AusNet Transmission Group Pty Ltd

AER Economic Benchmarking Regulatory Information Notice

2015 Regulatory Year Basis of Preparation

1. Overview

This Basis of Preparation document supports the preparation and reporting of the 2015 Regulatory Year data presented in AusNet Transmission Group Pty Ltd's ("AusNet Transmission" or the "Company") reports entitled '2014-15 AusNet Services Economic Benchmarking - Actual Information', '2014-15 AusNet Services Economic Benchmarking - Estimated Information', and '2014-15 AusNet Services Economic Benchmarking - Consolidated Information' ("the Reports"). The Reports provide data solely for the use of the Australian Energy Regulator ("the AER") to perform benchmarking activities under the AER's Better Regulation program.

The immediate Australian parent entity of the Company is AusNet Services (Transmission) Ltd, a company incorporated in Australia, which, on the 31 March 2015, 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 on 28 November 2013, the accompanying 'Economic Benchmarking RIN for transmission network service providers - Instructions and Definitions' and other authoritative pronouncements of the AER.

Some information required in the reports is data managed by the Australian Energy Market Operator ("AEMO"). AusNet Transmission, in conjunction with the AER, has identified within the Reports which data is maintained by AEMO and these cells have been left blank in the Reports. Therefore, AusNet Transmission has also not provided any details in relation to the basis of preparation of these variables.

AusNet Transmission's 2015 Regulatory Year is the period 1 April 2014 to 31 March 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 a quarterly Activity Based Costing ("ABC") survey process completed by all cost centre managers and in accordance with AusNet Services' Cost Allocation Methodology ("CAM").

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.

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 Transmission's best estimate has also been set out below. By definition, estimates seldom equal the related actual results and estimates have only been made for the purpose of disclosing the information requested. 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.

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 during the 2015 Regulatory Year (in comparison with the previous 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.

Contents

3.1 Revenue

Prescribed Transmission Services Revenue ("Revenue") is measured at the fair value of the consideration received or receivable, net of the amount of Goods and Services Tax payable to the taxation authority. Revenue is recognised as the services are rendered and is reported inclusive of incentive scheme penalties and rewards. Total Revenue is disaggregated by chargeable quantity and also by type of connected equipment.

The accounting policies adopted by AusNet Transmission in relation to Revenue have not materially changed during the 2015 Regulatory Year in comparison with Regulatory Years previously reported.

Table 3.1.1 Revenue grouping by chargeable quantity

Revenue reported has been classified into the Chargeable Quantity which most closely reflects the basis upon which the revenue was charged to customers. Where it has been determined that Revenues cannot be allocated to the specified chargeable quantities in TREV0101 to TREV0109, Revenue has been reported against 'Revenue from other Sources' (TREV0110).

It is noted the 2015 Annual Regulatory Accounts require gross proceeds from the sale of assets to be included in the Prescribed Transmission Services ("PTS") revenue reported in the Income Statement worksheet. Previously, the Annual Regulatory Accounts required this to be shown net of written down value, therefore within Total Expenditure. Per the RIN instructions, the Revenues in Table 3.1.1 need to reconcile to the Prescribed Transmission Services ("PTS") Revenues reported in the Annual Regulatory Accounts, therefore gross proceeds from the sale of assets have been included in 'Revenue from other Sources' (TREV0110) for the 2015 Regulatory Year, however were not required in the 2014 submission.

Preparation Methodology:

Data obtained from the Annual Transmission Customer Charges schedule, AusNet Transmission's internal Transmission Revenue Tracking Tool and information from the Financial System was allocated into the required categories as determined by the customer. These customers are clearly identifiable in the Annual Transmission Customer Charges schedule, which includes Prescribed Services revenue (i.e. revenue included in AusNet Transmission's revenue cap, plus Group 3 revenue).

Revenue from the Australian Energy Market Operator ("AEMO"), gross proceeds from the sale of assets and Easement Tax have been included in 'Revenue from other Sources' (TREV0110).

Estimated Information:

The information provided is considered actual information as no estimates were required.

Table 3.1.2 Revenue Grouping by type of connected equipment

Revenue reported has been classified into the Type of Connected Equipment. Gross proceeds from the sale of assets which relate to Prescribed Transmission Services have been included in 'Other Revenue' (TREV0205).

Preparation Methodology:

Data obtained from the Annual Transmission Customer Charges schedule, AusNet Transmission's internal Transmission Revenue Tracking Tool and information from the Financial System was allocated into the required categories based on the nature of the revenue.

Revenue from the AMEO, gross proceeds from the sale of assets and Easement Tax was allocated to 'Other Revenue' (TREV0205).

Estimated Information:

The information provided is considered actual information as no estimates were required.

