

Transmission Regulatory Information Order, 2024- 25

Basis of Preparation

28 November 2025

Official



Powering a
Bright Future

Disclaimer

TasNetworks (which, for the purposes of this disclaimer, includes all of its related bodies corporate, its officers, employees, contractors, agents and consultants) makes no representation or warranty (express or implied) as to the accuracy, reliability, or completeness of the information contained in this document, or its suitability for any intended purpose. TasNetworks has no liability for any loss or damage (be it direct or indirect) arising out of, or in reliance on, any statements, opinions, information or matter contained in, or derived from, the information in this document.

Tasmanian Networks Pty Ltd
ABN 24 167 357 299
PO Box 606
Moonah TAS 7009

Enquiries regarding this document should be addressed to:
Leader Regulation
Tasmanian Networks Pty Ltd
PO Box 606
Moonah TAS 7009

Contents

Introduction	5
AER's Instructions	5
Template 2.1 Expenditure summary	5
Template 2.2 Replacement expenditure	6
Template 2.3 Augmentation	13
Template 2.5 Connections expenditure	15
Template 2.6 Non-network expenditure	16
Template 2.7 Vegetation management	18
Template 2.8 Maintenance	22
Template 2.10 Overheads	27
Template 2.12 Input tables	27
Template 5.2 Asset age profile	28
Template 5.3 Maximum demand at network level	33
Template 5.4 Maximum demand and utilisation at spatial level	34
Template 3.1 Revenue	37
Template 3.2 Provisions	38
Template 3.3 Assets (regulatory asset base)	39
Template 3.4 Operational data	41
Template 3.5 Physical assets	44
Template 3.6 Quality of service	47
Template 3.7 Operating environment factors	50
Template 2.4 Historic Capex by Asset Class	53
Template 8.5 Disagg opex	54
Template 9.1 Disagg Inc	55
Template 9.2 RFS Inc	55
Template 7.6 PTS Price Redn	56

Template 7.7 Related party transactions	56
Template 7.9 MIC	57
Template 7.5 Large projects	57
Template 8.6 Ind asset base roll fwd	58
Template 8.7 Profitability – tax data	60
Template 8.8 Revenue requirements	62
Definitions and interpretation	64

Introduction

TasNetworks (Tasmanian Networks Pty Ltd, ABN 24 167 357 299) is the owner and operator of the electricity distribution network in Tasmania.

This Basis of Preparation (BoP) forms part of the response of TasNetworks to the Annual Information Order (referred to as the RIO within TasNetworks [Regulatory Information Order]) issued in April 2024 by the Australian Energy Regulator (AER), under Division 4 of Part 3 of the National Electricity (Tasmania) Law.

The information and explanatory material included in this BoP relate to TasNetworks' activities as Tasmania's licensed Transmission Network Service Provider (TNSP) during the 2024-25 Regulatory Year (referred to throughout this document as the current reporting period).

AER's Instructions

The AER's instructions are to prepare and submit a BoP that demonstrates how the information provided in response to the RIO request complies with the requirement of the RIO's. The minimum requirements of the BoP as per schedule 5 of the order are set out below.

For each table and sub-table in the data workbooks the basis of preparation must:

Table 1 AER Requirements of the BoP

5.2 (a)	Describe the source of the information provided
(b)	document the methodology (if any) used to transform the source data to meet the requirements of the Order
(c)	list the assumptions used in applying the methodology noted under (b)
(d)	classify the information as actual information or estimated information or as a NULL response
(e)	where estimated information is provided:
(f)	a) explain why actual information cannot be provided b) explain why the estimate is the electricity distributor's best estimate
	where a NULL response is provided explain why the information is not relevant
(g)	explain any changes in the information sources or methodology that occurred in the reporting period.

Template 2.1 Expenditure summary

Table 2.1.1 Prescribed transmission services capital expenditure

<p>Source of information</p> <p>Worksheets 2.2 – 2.10 of the RIO.</p>
<p>Methodology and assumptions made</p> <p>Information provided in template 2.1.1 has been reconciled to the amounts reported in the Regulatory Financial Statements. A list of balancing items has been prepared to clarify differences between the RIO and the Regulatory Financial Statements.</p>
<p>Actual/estimated/NULL – and why?</p> <p>Actual.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>Includes expenditure previously excluded for the purpose of category analysis RIO.</p>

Table 2.1.2 Prescribed transmission services operational expenditure

<p>Source of information</p> <p>Worksheets 2.5 - 2.10 of the RIO.</p>
<p>Methodology and assumptions made</p> <p>Information provided in template 2.1.1 has been reconciled to the amounts reported in the Regulatory Financial Statements. A list of balancing items has been prepared to clarify differences between the RIO and the Regulatory Financial Statements.</p>
<p>Actual/estimated/NULL – and why?</p> <p>Actual.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>Includes expenditure previously excluded for the purpose of category analysis RIO.</p>

Template 2.2 Replacement expenditure

Table 2.2.1 Expenditure and replacement volumes by asset category

All asset categories expenditure data

<p>Source of Information</p> <p>All financial information was sourced from SAP and the Regulatory Financial Statements.</p> <p>Substation switchbays, Power Transformers, Reactive Plant and Transmission cables</p>

Substation Primary Systems replacement data has been sourced from SAP. Failure information has been sourced from the SAP defects register and confirmed against failure reports.

Methodology and assumptions made

The financial data in Table 2.2.1 has been apportioned across categories using financial information for that year from SAP and the volumes of replacements.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Transmission towers

Source of Information

Transmission Lines asset replacement data and asset failure information has been sourced from SAP, filtering by assets with a commissioning date in the current reporting period.

Methodology and assumptions made

Asset replacements resulting from augmentation projects were excluded.

Where TasNetworks has strung a single circuit on a double circuit configuration structure, this has been classified as single circuit.

Assets of categories not owned by TasNetworks has been marked as '0' as required by the RIO instructions.

A failure is defined by the failure of a piece of equipment to operate. This is unique from a defect as a defect notes an issue with the asset but does not prevent it from operating. Where no failures have been recorded a zero is recorded against the respective asset classes.

Unregulated assets excluded.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

Assets that are considered unregulated have been excluded from the 2024-25 RIO data.

Transmission towers support structures

Source of Information

Transmission Lines asset replacement data and asset failure information has been sourced from SAP, filtering by assets with a install date in the current reporting period.

Methodology and assumptions made

The support structures category includes only the following equipment: anodes, foundations, insulators and danger signs. Replacement volumes are based on SAP equipment install dates.

Failure data is sourced from SAP. Where no failures have been recorded a zero is recorded against the respective asset classes.

Where no failures have been recorded a zero is recorded against the respective asset classes.

