7.2, expenditure on each project in the Vegetation Management work code was extracted from the Financial Systems. This data extract was then subject to further analysis.

Basis of Preparation

2015 Regulatory Year

'Tree Trimming' and 'Inspection' project codes allow for a direct one-for-one allocation from the Financial Systems extract and the categories in Table 2.7.2 (both function and zone).

'Hazard Tree Cutting', 'Ground Clearance' and 'Vegetation Corridor Clearance' is allocated directly to functions from the project codes. Expenditure is allocated to the HBRA and LBRA zones based on the 'Tree Trimming' and 'Inspection' proportions (for 'Ground Clearance' and 'Vegetation Corridor Clearance'). 'Hazard Tree Cutting' was allocated to the zones based on the proportions which applied to 'hazard trees attended to'.

'Audit' and 'Contractor Liaison' expenditure is not separately identifiable in the Vegetation Management work code. To derive these amounts, the 2015 actual expenditure was estimated based on the number of staff in each role, multiplied by an average annual salary.

The costs included in the category 'Other Vegetation Management Costs not Specified in the Sheet' reflect the balance of costs between the above categories and the total expenditure derived from the Vegetation Management work code Financial Systems extract. Other costs reflect activities such as trouble orders, bark patrol and track maintenance.

Differences in total between the above determined costs and the Annual Regulatory Accounts were calculated and the resulting amount was scaled on a proportional basis to ensure data reported aligns with the Annual Regulatory Accounts. The differences reflect any unregulated costs or any emergency vegetation management costs (which are separately reported in Template 2.9 Emergency Response).

Estimated Information:

All Vegetation Management expenditure reported is considered estimated information as the financial systems does not capture costs into the required categories. Estimations were required for category allocations of total costs, deriving the HBRA and LBRA zone splits (for all categories except 'Tree Trimming' and 'Inspection') and for calculating 'Audit' and 'Contractor liaison' costs.

This is considered to be management's best estimate based on the data available.

Table 2.7.3 – Descriptor Metrics Across All Zones – Unplanned Vegetation Events

Unplanned vegetation events are system outages and fire starts caused by either vegetation grow-ins or vegetation blow-ins/fall-ins.

Number of Fire Starts Caused by Vegetation Grow-Ins (NSP Responsibility), Number of Fire Starts Caused by Blow-Ins and Fall-Ins (NSP Responsibility), Number of Fire Starts Caused by Vegetation Grow-Ins (Other Party Responsibility) and Number of Fire Starts Caused by Blow-Ins and Fall-Ins (Other Party Responsibility)

Preparation Methodology:

For the 2015 Regulatory Year data was sourced from the AusNet Services' AER F-Factor RIN which is prepared using information extracted from the Incident Management System.

Basis of Preparation

2015 Regulatory Year

The Number of Fire Starts Caused by Vegetation Grow-Ins has been reported as zero as prescribed clearances are maintained.

The Number of Fire Starts Caused by Blow-Ins and Fall-Ins has been reported as the total number of fire starts 'Started by any tree, or part of a tree, falling upon or coming into contact with a distribution system' per the AusNet Services' AER F-Factor RIN. There was insufficient data in the system to determine the cause of the fire starts (grow-ins, blow-ins or fall-ins) or the responsibility. As such, it has been assumed that all Fire Starts relate to Blow-Ins and Fall-Ins are AusNet Electricity Services' responsibility.

Estimated Information:

Given the system limitations as noted above, the information provided for Number of Fire Starts Caused by Blow-Ins and Fall-Ins (NSP Responsibility) is considered estimated information.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

2.8 Maintenance

Maintenance relates to operational repairs and maintenance of the distribution system, including testing, investigation, validation and correction costs not involving capital expenditure.

Public Lighting has not been included in Template 2.8 Maintenance as it is an Alternative Control Service.

Table 2.8.1 – Descriptor Metrics for Routine and Non-Routine Maintenance

Asset Quantity at Year End

Asset quantity information has been provided for the total number of assets (population) at the end of the 2015 Regulatory Year (for each asset category) and the number of assets inspected or maintained during the 2015 Regulatory Year (for each asset category).

Preparation Methodology:

Table A.

| Maintenance Activity | Maintenance Asset | Unit of Measure – Asset Quantity | Relevant categories in Template 5.2 |
|--|--|----------------------------------|---|
| POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE | POLE TOPS AND OVERHEAD LINES | NUMBER OF POLES | Asset Type: Poles Asset Category: Other (cross arm assets) |
| POLE INSPECTION AND TREATMENT | ALL POLES | NUMBER OF POLES | Asset Type: Poles Asset Category: All poles, excluding cross arm assets |
| DISTRIBUTION SUBSTATION EQUIPMENT & PROPERTY MAINTENANCE | DISTRIBUTION SUBSTATION TRANSFORMERS | NUMBER OF INSTALLED TRANSFORMERS | Asset Type: Transformers Asset Category: POLE MOUNTED ; < = 22kV ; < = 60 kVA ; SINGLE PHASE to GROUND OUTDOOR / INDOOR CHAMBER MOUNTED ; > = 22 kV & < = 33 kV ; > 40 MVA |
| DISTRIBUTION SUBSTATION EQUIPMENT & PROPERTY MAINTENANCE | DISTRIBUTION SUBSTATION SWITCHGEAR (WITHIN-SUBSTATIONS AND STAND-ALONE SWITCHGEAR) | NUMBER OF SWITCHES | Asset Type: Switchgear Asset Category: All |
| SCADA & NETWORK CONTROL MAINTENANCE | SCADA & NETWORK CONTROL MAINTENANCE | NUMBER OF SYSTEMS | Asset Type: Scada, Network Control & Protection Systems Asset Category: Field devices to Communications Network Assets |
| PROTECTION SYSTEMS MAINTENANCE | PROTECTION SYSTEMS MAINTENANCE | NUMBER OF SYSTEMS | Asset Type: Scada, Network Control & Protection Systems Asset Category: Relays and Batteries |

In relation to the asset categories listed above in Table A, data reported for 'Asset Quantity at Year End' was sourced from Template 5.2 Asset Age Profile. For the 2015 Regulatory Year, 'Asset Quantity' was calculated as the cumulative sum of the relevant categories (as listed in Table A above) in Template 5.2 Asset Age Profile.

Basis of Preparation

2015 Regulatory Year

Table B.

| Maintenance Activity | Maintenance Asset | Unit of Measure – Asset Quantity |
|---|-------------------|----------------------------------|
| NETWORK UNDERGROUND CABLE MAINTENANCE: BY VOLTAGE | LV - 11 TO 22 KV | LENGTH (KM) |
| | 33 KV AND ABOVE | LENGTH (KM) |
| NETWORK UNDERGROUND CABLE MAINTENANCE: BY LOCATION | CBD | LENGTH (KM) |
| | NON-CBD | LENGTH (KM) |

In relation to the asset categories listed above in Table B, data reported for 'LV - 11 to 22 KV' and '33 KV and above'. Asset Quantities were sourced from the AusNet Services Economic Benchmarking RIN for 2015 from Template 3.5 Physical Assets. The data included in Template 3.5 Physical Assets was summated into the prescribed voltage categories in Table B above. The information was ultimately sourced from the SDME Asset Management System.

The total Underground Cable length in kilometers has been reported in the Non-CBD category as AusNet Electricity Services does not own underground cable in CBD areas.

Table C.

| Maintenance Activity | Maintenance Asset | Unit of Measure – Asset Quantity |
|---|-------------------|----------------------------------|
| POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE | SERVICE LINES | NUMBER OF CUSTOMERS |

The 'number of customers' in relation to Service Lines (refer to Table C above) has been calculated based on the total number of customers reported in the 2014 Regulatory Year escalated based on the number of overhead new connections in the 2015 Regulatory Year per data compiled for Template 2.5 Connections.

Table D.

| Maintenance Activity | Maintenance Asset | Unit of Measure – Asset Quantity |
|---------------------------|---------------------|----------------------------------|
| OVERHEAD ASSET INSPECTION | ALL OVERHEAD ASSETS | LINE PATROLLED (ROUTE KM) |

The Overhead Asset Inspection 'Line Patrolled' (as shown in Table D above) has been disclosed as the overhead route line length. The route line length is the aggregated length in kilometers of 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 segments and does not include vertical components such as line sag.

Basis of Preparation

2015 Regulatory Year

For the 2015 Regulatory Year, overhead route line length data was extracted from the Asset Management System SDME (for inclusion in the AusNet Services Economic Benchmarking RIN for 2015 from Template 3.7 Operating Environment).

Table E.

| Maintenance Activity | Maintenance Asset | Unit of Measure – Asset Quantity |
|--|------------------------------------|---|
| DISTRIBUTION SUBSTATION EQUIPMENT & PROPERTY MAINTENANCE | DISTRIBUTION SUBSTATION - PROPERTY | NUMBER OF DISTRIBUTION SUBSTATION PROPERTIES MAINTAINED |

The Number of Distribution Substation Properties Maintained was calculated using information sourced from the SAP System. The number calculated included kiosk substations, pad mounted substations, indoor substations and ground substations.

Table F.

| Maintenance Activity | Maintenance Asset | Unit of Measure – Asset Quantity |
|---------------------------------------|-----------------------------------|---|
| ZONE SUBSTATION EQUIPMENT MAINTENANCE | TRANSFORMERS - ZONE SUBSTATION | NUMBER OF ZONE SUBSTATION TRANSFORMERS |
| | TRANSFORMERS - DISTRIBUTION | NUMBER OF DISTRIBUTION TRANSFORMERS WITHIN ZONE SUBSTATIONS |
| | TRANSFORMERS - HV | NUMBER OF HV TRANSFORMERS |
| | ZONE SUBSTATION - OTHER EQUIPMENT | OTHER |
| | ALL ZONE SUBSTATION PROPERTIES | NUMBER OF ZONE SUBSTATION PROPERTIES MAINTAINED |

For the 2015 Regulatory Year, data for the number of Zone Substation Transformers was sourced from data used to prepare Template 3.5 Physical Assets in the 2015 AusNet Services Economic Benchmarking RIN. Information used was ultimately sourced from internal policy AMS 20-101 which is used for the Distribution Annual Planning Report.

The Asset Quantity and Asset Quantity Inspected/Maintained, Inspection and Maintenance Cycle for Number of distribution transformers within zone substations and Number of HV transformers is reported as zero as AusNet Electricity Services does not own any distribution transformers and HV transformers within a zone substation.

The number of Zone Substation - Other Equipment assets has been estimated based on the number of circuit breakers plus an escalation factor (of 163%) to estimate other assets including 66kv isolators/disconnectors and 66kv instrument transformers (CTs and VTs) only, which are maintained on a regular basis. The percentage estimate was performed by a relevant SME. The number of circuit breakers was obtained from SAP.

Basis of Preparation

2015 Regulatory Year

Information in relation to the number of Zone Substation Properties is consistent with the 2014 data reported as no new Zone Substations have been added. This was obtained from the AusNet Electricity Services' internal document 'PGI 67-01-01 List of Transmission and subtransmission Stations and communication sites', the EDPR Asset Condition Data Sheet and the Asset Management System for the 2014 Regulatory Year. Each Zone Substation is assumed to be one property including buildings, fences, drainage, switchyard surfaces/access roads, metallic structures etc.

Estimated Information:

The data provided as listed under Table A above is considered estimated information, based on assumptions and estimates included in preparing Template 5.2 Asset Age Profile.

The 'number of customers' (in relation to Service Lines) is estimated information as the required data was not available in AusNet Electricity Services' systems. The calculation methodology and assumptions applied have been outlined above.

The quantity of Zone Substation - Other Equipment assets has been estimated using information from the Asset Management System and assumptions of an SME.

This is considered to be management's best estimate based on the data available.