Table 3.1.3 Revenue (penalties) allowed (deducted) through incentive schemes

The penalties or rewards from the service target performance incentive scheme ("STPIS") or efficiency benefit sharing scheme ("EBSS") have been reported based on the year that the penalty or reward was applied, not the year in which it was earned.

Preparation Methodology:

Information used in the preparation of Table 3.1.3 has been sourced from the AER Final Determination 2014/15 - 2016/17 Transmission Revenue Reset, AER STPIS Determinations (data is extracted and included in AusNet Transmission's internal Transmission Revenue Estimator Tool) and the Post Tax Revenue Model.

EBSS:

The EBSS allowance as per the AER determination was obtained and the associated nominal revenue calculated (adjusted for indexation and smoothed based on the 'smoothed revenue profile' applied for the 2015 Regulatory Year).

STPIS:

Revenue attributable to the STIPS was obtained from the AER STPIS Determinations for the 2015 Regulatory Year.

Estimated Information:

The EBSS data provided is considered 'estimated' information due to the assumptions included in the preparation methodology.

The information provided is considered Management's best estimate of EBSS based on the information available as the data is not able to be separately captured.

3.2 Operating Expenses

Operating Expenses ("Opex") are the costs of operating and maintaining the network (excluding all capital costs and capital construction costs) and relate to Prescribed Transmission Services.

The AusNet Services Group owns and operates 3 regulated networks – an electricity distribution network, a gas distribution network, and an electricity transmission network. Opex that is incurred for a particular network is allocated directly to that network. Overhead costs that cannot be directly allocated to a particular network are proportioned amongst AusNet Services' 3 regulated and unregulated networks via a quarterly Activity Based Costing survey process completed by all cost centre managers and in accordance with AusNet Services' Cost Allocation Methodology ("CAM").

The accounting policies adopted by AusNet Transmission in relation to Opex have not materially changed during the 2015 Regulatory Year in comparison with Regulatory Years previously reported.

Table 3.2.1 Opex categories: Table 3.2.1.1 Current Opex categories and cost allocations

In accordance with the requirements of the RIN, Table 3.2.1.1 is only required to be completed where there has been a material change in AusNet Services' CAM, annual reporting requirements or response to the Information Guidelines for its 2015 Annual Regulatory Accounts.

The opex reported in Table 3.2.1.1 is aligned to match the new templates issued by the AER for the 2015 Annual Regulatory Accounts; therefore do not match the information reported in Table 3.2.1.2A on a one-to-one basis.

There have not been any material changes in the CAM during the 2015 Regulatory Year (in comparison to previously reported Regulatory Years); and as such, no changes have been made pertaining to changes in cost allocation methodologies.

Preparation Methodology:

Information reported was extracted directly from the 2015 Annual Regulatory Accounts which were prepared using information from the Financial System.

Estimated Information:

The information provided for the 2015 Regulatory Year is considered actual information as no estimates were required.

Table 3.2.1 Opex categories: Table 3.2.1.2A Historical Opex categories and cost allocations

Opex categories and allocations have been presented in accordance with the requirements of the CAM, the Annual Regulatory Accounts and the Annual Reporting Requirements that were in effect for the individual Regulatory Year. Opex reconciles to Prescribed Transmission Services opex as disclosed in the Annual Regulatory Accounts.

Preparation Methodology:

The opex reported matches the presentation previously used in the pre-2015 Annual Regulatory Accounts.

The opex reported has been derived based on underlying workings to the 2015 Annual Regulatory Accounts sourced from the Financial System. This reconciles to the amounts reported in Table 3.2.1.1.

The costs of each maintenance works performed per activity is held in the Asset Management System (but is not reconciled to the Financial System). The Financial System does not record maintenance costs in the prescribed Regulatory Categories. Therefore, to split the total maintenance costs (per Financial System and equal to the 2015 Annual Regulatory Accounts) across the prescribed activities, a pro-rata allocation has been performed based on the information held in the Asset Management System.

Estimated Information:

The information provided for the 2015 Regulatory Year is considered actual information except for the split of maintenance costs across prescribed maintenance activities.

3.2.3 Provisions

Provisions are recognised when AusNet Transmission has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount of the provision can be measured reliably. Provisions are not recognised for future operating losses.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the relevant reporting date, taking into account the risks and uncertainties surrounding the obligations. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

Financial information on provisions for Prescribed Transmission Services has been reported in accordance with the requirements of the CAM and the Annual Regulatory Accounts that were in effect for the 2015 Regulatory Year.

The accounting policies adopted by AusNet Transmission in relation to Provisions have not materially changed during the 2015 Regulatory Year in comparison with Regulatory Years previously reported.

Provisions have been separately presented based on the nature of the provision and allocated between an Opex component, a Capital Expenditure ("Capex") component and an Other component based on the classification of the underlying cost associated with the provision. Financial information on provisions reconciles to the reported amounts for provisions in the Annual Regulatory Accounts for the 2015 Regulatory Year.