Unregulated assets excluded.

The number of anodes installed on 110 kV structures has decreased significantly compared to the previous year's submission. This reduction is due to an ongoing review of the effectiveness of anodes on 110 kV structures; consequently, only a limited number were installed during the current financial year.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

Assets that are considered unregulated have been excluded from the 2024-25 RIO data.

Conductors

Source of Information

Transmission Lines asset replacement data and asset failure information has been sourced from SAP, filtering by assets with an install date in the current reporting period.

Methodology and assumptions made

Transmission conductor length is represented as circuit length (in kilometres) for energised conductors.

Earthing conductor replacement has been recorded as a total length of conductor replaced under the conductor voltage 'Other' category (in km).

Total length of earthing conductors is reported due to the variable number of earthing conductors and some being discontinuous along a transmission line whereas circuit length implies 3 conductors per phase for the total length.

Where no failures have been recorded a zero is recorded against the respective asset classes.

Optical Ground Wire (OPGW) and Earthwire data was collected from SAP through completed project WOs. Unregulated assets excluded.

Actual/estimated/NULL – and why?

Actual

Changes from last year's source/methodology/assumptions

Assets that are considered unregulated have been excluded from the 2024-25 RIO data.

Transmission cables

Source of Information

Transmission cable asset replacement data and asset failure information has been sourced from SAP.

Methodology and assumptions made

Asset was extracted from SAP and filtered to exclude privately owned assets and non-transmission class assets. There were no transmission cable replacements or failures in the reporting period.

Actual/estimated/NULL – and why?

Estimated – Length only account for length along x-axis and does not take into account vertical rise onto termination points.

Changes from last year’s source/methodology/assumptions

No changes.

Substation switchbays

Source of Information

Asset replacements for switchbays has been sourced from SAP.

The number of asset failures has been taken from the Field Engineering incident register, and confirmed against SAP ‘defects’ register.

Methodology and assumptions made

Gas insulated switchgear is typically indoor sealed units with SF6 gas insulation encompassing the switch gear mechanism including bus bar chambers and instrument transformers (all encased).

Air insulated switchgear in higher voltage levels ($\geq 44\text{kV}$) are typically outdoor with separate disconnectors and instrument transformers. Voltage levels less than 44 kV are typically indoor and can have oil, vacuum, air or SF6 gas insulation medium with separate instrument transformers but within the same “air insulated” enclosure. CTs and VTs are counted three single phase as one unit.

Substation other assets includes substation specific ancillary and minor assets including battery systems, AC distribution systems, security systems, fences, oil containment systems, etc., assets not specifically captured in other 2.2.1 asset categories.

Due to historical asset delineation between previous separate transmission and distribution companies, assets $\leq 44\text{kV}$ at a transmission substation are classed as transmission assets. Assets connected downstream from the load side connection of a transmission asset are assumed to be a distribution owned assets.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

No changes.

Substation power transformers

Source of Information

Asset replacements for transformers has been sourced from SAP.

The number of asset failures if any has been sourced from the Field Engineering incident register and confirmed against SAP 'defects' register.

Methodology and assumptions made

Transformers are categorised based on operating voltage and rating (MVA size). The asset information are in SAP which are updated as and when commissioning of the assets happens and connected to the network.

Asset total MVA was determined by summing the total capacity for each transformer highest rating in SAP that is owned by TasNetworks and with commissioned ('COMM') status. There are two types of transformers Network transformers and supply transformers depending upon the internal construction of the transformer. Network transformers are counted as transmission substation supplying bulk power however supply transformers are at terminal substation which supplies to DNSP system or directly connected end-users.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Substations reactive plant

Source of Information

Asset replacements for reactive plants were sourced from SAP.

The number of asset failures has been taken from the Field Engineering incident register, and confirmed against SAP 'defects' register.

Methodology and assumptions made

Static and dynamic reactive assets are under this asset class. These assets are also categorised based on operating voltages and technology its adopted. SVCs asset classes were not in TasNetworks asset class before however this has been added as new type of asset.

The asset information are in SAP which are updated as and when commissioning of the assets happens and connected to the network.

Asset total MVAR was determined by summing the total capacity for each capacitor bank in SAP that is owned by TasNetworks and with commissioned ('COMM') status.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

SCADA, network control and protection systems

Source of Information

SCADA, network control and protection systems

Scada and protection schemes and associated installation dates are sourced from SAP.

OPGW

OPGW asset replacement data and asset failure information has been sourced from SAP.

Methodology and assumptions made

SCADA, network control and protection systems

Protection and SCADA scheme installation dates represent complete scheme renewal and do not include refurbishment where individual components of the scheme are renewed. TasNetworks' current renewal strategy is to target scheme components that present risk and renew complete schemes where appropriate.

Schemes identified as augmentation have been excluded from the total number of schemes installed in this financial year.

Protection Schemes and SCADA systems identified as non-regulated are excluded from the asset counts.

Asset records identified that have not been previously included, are captured and noted.

The SAP asset register has an attribute to capture the date a protection or SCADA scheme was installed. If the SAP record hasn't previously existed, these schemes are identified as augmentation and excluded from the total number of replacements for that financial year.

Protection and SCADA device failures are derived from defects allocated to assets in SAP. Protection or SCADA scheme failures is the number of defect notifications that are deemed as equipment failures only and not related to human error.

TasNetworks reports systems and schemes at an aggregate level and therefore does not report these assets at granular level in the templates. This is applicable for the Protection schemes, the Station SCADA and control systems functions only. The other functions listed in the template under this category such as 'Master Station Assets', 'Control equipment / systems', 'Infrastructure: protection and control', 'Metering systems', 'Site establishment', 'communications network assets' and 'Total secondary systems' are assumed to be additional functions that have been added to the template by other participating NSP's and are considered to have already been included in TasNetworks' Protection schemes / systems and the Station SCADA and control systems.

OPGW

OPGW length is represented as total length for commissioned assets.

Optical Ground Wire (OPGW) and Earthwire data was collected from SAP through completed project WOs.

Unregulated assets excluded.

Where no failures have been recorded a zero is recorded against the respective asset classes.

Actual/estimated/NULL – and why?

Protection and SCADA schemes

All data extracted from SAP is checked for accuracy and confirmed to be correct.

OPGW

Actual.

Changes from last year's source/methodology/assumptions

OPGW

Assets that are considered Unregulated have been excluded from this submission, this is a change in methodology from the previous submission which included unregulated assets.

SCADA, network control and protection systems

Scada and Protection schemes and associated equipment that are unregulated have been excluded from this year's numbers.

SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS - Telecommunications Network / Systems

Source of information

Telecommunications asset replacement and failure information has been sourced from regulated assets in SAP. Data has been verified utilising Telecommunications Network Management Systems and spreadsheets where Network Management Systems are not available. Where necessary SAP data is to be corrected and updated in SAP during the verification process.

Radio links are counted by equipment installed at each end rather than individual links.

Batteries are counted by installed banks rather than by systems.

Telephony data has not been recorded in SAP, records are managed using spreadsheets hosted in TasNetworks intranet.

Methodology and assumptions made

The number of asset failures for Telecommunications Network / Systems has been sourced from fault records associated with regulated assets recorded in SAP (IW29). Asset failure counts do not include failures caused by human error/mal-operations.

Actual/estimated/NULL – and why?

Assets will only be reported after they have been commissioned. However as reporting uses install date an asset may be first reported after having being in previous periods, but not commissioned until this period.

Changes from last year's source/methodology/assumptions

Duplicate '2650 - Data Comm Equipment' removed

Battery bank review has found additional banks not previously reported on.

Table 2.2.2 Selected assets characteristics

Conductors

Source of information

Conductor lengths, replacement data and asset failure information has been sourced from SAP.

Methodology and assumptions made

Only commissioned assets owned by TasNetworks have been included in reported values.

Conductor lengths are recorded in circuit km and were sourced from SAP.

Asset replacements resulting from augmentation projects were excluded.

Assets of categories not owned by TasNetworks has been marked as '0' as required by the RIO instructions.

Failure data is sourced from SAP. Where no failures have been recorded a zero is recorded against the respective conductor type.

Unregulated assets excluded.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

Assets that are considered unregulated have been excluded from this submission.

- 16.8km unregulated AAAC.
- 0.1km of unregulated AAC.

Substation reactive plant

Source of information

Substations Primary Systems.

Current commissioned assets numbers have been sourced from SAP.

Methodology and assumptions made

Asset total MVAR was determined by summing the total capacity for each capacitor bank and STATCOM unit in SAP that is owned by TasNetworks and with commissioned ('COMM') status. TasNetworks do not have any Oil Filled Reactors in the Transmission network so this section has been left blank. Total MVAR for SVCs and Capacitors is listed separately.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Template 2.3 Augmentation

Table 2.3.1: Augex asset data – Substations

Source of information

Transmission substation augmentation asset information is sourced from SAP.

Methodology and assumptions made

Transmission substation assets that are added as part of Functional Area AUGSB which is North West Dynamic Reactive support is reported in the RIO. Two units of 22kV STACOMS similar to SVCs were installed and the commissioning dates of the assets are used.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

In previous year project worth value greater \$5M were reported, however this year any transmission substation which has AUGSB component is reported which is basically counting number of assets added in the network.

Table 2.3.2: Augex asset data – Lines

Source of information

Transmission augmentation expenditure in 2024–25 sourced from SAP.

Methodology and assumptions made

Augmentation expenditure is reported from the following functional areas (TasNetworks expenditure classifications):

- 2.3.2 – Augex asset data – Lines: AUGTL, AUGMP

AUGMP is 'major projects' which may include large projects which has both substation and transmission line components, or other projects which do not align directly with either substations or transmission lines. Where AUGMP represents a large project across both substations and transmission lines, the expenditure is split appropriately across the two tables. A decision is made to which category AUGMP classification projects sit (large projects, or those not directly aligned with either).

Augmentation expenditure is presented as *direct costs*, i.e. exclusive of *network overheads*.

- Transmission augmentation expenditure data for last regulatory year is sourced from SAP
- Expenditure allocated to tables as per functional area classification (as noted in Assumptions)
- Projects assessed for total cumulative expenditure over the life of the project of greater than or equal to \$5 million

Actual/estimated/NULL – and why?

Null. Upon review of Augex Asset Data – lines, no projects qualified for FY25 RIO inclusion. Clauses 6.5.4 and 6.5.13 of the AERs Annual Information Order (Appendix A) were not met, project close has not occurred during the reporting period.

Changes from last year's source/methodology/assumptions

No changes.

Template 2.5 Connections expenditure

Table 2.5.1: Expenditure on connection projects

<p>Source of information</p> <p>Connection expenditure was sourced from SAP.</p>
<p>Methodology and assumptions made</p> <p><u>Assumptions</u></p> <ul style="list-style-type: none">• Labour expenditure considers internal labour costs only• Materials expenditure considers all other costs (material, general, equipment, sub-contractor) <p>Expenditure is presented as <i>direct costs only</i>, i.e. exclusive of <i>network overheads</i></p> <p>Connection expenditure is reported from the following functional areas (TasNetworks expenditure classifications): CONSB, CONTL, CONMP. Expenditure is considered Connections where it is <i>on new connections</i> – where expenditure is on <i>existing connections</i> it is considered Augmentation expenditure (and included 2.5 Augex).</p> <p><u>Methodology</u></p> <ul style="list-style-type: none">• Connections expenditure data for last regulatory year is sourced from SAP by TasNetworks Finance team.• Expenditure allocated to tables as per assumptions above.• Table 2.5.2 Description of Connection Projects entered by TasNetworks Asset Management (Substations) team.• NOTE: in 2025 RIO there is zero expenditure against connection projects.
<p>Actual/estimated/NULL – and why?</p> <p>Actual</p>
<p>Changes from last year's source/methodology/assumptions</p>

2.5.2: Description of connection projects

<p>Source of information</p> <p>Description of connection projects was sourced from the project technical specifications.</p>
<p>Methodology and assumptions made</p> <p><u>Assumptions</u></p>

Connection rating: is given as normal cyclic rating, as defined in the RIO requirements for Maximum demand at spatial level (Template 5.4). This the minimum of the transformer (total, i.e. non-firm) four hour short-term rating, and transformer HV and LV bay ratings (bay ratings do not provide short-term ratings).

Connection voltage: the connecting voltage.

Underground / overhead: the mode of the outgoing connection.

Year connection project completed: the actual or forecast date (as required) of operational completion.

Methodology

Connection project descriptions for projects identified in Table 2.5.1 are sourced directly from the project technical specifications.

Actual/estimated/NULL – and why

No connection projects.

Changes from last year’s source/methodology/assumptions

No changes.