Asset Quantity Inspected/Maintained

Preparation Methodology

For the period May to December 2015, financial and non-financial data was extracted from the SAP system using the AusNet Services Work Code Structure and supplemented with project information (where necessary). The financial component of the extract was reconciled to Maintenance Opex in the Annual Regulatory Accounts (to ensure completeness of the extract).

The data extracted provided project number, project description, assembly code, 'floc', 'equipment' and 'notification' details. Assembly codes represent type of asset and type of work being performed (the equivalent of work specs in the previous asset management system). A notification represents an item of work.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|--|------------------------------|
| POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE | POLE TOPS AND OVERHEAD LINES |
| POLE INSPECTION AND TREATMENT | ALL POLES |
| NETWORK UNDERGROUND CABLE MAINTENANCE | LV - 11 TO 22 KV |
| | 33 KV AND ABOVE |
| | NON-CBD |

For the Maintenance Activities listed in the table above, the notification data was grouped to the relevant Maintenance Activity ("RIN Category") and Maintenance Asset Category using the work order assembly code. If the work order assembly code was unavailable, the notification assembly code was used. The

Basis of Preparation

2015 Regulatory Year

knowledge of an SME was used to translate the assembly codes into the prescribed Maintenance Activities and Maintenance Asset Categories.

In some instances, the assembly codes were not considered reliable. For these exceptions, project information was used to categorise the data into Maintenance Activity and Maintenance Asset Category. In some cases, work orders had multiple different projects. In these instances the first listed project was used.

To derive the 'Asset Quantity Inspected/Maintained' a count was performed of all distinct notifications in each Maintenance Asset Category.

As the data extracted was for an 8 month period only, the work order counts were extrapolated over a 12 month period to estimate the 'Asset Quantity Inspected/Maintained' for the 2015 Regulatory Year.

For the categories 'Poles Tops and Overhead Lines' and 'All Poles' the data extracted from SAP work orders was supplemented with information contained in the Completed Inspection Database (which included Ground inspections, Private Pole inspections and Aerial inspections). This information is not linked to a work order in SAP and as such was not captured in the SAP data extract.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|---------------------------------------|---|
| ZONE SUBSTATION EQUIPMENT MAINTENANCE | TRANSFORMERS - ZONE SUBSTATION |
| | ZONE SUBSTATION - OTHER EQUIPMENT |
| PROTECTION SYSTEMS MAINTENANCE | PROTECTION SYSTEMS MAINTENANCE |
| ALL ZONE SUBSTATION PROPERTIES | NUMBER OF ZONE SUBSTATION PROPERTIES MAINTAINED (000'S) |

For the Maintenance Activities listed in the table above, the data was grouped to the relevant Maintenance Activity ("RIN Category") using the project details. Assembly codes were then used to categorise the data into Maintenance Asset Category. The knowledge of an SME was used to translate the assembly codes into the prescribed Maintenance Activities.

In some instances, the assembly codes were not considered reliable. For these exceptions, project information was used to categorise the data into Maintenance Activity and Maintenance Asset Category.

To derive the 'Asset Quantity Inspected/Maintained' a count was performed of all distinct notifications in each Maintenance Asset Category.

As the data extracted was for an 8 month period only, the work order counts were extrapolated over a 12 month period to estimate the 'Asset Quantity Inspected/Maintained' for the 2015 Regulatory Year.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|--|--------------------------------------|
| POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE | SERVICE LINES |
| OVERHEAD ASSET INSPECTION | ALL OVERHEAD ASSETS |
| DISTRIBUTION SUBSTATION EQUIPMENT & PROPERTY MAINTENANCE | DISTRIBUTION SUBSTATION TRANSFORMERS |
| | DISTRIBUTION SUBSTATION SWITCHGEAR |

Basis of Preparation

2015 Regulatory Year

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|-------------------------------------|-------------------------------------|
| SCADA & NETWORK CONTROL MAINTENANCE | SCADA & NETWORK CONTROL MAINTENANCE |

For the Maintenance Activities in the table above, information provided has been calculated as the sum of the 'Asset Quantity at Year End' divided by the 'Inspection Cycle' in years and 'Asset Quantity at Year End' divided by the 'Maintenance Cycle' in years. For these maintenance categories, the calculation performed is considered to be more indicative of the quantity inspected and maintained than information from other sources.

Estimated Information

The information provided in relation to 'Asset Quantity Inspected/Maintained' is considered estimated based on the extrapolation of 8 months' data.

A degree of judgment was also required to allocate the data extracted into the categories required in the templates. SMEs were engaged to derive these allocations.

All information provided is considered estimated information.

This is considered to be management's best estimate based on the data available.

Average Age of Asset Group

Preparation Methodology:

Data reported as the 'Average Age of Asset Group' was sourced from Template 5.2 Asset Age Profile. The Asset Installation dates reported were used to calculate the Average Age of the Asset Group. The judgment of an SME was used to align the asset categories in the Asset Age Profile model to the Maintenance Asset Categories.

AusNet Electricity Services does not keep individual records for properties including the age of buildings, fences, drainage, switchyard surfaces/access roads, metallic structures etc. The average ages of Distribution substation-property and all zone substation properties are therefore based on engineering estimates, which are the same values as per the Category Analysis submission for the 2014 Regulatory Year.

Estimated Information

The information provided is considered estimated information based on the preparation methodology outlined above.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

Inspection Cycle and Maintenance Cycle

A 'Maintenance cycle' is the planned or actual duration between two consecutive maintenance works on an asset. An 'Inspection cycle' is the planned or actual duration between two consecutive inspections of an asset.

The 'Inspection cycle' and the 'Maintenance cycle' for each maintenance subcategory have been expressed as the number of years in the respective cycles. Where there are multiple inspection and maintenance activities, the cycle that reflects the highest cost activity has been reported.

Preparation Methodology:

Table G.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|--|------------------------------|
| POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE | POLE TOPS AND OVERHEAD LINES |
| POLE TOP, OVERHEAD LINE & SERVICE LINE MAINTENANCE | SERVICE LINES |
| POLE INSPECTION AND TREATMENT | ALL POLES |
| OVERHEAD ASSET INSPECTION | ALL OVERHEAD ASSETS |

The inspection cycles in relation to the above asset categories was estimated based on cycles contained in the AusNet Electricity Services' internal policy document 'Asset Inspection Manual'. The estimation was performed by a relevant SME. The Inspection Cycle for Service lines is 3.5 years, which is a proxy for the inspection cycle that aligns with the requirement for Overhead line inspection. In practice, physical inspection and maintenance result from regular analysis of network data that are identified through faulty service connections and reports from customers of electricity supply interruption.

In relation to the Maintenance Cycle, the above listed assets are subject to 'condition based' maintenance only. No planned maintenance is undertaken. Based on this, the maintenance cycle has been populated as zero.

Table H.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|---|----------------------------|
| NETWORK UNDERGROUND CABLE MAINTENANCE: BY VOLTAGE | LV - 11 TO 22 KV |
| | 33 KV AND ABOVE |

As Underground cable assets are not routinely inspected or maintained, 'Inspection Cycles' and 'Maintenance Cycles' of zero have been reported.

Basis of Preparation

2015 Regulatory Year

Table I.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|--|--|
| DISTRIBUTION SUBSTATION EQUIPMENT & PROPERTY MAINTENANCE | DISTRIBUTION SUBSTATION TRANSFORMERS |
| | DISTRIBUTION SUBSTATION SWITCHGEAR (WITHIN-SUBSTATIONS AND STAND-ALONE SWITCHGEAR) |
| | DISTRIBUTION SUBSTATION - PROPERTY |

In relation to Distribution Substation Transformers, the 'Inspection Cycle' reported is based on the inspection cycle of pole mounted transformers as ground mounted transformers are not routinely inspected (unless they are at a key switch location). Pole mounted transformers are inspected as part of the overhead line routine patrol which is performed based on a 3.5 year cycle. The inspection cycle reported is considered management's best estimate of the required data.

Distribution Substation Transformers are not subject to a routine maintenance cycle. Generally, distribution transformers assets are run to failure (failures are pre-empted by load profile review etc). This is supported by the minimal number of work orders for Transformer maintenance. Based on this, the 'Maintenance Cycle' has been reported as zero.

Distribution Substation Switchgear is not routinely inspected. Based on this, the inspection cycle has been reported as zero. Maintenance is conducted on switches that have been identified as 'key switches' according to various timescales. The frequency for gas switch, ring main units maintenance is approximately 10 years. This is based on information sourced in 2014 from the Q4 Asset Management System.

The Inspection Cycle of Distribution substation property has been reported as 3.5 years. This is based on the inspection cycle of ground type distribution substations which are inspected as part of the bundled line patrol. They are not subject to a routine maintenance cycle.

Other Equipment is not subject to routine maintenance. Based on this, the Maintenance Cycles have been reported as zero. Inspections are on an ad hoc basis.

Table J.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|---------------------------------------|--------------------------------|
| ZONE SUBSTATION EQUIPMENT MAINTENANCE | TRANSFORMERS - ZONE SUBSTATION |

The Maintenance Cycle of Transformers was calculated as the average maintenance cycle based on the age of the transformer assets. A 2 year routine maintenance cycle is required for older transformers, newer transformers require a 4 year maintenance cycle and very new transformers require minor maintenance work every two years but major work every 12 years. This information was extracted from the AusNet Electricity Services' internal policy document 'PGI 02-01-04 Summary of Maintenance Intervals Distribution Zone Substations' and is also based on the knowledge of SMEs, asset conditions and manufacturer recommendations. The average cycle has been reported as data is unavailable to determine the cycle with the highest cost activity.

Basis of Preparation

2015 Regulatory Year

The inspection cycles reported for Transformers was based on the frequency of oil sampling which is performed on an annual basis for all transformers. This is based on the knowledge of SMEs, asset conditions and manufacturer recommendations.

Table K.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|---------------------------------------|-----------------------------------|
| ZONE SUBSTATION EQUIPMENT MAINTENANCE | ZONE SUBSTATION - OTHER EQUIPMENT |

The Maintenance Cycle of Zone Substation - Other Equipment has been estimated as the number of routine maintenance performed on circuit breakers and isolators/disconnectors. The majority of the older circuit breakers are on a 4 year maintenance cycle with the remaining circuit breakers on an 8 year cycle. All isolator/disconnector maintenances are on an 8 year cycle. This information was extracted from the AusNet Electricity Services' internal policy document 'PGI 02-01-04 Summary of Maintenance Intervals Distribution Zone Substations' and is also based on the knowledge of SMEs, asset conditions and manufacturer recommendations. The average cycle has been reported as data is unavailable to determine the cycle with the highest cost activity

The inspection cycles reported for Other Equipment is inspected on an annual basis based on information in AusNet Electricity Services' policy 'PGI 02-01-04 Summary of Maintenance Intervals Distribution Zone Substations', the knowledge of SMEs, asset conditions and manufacturer recommendations.

Table L.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|---------------------------------------|--------------------------------|
| ZONE SUBSTATION EQUIPMENT MAINTENANCE | ALL ZONE SUBSTATION PROPERTIES |

Zone Substation civil inspections are conducted every month/three months, in general, based on information contained in internal policy 'PGI 67-01-01' and the site risk associated with stations. Also the inspections intervals are adjusted based on locations and criticality of the zone substation. The interval could vary from monthly to three monthly and even six monthly in some cases. The average has been estimated as three monthly for every zone substation. The average cycle has been reported as data is unavailable to determine the cycle with the highest cost activity

Maintenance is performed on a 'condition-basis' only. For the purposes of complying with the RIN requirements, the template has been completed as 0.5 years which was calculated as the quantity of assets in age group and expected maintenance works generated due to identified defects during each inspection for each age group.