Preparation Methodology:

Provision - Corporate Restructuring and Provision – Make Good

Data was extracted from the financial system and the Mark Good Provisions was allocated into PTS based the % of total PTS operating and maintenance expenditure per the 2015 Annual Regulatory Accounts; and the Corporate Restructuring provision was 100% directly allocated to PTS. Information disclosed in relation to the above provisions is considered 'actual information'.

Provision – Employee Entitlements and Provision – Superannuation

The amounts reported in the 'Provision - Employee Entitlements' table relate to liabilities for wages and salaries, including non-monetary benefits and annual leave recognised in respect of employees' services up to the reporting date and are measured at the amounts expected to be paid when the liabilities are settled.

Data was extracted from the financial system and allocated into PTS based on Headcount drivers (94% PTS, 6% Non-Regulated). The headcount driver is determined by using a report from HR/Payroll system. This report covers all Employees across AusNet Services' businesses. Using Activity Based Costing ("ABC") surveys, the headcount report was allocated between the Distribution (Electricity and Gas) businesses and the Transmission business. The Transmission business headcount was further allocated into employees involved in PTS related work based on ABC survey information. It is noted in the 2014 Economic Benchmarking submission, the allocation into PTS was based on the 'Direct Labour Allocator'

recorded in the 2014 Annual Regulatory Accounts – this is based on only opex work codes not whole of company effort (therefore this split was 74% PTS, 26% Non-Regulated).

The total 'Additional provisions made during the period', 'Amounts used during the period' and 'Unused amounts reversed during the period' disclosed are considered 'actual information' as the data was extracted from the financial system.

On 31 March 2014, the Management Services Agreement between AusNet Services and SPI Management Services Pty Ltd ("SPIMS") was terminated. Upon termination of this agreement, a number of SPIMS employees have been transferred into AusNet Transmission during the 2015 Regulatory Year, and the corresponding employee entitlement provisions have also been transferred across to AusNet Transmission. The 'other component' amount reported in the section 'The increase during the period in the discounted amount arising from the passage of time and the effect of any change in the discount rate' within the 'Provision - Employee Entitlements' table relates to this transfer of employee provisions. For 'Provisions – Superannuation', the 'other component' also includes the Defined Benefit actuarial adjustment which is adjusted through retained profits instead of the profit and loss.

All other information disclosed under 'Provision – Superannuation' and 'Provision - Employee Entitlements' is considered 'estimated information' due to the preparation approach outlined below. To derive the estimates, information was sourced from the financial system and supplemented with internal allocation models based on ABC surveys.

Estimated Information:

In relation to 'Provision - Employee Entitlements' and 'Provision – Superannuation', the split between the Opex component and the Capex component was estimated. This was required as this data is not separately captured in the financial system. To determine the proportion of these provisions that should be classified as Capex, AusNet Transmission has used the results from the AusNet Services Group quarterly capitalised overhead model which calculates the proportion of overhead labour costs to be capitalised. The quarterly capitalised overhead model uses results from the quarterly ABC surveys which provide the percentage split of management effort between all of AusNet Services' regulated and unregulated networks as well as between Opex and Capex.

All other information is considered actual information.

3.3 Assets (RAB)

The Regulated Asset Base ("RAB") values have been prepared and reported as per AusNet Services' interpretation of the AER instructions set out in Section 4 of the RIN Instructions and Definitions ("RIN I&Ds").

Consistent with the instructions outlined in the RIN I&DS, the AER Final Decision SP AusNet Transmission determination 2014–15 to 2016–17 (and specifically the published roll forward model) has been used as the basis for the RAB values as this is the latest AER Decision to incorporate actual information.

The accounting policies adopted by AusNet Transmission in relation to Capex (the only regulatory accounting input into the RAB) have not materially changed during the 2015 Regulatory Year (in comparison to prior Regulatory Years reported).

Table 3.1.1 Regulatory Asset Base values

The RAB values have been prepared and reported as per AusNet Transmission's interpretation of the AER instructions set out in Section 4 of the RIN I&Ds.

Preparation Methodology:

For the purposes of establishing the closing RAB value as at 31 March 2014 as reported in AusNet Transmission's 2014 Economic Benchmarking RIN submission, information was sourced from the AER Final Decision SP AusNet Transmission determination 2014–15 to 2016–17 and underlying workings to the Annual Regulatory Accounts.

The AER Final Decision SP AusNet Transmission determination 2014–15 to 2016–17 roll forward model was used as the basis for the RAB Values, on an 'As-Commissioned' basis, as that was the latest AER Decision to incorporate actual information. Information for the 2014 Regulatory Year was updated for actual Capex values (reconciled to the Annual Regulatory Accounts) and re-calculated for regulatory depreciation based on actual Capex.