Template 2.6 Non-network expenditure

Table 2.6.1: Non-network expenditure

<p>Source of information</p> <ul style="list-style-type: none"> • SAP. • Fleet Reports.
<p>Methodology and assumptions made</p> <p><u>IT and Communications</u></p> <p>Client device expenditure relates to a hardware device that accesses services made available by a server. Items included in this category are the costs associated with our IT service provider, plus all capital expenditure associated with the purchase of desktop computers, laptops, tablets etc.</p> <p>Recurrent expenditure relates to expenditure that occur on a regular on-going basis and would include the operating labour costs of the IT department, plus all costs associated with landlines, mobile phones, software, data communications etc.</p> <p>Expenditure included in the non-recurrent expenditure category are items that occur on a non-recurring basis.</p> <p><u>Motor vehicles</u></p> <p>All motor vehicles are split into the relevant RIO category per the category designation generated from the SAP. Costs are then allocated on a proportionate basis per the number of vehicles within each category for determining Opex. Capex is the value of additions within the financial year, split into the relevant motor vehicle category.</p> <p><u>Plant</u></p> <p>Fleets costs are allocated to separately split to report costs related to plant and non-motor vehicle equipment.</p>
<p>Actual/estimated/NULL – and why?</p> <p>Actual.</p>

Changes from last year's source/methodology/assumptions

No changes.

Table 2.6.2: Annual descriptor metrics – IT and communications expenditure

Source of information

The descriptor metrics relating to TasNetworks IT & Communications expenditure has been sourced from SAP at the end of the financial year.

Methodology and assumptions made

SME's established number of assets as detailed in description for devices that connect to a server inclusive of those used by contractors.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Table 2.6.3: Annual descriptor metrics – Motor vehicles

Source of information

Information regarding TasNetworks' vehicle fleet has been sourced from:

- SAP, and
- Fleet Reports.

Methodology and assumptions made

Proportion of fleet expenditure

The proportion of fleet expenditure was derived by:

- gathering motor vehicle expenditure for each vehicle;
- allocating each motor vehicle to the appropriate asset category as per the RIO template;
- calculating the total expenditure for each category of motor vehicle;
- splitting out the cost of each category of vehicle into prescribed and non-prescribed expenditure; and
- calculating the Regulatory Percentage by dividing average prescribed expenditure by total average expenditure.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Template 2.7 Vegetation management

Table 2.7.1: Descriptor metrics by zone

Source of information

Route line length within zone

The total route line length has been sourced from SAP.

Number of maintenance spans

Information has been sourced from completed work orders from the Vegetation Management System (VMS) which have been issued to vegetation management contractors.

Total length of maintenance spans

Information has been sourced from completed work orders from the Vegetation Management System (VMS) which have been issued to vegetation management contractors. This has been combined with span lengths sourced from SAP.

Average number of trees per maintenance span

Information regarding the total number of vegetation maintenance spans has been sourced from completed work orders which have been issued to vegetation management contractors as recorded in the VMS.

The density of vegetation within the spans has been sourced from:

- historic vegetation density data collected by contractors, as recorded in SAP; and/or
- viewing satellite or aerial imagery of the spans via an online medium (e.g. NetMaps)

Density bands have been determined with reference to the tree density of a typical Forestry Tasmania plantation.

Length of vegetation corridors

Information has been sourced from the GIS.

Average width of vegetation corridors

Information has been sourced from the GIS.

Average frequency of cutting cycle

Information has been sourced from the Transmission Line Easement Asset Management Plan.

Methodology and assumptions made

The assumption has been made that the entire network is in one zone only.

Route line length within zone

The total route line length is the sum of lengths of Transmission Lines and has been sourced from SAP. It includes all TasNetworks-owned transmission lines, even if not currently in service.

Number of maintenance spans

Information has been extracted from the Vegetation Management System for completed work orders.

Where a span has been maintained more than once in the current reporting period, only one maintenance span has been counted.

Total length of maintenance spans

Information has been sourced from SAP.

The length of the forward-looking span has been used in the calculation of total length of the maintenance span.

Average number of trees per maintenance span

The density of vegetation within the spans has been determined by:

- using historic vegetation density data collected by contractors; and/or
- viewing satellite or aerial imagery of the spans via NetMaps.

TasNetworks has interpreted the definition as requiring TasNetworks to report the total number of trees that could require maintenance within a span in which one or more vegetation defects have been identified. It is assumed that the vegetation density is what would otherwise exist if the area was not maintained as a transmission easement.

The average number of trees per vegetation maintenance span has been arrived at by multiplying the span length (for the span where the maintenance was completed) by the easement width by the determined density of vegetation within each of the spans.

Easement width is assumed to be 50m for 110kV spans and 60m for 220kV spans as per specifications in the Transmission Line Easement Asset Management Plan.

The determined density factor has been broken down into four bands. The assumption of the number of trees in each band is:

- Pasture = 5 trees per Ha
- Low = 50 trees per Ha
- Medium = 1300 per Ha (approximately equal to typical Forestry Tasmania plantation density)
- High = 2000 per Ha

Where TasNetworks does not have access to vegetation density data in SAP, a supplementary review of the span and its surrounding vegetation communities as seen in aerial and satellite imagery has been used to assign a suitable density factor.

Vegetation corridors

Information has been sourced from the GIS including vegetation data from the TasVeg 4.0 layer. An improved GIS query has been used this year.

In establishing the existence of a vegetation corridor, the following Vegetation Communities have been included:

- Dry eucalypt forest and woodland
- Non-eucalypt forest and woodland
- Rainforest and related scrub
- Scrub, heathland and coastal complexes
- Wet eucalypt forest and woodland

Modified land has been included apart from Agricultural Land, Marram grassland and Spartina marshland. Water bodies and other natural environments are excluded.

To establish the extent of vegetation corridors, a buffer was created around transmission lines. It has been assumed that 110 kVA transmission lines have an easement width of 50m, and 220 kVA lines have a width of 60m and that this width is consistent across our network.

Length of vegetation corridors

For route length, a GIS query was used to calculate the centreline of this buffered area and determine the length of the line.

Where more than one transmission line runs parallel, only one length has been counted as a vegetation corridor.

Average width of vegetation corridors

A GIS query was used to create lines at right angles to the centreline of the vegetation corridor, every 5 metres. These were extended to longer than the width of the corridor and then clipped to match the width of the corridor.

The average length of each of these lines was then calculated as the width of vegetation corridors.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Table 2.7.2: Expenditure metrics by zone

Source of information

The reported vegetation management information has been sourced from SAP.

Methodology and assumptions made

Information was sourced from SAP by extracting costs by contractor to ascertain the amount spent for contracted services for the current reporting period.

No contractor liaison costs were able to be sourced from contractor work orders. As such, any contractor liaison costs that were incurred are included within other vegetation management costs.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

No reliance on Vegetation Management Software in the allocation of costs in current financial year.

Table 2.7.3: Descriptor metrics for unplanned vegetation events

Source of information

Information regarding unplanned vegetation events is based on actual transmission outages recorded in SAP for the current reporting period.

Methodology and assumptions made

Review of outage reports was undertaken to determine the cause of outage.