Table M.

| MAINTENANCE ACTIVITY | MAINTENANCE ASSET CATEGORY |
|-------------------------------------|-------------------------------------|
| SCADA & NETWORK CONTROL MAINTENANCE | SCADA & NETWORK CONTROL MAINTENANCE |
| PROTECTION SYSTEMS MAINTENANCE | PROTECTION SYSTEMS MAINTENANCE |

Data provided was extracted from the AusNet Electricity Services' internal policy document 'PGI 02-01-04 Summary of Maintenance Intervals Distribution Zone Substations' as the maintenance interval for

Basis of Preparation

2015 Regulatory Year

Protection Schemes. The inspection and maintenance cycles are the same for Protection System assets as inspection and maintenance is performed simultaneously.

Estimated Information:

This is considered to be management's best estimate based on the data available.

Table 2.8.2 – Cost Metrics for Routine and Non-Routine Maintenance

Maintenance expenditure has been provided for each of the prescribed maintenance categories and has been presented in nominal dollars. Expenditure reported relates to Direct Costs only and excludes expenditures on Overheads.

Expenditure incurred for the simultaneous inspection of assets and vegetation has been included in Template 2.7 Vegetation Management and not in Template 2.8 Maintenance. Expenditure has been classified as Routine and Non-routine Maintenance Costs.

Routine maintenance costs are costs of recurrent/programmed activities undertaken to maintain assets, performed regardless of the condition of the asset. Costs of activities are 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;
- indiscriminately carried out for a pre-defined set of assets; and
- scheduled to occur at pre-defined intervals.

Routine maintenance may include activities to inspect, survey, audit, test, repair, alter, or reconfigure assets.

Routine maintenance expenditure excludes the costs of 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. It also excludes costs associated with asset removal, asset replacement, new asset installation, vegetation management and emergency response.

Non-routine maintenance costs are costs 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.

Non-routine maintenance is 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.

Non-routine maintenance expenditure 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. It also excludes costs associated with asset removal, asset replacement, new asset installation, vegetation management and emergency response.

Basis of Preparation

2015 Regulatory Year

Preparation Methodology:

Expenditure on maintenance works (and other non-maintenance costs) is coded to work codes and recorded in AusNet Electricity Services' general ledger and projects ledger. These costs do not include overheads.

For the period January to April 2015, data was extracted from Oracle based on the Maintenance Work Codes. The maintenance work codes were then subject to review by SMEs and allocated into the prescribed categories and routine and non-routine splits. Where necessary, work codes were split into 'task codes', which is a further disaggregation available within work codes (i.e. work codes are comprised of task codes).

The allocations applied for the period January 2015 to April 2015 are consistent with previous Regulatory Years.

For the period May to December 2015, data was sourced from SAP based on the Maintenance work codes and also from the cost centre allocations used in determining Maintenance Expenditure in the Annual Regulatory Accounts.

The data sourced from SAP is the same information used in preparing the Asset Quantities Inspected/Maintained. As such the same categorisations were applied to the corresponding financial information to determine the Maintenance Asset Category.

Cost information is included at a work order level and not allocated to the underlying individual notifications/assembly codes. In order to assign work order costs to relevant groups (Maintenance Activity and Maintenance Asset Group), the data extracted was traced to work orders (through notifications). This results in a table that mapped each work order to a relevant maintenance asset category. Costs are summed up at work order level and grouped based on this mapping.

Where necessary, the data was supplemented with project descriptions to allocate the financial information into Asset Categories. Allocations were performed by a subject matter expert. The SAP work codes provide the Routine and Non-Routine information required.

It is important to note that the costs presented in the various rows of Table 2.8.2 are not necessarily mutually exclusive of other rows in the same table. For example, 'Network Underground Cable Maintenance' is reported both by voltage and by location, in the same table. To sum these amounts together would double count these maintenance costs. In accordance with guidance from the AER, an additional row ('Duplications') has been included in Table 2.8.2 to remove duplications.

Estimated Information:

All data provided is considered estimated information.

Work code data extracted from Oracle did not provide a Routine vs Non-Routine information split as the work codes were not set up to provide this level of detail. The allocation between Routine and Non-Routine Maintenance was based on the judgment of subject matter experts familiar with the work codes and consistent with those reported in the Annual Regulatory Accounts.

Basis of Preparation

2015 Regulatory Year

A degree of judgment was also required to allocate expenditure in each work code to the categories required in the templates. SMEs were again engaged to derive these allocations.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

2.9 Emergency Response

Emergency response expenditure relates to 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.

Emergency response includes 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 events, vandalism, traffic accidents or other physical interference by non-related entities.

Table 2.9.1 - Emergency response expenditure

Total Emergency Response Expenditure

Preparation Methodology:

For the 2015 Regulatory Year, Total Emergency Response expenditure was extracted from the Annual Regulatory Accounts. Amounts included in the Annual Regulatory Accounts were based on information sourced from the Financial Systems. A suitable expert reviewed January to April by ledger cost code to determine the percentage to be allocated to Emergency Response expenditure for that period. A similar review of May to December was not required as a specific ledger cost code was created in SAP to capture Emergency Response expenditure.

Major Events O&M Expenditure (Major Storm)

A major storm is a tropical cyclone of Category 1 or above as classified by the Australian Bureau of Meteorology. There are no tropical cyclone occurrences in AusNet Electricity Services' network.

Major Event Days O&M Expenditure

Major Event Days ("MEDs") are defined as per the meaning specified in the service target performance incentive scheme ("STPIS").

Preparation Methodology:

The MEDs reported are consistent with the MED days identified for Template 6.3 Sustained Interruptions.

The MED threshold was calculated for the 2015 Regulatory Year from the daily Unplanned System Average Interruption Duration Index ("SAIDI") data between Regulatory Years 2010 and 2014 (5 years) using the annual AER RIN Template MED calculator (most recent applicable). Calculations performed were in accordance with the requirements of the STPIS. The calculated MED threshold was then applied as the threshold for the 2015 Regulatory Year for the purpose of identifying MEDs.

Emergency response expenditure attributable to MEDs is not separately captured in the Financial System. Expenditure for the MEDs 7 January 2015, 28 February 2015, 25 November 2015 has been calculated by reviewing data in the relevant work codes, supporting information from contractor invoices

Basis of Preparation

2015 Regulatory Year

and accrued expenses for the 2015 Regulatory Year. Only costs incurred or accrued have been reported in the data reported Expenditure for MED 20 December 2015 was not shown as contractor invoices were unavailable at the close of the 2015 Regulatory Year.

Estimated Information:

All financial information provided under 'Major Event Days O&M Expenditure' is considered actual information.

No estimates were required.

Basis of Preparation

2015 Regulatory Year

2.10 Overheads Expenditure

Overhead Expenditure is expenditure that cannot be directly attributed to a work activity, project or work order and consists of labour, materials, contract costs and other costs.

Overhead Expenditure has been disaggregated as Network Overheads and Corporate Overheads.

Overheads in relation to Alternative Control Services have been reported as zero in the Template. This is due to template limitations which preclude Capitalised Alternative Control Services being reported. Without reporting the capitalised component, the Total Alternative Control Services Overhead Expenditure would be inconsistent with the presentation of Standard Control Services Overheads.

Table 2.10.1 – Network Overheads Expenditure

Overhead expenditure has been reported in Table 2.10.1 before it is allocated to services or direct expenditure and before any part of it is capitalised.

Network Overhead costs refer to the provision of management services and other related operational, network planning, asset management and compliance functions that cannot be directly associated with any specific operational activity (such as routine maintenance, vegetation management, etc.). Network Overhead includes expenditure for Network Management, Network Planning, Network Control & Operational Switching, Quality and Standard Functions, Project Governance & Related Functions and Other network operating costs. These expenditure categories are defined below.

- Network Management – expenditure not directly related to any of the functions listed below.
- Network Planning - includes all costs associated with developing visions, strategies, or plans for the development of the network. This includes functions such as demand forecasting, network analysis, preparation of planning documentation, area plans, and the like, as well as management directly associated with these functions.
- Network Control & Operational Switching- includes all costs associated with network control (system operations). This includes functions such as planning and scheduling of switching activities, control room staff, management of field crews, dispatch operators, associated support staff, as well as management directly associated with these functions.
- Quality and Standard Functions - including standards & manuals, asset strategy (other than network planning), compliance, quality of supply, reliability, and network records (e.g. geographical information systems).
- Project Governance & Related Functions - includes all costs associated with the approval and management control of network projects or programs. This includes the cost of functions such as project management offices, works management, project accounting, or project control groups where these costs are not directly charged to specific projects or programs.
- Other network operating costs - including training, OH&S functions,, network billing and customer service & call centre.

Capitalised overhead is overhead expenditure recognised as part of the cost of an asset, i.e. as capital expenditure.

Basis of Preparation

2015 Regulatory Year

Preparation Methodology:

Using information from the Financial Systems that was used to prepare the Annual Regulatory Accounts, Overheads Expenditure was classified into the prescribed categories in Table 2.10.1. In order to perform this allocation, expenditure information was extracted from the Financial System by cost ledger code and by division. Where there was a requirement to disaggregate the expenditure categories presented in the Annual Regulatory Accounts into the prescribed categories in Table 2.10.1, an assessment was made by an appropriate SME to determine the categorisations.

In Table 2.10.1, 'Overhead Expenditure before Allocation' (Standard Control Services, Negotiated Services and Unregulated Services) is presented on a gross basis (inclusive of amounts capitalised).

AusNet Electricity Services capitalises Overhead expenditure that is directly attributable to bringing an asset to its intended in-service state. Indirect costs (to bring the asset to its intended in-service state) include labour costs of employees who do not complete timesheets. The amount of capitalised overheads was allocated to the prescribed categories based on the ABC Survey process undertaken in accordance with the CAM. Amounts capitalised have been separately presented under 'Capitalised Overheads' in Table 2.10.1.

Estimated Information:

The data included in Table 2.10.1 is considered estimated information as judgment was made to determine the categorisation of Network Overheads Expenditure based on the cost centres in Oracle in the first 4 months. The 8 months was considered actual as the ABC Survey allocates the overheads within the system.

This is considered to be management's best estimate based on the data available.

Table 2.10.2 – Corporate Overheads Expenditure

Overhead expenditure in Table 2.10.2 has been reported before it is allocated to services or direct expenditure and before any part of it is capitalised.

Corporate Overhead Expenditure refers to the provision of corporate support and management services by the corporate office that cannot be directly identified with specific operational activity. Corporate overhead costs include those for executive management, legal and secretariat, human resources, finance, bushfire and Royal Commission costs, Non-network IT support costs and regulatory costs.

Preparation Methodology:

Overheads Expenditure was classified into the prescribed categories in Table 2.10.2 using information used to prepare the Annual Regulatory Accounts (ultimately sourced from the Financial Systems). In order to perform this allocation, expenditure information was extracted from the Financial Systems by cost ledger code and by division. Where there was a requirement to disaggregate the expenditure categories presented in the Annual Regulatory Accounts into the prescribed categories in Table 2.10.2, an assessment was made by an SME, to determine the categorisations.

Basis of Preparation

2015 Regulatory Year

In Table 2.10.2, Overhead Expenditure before Allocation (Standard Control Services, Negotiated Services and Unregulated Services) is presented on a gross basis (inclusive of amounts capitalised).

AusNet Electricity Services capitalises overhead expenditure that is directly attributable to bringing an asset to its intended in-service state. These indirect costs (to bring the asset to its intended in-service state) include labour costs of employees who do not complete timesheets. The amount of capitalised overheads was allocated to the prescribed categories based on the ABC Survey process undertaken in accordance with the Cost Allocation Methodology.

Amounts capitalised have been separately presented under 'Capitalised Overheads' in Table 2.10.2.

Estimated Information:

The data included in Table 2.10.1 is considered estimated information as judgment was made to determine the categorisation of Network Overheads Expenditure based on the cost centres in Oracle in the first 4 months. The 8 months was considered actual as the ABC Survey allocates the overheads within the system.