The roll forward of the RAB from 31 March 2014 incorporates actual Capex values (including movements in provisions) for 2015, reconciled to the underlying workings to the Annual Regulatory Accounts, actual depreciation and opening RAB adjustments. These opening RAB adjustments include roll-in of Group 3 assets (as foreshadowed in the basis of preparation for 2014 RAB Values) plus Equity Raising costs (2008-13). These adjustments are reflected in "Opening value" (TRAB0101).

Estimated Information:

The information provided is considered actual information as no estimates were required.

Table 3.2.2 Asset value Roll forward

The disaggregated RAB values have been prepared and reported as per AusNet Transmission's interpretation of the AER instructions set out in Section 4 of the RIN I&Ds.

AusNet Transmission has recorded assets in the RAB in asset classes that allow a direct attribution into the AER's Economic Benchmarking RAB Asset classes. The exception is that there is no split in the transmission RAB between overhead and underground assets. The existing disaggregated RAB consists of the following asset categories:

- Lines (Towers and Conductors)
- Transformers
- Switchgear
- Reactive
- Establishment
- Secondary
- Communications
- Land
- Easements
- Inventory
- IT
- Vehicles
- Premises
- Other (non-system)
- Equity Raising Costs (2008-13)

That is, for each category above, Opening value, Inflation addition, Straight line depreciation, Regulatory depreciation, Actual additions (recognised in RAB), Disposals and Closing value for overhead transmission asset value is generated.

Preparation Methodology:

Information was sourced from the AER Final Decision SP AusNet Transmission determination 2014–15 to 2016–17 and underlying workings to the Annual Regulatory Accounts.

Each line of the RAB information Opening value, Inflation addition, Straight line depreciation, Regulatory depreciation, Actual additions (recognised in RAB), Disposals and Closing value for transmission asset value is aggregated as per the table below:

Benchmarking Asset Classes	RAB Asset Classes
Overhead transmission assets (wires and towers/poles etc.)	Towers and Conductors*
Underground transmission assets (cables, ducts etc.)	*Proportional estimate
Substations, switchyards	Switchgear Transformers Reactive Establishment Land
Easements	Easements
Other assets with long lives (please specify)	Secondary Communications Premises Other Equity Raising Costs
Other assets with short lives (please specify)	Inventory IT Vehicles

*To determine the split between overhead and underground assets for 2015, the RAB Asset Class 'Towers and Conductors' (Inflation, Straight line depreciation, Regulatory depreciation) was allocated proportionally based on their share of the 2015 opening RAB values.

All additions relate to overhead transmission assets.

Engineering assessments were used as the basis for determining the aggregation of the RAB Asset Classes into the prescribed Benchmarking Asset Classes.

Estimated Information:

Overhead transmission assets and Underground transmission assets is considered estimated information. Refer to discussion above. The information provided was estimated based on an assessment by a suitable Subject Matter Expert ("SME") and is considered Management's best estimate based on the information available. Information regarding the other categories is considered actual information.

Table 3.3.3 Total disaggregated RAB asset values

Preparation Methodology:

The total disaggregated RAB values are taken directly from Table 3.3.2 and are calculated as the average of the opening and closing RAB values from Table 3.3.2.

Estimated Information:

Consistent with Table 3.3.2, Overhead transmission assets and Underground transmission assets are considered estimated information and all other categories are considered actual.

Table 3.3.4 Asset lives

Preparation Methodology:

For measures TRAB0901, TRAB0902, TRAB0903, TRAB1001, TRAB1002 and TRAB1003, the data was calculated based on assets held as per the Asset Management System using the Age Profiles generated for the 2015 Category Analysis RIN. These measures were completed based on unit rates and asset lives applied on a per asset basis utilising data supplied for the Transmission Revenue Reset ("TRR") submitted in 2012-2013 and the AER's Replacement Expenditure ("REPEX") model. An internal document "AMS 10-101 Asset Life Evaluation" defines the useful lives utilised. Assets were grouped into the three categories defined in Table 3.3.4 to calculate Average Service life and Average remaining life for each asset group.

For variables TRAB0904, TRAB0905, TRAB1004, and TRAB1005, the AER's Final Roll Forward Model ("RFM") for the 2014-17 Victorian Transmission Determination, updated for both 2014 and 2015 actuals, was taken to accurately reflect the lives of the assets in these categories. For these variables, the weighted average service life and weighted average residual service life were calculated based on Standard Lives and Remaining lives from the AER's RFM.