The following causes are included as vegetation events:

Primary Cause	Secondary Cause
Vegetation	Vegetation - Inside Clearance
Vegetation	Vegetation outside clearance
Vegetation	Windborne Material
Unknown	Suspect Vegetation

In assigning responsibility for unplanned vegetation events

- Vegetation inside the clearance space is assumed to be TasNetworks responsibility unless it is a private span.
- Vegetation outside the clearance space is assumed to be other party responsibility.
- Windborne material is assumed to be other party responsibility unless there is evidence that the material originated from within the clearance space.
- Suspect vegetation is assumed to be windborne material and other party responsibility.

Momentary outages (trip and reclose) have not been included as unplanned vegetation events.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

Previous reporting focussed on fire starts.

Template 2.8 Maintenance

Table 2.8.1: Descriptor metrics for routine and non-routine maintenance

Transmission lines and maintenance

Source of information

Transmission Towers

The number of transmission towers inspected in the last financial year was obtained from records maintained in SAP. The number of assets maintained was derived from work notifications closed during the same period.

Transmission Tower Support Structures

The number of support structures inspected in the last financial year was obtained from records maintained in SAP. The number of assets maintained was derived from work notifications closed during the same period.

Conductors

The number of conductors inspected in the last financial year was obtained from records maintained in SAP. The number of assets maintained was derived from work notifications closed during the same period.

Methodology and assumptions made

Assets not owned by TasNetworks and unregulated assets have been excluded.

Transmission Towers

The number of transmission towers inspected includes commissioned, decommissioned and out of service towers, whereas quantities reported in table 5.2 only includes commissioned towers. It is TasNetworks policy to inspect the entire transmission network through a number of inspections and thus assets are inspected twice annually as a minimum.

The number of towers maintained was determined as the number of unique assets subjected to maintenance work over the past financial year. The following activities were excluded: Asset inspection, testing, capital replacements.

Transmission Tower Support Structures

No value has been entered against the 'asset inspected' column for transmission tower support structures as all towers and associated fittings (i.e.: insulators, foundations, dampers, anodes etc.) have been deemed to be accounted for in the transmission towers quantity. This is different to data reported in table 5.2 where the individual replacement assets are included in the transmission tower support structures numbers.

The number of support structures maintained was determined as the number of unique assets subjected to maintenance work over the past financial year. The following activities were excluded: Asset inspection, testing, capital replacements.

Conductors

Conductor length inspected has been reported as route length in km consistent with the measure requested in this table whereas in other tables conductor may be reported as circuit length. It includes commissioned and decommissioned conductors.

The length of conductor maintained was determined as the number of unique spans subjected to maintenance work over the past financial year. The length of each span maintained was summated to give the length value provided. The following activities were excluded: Asset inspection, testing, capital replacements.

Actual/estimated/NULL – and why?

Transmission Towers

Actual.

Transmission Tower Support Structures

NULL - No value entered as discussed above.

Conductors

Actual.

Changes from last year's source/methodology/assumptions

Assets that are considered unregulated have been excluded from this submission, 59 structures.

Two structures were incorrectly counted in last years submission.

The number of assets maintained was not requested in last year's submission.

Transmission cables

Source of information

Substation equipment (including Transmission cable) and property maintenance

Information has been sourced from SAP and the AMP.

Asset 'inspection/maintained' data was obtained from SAP.

Methodology and assumptions made

All of the transmission cables are maintained and inspected. XLPE and Oil Filled cables are visually inspected at the termination points and there are route inspections both taking place 6 monthly. The testing on the oil filled cables also involves continuous pressure monitoring and sheath and pressure testing annually. XLPE cables receive continuous temperature monitoring (F/o probes) and sheath testing at year one and two and every two years thereafter.

Actual/estimated/NULL – and why?

Estimated – only cable length along the x-axis is considered. Cable lengths rising into termination points have not been included in the total length.

Changes from last year's source/methodology/assumptions

No changes.

Substations equipment and property maintenance

Source of information

Substation equipment (including Transmission cable) and property maintenance

Information has been sourced from SAP and the AMP.

Asset 'inspection/maintained' data was obtained from SAP.

Methodology and assumptions made

Substation equipment and property maintenance

Switch bays, transmission cables and transformers are visually inspected three times per year as part of substation inspections. TasNetworks has specified that all assets are inspected on a similar inspection cycle. The work orders for the switchyard maintenance are created in an annual basis and could be up to 2-3 per annum.

In calculating the number of switchbays maintained, TasNetworks has assumed that a switchbay comprises a circuit breaker, disconnector, earth switch, current transformer and voltage transformer. As such, the switchbay count is taken to be the number of assets under circuit breaker, disconnector, current transformers and voltage transformers that were maintained in FY25 which are under Functional Area PMCBE, PMCBH, PMCTE, PMVTE, PMDEE, PMDEH, CMCBE, CMCDH, CMCTE, CMVTE, CMDEE and CMDEH.

Where 5.2.1 separates switchbays from reactive plant (capacitor banks), it should be noted that in 2.8.1 the RIO requires these to be combined.

The switchbay and reactive equipment asset inspection count is based on number of assets in the network with each asset inspected three times in a year i.e. each assets are inspected three times in year.

Number of transformers maintained are captured under SAP Functional Area PMNTX, PMSTX, CMNTX and CMSTX where number of transformer assets inspected includes the assets in service as well as spare units which are inspected three times in a year.

Property (i.e. substation and switching station) maintained is total number substations property which is 58. Property inspections were calculated from SAP work orders for the transmission 'PMSBI' functional code, with an Inspection Type of 'Switchyard Inspection which is combination of thermal imaging and general switchyard inspection'.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

Substations Property maintained count is 58 (last year was 59 which included Trial Harbour Zone which is not transmission substation).

SCADA, network control and protection systems

Source of information

Information has been sourced from SAP.

Methodology and assumptions made

SCADA and network control maintenance

The number of SCADA schemes inspected/maintained is derived from each site system involved within the financial year when protection schemes have been inspected/maintained. This is because the SCADA system forms part of the protection scheme tests during the inspection/maintenance.

Protection systems maintenance

Protection scheme tests are recorded in SAP by maintenance plans. Work orders are reported by financial year.

Maintenance performed on non-regulated assets are excluded from the number of maintained protection schemes.

Work orders raised but not undertaken are excluded.

Actual/estimated/NULL – and why?

Protection and SCADA schemes

All data extracted from SAP is checked for accuracy and confirmed to be correct.

Changes from last year's source/methodology/assumptions

SCADA, network control and protection systems

Protection schemes and associated equipment that are unregulated have been excluded from this year's maintenance numbers.