This is considered to be management's best estimate based on the data available.

.

Basis of Preparation

2015 Regulatory Year

2.11 Labour

The total cost of labour reported is equal to the total labour costs reported against the Capex and Opex categories listed in Template 2.12 Input Tables.

Labour costs relating to labour hire contracts have been included within the classification levels. Labour used in the provision of contracts for both goods and services, other than contracts for the provision of labour (e.g. labour hire contracts) have not been reported.

Quantities of labour, expenditure, or stand down periods have not been reported multiple times across the labour categories.

The following 3 categorisations have been applied -

1. Corporate Overhead costs - refer to the provision of corporate support and management services by the corporate office that cannot be directly identified with specific operational activity.
2. Network Overhead costs - refer to the provision of management services and other related operational, network planning, asset management and compliance functions that cannot be directly associated with any specific operational activity.
3. Direct Network Labour - includes workers who primarily undertake field work in their job. This includes:
 - Field tradespeople including workers working in field depots (e.g. fitters and turners and mechanics working in depots).
 - Apprentices training for work that would primarily be field work (i.e. irrespective of whether most of their current work or training is not undertaken in the field).

It is noted that a broader definition of overheads is prescribed for the completion of the Labour Template than in Template 2.10 Overheads. In the Labour Template there are only four categories of 'Direct Labour' (Skilled electrical worker, Skilled non electrical worker, Apprentice and Unskilled worker). All other labour costs are treated as Overheads costs, even though the employees might directly work on projects.

The below definitions have been applied in the preparation of Tables 2.11.1 and 2.11.2.

| Labour Classification Level | |
|-----------------------------|--|
| Executive manager | A manager responsible for managing multiple senior managers. For example CEO, General Manager People and Safety, Finance & Treasury and Legal. |
| Senior Manager | A manager responsible for managing multiple managers who each manage work teams and projects within the organisation. |
| Manager | A manager responsible for managing teams of staff. |
| Professional | Professional workers who do not have a primary role as staff managers. These may include lawyers, accountants, economists etc. |
| Semi professional | Workers with some specialist training supporting fully trained |

Basis of Preparation

2015 Regulatory Year

| | |
|--|--|
| | professionals (e.g. draftsman, bookkeeper etc.). |
| Support staff | Non-professional support staff not undertaking field work (e.g. clerical support, secretaries). |
| Intern, junior staff, nonfield work apprentice | Interns, junior staff and apprentices undertaking non field work. All apprentices undertaking or training to undertake field work are reported under Labour Classification Level – Apprentice. |
| Skilled electrical worker | Fully qualified/trained electrical workers. This will include line workers, cable jointers, electrical technicians and electricians who have completed an apprenticeship. |
| Skilled non electrical worker | Skilled non electrical worker employed for their skill set. Examples are tradesmen who have completed an apprenticeship such as carpenters, mechanic, painters and arborists. |
| Apprentice | A field worker employed as part of a government accredited apprenticeship program. This includes all apprentices who will not primarily be working in offices once fully trained (e.g. apprentices training to become electrical workers, fitters and turners, plumbers, painters, mechanics and arborists). |
| Unskilled worker | Field workers with limited specialist training. This includes workers who have completed short courses with no other qualifications (e.g. labourer, arborist's assistant, traffic controller, meter reader). |

Table 2.11.1 – Cost Metrics per Annum

For the period January to April, a report was generated from the Payroll and Timesheeting Systems (TM1) which provided information in relation to all distribution business employees required to submit timesheets and who charged time to Electricity Distribution business projects. The report included details of labour costs, productive and non-productive hours, normal time/overtime/allowances and cost centre information. Using data obtained from the ABC surveys, the data was allocated into the Electricity Distribution and Gas Distribution businesses and scaled to reflect hours and costs relating to SCS work only (based on the SCS percentage calculated in the Non-Network template). This compiled report is referred to as "Report 1".

For the period January to April, a report was also generated from the Financial System (TM1) showing the labour hire employee costs and the labour costs for employees who are not required to submit timesheets. The report included a number of credit balances representing the allocation of labour hire costs to projects. To accurately reflect total labour hire costs, only debit entries were accounted for (before reallocations). Based on cost centres, the report was scaled to reflect SCS costs only. This report is referred to as "Report 2".

For the period May to December, a report was generated from the SAP which provided information in relation to all distribution business employees required to submit timesheets and who charged time to Electricity Distribution business projects. The report included details of labour costs, productive and non-productive hours, normal time/overtime/allowances and employee identification information. The data was scaled to reflect hours and costs relating to SCS work only (based on the SCS percentage calculated in the Non-Network template). This compiled report is referred to as "Report 3".

Basis of Preparation

2015 Regulatory Year

For the period May to December, a General Ledger report was also generated from SAP (BI) showing the total Electricity Distribution labour costs in the Electricity Distribution business. Report 3 was subtracted from this report to derive the labour costs for employees who are not required to submit timesheets. The parameters of this report were set to also capture Labour Hire costs. The report was scaled to reflect SCS costs only. This report is referred to as "Report 4".

Using Report 1, the appropriate labour categorisation levels were derived based on a combination of job titles, cost centres and the AusNet Services organisational chart. Judgments were made by an SME when determining the appropriate labour categorisation levels. This was performed using positions held for each employee and the date the positions changed, with the labour classification level being updated in the month in which the change occurred. The labour categorisation level was determined based on each employee's position and cost centre.

For Report 2, labour hire resources were assigned to an appropriate labour classification level as well as a labour category based on the cost centres used to code the labour expenditure. For cost centres with various employee classifications, the labour classification level and labour category selected were based on the employee and labour category assigned to the majority of staff in that cost centre.

For Report 3, the data extracted from SAP included employee identification numbers, which were used as a basis to categorise the data in the required labour classifications. Judgments were made by a SME when determining the appropriate labour categorisation levels.

For Report 4, a portion of the data extracted from SAP could be allocated using employee identification numbers. Where this data was available, it was used as a basis to categorise the data into the required labour classifications. This data included labour hours (productive and non-productive). For the Labour Hire portion of the report, the percentage categorisations from Report 2 were used to allocate the data into the required labour categories. Judgments were made by a SME when determining the appropriate labour categorisation levels.

Estimated Information:

Based on judgments made, all data presented in Table 2.11.1 and 2.11.2 is considered estimated information.

This is considered to be management's best estimate based on the data available.

Average Staffing Level ("ASL")

One ASL is a full-time equivalent employee undertaking SCS work receiving salary or wages over the entire year. For avoidance of doubt, a full time employee equating to one full-time equivalent ("FTE") over the course of the year that spends 50% of their time on SCS work is 0.5 ASL.

FTEs include all active full-time and part-time, ongoing and non-ongoing employees engaged for a specified term or task who are paid through payroll (part-time employees are converted to full-time equivalent based on the hours they work) and workers engaged under labour hire contracts.

Basis of Preparation

2015 Regulatory Year

Preparation Methodology:

For Reports 1 and 3, the total SCS hours were divided by 1800 (reflecting the average annual hours worked - based on 48 weeks at 37.5 hours per week) to derive the number of ASLs.

For Report 2, the total cost was also divided by 1800 and by the average unit rate (per employee classification) to derive ASLs. The rates applied were the standard hourly rate based on employee classifications in the Payroll System. One standard rate has been applied per employee classification.

For Report 4, the total cost was also divided by 1800 and by a unit rate (per employee classification) to derive ASLs. The rates applied were based on the unit rates calculated for Report 3. One rate has been applied per employee classification.

Estimated Information:

This is considered estimated as all FTEs, ASLs were derived using an estimation of the total annual hours worked. For labour hire employees and non-timesheet employees, further judgments were made in relation to the hourly rates used.

This is considered to be management's best estimate based on the data available.

Total Labour Cost

'Total labour cost' is the total labour costs associated with the total ASLs in a given classification level. Labour costs are the costs of Labour hire, Ordinary time earnings, Other earnings, on-costs and taxes and superannuation.

'Ordinary time earnings' means expenditure that was required under contracts of employment with AusNet Electricity Services and which constitutes ordinary time salaries and wages. It excludes expenditure required under contracts other than employment contracts, irrespective of whether or not the contract includes a labour component.

Other earnings, on-costs, and taxes means expenditure:

- that was required under contracts of employment with AusNet Services; and
- which does not constitute employer superannuation contributions; and
- which constitutes:
 - overtime; and/or
 - staff allowances, including allowances for expenses incurred (e.g. meal allowances) and allowances for nature of work performed (e.g. special skills allowance, or living away from home allowance); and/or
 - bonuses, incentive payments, and awards; and/or
 - benefits in kind and corresponding compensation payments (e.g. housing, electricity or gas subsidies); and/or
 - termination and redundancy payments; and/or
 - workers compensation; and/or
 - purchase of protective clothing for use by employees; and/or
 - training and study assistance provided to employees; and/or

Basis of Preparation

2015 Regulatory Year

- taxes (payroll tax, fringe benefits etc)

Preparation Methodology:

Information reported in relation to 'Total labour costs' was obtained from Reports 1, 2, 3 and 4, after SCS percentages were applied.

However, given the requirement to reconcile Total Direct Labour Costs reported in Template 2.12 Input Tables to Template 2.11 Labour, an adjustment was made. The adjustment was calculated as the difference between these templates and was allocated on a pro-rata basis to all employee classifications in Table 2.11.1. Given the need to reconcile the Labour template to the Input Tables template, data reported in the Labour template is a combination of SCS and alternative control services.

Estimated Information:

Based on the above, the information provided is considered estimated information.

This is considered to be management's best estimate based on the data available.

Average Productive Work Hours per ASL

Productive work hours are hours worked undertaken by the employee/labour hire person's substantive job. Productive work hours include:

- Supervised on the job training including supervision of apprentices, mentoring and normal employee feedback and development; and
- All normal work involved in undertaking the person's substantive job including time spent on meetings and travel between different work areas.

Non-productive work hours are work hours that are non-productive such as annual leave, sick leave, training course and sessions (that are more than supervised on the job training, mentoring and normal employee feedback and development) and other non-productive work hours.

Preparation Methodology:

For Reports 1 and 3, information in relation to Productive work hours was included in the report data. 'Average Productive Work Hours per ASL' was calculated as Total Productive (SCS) hours divided by ASLs (engaged in SCS work).

For Reports 2 and 4, 'Average Productive Work Hours per ASL' was calculated as the Productive labour cost divided by hourly rates and ASLs.

Estimated Information:

This is considered estimated as for labour hire employees (Report 2), it has been assumed that all labour costs incurred relate to productive work only. Further assumptions were applied in relation to the standard hourly rates applied (as discussed above). This is considered managements' best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

For Report 4, it has been assumed that all costs and hours for employees classified as Corporate Overheads and Network Overheads are productive hours and costs. All costs and hours for employees classified as Direct Network are non-productive hours and costs. This is considered to be management's best estimate based on the data available.

Stand Down Occurrences per ASL

Preparation Methodology:

'Stand down occurrences per ASL' is the average number of stand down periods per ASL in each labour classification level over the year.

A stand down period is where an employee, or worker employed under a labour hire contract, can't start a scheduled shift that would involve standard control services work at normal ordinary time wages due to prior work at the organisation (for example, due to not having sufficient time off between work shifts).

For the period January to April, data reported was obtained from the Payroll and Timesheeting Systems (TM1) based on hours recorded against a stand down time code. Data is considered actual information.

For the period May to December, an equivalent report was unable to be generated. The data extracted for the 4 month period, was extrapolated over a 12 month period to estimate the information required.

Estimated Information:

This is considered to be management's best estimate based on the data available.

Table 2.11.2 – Extra Descriptor Metrics for Current Year

Average Productive Work Hours per ASL – Ordinary Time

'Average Productive Work Hours per ASL – Ordinary Time' is the average productive work hours per Regulatory Year per ASL in each classification level spent on SCS work that are 'Ordinary time earnings'.