Estimated Information:

For variables TRAB0901, TRAB0902, TRAB0903, TRAB1001, TRAB1002 and TRAB1003, the weighted average service life and weighted average residual service life were calculated using the AER's REPEX model with age profile, and assets lives from the 2015 Category Analysis RIN template. Unit cost data was sourced from the units rates supplied for the TRR from the Asset Management System and is considered estimated due to the asset categories in the RIN not aligning with asset categories used by AusNet Services for purchasing equipment.

Weighted average asset service life and average residual service life is considered estimated information. These values are based on the asset lives and age profiles in the Category Analysis RIN templates which are estimated data. Information for asset age profiles is sourced from the Asset Management Systems and is current data as at April 2015 due to the Asset Management Systems being 'live' databases. Due to a combination of inaccuracies in asset data from historical records (leading to continual data cleansing processes occurring over the Regulatory years) and system limitations which prevent asset reports to be run at specific (historic) points in time, the information is considered estimated but it is the best available data Management can use to fulfil the Table 3.3.4 requirements.

Where an asset's unit rate was not supplied for the TRR, a reasonable estimate was established on available unit rates for similar asset and scaled based as a percentage of the original unit rate.

For variables TRAB0904, TRAB0905, TRAB1004 and TRAB1005, the weighted average service life and weighted average residual service life were calculated based on each asset category's share of the 2014 Closing RAB. The allocation of RAB categories to Benchmarking Categories was consistent with the Table in Section 3.3.2 above.

All quantity data reported has an element of estimation in it due to the judgements made in order to match the AusNet Services' asset categories with the categories required by the AER. As these judgements were made by a suitable SME, these are considered Management's best estimates.

3.4 Operational Data

Table 3.4.1 Energy delivery;
Table 3.4.2 Connection points;
Table 3.4.3 System demand

The above tables have not been completed as the required information is maintained by AEMO.

3.5 Physical Assets

Table 3.5.1.1 Overhead network length of circuit at each voltage and
Table 3.5.1.2 Underground cable circuit length at each voltage

The overhead network length of circuit at each voltage level has been reported. The network length of circuit is the circuit length (measured in kilometres) of lines in service. A double circuit line counts as twice the length. Length does not take into account vertical components such as sag.

The underground cable circuit length at each voltage level has been reported. The underground cable circuit length is the circuit length (measured in kilometres) of lines in service.

Preparation Methodology:

The 2015 information was directly sourced using a query script run in the Asset Management System.

Estimated Information:

The information provided is considered actual information as no estimates were required.

Table 3.5.1.3 Estimated overhead network weighted average MVA capacity by voltage class and
Table 3.5.1.4 Estimated underground network weighted average MVA capacity by voltage class

Weighted average capacities have been reported for both the overhead and underground network for each of the listed voltage classes. The data provided is based on weighted average carrying capacities under normal circumstances taking account of limits imposed by thermal ratings. Voltage drop considerations have not been taken into account as AusNet Transmission does not have access to information on the carrying capacity of Victorian transmission lines that are limited due to voltage stability.

Preparation Methodology:

Data for the 2015 Regulatory Year was sourced from the Asset Management System for each span of transmission circuit. The Asset Management System holds records including the conductor voltage ("Volts"), current rating ("Amps") and line length in kilometres ("length") for each section of line.

The weighted average was calculated based on the following methodology:

$$\frac{\text{Line 1: (length * Volts * Amps) + Line 2: (length * Volts * Amps) + Line 3: (length * Volts * Amps) etc.}}{\text{(Line 1 length + Line 2 length + Line 3 length etc.)}}$$

For three phase lines each group in the numerator has also been multiplied by $\sqrt{3}$.

Estimated Information:

The carrying capacities included in the above weighted average calculation assume all assets have summer peaking Maximum Demands, which is a reasonable assumption given summer capacity is lower as the network is more constrained during this period compared to winter.

The information provided for the 2015 Regulatory Year is considered estimated as the calculation performed is not in accordance with the definition of weighted average capacities provided by the AER. As discussed above, actual capacity voltage drop considerations have not be taken into account due to the unavailability of this data. It is further noted that a significant number of lines in Victoria (at all voltage levels) are limited due to voltage stability. A nominal voltage rate is used instead.

Based on the data availability constraints, the calculation performed to estimate the required AER information is considered Management's best estimate as it was performed by a suitable SME.

Table 3.5.1.5 Installed transmission system transformer capacity and
Table 3.5.1.6 Cold spare capacity

Transformer capacity involved in the prescribed transformation levels has been reported. The transformer capacities reported in Table 3.5.1.5 are inclusive of Cold Spare Capacity which has been separately disclosed in Table 3.5.1.6. Data presented relates to assets providing Prescribed Transmission Services.