Other maintenance activity - Telecommunications Assets

Source of information

Telecommunications asset inspection activities has been sourced from routine maintenance and inspections recorded in SAP (IW39). As these routine site visits also include maintenance activities the same figure is also used for maintenance activities.

Methodology and assumptions made

The inspected/maintained count is the total number of maintenance activities performed not the total number of telecommunications equipment maintained. More than one piece of equipment may be maintained during a single maintenance activity. Consequently, the number of maintenance activities may be less than the total number of assets inspected/maintained.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Circuit ratings tools and system access tracks

<p>Source of information</p> <p><u>Circuit Rating Tools and Systems</u></p> <p>The number of Circuit Rating Tools and Systems inspected in the last financial year was obtained from records maintained in SAP. The number of assets maintained was derived from work notifications closed during the same period.</p>
<p>Methodology and assumptions made</p> <p><u>Circuit Rating Tools and Systems</u></p> <p>This RIO category represents weather stations that are inspected and maintained by TasNetworks. The number of assets maintained was determined as the number of unique assets subjected to maintenance work over the past financial year. The following activities were excluded: Asset inspection, testing, capital replacements.</p>
<p>Actual/estimated/NULL – and why?</p> <p><u>Circuit Rating Tools and Systems</u></p> <p>Actual.</p> <p><u>Access track maintenance</u></p> <p>Null - Information was not able to be sourced for access tracks. Many of these assets are not owned by TasNetworks and the collation of such information would be impracticable.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>The number of assets maintained was not requested in last year’s submission.</p>

Table 2.8.2: Cost metrics for routine and non-routine maintenance

<p>Source of information</p> <p>Information has been sourced from SAP and the AMP.</p>
<p>Methodology and assumptions made</p> <ul style="list-style-type: none"> Information was sourced from SAP. TasNetworks inspects every structure every year. Other inspection cycles are defined by the AMP. Maintenance cycles are condition based and not defined by asset age.
<p>Actual/estimated/NULL – and why?</p> <p>Actual.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>No changes.</p>

Template 2.10 Overheads

Table 2.10.1: Network overheads expenditure

Table 2.10.2: Corporate overheads expenditure

Source of information
Information has been extracted from the audited Regulatory Financial Statements for both network and corporate overhead expenditure.
Methodology and assumptions made
For both network and corporate overhead expenditure:
<ul style="list-style-type: none">• Prescribed overhead expenditure has been extracted from the SAP;• Non-prescribed overhead expenditure has been extracted from SAP, which is broken down into the required expenditure subcategories;
TasNetworks capitalises overheads to ensure that all costs directly attributable to bringing an asset to the location and condition necessary for its use are capitalised; and
The overhead costs included in this worksheet include both capital and operational overheads in table 2.1.
<i>Negotiated Services & Unregulated Services Overhead Expenditure</i>
Each category reflects the gross cost incurred in that category, prior to the application of overheads recovered.
Actual/estimated/NULL – and why?
Actual.
Changes from last year's source/methodology/assumptions
No changes.

Template 2.12 Input tables

Table 2.12: Input tables

Source of information
The data is sourced from other worksheets in the RIO templates.
Methodology and assumptions made
The split of costs into the categories required by the RIO was based on actual expenditure in the year from SAP, with a percent of costs to each actual category (i.e. direct materials) then applied across the line items in the RIO.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

No changes.

Template 5.2 Asset age profile

General source information:

Information extracted from SAP was filtered on commissioned status – to exclude assets not currently in commission – and by ownership – to ensure only TasNetworks’ assets were included. To determine asset age, year of commissioning has been used and not year of manufacture, except for the following assets where the year of manufacture has been used:

- substation switchbays;
- substation power transformers; and
- substation reactive plant.

Where a parent asset has multiple child assets, the age of the parent asset has been presented.

Table 5.2.1: Asset age profile

Transmission towers

Source of information

The age of transmission assets have been sourced from information maintained within SAP.

Methodology and assumptions made

This figure differs from section 2.8.1 where the number of towers maintained includes commissioned, decommissioned and out of service towers. Section 5.2 only included commissioned assets.

Where individual phases of a transmission line are supported by individual poles, these assets are counted as separate structures. Where a pole structure is physically joined (e.g. ‘H Pole’) these structures are counted as individual structures.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

Assets that are considered unregulated have been excluded from this submission.

Transmission tower support structures

Source of information

The age and quantity of support structure equipment have been sourced from information maintained within SAP.

Methodology and assumptions made

The values entered for the support structures category includes the following commissioned equipment: anodes, foundations, insulators and danger signs. This is different to table 2.8 where all these components have been counted as part of the Transmission Towers.

Corrections and improved SAP information has corrected errors from the previous year's submission.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

Assets that are considered unregulated have been excluded from this submission.

Reporting of danger signs has been improved to avoid potential double counting.

Conductors and OPGW

Source of information

The age of energised conductors have been sourced from information maintained within SAP.

Earthwire and OPGW length and ages have been sourced from historical data.

Methodology and assumptions made

Transmission conductor length is represented as commissioned circuit length in kilometres.

Earthwire conductor has been recorded as 'Other' in the conductors age profile. No age profile reported for earthwire conductor pre 2019-20 as this asset type was not accurately reported before this date.

OPGW lengths are reported as route length in kilometres and has been reported under the 'SCADA, NETWORK CONTROL AND PROTECTION SYSTEMS: Function' category.

Actual/estimated/NULL – and why?

Conductor

Actual.

OPGW/Earthwire

Estimated - OPGW/Earthwire lengths and ages are not currently recorded in TasNetworks asset management system so reporting accuracy is suboptimal.

Changes from last year's source/methodology/assumptions

Assets that are considered Unregulated have been excluded from this submission, this is a change in methodology from the previous submission which included unregulated assets.

Transmission cables

Source of information

The age of assets currently in commission have been sourced from information maintained within SAP and based on *SKM Assessment of Proposed Regulatory Asset Lives* report produced in 2013.

Methodology and assumptions made

Transmission cables length is represented as route length in kilometres (km). It includes cables that are run outside substations as full circuits or part circuits as is the case at Starwood and Trevallyn to Mowbray circuits, and also cables contained within substations such as from GIS switchgear to OH structure such as at Risdon and Creek Road Subs.

Actual/estimated/NULL – and why?

Estimated – only length along the x-axis is accounted for and the length of cable rises into terminations is not.

Changes from last year's source/methodology/assumptions

No changes.

Substation switchbays

Source of information

The age of assets currently in commission have been sourced from information maintained within SAP and based on *SKM Assessment of Proposed Regulatory Asset Lives* report produced in 2013.