Preparation Methodology:

For Reports 1 and 3, information in relation to normal (ordinary) time is available. 'Average productive work hours per ASL – ordinary time' was calculated as total normal time divided by ASLs.

For labour hire employees included on Reports 2 and 4, 'Average productive work hours per ASL – ordinary time' was calculated as 'Total labour cost' divided by the unit rates.

Estimated Information:

For labour hire employees (Report 2), it has been assumed that labour costs incurred relate to ordinary time only. Further assumptions were applied in relation to the standard hourly rates used (as discussed previously above).

Basis of Preparation

2015 Regulatory Year

For Report 4, it has been assumed that labour costs incurred relate to ordinary time only. Further assumptions were applied to derive hourly rates used (as discussed previously above).

This is considered to be management's best estimate based on the data available.

Average Productive Work Hours Hourly Rate per ASL – Ordinary Time

'Average Productive Work Hours Hourly Rate per ASL – Ordinary Time' is the Regulatory Year's average productive work hours (spent on SCS) hourly rate per ASL for each Classification level including labour costs that are direct on costs related to 'Ordinary time earnings'.

The average hourly rate for each year is calculated by reference to the average number of hours paid as 'Ordinary time earnings' for each year and includes costs that are ordinary time salaries and wages in the year.

Preparation Methodology:

For Reports 1 and 3, this metric was calculated as the productive, normal labour cost divided by productive normal hours. This was then reduced by an estimated percentage of on-costs. The on-cost percentage used was the Financial Year 2015 percentage applicable to Victorian employees (where the majority of employees are based). The percentage applied was obtained from the Payroll System.

For Reports 2 and 4, this metric was calculated as the 'Total Labour cost' divided by average productive hours. This was then reduced by the percentage of on-costs (as discussed above).

Estimated Information:

The on-cost percentage applied was estimated based on payroll information for Victorian employees. One standard percentage has been applied across all employees.

This is considered to be management's best estimate based on the data available.

Average Productive Work Hours per ASL – Overtime

'Average productive work hours per ASL – Overtime' is the average overtime hours for the Regulatory Year paid per ASL for each classification level per year spent on standard control services. Overtime hours are paid productive work hours that are not 'Ordinary time earnings'.

Preparation Methodology:

For Reports 1 and 3, information in relation to overtime is available. The 'Average productive work hours per ASL – overtime' was calculated as total productive overtime hours divided by ASLs.

For Reports 2 and 4 all labour hire employees' and non-timesheet employees' time is considered ordinary time. Based on this, no 'Average productive hours per ASL – Overtime' calculation was performed.

Basis of Preparation

2015 Regulatory Year

Estimated Information:

For labour hire employees included in Reports 2 and 4, it has been assumed that all labour costs incurred relate to ordinary time only.

This is considered to be management's best estimate based on the data available.

Average Productive Work Hours Hourly Rate per ASL – Overtime

'Average Productive Work Hours Hourly Rate per ASL' is the Regulatory Year's average productive work hours (spent on SCS) hourly rate per ASL for each classification level including labour costs that are direct on costs related to productive overtime hours that are not 'Labour Costs – ordinary time earnings'.

The average hourly rate is calculated by reference to the average number of productive work hours paid as overtime and includes costs that are overtime salaries and wages in the year.

Preparation Methodology:

For Reports 1 and 3, this metric was calculated as the productive, overtime labour cost divided by the productive overtime hours. This was then reduced by the 2015 on-cost percentage of on-costs for Victorian employees. The percentage used was extracted from the Payroll System.

For Reports 2 and 4 all labour hire employees' time is considered ordinary time. Based on this, no 'Average Productive Work Hours Hourly Rate per ASL – Overtime' calculation was performed.

Estimated Information:

The on-cost percentage applied was estimated based on payroll information for Victorian employees. One standard percentage has been applied across all employees.

For labour hire employees and non-timesheet employees (included in Reports 2 and 4), it has been assumed that all labour costs incurred relate to ordinary time only.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

2.12 Input tables

Information reported in Template 2.12 Input Tables relates to direct costs for Standard Control and Alternative Control Services. Data reported excludes overheads and is presented on an 'as incurred' basis. Contract Costs are presented inclusive of any applicable Related Party Contract Cost and Related Party Contract Margin.

The summation of Direct Materials, Direct Labour, Contract Costs and Other Costs for each category reconcile to total expenditure amounts reported in each of the respective templates.

Direct Costs

Preparation Methodology:

Vegetation Management

The information was sourced from the Financial Systems. A direct costing report was run based on work codes which provided a split of costs into Direct Materials, Direct Labour, Contract Costs and Other Costs. Work codes do not directly align with the costs included in Template 2.7 Vegetation Management. Based on this, the report generated was used as a proxy for the information required and was proportionately scaled to align with the total Vegetation Management costs reported.

The total Direct Materials, Direct Labour, Contract Costs and Other Costs was split between HBRA and LBRA based on the proportion of total costs in Template 2.7 Vegetation Management allocated to HBRA and LBRA.

Routine and Non-Routine Maintenance

The information was sourced from the Financial Systems. A direct costing report was run based on work codes which provided a split of costs into Direct Materials, Direct Labour, Contract Costs and Other Costs. Work codes do not directly align with the costs included in Template 2.8 Maintenance. Based on this, the report generated was used as a proxy for the information required.

The total Direct Materials, Direct Labour, Contract Costs and Other Costs were allocated across the prescribed maintenance categories based on the cost profile of the same categories reported in Template 2.8 Maintenance.

Overheads

The information was sourced from the Financial Systems and the Annual Regulatory Accounts working files segregated between Network Overheads and Corporate Overheads.

Basis of Preparation

2015 Regulatory Year

Augmentation

The information was sourced from the Financial Systems. A direct costing report was run based on work codes which provided a split of costs into Direct Materials, Direct Labour, Contract Costs and Other Costs. Work codes do not directly align with the costs included in Template 2.3 Augmentation. Based on this, the report generated was used as a proxy for the information required.

The total Direct Materials, Direct Labour, Contract Costs and Other Costs were allocated across the Augmentation categories based on the cost profile of the same categories reported in Template 2.3 Augmentation.

Connections

The information was sourced from the Financial Systems. A direct costing report was run based on work codes which provided a split of costs into Direct Materials, Direct Labour, Contract Costs and Other Costs. Work codes do not directly align with the costs included in Template 2.5 Connections. Based on this, the report generated was used as a proxy for the information required.

Emergency Response

The information was sourced from the Financial System. A report was generated by the cost categories required for the Emergency Response work codes. As noted in section 2.9 above, a SME reviewed the first 4 months by work codes to determine the percentage to be allocated to Emergency Response. A similar review of the 8 months data) was not required as a specific work code was created in SAP to capture Emergency Response expenditure. The data reported in Template 2.12 Input Tables agrees to the total Emergency Response expenditure reported in Template 2.9 Emergency Response.

Public Lighting

The information was sourced from the Financial System. For the first 4 months a report was generated which allocated the costs reported in Template 4.1 Public Lighting into the cost categories required. For the 8 months Public Lighting costs represented an allocation from the appropriate work codes, a direct costing report was run based on those work codes which provided a proxy split of the Public Lighting costs into Direct Materials, Direct Labour, Contract Costs and Other Costs.

Metering

The information was sourced from the Financial Systems. A direct costing report was run based on work codes which provided a split of costs into Direct Materials, Direct Labour, Contract Costs and Other Costs. Work codes do not directly align with the costs included in Template 4.2 Metering. Based on this, the report generated was used as a proxy for the information required.

Basis of Preparation

2015 Regulatory Year

Fee-based Services

The information was sourced from the Financial Systems. Work codes considered reasonable proxies were identified and reports generated in the systems which allocated these work code costs into the required cost categories. The percentage allocation of these costs was calculated and applied to the total costs reported in Template 4.3 Fee-based Services to derive an estimate of the required cost category allocations.

Quoted Services

The information was sourced from the Financial System. Work codes considered reasonable proxies were identified and reports generated in the systems which allocated these work code costs into the required cost categories. The percentage allocation of these costs was calculated and applied to the total costs reported in Template 4.4 Quoted Services to derive an estimate of the required cost category allocations.

Replacement

The information was sourced from the Financial Systems. A direct costing report was run based on work codes which provided a split of costs into Direct Materials, Direct Labour, Contract Costs and Other Costs. Work codes do not directly align with the costs included in Template 2.2 Replacement. Based on this, the report generated was used as a proxy for the information required.

The total Direct Materials, Direct Labour, Contract Costs and Other Costs were allocated across the Replacement categories based on the cost profile of the same categories reported in Template 2.2 Replacement.

Non-Network Expenditure

The information was sourced from the Financial Systems and working files of the Annual Regulatory Accounts and Template 2.6 Non-Network.

For IT and Communications, Motor Vehicle and Other Non-Network costs, reports were run from the Financial Systems which allocated the total workcode costs into the required cost categories. The percentage allocation of these costs were calculated and applied to the costs reported in Template 2.6 Non-Network to derive an estimate of the required cost category allocations.

Total Property costs were allocated into cost categories based on reports generated from the Financial Systems. This is considered actual information.

Estimated Information:

Basis of Preparation

2015 Regulatory Year

Data provided for Vegetation Management is considered estimated information as the system generated report was used as a proxy for the information required and was proportionately scaled to provide the information required. An allocation of costs was also split between HBRA and LBRA.

The Routine and Non-Routine Maintenance information is estimated information based on judgments made to allocate expenditure between Routine and Non-Routine Maintenance in Template 2.8 Maintenance.

The Emergency Response and Overheads information is considered estimated information due to the judgments made to categorise some of the data.

The information provided in relation to Augmentation, Connections, Metering, Fee-based Services, Quoted Services, Replacement, Non-Network - IT and Communications, Non-Network – Motor Vehicles and Other Non-Network Expenditure is considered estimated information due to the percentage allocation applied to categorise the data.

This is considered to be management's best estimate based on the data available.

Related Party Costs and Margin

Preparation Methodology:

For the purpose of completing Template 2.12 Input Tables, a 'Related Party Contract' is defined as a finalised contract between AusNet Electricity Services and a Related Party for the provision of goods and/or services. A Related Party is defined within the RIN instructions. Based on this definition, SGSP (Australia) Assets Pty Ltd ("SGSPAA"), which includes both Jemena and Zinfra, is identified as a related party which provides the provision of services to AusNet Electricity Services.

Related Party Costs (both Opex and Capex) were obtained from the Annual Regulatory Accounts. Using the workings to the Annual Regulatory Accounts, Related Party Costs were allocated into the categories required by a SME. The allocation was based on the nature of the expenses and the counterparty.

In relation to Augmentation and Replacement, the Related Party Costs were allocated across the various Augmentation and Replacement sub-categories based on the percentage allocations applied to the total direct costs.

Related Party Margins have been estimated based on an analysis of contracts currently in place with Related Parties. The judgments and resulting estimates were made by an appropriate SME.

Estimated Information:

The allocation of Related Party costs for the Augmentation and Replacement sub-categories was estimated using the same percentage applied to allocate the direct costs.

All Related Party Margin information provided is considered estimated information due to the judgments made in relation to counter party margins.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

4.1 Public lighting

Public lighting information relates to non-contestable, regulated public lighting services only and excludes contestable services and negotiated public lighting services.

Table 4.1.1 – Descriptor Metrics over Current Year

Information contained in the Asset Management Systems as well as the Fixed Asset Register does not distinguish between gifted assets and non-gifted assets. Based on this, the data reported is an estimate of the non-gifted asset information required.