For each category, the summation of normal assigned continuous rating has been reported (including forced cooling or other capacity improving factors where relevant). Assigned ratings have been determined by the nameplate rated. Only regulated transformers (included in the Regulatory Asset Base) have been included. Step-up transformers at generation connection locations have been excluded. Oil insulated or cooled reactors and station service transformers which provide auxiliary AC and DC for secondary systems in terminal stations have also been excluded.

Preparation Methodology:

Data for both in-service and disposed-of transformers were extracted from the Asset Management System for all time periods. Data extracted included name plate data, installation dates and disposal dates. A review and analysis of the information was performed and based on this, the extracted data was supplemented and confirmed with information from transformer instruction manuals and subject matter experts.

Estimated Information:

For variable TPA0504 'Transformer capacity for directly connected end–users owned by the end–user' AusNet Transmission has used nameplate ratings records held in its own asset management systems and verified them where possible with AEMO. Nonetheless, these ratings are valid only under certain assumptions with regards to cooling equipment. As AusNet Transmission has no direct knowledge of the cooling equipment installed by these end users, these ratings should be considered estimates only. The remaining variables are all considered actual data.

3.6 Quality of Services

'Outage' means 'loss of connection' rather than loss of supply by a connected system or customer. To allow summation into an overall Average Circuit outage rate, both numerator (number of events with defined circuits unavailable per annum) and denominator (total number of defined circuits) have been provided as well as the calculated percentage rate for each item.

The parameter variables TQS0101 to TQS02 have been provided based on a calendar year (from 1 January 2014 to 31 December 2014) as STPIS performance reporting is undertaken on a calendar year basis.

Table 3.6.1.1 Service Parameter 1 – Average circuit outage rate

Preparation Methodology:

Assets and outage data is recorded in the Asset Management System and periodically included in internal reports and also AER submissions. The reports from the Asset Management System were reviewed and amended to align with requested information (e.g. unregulated asset information excluded).

The data reported aligns with the AER's decision on 2014 STPIS performance as confirmed in correspondence from the AER dated 13 March 2015.

The reported 'Number of lines fault outages' (TQS0102) and 'Number of defined lines' (TQS0103) was used to calculate the 'Lines outage rate – fault' percentage (TQS0101).

The reported 'Number of Transformer fault outages' (TQS0105) and 'Number of defined Transformers' (TQS0106) was used to calculate the 'Transformers outage rate - fault' percentage (TQS0104).

The reported 'Number of Reactive plant fault outages' (TQS0108) and 'Number of defined reactive plant' (TQS0109) was used to calculate 'Reactive plant outage rate - fault' percentage (TQS0107).

The reported 'Number of defined lines' (TQS0103) and 'Number of Lines forced outages' (TQS0111) was used to calculate the 'Lines outage rate – forced outage' (TQS0110).

The reported 'Number of defined Transformers' (TQS0106) and 'Number of Transformers forced outages' (TQS0113) was used to calculate the 'transformer outage rate – forced outage' (TQS0112).

The reported 'Number of defined reactive plant' (TQS0109) and 'Number of reactive plant forced outages' (TQS0115) was used to calculate 'Reactive plant outage rate – forced outage' (TQS0114).

Data presented relates to assets providing Prescribed Transmission Services.

Table 3.6.1.2 Service Parameter 2 – Loss of supply event frequency – number in ranges specified

The loss of supply event frequency thresholds of 0.05 and 0.30 system minutes per annum have been applied based on the AER Transmission Network Service Provider ("TNSP") STPIS.

The data reported aligns with the AER's decision on 2014 STPIS performance as confirmed in correspondence from the AER dated 13 March 2015.

Preparation Methodology:

The required parameters were obtained from the AER TNSP STPIS. Information reported was based on data reported in the annual AER 2014 Transmission Service Standard Compliance Report which was ultimately sourced from the Asset Management System.

Table 3.6.1.3 Service Parameter 3 – Average outage duration

Preparation Methodology:

Data was extracted from the Asset Management System as reported in the 2014 submission made to the AER ("TRR").

Average Outage Duration was derived by performing a simple average calculation of the total number of minutes for outages divided by the number of outages.

The data reported aligns with the AER's decision on 2014 STPIS performance as confirmed in correspondence from the AER dated 13 March 2015.

Table 3.6.1.4 System Parameter 4 – Proper operation of equipment – number of failure events

Preparation Methodology:

'Failure of protection system' (TQS0119) and 'Incorrect operational isolation of primary or secondary equipment' (TQS0121): Information on system incidents was extracted from the Asset Management System. A detailed analysis was performed of this information and based on this review, the relevant data requested was captured and summed.

'Material failure of Supervisory Control and Data Acquisition ("SCADA") system' (TQS0120): Information in relation to material SCADA failures was obtained directly from AEMO.

Estimated Information:

The number of material failures of SCADA system (TQS0120) is considered estimated information as it is based on data provided by AEMO and is not materially dependent on information recorded in AusNet Services' records used in the normal course of business.