Methodology and assumptions made

Substation switchbays

Substation switchbay asset grouping has been categorised according to either gas insulated switchgear module or air insulated categories where:

- Gas insulated switchgear is typically indoor sealed units with SF6 gas insulation encompassing the switch gear mechanism including bus bar chambers and instrument transformers (all encased); and
- Air insulated switchgear in higher voltage levels ($>=44\text{kV}$) is typically outdoor with separate disconnectors and instrument transformers although dead tank circuit breakers do have integral CT's. Voltage levels less than 44 kV are typically indoor and can have oil, vacuum, air or SF6 gas insulation medium with separate instrument transformers but within the same "air insulated" enclosure. When cross referencing to data recorded in 2.8 it is noted that for an individual switchbay it is taken to be the number of circuit breakers only as a switchbay can comprises a circuit breaker, disconnector, current transformer and voltage transformer. There is also a single recloser at Arthurs Lake that is included in this category.

Due to historical asset delineation between previous separate transmission and distribution companies, assets $\leq 44\text{kV}$ at a transmission substation are classed as transmission assets. Assets connected downstream from the load side connection of a transmission asset are construed to be a distribution owned assets.

In calculating the number of switchbays maintained, TasNetworks has assumed that a switchbay comprises a circuit breaker, disconnector, earth switch, current transformer and voltage transformer. As such, the switchbay count is taken to be the number of assets under circuit breaker, disconnector, current transformers and voltage transformers that were maintained in FY25 which are under Functional Area PMCB, PMCBH, PMCTE, PMVTE, PMDEE, PMDEH, CMCBE, CMCDH, CMCTE, CMVTE, CMDEE and CMDEH.

The switchbay and reactive equipment asset inspection count is based on number of assets in the network with each asset inspected three times in a year i.e. each asset is inspected three times in year.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Substation power transformers

Source of information

The age of assets currently in commission have been sourced from information maintained within SAP and based on *SKM Assessment of Proposed Regulatory Asset Lives* report produced in 2013.

Methodology and assumptions made

Equipment installation date, recorded in SAP, has been used to generate the age profile.

Number of transformers maintained are captured under SAP Functional Area PMNTX, PMSTX, CMNTX and CMSTX where number of transformer assets inspected includes the assets in service as well as spare units which are inspected three times in a year.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Substation reactive plant

Source of information

The age of assets currently in commission have been sourced from information maintained within SAP and based on *SKM Assessment of Proposed Regulatory Asset Lives* report produced in 2013.

Methodology and assumptions made

Equipment installation date, recorded in SAP, has been used to generate the age profile.

The reactive plant inspection and maintenance is included in switchbay category.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

Static Var compensator (SVCs) equipment type been added in TasNetworks SAP system to report SVCs or similar equipment STATCOMs under reactive compensation equipment.

Telecommunications Network / Systems

Source of information

The age of assets currently in commission have been sourced from information maintained within SAP.

Methodology and assumptions made

Equipment installation date, recorded in SAP, has been used to generate the age profile. The equipment age has been calculated by assuming each asset was installed on the 1st of January.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

SCADA, network control and protection systems

Source of information

The age of assets currently in commission have been sourced from information maintained within SAP.

Methodology and assumptions made

The install date attribute of the associated protection and SCADA schemes has been used to determine the quantities of schemes installed per year; and TasNetworks report systems and schemes at an aggregate level. Therefore, these assets are not reported at granular level in the templates. This is applicable for the Protection schemes/systems, the Station SCADA and control systems functions only. The other functions listed in the template under this category such as 'Master Station Assets', 'Control equipment / systems', Infrastructure: protection and control', 'Metering systems', 'Site establishment', communications network assets and 'Total secondary systems' are assumed to be additional functions that have been added to the template by other participating NSP's and are considered to have already been included in TasNetworks' Protection schemes / systems and the Station SCADA and control systems.

Protection schemes that are unregulated have been excluded from the asset age profile.

OPGW

Basis of Preparation information for OPGW's has been recorded in the 'Conductors and OPGW' section above.

Actual/estimated/NULL – and why?

Protection and SCADA schemes

Actual

Changes from last year's source/methodology/assumptions

SCADA, network control and protection systems

Protection schemes that are unregulated have been excluded from this 2024-25 RIO.

Template 5.3 Maximum demand at network level

Table 5.3.1: Raw and weather corrected coincident MD at network level

Source of information

Information has been sourced from:

- Raw demand data from TasNetworks NEM Metering and billing system (MABS OLAP) tool (Network Planning team)
- Maximum demand measured at exit points from TasNetworks POE data preparation tool
- Embedded generation data from TasNetworks Distribution metering tool (Connection Services team)

Methodology and assumptions made

Assumptions

1. Seasonality of maximum demand

The seasonality of transmission network maximum demand does not correspond with regulatory years. The transmission network maximum demand occurs during winter, whereas regulatory years are financial years. Therefore the 2024–25 maximum demand reported is that from 2024 winter (across April–September, as per RIN definitions). Note summer period (October 2024–March 2025) is also assessed, however network maximum demand does not occur during this time.

2. Embedded generation

Embedded generation is recorded from all import channel interval metered distribution connection points (i.e. excludes 'basic' connections, where consumption data only is available). All embedded generation is non-scheduled generation.

Methodology

Raw network generation and TQT3 load (being Lake Margaret Power Station with CMT offline) data (Import kWh) is downloaded from MABS OLAP tool. Maximum demand value, date, time, and season recorded. This is measured at network entry points and includes transmission losses and any inter-regional transfers.

Maximum demand measured at exit points obtained from TasNetworks POE data preparation tool – this is load (exit point, incl. interconnection) values and excludes transmission losses.

the time of maximum demand measured at both entry and exit points does align with each other.

Embedded generation contribution at time of maximum demand is downloaded.

Actual/estimated/NULL – and why?

Raw demand data and embedded generation data are sourced from TasNetworks metering systems and are, hence, actual information.

Demand data from TasNetworks POE data preparation tool is actual.

Changes from last year's source/methodology/assumptions

Raw network coincident MD and weather corrected demand are no longer required.

Template 5.4 Maximum demand and utilisation at spatial level

Table 5.4.1: Non-coincident and coincident maximum demand

Source of information

Information has been sourced from:

- Connection point ratings from TasNetworks transmission circuit rating sheets (Substation Assets team).
- Temperature POE corrected data from TasNetworks POE data preparation tool (Network Planning team).
- Non-coincident and coincident demand data (via TasNetworks MABS OLAP tool).
- Embedded generation data from TasNetworks Distribution metering tool (Connection Services team).