Preparation Methodology:

Information in relation to the 'Current Population of Lights' was obtained from the SDME Asset Management System. System report generated as at 25 December 2014 which provided total light quantities by watts and light type. Based on the knowledge of an SME, the year on year movement in lights is considered to represent gifted assets (e.g. the annual growth in light population is attributable to gifted assets only). On this basis, the 'Current Population of Lights' as at 25 December 2014 is deemed to provide a reasonable estimate of the non-gifted light population as at 31 December 2015.

Estimated Information:

Information provided is considered to be estimated data as the gifted light population is not separately identifiable.

This is considered to be management's best estimate based on the data available.

Table 4.1.2 – Descriptor Metrics Annually

Gross public lighting expenditure (before subtracting customer contributions) has been reported, on an 'as incurred' basis, in nominal terms. Work performed by third parties on behalf of AusNet Electricity Services has been included in the metrics reported. Expenditure on public lighting has not been distinguished between standard and alternative control services in this template.

Light Installation – Volume of Works and Expenditure

Light Installation is an 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.

Preparation Methodology:

The total of 'Major Road Light Installation Volume' and 'Minor Road Light Installation Volume' was obtained from the AER Economic Benchmarking Report (as the yearly movement in 'Public Lighting Luminaries'). Data reported was ultimately sourced from the SDME system.

Basis of Preparation

2015 Regulatory Year

The Economic Benchmarking data included both gifted and non-gifted assets. To derive an estimate of the volumes of non-gifted assets, an analysis of the 2015 Regulatory Year public lighting installation costs was performed. The percentage of gifted assets as a proportion of direct costs (gross of customer contributions) was calculated. This percentage was applied to the total volumes to estimate non-gifted light installations.

The split of light volumes between Major Road and Minor Road categories was obtained using the 'Current Population of Lights' data used in Table 4.1.1. The increase in lights on a major road and lights on a minor road was calculated based on the 25 December 2014 and 26 December 2015 SDME system reports.

'Number of Poles Installed' was obtained from the AER Economic Benchmarking RIN (extracted from the SDME system) as the yearly movement in 'Public Lighting poles' population.

'Total Cost' was sourced from information in the Financial Systems . A report was generated from the systems for the 2015 Regulatory Year, using the relevant Public Lighting work code. Costs reported are direct costs only (gross of capital contributions) and are on an 'as incurred' basis. Gifted Assets were excluded.

Estimated Information:

Major and Minor Road Light Installation Volumes are considered estimated information due to the assumptions applied in excluding gifted assets. An estimate was required as gifted assets are not separately captured.

The information provided is considered management's best estimate of Major and Minor Road Light Installation Volumes based on the information available.

This is considered to be management's best estimate based on the data available.

Light Replacement - Volume of Works and Expenditure

Preparation Methodology:

The 'Major Road Light Installation Volume' and 'Minor Road Light Installation Volume' (for Light Replacement) data for the 2015 Regulatory Year was obtained from an internal report. This report was compiled using information obtained from the external contractor who manages AusNet Electricity Services' Public Lighting assets.

The 'Number of Poles Installed' was obtained from internal reports listing work orders for street light pole replacements. The data reported is a count of work order records. For the period January to April, the data was sourced from the Work Bench system. For the period May to December, the data was sourced from SAP.

'Total Cost' was sourced from information in the Financial Systems . A report was generated from the systems for the 2015 Regulatory Year, using the relevant Public Lighting work code. Costs reported are direct costs only (gross of capital contributions) and are on an 'as incurred' basis. Gifted Assets were excluded.

Basis of Preparation

2015 Regulatory Year

Estimated Information:

Data reported is considered actual information.

No estimates were required.

Light Maintenance - Volume of Works and Expenditure

Preparation Methodology:

The 'Major Road Light Installation Volume' and 'Minor Road Light Installation Volume' – Light Maintenance data for the 2015 Regulatory Year was obtained from an internal report. This report was compiled using information obtained from the external contractor who manages AusNet Electricity Services' Public Lighting assets.

The 'Number of Poles Installed' has been reported as zero as poles are not installed or replaced under maintenance works.

'Total Cost' was obtained from the Annual Regulatory Accounts, ultimately sourced from the Financial Systems (Oracle and SAP) for the 2015 Regulatory Year on a work code basis.

Estimated Information:

Data reported is considered actual information.

No estimates were required.

Quality of Supply

Preparation Methodology:

Data in relation to the 'Volume of Customer Complaints' was obtained from a report generated in the Issues Management System (IMS). A customer complaint is considered 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.

'Mean days to Rectify/Replace Public Lighting Assets' was obtained from data reported in the Annual Regulatory Accounts (Non-Financial RIN) for the 2015 Regulatory Year. The data reported in the Non-Financial RIN is ultimately sourced from the PowerOn System and reflects the mean business days to rectify/replace public lights.

The 'Volume of GSL Breaches' and 'GSL Payments' was obtained from data reported in the Annual Regulatory Accounts (Non-Financial RIN) for the 2015 Regulatory Year. The data reported in the Non-Financial RIN is determined by reviewing the data provided by AusNet Electricity Services' public lighting contractor. In relation to GSLs, data has not been reported where a GSL scheme does not exist for a public lighting service.

Basis of Preparation

2015 Regulatory Year

Table 4.1.3 – Cost Metrics

Preparation Methodology:

Information reported in relation to the 'Average Unit Cost for Public Lighting Services' was based on data obtained from contract rate schedules. The rate schedules provided the unit rates of light types for each region in AusNet Electricity Services' distribution network.

For Major Lights, the contract rate schedules contain one rate for each of the 3 regions in AusNet Electricity Services' distribution network. The average of the 3 region rates was calculated and assumed to be consistent across all major light types.

For Minor lights, contract rate data was available for 3 light types. The average contract rate across the 3 regions for each of these 3 light types was calculated. For the remaining Minor light types in which contract rate data was not available, the average contract rate of the 3 Minor light types was used as proxy and reported as 'Other Minor'.

Note – the average unit costs for Light Installation on major and minor roads does not include the cost of the installation of brackets.

Estimated Information:

For all major road categories, the 'Average Unit Cost' metric is considered estimated information, as one rate has been assumed to reflect the 'Average Unit Cost' for major road light types. This estimation has been used as information in relation to the 'Average Unit Cost' of all major road light types is not available in the contract rate schedules.

For all minor road categories, an 'Other Minor' light type has been included which estimates the 'Average Unit Cost' for all light types where specific rate information was not available in contract rate schedules. This is considered estimated information.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

4.2 Metering

Data reported relates to non-contestable, regulated metering services only. This includes work performed by third parties on behalf of AusNet Electricity Services. Data in relation to contestable metering services has not been provided.

Meter type 4 is defined as a 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.

Meter type 4 includes metering assets and services introduced with the Advanced Metering Infrastructure (“AMI”) rollout.

Meter type 5 is defined as a manually read interval meter that records interval energy data, which is not a remotely read interval meter.

Meter type 6 is defined as a manually read accumulation meter which measures and records electrical energy in periods in excess of a trading interval.

Table 4.2.1 – Metering Descriptor Metric

Preparation Methodology:

Information was sourced from the Annual Regulatory Accounts (which was ultimately obtained from SAP). Information reported in the 2015 Regulatory Year is the cumulative population of meters.

Data from the Annual Regulatory Accounts was classified into the prescribed categories in Table 4.2.1. ‘Current Transformer Connected’ meters, in the Meter Volume Schedules in the Annual Regulatory Accounts, have been categorised as ‘Current Transformer Connected Meter Population’ in this table. All other meters are classified ‘direct connected’ per the categorisations in Table 4.2.1.

Estimated Information:

No estimation were required.

Table 4.2.2 – Cost Metrics (Volume)

Preparation Methodology:

For the Meter Purchase, Meter Replacement and Remote Meter Reading metrics, volume data was obtained from the information in the workings to the Annual Regulatory Accounts (which was ultimately sourced from information contained in SAP).

Basis of Preparation

2015 Regulatory Year

No volumes have been reported in New meter installations, as these are an Alternative Control Service as per the 'Victorian AMI 2012 – 15 Budget and Charges Determination', and thus are reported in Template 4.3 'Fee-based services' as new connections.

In relation to the Scheduled Meter Readings, Special Meter Reading, Meter Maintenance, Meter Testing and Meter Investigations metrics, information was obtained from reports generated in the SAP, PowerOn and Evolution systems. The total volumes of meters were known in the above categories; however the allocation between meter types was required to be estimated for the meter volumes relating to Meter Testing, Meter Investigation, Special Meter Reading and Meter Maintenance. This estimation was performed based on the overall percentage of type 4, 5 and 6 meter volumes.

Estimated Information:

The volume information provided in relation to Meter Testing, Meter Investigation, Special Meter Reading and Meter Maintenance is considered estimated information based on the methodology applied to derive the required information. Estimation was required because the current system does not distinguish between Types 4, 5 and 6 for these categories.

This is considered to be management's best estimate based on the data available.

Table 4.2.2 – Cost Metrics (Expenditure)

Preparation Methodology:

Meter Operating Expenditure:

In relation to Meter Opex, the total expenditure and the cost per meter type was determined for each of the required service subcategories (based on the process outlined below). Using this information, an estimate of the expenditure by meter type was derived. Amounts are shown exclusive of overheads.

Meter Testing, Meter Investigation, Scheduled Meter Reading, Special Meter Reading, Meter Maintenance and Remote Meter Reading

Meter Operating Expenditure - Total Cost Calculations:

An analysis of cost data extracted from the Financial System was performed to calculate the respective total cost of each service subcategory.

Meter Operating Expenditure - Costs per Meter Type:

Costs were reported across the Meter Types based on a pro rata allocation of the volumes reported for each type.

Other Metering Opex

Other Metering relates to other Opex costs associated with metering which are not separately disclosed in Table 4.2.2. This includes costs for activities in scope as per the AMI Order in Council including program management costs and support costs. As such these costs have been reported

Basis of Preparation

2015 Regulatory Year

against Meter Type 4 and are considered 'actual information' as no estimates were required. Costs were sourced from the workings to the Annual Regulatory Accounts (based on information obtained from the Financial System).

IT Infrastructure Opex

IT Infrastructure Opex relates to costs associated with the AMI rollout. Costs were sourced from the workings to the Annual Regulatory Accounts (based on information obtained from the Financial System).

Communications Infrastructure Opex

Communications Infrastructure Opex relates to costs associated with the AMI rollout. Costs were sourced from the workings to the Annual Regulatory Accounts (based on information obtained from the Financial System).

Estimated Information – Operating Expenditure:

The total costs in relation to Meter Testing, Meter Investigations, Scheduled Meter Reading, Special Meter Reading and Meter Maintenance is considered actual information. However the derived allocation of these costs into the prescribed meter types results in the information provided being estimated information.

This is considered to be management's best estimate based on the data available.

Meter Capital Expenditure:

Preparation Methodology:

In relation to Meter Capex, the total expenditure and the cost per meter type was determined for each of the required service subcategories (based on the process outlined below). Using this information, an estimate of the expenditure by meter type was derived. Amounts are shown exclusive of overheads.

Meter Purchase

Meter purchase relates to the direct material cost of purchasing the meter, communication cards and antennas for installation or replacement. This includes the cost of delivery to AusNet Electricity Services' store, including testing of equipment and inclusion of spare parts. All meters purchased were in relation to meter type 4. Costs of meters are separately identifiable from installation costs from the Financial System.

Meter Replacement

Meter replacement relates to the replacement cost of a meter and associated equipment at a site with existing metering infrastructure. Meter replacement only includes the installation cost to replace an existing meter and/or communication card as the costs of the replacement meter and

Basis of Preparation

2015 Regulatory Year

communication card are disclosed under Meter Purchase. The installation costs were obtained from the Financial System.

IT Infrastructure Capex

IT Infrastructure Capex relates to costs associated with the AMI rollout. Costs were sourced from the workings to the Annual Regulatory Accounts (based on information obtained from the Financial System).