In relation to 'Incorrect operational isolation of primary or secondary equipment' (TQS0121), Incorrect operational isolation is defined in the AER TNSP STPIS as incidents "irrespective of whether an outage occurred". AusNet Services does not capture incidents where no outage results. Based on this, the number of incidents of Incorrect operational isolation of primary or secondary equipment which resulted in an outage has been used as a proxy for the data requested. Therefore, the information provided is considered estimated information.

The data provided is considered Management's best estimate based on the information available.

Table 3.6.2 – Market Impact Component

Quality of services is reported in accordance with the definitions specified in the December 2012 TNSP STPIS (version 4) document per the AER RIN Instructions and Definitions.

AusNet Services' 2014 MIC performance has been audited by the AER and the data reported is consistent with the results of this audit.

Preparation Methodology:

Data reported was sourced from AEMO's Markets Management System using software packages (e.g. Ezi View provided by Global Roam).

The data was initially filtered to exclude 'NIL' and other abnormal constraints. Outages caused by AusNet Services were then manually identified.

Table 3.6.3 System losses

System losses (TQS03) were calculated as the difference between electricity inflows and outflows as a percentage of electricity inflows.

Electricity inflows is the total electricity inflow into the transmission network including from generation, other connected Transmission Network Service Providers ("TNSPs") at the connection point, and connected Distribution Network Service Providers ("DNSPs") as measured by revenue meters.

Electricity outflows is the total electricity outflow into the networks of connected distribution network service providers, other transmission networks and directly connected end-users as measured by revenue meters.

Preparation Methodology:

Data metering systems collect and process energy metering data for all terminal stations. At each terminal station, the total cumulative received energy (inflows) and transferred energy (outflows) in Watt hour ("Wh") associated with connections are collected and recorded in Data Metering Systems.

Using this information, the System Loss percentage was calculated for the 2015 Regulatory Year by calculating the difference between inflows and outflows for the months April 2014 to March 2015, and dividing by the total inflows for this same period.

Information captured and reported relates to both the Regulated and Unregulated Network. The methodology used to calculate the losses associated with the supply of electricity through AusNet Services' electricity transmission network is outlined in SOP35-20 Transmission Network Energy Loss.

Estimated Information:

The information provided is considered actual information as no estimates were required.

3.7 Operating Environment

Table 3.7.1 Terrain factors

Total number of vegetation maintenance spans (TEF0101)

'Total number of maintenance spans' is the total count of spans in the network that are subject to active vegetation management practices in the 2015 Regulatory Year.

Preparation Methodology:

Information in relation to the total number of vegetation maintenance spans was sourced from work orders (PT1, PT30, PT90, PT180, PT365 and PT912) recorded in the Asset Management System, where each span is assigned to a work order. These types of work orders represent maintenance spans which require vegetation maintenance within a certain timeframe, that is, PT30 means vegetation maintenance is required within 30 days, PT 90 means vegetation maintenance is required within 90 days etc. The maintenance spans reported in the calculation are the spans which were actioned during the 1 April 2014 – 31 March 2015 period.

Estimated Information:

The information provided is considered actual information as no estimates were required.

Average vegetation maintenance span cycle (TEF0102)

Maintenance span cycle refers to the planned number of years (including fractions of years) between which cyclic vegetation maintenance is performed for the relevant area.

Preparation Methodology:

Information in relation to the average vegetation maintenance span cycles was obtained from the Asset Management System and also per the vegetation management plan whereby 3 patrols are conducted per annum.

Estimated Information:

The information provided is considered actual information as no estimates were required.

Average number of trees per vegetation maintenance span (TEF0103)

'Average number of trees per maintenance span' includes only trees that require active vegetation management to meet its vegetation management obligations during a 3 year cycle. It excludes trees that only require inspections and no other vegetation management activities are required to comply with AusNet Transmission's vegetation management obligations.

Preparation Methodology:

The information provided was estimated based on expert knowledge and field experience managing vegetation around transmission assets. An estimate was required as the data requested is not captured in any form in existing systems or reports. This information is considered Management's best estimate.

The data provided excludes information in relation to vegetation management of saplings (during a 3 year cycle) as this information is not able to be estimated.

Estimated Information:

Refer to discussion above in relation to estimates and assumptions applied. The information provided was estimated based on expert knowledge and is considered the best estimate based on the information available.

Average number of defects per vegetation maintenance span (TEF0104)

Defects are any recorded incidence of noncompliance with the vegetation clearance standard. This also includes vegetation outside a TNSP's standard clearance zone that is recognised as hazardous vegetation and which would normally be reported as requiring management under inspection practices.