Communications Infrastructure Capex

Communications Infrastructure Capex relates to costs associated with the AMI rollout. Costs were sourced from the workings to the Annual Regulatory Accounts (based on information obtained from the Financial System).

Estimated Information – Capital Expenditure:

No estimates were required.

Basis of Preparation

2015 Regulatory Year

4.3 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.

The following are the fee-based services that were listed in AusNet Services' annual tariff proposal of each relevant year:

Field Officer Visits

Field Officer visits are provided to customers, retailers and other parties seeking the following range of Services:

- Reconnection (Fuse Insertion New Customer);
- Customer Transfer;
- Fuse Removal (for any purpose as requested by the customer, the customer's retailer, or electrical contractor); and
- General information on the nature of a customer's usage (eg: residential, small commercial).

New Connections

AusNet Services provides connection services to customers making connection of a new premise to the network. This service includes the provision of a service cable in areas with overhead supply and making a connection in a pit for customers in underground supply areas or where a customer requests an underground connection in an overhead supply area.

Service Truck Visits

Service Truck visits are provided to customers, retailers and other parties seeking services such as, but not limited to, the following:

- Supply alterations, additions and upgrades to service and installation assets;
- Fuse removal/insertion where supply is greater than 100 amps; and
- Dropping of service lines for safety reasons while work such as the removal of tree limbs is carried out.

Meter Equipment Test

Where metering data is in dispute AusNet Services will conduct an "in situ" test of the meter. Where the meter is found to be faulty, the prepaid charge will be refunded and a replacement meter installed at no charge to the customer. This service also includes the conversion of a standard meter to a solar meter as well as anti-islanding tests for embedded generators.

Expenditure on Fee-based Services has not been distinguished between standard and alternative control service or between Capex and Opex. Direct costs (excluding overheads) have been reported in nominal terms and are presented on an 'as incurred' basis.

Basis of Preparation

2015 Regulatory Year

Table 4.3.1 – Cost Metrics for Fee-based Services

Preparation Methodology:

The financial information was sourced from the Annual Regulatory Accounts and grouped in the categories reported (as listed above) by a SME.

Information in relation to the volumes of Field Officer Visits, New Connections and Service Truck Visits was calculated using the billing information contained in the workings to the Annual Regulatory Accounts. The reported data was derived by calculating the number of sales invoices and other sales transactions for each of the above fee-based categories in the 2015 Regulatory Year. It has been assumed that one sales invoice/transaction is equal to one fee-based service volume and cost.

In relation to Meter Equipment, the definition includes – Meter Tests, Meter Conversions and Embedded Generator Services.

Volume data for Meter Tests was sourced from the billing information report (contained in the workings to the Annual Regulatory Accounts). It has been assumed that one sales invoice/transaction is equal to one fee-based service volume and cost.

For Meter Conversion services, the volume data has been estimated as the number of solar installations in the 2015 Regulatory Year. Information in relation to solar installations was obtained from the SAP system, which is the main inventory and customer management system. It has been assumed that all solar installations relate to Meter Conversions. This is considered a reasonable assumption given that solar panel installations by customers are the main driver for meter conversions.

The volume of Embedded Generator fee-based services was estimated by calculating the total number of sales invoices in the relevant GL account in Oracle in January to April 2015 and extrapolating this over a 12 month period. It has been assumed that one sales invoice is equal to one fee-based service volume.

Estimated Information:

The non-financial information presented in Table 4.3.1 is considered estimated information based on the preparation approach outlined above.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

4.4 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.

AusNet Services provides various Quoted Services including emergency works where customer is at fault and immediate action needs to be taken by the Distribution Network Service Provider, supply enhancement at the customer's request, auditing of design and construction, and specification and design enquiry.

Expenditure on Quoted Services has not been distinguished between standard and alternative control services or between Capex and Opex. Direct costs (excluding overheads) have been reported in nominal terms and are presented on an 'as incurred' basis.

Table 4.4.1 – Cost Metrics for Quoted Services

Preparation Methodology:

The financial information was sourced directly from the Annual Regulatory Accounts.

Information in relation to volumes of quoted services was obtained from the workings to the Annual Regulatory Accounts based on information sourced from the Financial Systems (for the period January to April, Oracle and for the period May to December, SAP). The reported data was derived by calculating the number of sales invoices and other sales transactions for recoverable works in the 2015 Regulatory Year. It has been assumed that one sales invoice/transaction is equal to one quoted service volume and cost.

Estimated Information:

The non-financial information presented in Table 4.4.1 is considered estimated information based on the preparation approach outlined above. This is considered Management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

5.2 Asset age profile

The age profile for assets currently in commission has been provided for each prescribed asset category. Data reported corresponds with the 2015 historical replacement volumes and cost data in Template 2.2 Repex.

Economic life is the estimated period after installation of the new asset during which the asset will be capable of delivering the equivalent effective service as it intended to at its installation date. The period of effective service considers the life cycle costs between keeping the asset in commission and replacing it with its modern equivalent. Life cycle costs of the asset include those associated with the design, implementation, operations, maintenance, renewal and rehabilitation, depreciation and cost of finance.

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

Table 5.2.1 – Asset Age Profile

Preparation Methodology:

Information for all Asset Groups was sourced from the SAP System, with the exception of the Communications Network Assets category where data was also sourced from GIS and Public Lighting Luminaires and Underground Cable where data was sourced from the SDME Asset Management System.

It should be noted that the data has been subject to data cleansing and updating since the prior Regulatory Year and is subject to continuing reviews.

AusNet Electricity Services' asset categories do not directly align with the prescribed AER asset categories. In order to populate Table 5.2.1, engineering judgment has been applied to align assets in the required categorisations. Where AusNet Electricity Services identified assets that are significantly different to the asset categories prescribed by the AER, 'Other' categories have been included in Table 5.2.1 with a suitable description.

In relation to Surge Diverters, the data reported in the 2015 Regulatory Year includes equipment located on distribution feeders. In previous regulatory years, only Surge Diverters located in zone substations have been reported.

The quantity of assets included in the age profile for each year is the number of assets with an installation date in that year. For certain asset categories, the data in SAP has incomplete installation information. For these asset categories, assumptions have been applied to categorise the data into the required installation dates. Further details are outlined in the table below.

Basis of Preparation

2015 Regulatory Year

| Asset Group | Assumptions Applied |
|---------------------------|--|
| Poles | <p>In relation to Staking of a Pole, total quantity of installed assets was extracted from SAP.</p> <p>Assets with an installation date of 2015 were reported in the 2015 year. All other assets were allocated into installation years based on percentage allocations which were derived using the 2014 Asset Age profiles.</p> |
| Overhead Conductors | <p>Total quantity of installed assets was extracted from SAP.</p> <p>Assets with an installation date of 2015 were reported in the 2015 year. All other assets were allocated into installation years based on percentage allocations which were derived using the 2014 Asset Age profiles.</p> |
| Underground Cables | <p>Total quantity of installed assets was extracted from SDME.</p> <p>Assets with an installation date of 2015 were reported in the 2015 year. All other assets were allocated into installation years based on percentage allocations which were derived using the 2014 Asset Age profiles.</p> |
| Service Lines Asset Group | <p>Total quantity of installed assets was extracted from SAP. In 2015, installed assets have been reported based on a count of services provided. This is due to guidance received from the AER in July 2015. In previous years, this metric has been reported based on the Service Line length in kilometres.</p> <p>The allocation between Residential and Commercial & Industrial was calculated based on a percentage split in accordance with the number of customers in the respective asset categories described. This percentage was determined using data reported in the AusNet Services Economic Benchmarking Report, Operational Data Template.</p> <p>Assets with an installation date of 2015 were reported in the 2015 year. All other assets were allocated into installation years based on percentage allocations which were derived using the 2014 Asset Age profiles.</p> |
| Transformers | <p>Total quantity of installed assets was extracted from SAP in the following categories -</p> <ul style="list-style-type: none"> • Pole Mounted ; < = 22kV ; < = 60 kVA ; Single Phase • Pole Mounted ; < = 22kV ; > 60 kVA and < = 600 kVA ; Single Phase • Pole Mounted ; < = 22kV ; < = 60 kVA ; Multiple Phase. <p>For each of the above categories, the number of assets installed in 2015 was calculated based on the average number of assets installed annually over the past 10 years. All other assets were allocated into installation years using the 2014 Asset Age profile allocations.</p> <p>For the following category -</p> <ul style="list-style-type: none"> • Ground Outdoor / Indoor Chamber Mounted; > 33 kV & < = 66 kV ; > 15 MVA and < = 40 MVA <p>the quantity of assets installed in 2015 was determined based on a review of project documentation. All other assets were allocated into installation years based on percentage allocations which were derived using the 2014 Asset Age profiles.</p> |

Basis of Preparation

2015 Regulatory Year

| Asset Group | Assumptions Applied |
|-----------------|--|
| Switchgear | <p>For the category '< = 11 kV ; Fuse', the total quantity of installed assets was extracted from SAP. The number of assets installed in 2015 was calculated based on the average number of assets installed annually over the past 10 years. All other assets were allocated into installation years using the 2014 Asset Age profile allocations.</p> <p>For the below categories -</p> <ul style="list-style-type: none"> • < = 11 kV ; Switch • > 11 kV & < = 22 kV ; Circuit Breaker <p>the total asset quantities reported are as per the 2014 Asset Age Profile. The number of assets installed in 2015 was calculated based on the average number of assets installed annually over the past 10 years. All other assets were allocated into installation years based on percentage allocations which were derived using the 2014 Asset Age profiles.</p> |
| Public Lighting | <p>Data was extracted from SDME for the following categories –</p> <ul style="list-style-type: none"> • Luminaries; major road • Luminaries; minor road. <p>To determine the number of assets installed in 2015, a calculation was performed of the average number of assets installed on an annual basis over the past 3 years. All other assets were allocated into installation years using the 2014 Asset Age profile allocations.</p> <p>The total number of Brackets was extracted from SAP for the following categories and was split into the below categories based on the luminaries allocations</p> <ul style="list-style-type: none"> • Brackets; Major Road • Brackets; Minor Road. <p>The number of assets installed in 2015 was calculated based on the average number of assets installed on an annual basis over the past 10 years. All other assets were allocated into installation years based on percentage allocations which were derived using the 2014 Asset Age profiles.</p> |
| Other | <p>Cross Arm data has been summed and reported as 'OTHER – CROSS ARMS'. For this asset category, Installed Assets is the total quantity of pole top structures per the 2014 Asset Age profile and was allocated into installation years using the 2014 Asset Age profile allocations.</p> <p>Data was extracted from SAP for the following categories -</p> <ul style="list-style-type: none"> • OTHER - MEASURING TRANSFORMERS • OTHER - CAPACITOR BANKS • OTHER - EARTHING • OTHER - NEUTRAL EARTH RESISTORS • OTHER - REGULATORS • OTHER<=11kV REACTOR • OTHER>11kV & <=22kV REACTOR <p>The number of assets installed in 2015 was calculated based on the</p> |

Basis of Preparation

2015 Regulatory Year

| | |
|--|--|
| | <p>average number of assets installed on an annual basis over the past 10 years. All other assets were allocated into installation years based on percentage allocations which were derived using the 2014 Asset Age profiles.</p> <p>For the category OTHER – SURGE DIVERTERS, data was extracted from SAP. The number of assets installed in 2015 was calculated based on the average number of assets installed on an annual basis over the past 10 years. All other assets were allocated into installation years based on percentage allocations which were derived using the Other – Cross Arms Asset Age profile.</p> |
|--|--|

The Economic Life and Standard Deviation for each asset has been based on asset lives included in the 2012 Repex Model (model template provided by the AER). The asset life data in the 2012 Repex Model were developed based on engineering judgment from SMEs within the business. The asset categories in the 2012 Repex model have been aligned with the AER asset categories to populate the required Economic Life information.

For the Asset Category 'Poles – Other', the Economic Life and Standard Deviation are the weighted average values of all pole top structures associated with its voltage levels.

For the Overhead Conductors asset category, the Economic Life was obtained from the internal AusNet Electricity Services policy document Asset Management Strategy Document 'AMS 20-52 Conductor' due to limitations in the system data for Overhead Conductors (as outlined above).

Estimated Information:

Data provided in Table 5.2.1 is considered estimated information.

As outlined above, estimates and assumptions have been applied to align the data extracted from SAP with the prescribed AER asset categories and where necessary, to profile the data into installation dates. Additionally, the Economic Life for each asset was estimated based on information in the 2012 Repex Model (model template provided by the AER). Assumptions were applied to align the categories in this model into the prescribed categories.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

5.3 MD - Network level

Table 5.3.1 – Raw and Weather Corrected Coincident Maximum Demand at Network Level (Summed at Transmission Connection Point)

Raw Network Coincident Maximum Demand, Date MD Occurred, Half Hour Time Period MD Occurred, Winter/ Summer Peaking and Embedded Generation

Maximum demand has the meaning prescribed in the National Electricity Rules. Maximum demand refers to 30 minute demand unless otherwise indicated.

Preparation Methodology:

Information was sourced from the National Energy Market Meters (Terminal Station, Boundary and Generator Meters) by Network Level. The network meters have been reconciled with AEMO and AusNet Protection department to ensure all applicable meters are accounted for in calculating the Maximum Demand on the network.

Daily coincidental maximum demand data was extracted for the network for all days in the 2015 Regulatory Year. Using this information, the maximum demand day was identified.

Embedded Generation Data is sourced from an SP AusNet oracle SQL database which is populated using Kinetiq (Billing) data. The meter data for each 30 minute period (for the coincidental and non-coincidental time periods) for each applicable zone substation is extracted using a SQL query. For coincidental this is the summation of all embedded generation data for the coincidental time that the network peaks.

Using information described above, the yearly attributes at the time of peak (MW, MVA, Date, Time, Peak) was identified. This information was reported in Table 5.3.1.

Estimated Information:

Information provided is considered actual information

No estimates were required.

Weather corrected (10% POE, 50% POE) network coincident MD

Preparation Methodology

AusNet Services' POE10 and POE50 demand forecasts are developed at a feeder level. Each feeder has its own temperature-demand relationship calculated, resulting in an 's-curve' for each feeder (where demand increases with temperature on a non-linear basis and then saturates once the temperature reaches a certain point). This means that at a transmission connection point level, weather-correcting demand data is a very complex process. For RIN reporting purposes, weather correction uses the average of five feeders' s-curves (PHM33, CLN23, BDL4, BGE22, BN1) to estimate the temperature-demand relationship for all zone substations.

Basis of Preparation

2015 Regulatory Year

The following methodology has been used to estimate weather-corrected demand:

- Divide the recorded demand by a ratio of (1) the position on the averaged s-curve for the temperature on the maximum demand day as recorded by the Bureau of Meteorology at the Scoresby Research Institute weather station and (2) the relevant POE temperature (38 degrees for POE50 and 46 degrees for POE10). For example, maximum demand recorded on a day with a recorded temperature of lower than 38 degrees will be adjusted up for POE50 purposes, depending on where on the curve the maximum demand day sits, relative to 38 degrees

Estimated Information:

Weather corrected maximum demand is considered estimated data based on the preparation method outlined above.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

5.4 MD & utilisation - spatial

Table 5.4.1 – Non-coincident Maximum Demand

Sub-transmission Substations

Non-coincident maximum demand has not been reported at the sub-transmission substation level as AusNet Electricity Services does not own any sub-transmission substations above 33kv. This is consistent with the definition in the RIN which defines subtransmission substations as “A substation on a distribution network that transforms any voltage to levels above 33 kV.”

Zone Substation

Non-coincident maximum demand has been reported at the zone substation level.

Substation Rating

Substation rating refers to normal summer cyclic rating (“SCR”).

Preparation Methodology:

Substation rating information was sourced from AusNet Services’ Asset Management System and internal document number AMS 20-101 (Zone Substation Transformer Cyclic Ratings), last updated in December 2015. Substation output ratings are derived by using an excel-based program which takes into account the transformers’ cyclic rating, impedance, minimum tap, load power factor and available capacitor bank in the station.

Estimated Information:

Information provided is considered actual information

No estimates were required.

Raw Adjusted Maximum Demand (MW), Raw Adjusted Maximum Demand (MVA), Date MD Occurred, Half Hour Time Period MD Occurred, and Winter/ Summer Peaking and Embedded Generation

Preparation Methodology:

Information was sourced from the OSI Pi (Scada) system.

A list of all zone substations and feeders was compiled based on a combination of the latest round of zone substation forecasts (2015) to ensure all zone substations in the reporting period were accounted for.

Daily non-coincidental maximum demand data was extracted from Scada for each site for the entire period. Using this information, the maximum demand day at each substation was identified. The attributes at the time of peak (MW, MVA, Date, Time) were determined for each zone substation.

Basis of Preparation

2015 Regulatory Year

30 minute maximum demand data was extracted from Scada for each zone substation, providing daily coincidental maximum demand information (date, time). Daily coincidental maximum demand data was extracted from Scada for each site for the entire period. Using this information, the maximum MVA and the attributes at the time of peak (MW, MVA) were determined for each zone substation.

Embedded Generation Data is sourced from an SP AusNet oracle SQL database which is populated using Kinetiq (Billing) data. The meter data for each 30 minute period (for the coincidental and non-coincidental time periods) for each applicable zone substation is extracted using a SQL query. For non-coincidental this is the embedded generation data for the non-coincidental time that the zone substation peaks.

Estimated Information:

Information provided is considered actual information

No estimates were required.

Weather corrected MD (50% POE, 10% POE, Non-Coincident, Coincident, MW/MVA)

Preparation Methodology:

AusNet Services' POE10 and POE50 demand forecasts are developed at a feeder level. Each feeder has its own temperature-demand relationship calculated, resulting in an 's-curve' for each feeder (where demand increases with temperature on a non-linear basis and then saturates once the temperature reaches a certain point). This means that at a zone substation level, weather-correcting demand data is a very complex process. For RIN reporting purposes, weather correction uses the average of five feeders' s-curves (PHM33, CLN23, BDL4, BGE22, BN1) to estimate the temperature-demand relationship for all zone substations.

The following methodology has been used to estimate weather-corrected demand:

- Assign each zone substation to one of AusNet Services' three regions: central, east and north
- Obtain daily maximum temperature data from the Bureau of Meteorology for three weather stations within these regions: Scoresby Research Institute (central), East Sale Airport (east), Wangaratta Aero (north)
- If the zone substation is winter-peaking, assume that the weather-corrected demand is the same as the recorded demand
- If the zone substation is summer peaking, but the temperature on the date that maximum demand was recorded was below 23 degrees, assume that the weather-corrected demand is the same as the recorded demand
- If the zone substation is summer peaking and the temperature on the date that maximum demand was recorded was above 23 degrees:
- Divide the recorded demand by a ratio of (1) the position on the averaged s-curve for the temperature on the maximum demand day and (2) the relevant POE temperature (38 degrees for POE50 and 46 degrees for POE10). For example, maximum demand recorded on a day with a recorded temperature of lower than 38 degrees will be adjusted up for POE50 purposes, depending on where on the curve the maximum demand day sits, relative to 38 degrees.

Basis of Preparation

2015 Regulatory Year

Estimated Information:

Weather corrected maximum demand is considered estimated data based on the preparation method outlined above.

This is considered to be management's best estimate based on the data available.

Basis of Preparation

2015 Regulatory Year

6.3 Sustained Interruptions

An 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 premise. The customer interruption starts when it is 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. It does not include subsequent interruptions caused by network switching during fault finding. An interruption ends when supply is again generally available to the customer.

Both planned and unplanned interruptions to supply have been reported. A planned supply interruption is where AusNet Electricity Services planned the interruption to supply and customers were notified in advance.

An unplanned interruption is an interruption due to an unplanned event. 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.

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 distribution network has not already occurred or is concurrently occurring at the same time:

- a) load shedding due to a generation shortfall
- b) automatic load shedding due to the operation of under frequency relays following the occurrence of a power system under-frequency condition
- c) load shedding at the direction of the Australian Energy Market Operator ("AEMO") or a system operator
- d) load interruptions caused by a failure of the shared transmission network
- e) 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
- f) 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.

An event may also be excluded where daily unplanned SAIDI for AusNet Electricity Services' distribution network exceeds the major event day boundary, as set out in the STPIS scheme, when the event has not been excluded under clause 3.3(a) of the AER STPIS guidelines.

For the purpose of completing Table 6.3.1 Sustained Interruptions to Supply, the following definitions were applied:

| | |
|-----------------------|---|
| Feeder Classification | <p>CBD feeder: a feeder supplying predominantly commercial, high-rise buildings, supplied by a predominantly underground distribution network containing significant interconnection and redundancy when compared to urban areas.</p> <p>Urban feeder: a feeder, which is not a CBD feeder, with actual maximum demand over the reporting period per total feeder route length greater than</p> |
|-----------------------|---|

Basis of Preparation

2015 Regulatory Year

| | |
|--|---|
| | 0.3 MVA/km. Short rural feeder: a feeder which is not a CBD or urban feeder with a total feeder route length less than 200 km. Long rural feeder: a feeder which is not a CBD or urban feeder with a total feeder route length greater than 200 km. |
| Effect on unplanned SAIDI (by feeder classification) | The sum of the duration of each unplanned sustained customer Interruption in minutes divided by the total number of distribution customers. USAIDI excludes momentary interruptions (one minute or less). |
| Effect on unplanned SAIFI (by feeder classification) | The total number of unplanned sustained customer interruptions divided by the total number of distribution customers. Unplanned SAIFI excludes momentary interruptions (one minute or less). SAIFI is expressed per 0.01 interruptions. |
| MED ("Major Event Days") | Has the same meaning as specified in the STPIS scheme. |

Table 6.3.1 - Sustained interruptions to supplyPreparation Methodology:

The Network Outage Summary report was extracted from the Poweron Fusion system. From this report, Unplanned outage data was obtained by Incident Reference Number.

For each unique Incident Reference Number, the Minutes-Off Supply ("MOS") and Number of Customers Interrupted ("Cust-Int") were aggregated. Each record identifies the feeder name and outage cause.

Using the feeder name, and with reference to the 2015 AER RIN Annual Reliability Reports, the feeder classification information was added to each outage record. Feeder classification information is maintained in the Poweron Fusion reports.

Using the data described above, the following calculations were performed for each outage record -

- Average Duration = MOS / Cust-Int
- USAIDI = MOS / Number of Customers by Feeder Classification
- USAIFI = Cust-Int / Number of Customers by Feeder Classification

The 'Number of Customers' by feeder classification was obtained from the AER RIN Annual Performance Reports and was calculated as (1 January 2015 count + 1 January 2016 count)/2.

In relation to MEDs, the MED threshold was calculated for the 2015 Regulatory Year from the daily Unplanned SAIDI data between Regulatory Years 2010 and 2014 (5 years) using the annual AER RIN Template MED calculator. Calculations performed were in accordance with the requirements of the STPIS. The calculated MED threshold was then applied as the threshold for the 2015 Regulatory Year for the purpose of identifying MEDs.

For each record, the outage cause (per the system data) was aligned with the options in Table 6.3.1 'Reason for Interruption' and 'Detailed Reason for Interruption'. Where the 'Reason for Interruption' was unknown, this has been identified and the 'Detailed Reason for Interruption' has been listed as

Basis of Preparation

2015 Regulatory Year

'Unknown'. All other 'black outs' under 'Detailed Reason for Interruption' are in accordance with the template guidelines prescribed by the AER.

Estimated Information:

Information reported is considered actual information.

No estimates were required.