Preparation Methodology:

The information for the 2015 Regulatory Year was estimated by extracting a report from the Asset Management System to show the number of vegetation maintenance spans actioned due to defects (which required action within 30 days) in the 2015 Regulatory Year. Defects on a vegetation maintenance span are recorded as one, regardless of the number of defects on the span. The number of spans actioned was divided by the total number of vegetation maintenance spans to derive an estimate of the required information.

Estimated Information:

Refer to discussion above in relation to estimates and assumptions applied. As this information is not separately captured by the existing systems, the calculation performed is considered Management's best estimate of the required data based on the information available.

Tropical Proportion (TEF0105)

Tropical spans are the approximate total number of urban and rural Maintenance Spans in the Hot Humid Summer and Warm Humid Summer regions as defined by the Australian Bureau of Meteorology Australian Climatic Zones map (based on temperature and humidity). There are no Tropical Spans in AusNet Transmission's Maintenance Spans.

Standard Vehicle Access (TEF0106)

Standard vehicle access refers to areas which are serviced through made roads, gravel roads and open paddocks (including gated and fenced paddocks). It excludes areas only accessible by a two wheel drive vehicle.

Preparation Methodology:

Information in relation to Standard Vehicle Access was estimated as the total amount of lines in kilometers patrolled via a maintained access track (which generally runs down the centre of the easement). The data is based on tracks built for 4WD vehicle access all year round. This measure does not take into account tracks or private roads needed to access tracks or easements. It also does not take into consideration open paddock access as this is determined by the weather conditions at the time of access.

Data extrapolated from the Distribution Asset Management System indicated that the percentage of spans requiring climber to access is 11.11%. Therefore a percentage of 88.89% was applied across the Transmission Network as the percentage of climbing spans from the Transmission Asset Management System is unable to be extracted.

The standard vehicle access is dependent on route line length reported. If the route line length varies (as it may some years) the standard vehicle access will also change. For the previous submissions, the percentage used was consistent across all years, even if route line length varied. This has been corrected for the 2015 submission.

Estimated Information:

Refer to discussion above in relation to estimates and assumptions applied. As this information is not separately captured by the existing systems, actual data could not be obtained. The estimation process as described above is considered Management's best estimate of the data required based on the information available.

Altitude (TEF0107)

Altitude is the route line length 600 meters above sea level.

Preparation Methodology:

Information in relation to altitude was obtained by reviewing profile drawings and PLS-Cadd line terrain models to identify levels for tower bases at the start and end of route sections above 600 meters above sea level.

Estimated Information:

The information provided is considered actual information as no estimates were required.

Bushfire Risk (TEF0108)

Bushfire risk is the number of Maintenance Spans in high bushfire risk areas.

Preparation Methodology:

A SME plots fire ratings into the Asset Management System utilizing maps from the Country Fire Authority which detail 'Low Bushfire Risk Areas'. The areas outside these are mapped as 'High Bushfire Risk Areas'.

This information from the Asset Management System is used to determine, of the Maintenance Spans actioned and reported in the Asset Management System, how many were actioned in low bushfire risk areas. This amount was subtracted from the total Maintenance Spans actioned (reported above) to determine the number of Maintenance Spans in high bushfire risk areas.

Estimated Information:

The information provided is considered actual information as no estimates were required.

Table 3.7.2 Network characteristics

Route line length (TEF0201) and Total number of spans (TEF0204)

The route line length is the aggregate length in kilometers of lines, measured as the length of each conductor span between poles and/or towers and does not include vertical components such as line sag. Each easement span is considered only once irrespective of how many circuits it contains. This is the distance between line segments.

Information in relation to route line length and total number of easement spans was obtained from the Asset Management System for the 2015 Regulatory Year. Data was extracted from the equipment record together with the original creation date (assumed consistent with installation date) and asset disposal dates (where applicable). Based on these records, route line length and total number of spans was calculated for the 2015 Regulatory Year.

The route line length reported in the 2014 Regulatory Year included length in relation to an asset not owned by AusNet Services. This has been removed from the 2015 Regulatory Year submission. Consistent with the process performed for the 2014 Regulatory Year submission, an extraction script was used on the Asset Management System to derive the easement segment lengths associated with each of the towers in a transmission line including the E000 starting segments (from the starting station rack structure (referred to as T000) to just before the first tower). The results were then manually reviewed to identify cases where there may be two or more towers of the same transmission line in the one easement segment. This check was performed to ensure the “tower-segment length” was only counted once in these situations when summing the values to calculate the total route length. For the span count, the count includes counting actual spans (two or more) where there is two or more towers of the same transmission line in the one easement segment.

Estimated Information:

The information provided is considered actual information as no estimates were required.

Variability of dispatch (TEF0202) and Concentrated load distance (TEF0203)

The data relevant to TEF0202 and TEF0203 is maintained by AEMO, therefore not required to be disclosed in the Template.