Methodology and assumptions made

Assumptions

1. Seasonality of maximum demand

The seasonality of connection point maximum demands does not necessarily correspond with regulatory years. The majority of connection point maximum demands occur during winter, whereas regulatory years are financial years. Therefore the 2024–25 connection point maximum demands reported are from 2024 winter (April-September) or 2024–25 summer (October-March) seasons.

2. Connection points

Connection points include supply to all load types: auxiliary, distribution, and transmission-connected customers. In providing information for connection points, these have been grouped to the substation (connection site) level. In the Tasmanian network, transmission-distribution connection points are where each distribution line connects to the substation feeder circuit breaker, i.e. there are a number at each substation. To make the information purposeful, we collate connection points to the substation level and refer to them as connection sites. Substations with different voltage connection points are accounted separately (except for Rosebery Substation). Substations with different load types at the same voltage level are combined to a single connection point.

3. Connection point rating

Connection point rating is given as normal cyclic rating, as defined in the RIO glossary. For connection points at substations, this is the minimum of the transformer (total, i.e. non-firm) four-hour short-term rating, and transformer HV and LV bay ratings (bay ratings do not provide short-term ratings). For connection points at transmission lines, this is the winter (15°C ambient) or summer (25°C ambient) workbook ratings of the

connecting lines. It is acknowledged in operation of the power system that real-time transmission line ratings are used.

4. Embedded generation

Embedded generation is recorded from all import channel interval metered distribution connection points (i.e. excludes 'basic' connections, where consumption data only is available). All embedded generation is non-scheduled generation.

5. Weather corrected data

Weather corrected data is calculated through our business-as-usual methodology in the TasNetworks POE data preparation tool used in our load forecast process. Weather corrected data maximum demand figures are based on raw adjusted maximum demand. Where there is a proportional relationship between temperature and demand (i.e. demand increases with increasing—rather than decreasing—temperature) it is assumed there is no temperature relationship, and weather correction is not applied.

6. Coincident data

In reporting coincident data, the system (network) peak is taken as that reported in RIO Template 5.3.

Methodology

- Connection point demand is downloaded. Summate the demands for connection points where demand has multiple recording points.
- Identify substation or transmission line connection for each connection point.
- Lookup non-coincident and coincident connection point ratings from raw data (as per assumption provided above).
- Identify coincident and non-coincident MW maximum demands from raw data and calculate MVA at the time of these MW maximum demands.
- Calculate coincident MVA maximum demand (at the time of network maximum demand) and non-coincident MVA maximum demands (at the time of MVA maximum demand itself and at the time of non-coincident MW maximum demand of each connection point) from raw data.
- Identify date and time of the identified MW and calculated MVA maximum demands from raw data, separated to date, time, and season. Date and time of system (network) maximum demand taken directly from value obtained in RIO Template 5.3.
- Identify embedded generation contribution at times of non-coincident and coincident MW maximum demands from substation data.
- Identify weather-corrected MW data from raw data.
Weather-corrected MVA values are determined by applying the raw data power factor to the weather-corrected MW value – this is done as we do not weather-correct reactive (MVA_r) demand. POE values obtained from TasNetworks POE data preparation tool. For both non-coincident and coincident data, each connection point is corrected using local weather data (seasonal relationship, effective temperature a relationship of $0.8x$ (current day minimum) + $0.2x$ (previous day maximum)) to the POE value.

Additional data to be provided in Basis of Preparation

The RIO requires data be published in the basis of preparation that is additional to that provided in the regulatory templates. Those data requirements are published here.

1. Network segments decommissioned

This requirement is to note instances where components of the network belonging to network segments—i.e. load connection points—have been decommissioned.

We have not decommissioned any load connection points in initial or subsequent regulatory years.

2. MVA maximum demand

This requirement is to report MW and MVA maximum demands at the time of maximum demand in MW occurred, where they occurred at different times, and to identify the date the maximum demand in MVA occurred. These are as follows:

Connection point				Regulatory year 2024–25*			
	MW maximum demand	MVA at MW maximum demand	Time	MVA maximum demand		Time	
Newton (11 kV)			4.66	5.58	2024-09-24 13:30:00	5.62	2024-09-24 19:00:00
George Town (Basslink)			628.00	628.00	2025-02-12 19:30:00	628.23	2024-08-09 18:00:00
Huon River	0.73	1.10	2024-07-05 22:00:00	1.11			2025-02-05 21:30:00
Kermandie			10.81	10.89	2024-09-02 19:00:00	12.29	2024-04-20 18:30:00
Queenstown (22 kV)	6.23	6.23	2024-07-03 19:30:00	6.28			2024-06-19 19:00:00

* Note some may be in 2023–24 regulatory year, as this template uses winter seasonality of maximum demand that, in part, sits outside the 2024–25 regulatory year (i.e. calendar winter month, as described in Assumptions, above)

Actual/estimated/NULL – and why?

Connection point ratings are sourced from TasNetworks transmission circuit rating sheets. Raw demand data and embedded generation data are sourced from TasNetworks metering systems. Thus, these are actual information.

Temperature corrected data is estimated information. It is calculated from TasNetworks POE data preparation tool, which is based on the relationship between maximum demand and temperatures.

Changes from last year's source/methodology/assumptions

No changes.

Template 3.1 Revenue

Table 3.1.2 Revenue grouping by type of connected equipment

Source of information
Reported prescribed transmission revenues have been extracted from the annual prescribed pricing models and reconciled to TasNetworks' regulated financial accounts.
Methodology and assumptions made
All reported revenues have been allocated to the chargeable quantity that most closely reflects the basis upon which the total prescribed revenue was charged by TasNetworks. The revenue categories are defined as follows:
<ul style="list-style-type: none">• Distribution: The Distribution Network Service Provider in Tasmania, total prescribed charges include excess demand charges.• Directly connected end-users: Major industrial load customers directly connected to the transmission network. Charges include excess demand and standby arrangements• Generators: Grandfathered generation customers.• Other Revenue: Charges include MLEC receivable, MLEC payable and total intra-regional settlements.
Actual/estimated/NULL – and why?
Actual reported revenue is used in the collation of this information.
Changes from last year's source/methodology/assumptions
Prior year information relied solely on actual charges to customers, this year has been reconciled to the regulated financial accounts which include end of year accruals for June.

Table 3.1.3 Revenue (penalties) allowed (deducted)

CESS, EBSS

Source of information
Post Tax Revenue Model (for Efficiency Benefit Sharing Scheme and Capital Expenditure Sharing Scheme).
Methodology and assumptions made
The rewards of the incentive schemes have been reflected in the year that the penalty or reward is applied.
The Efficiency Benefit Sharing Scheme and Capital Expenditure Sharing Scheme value are the unsmoothed amount as per the AERs revenue determination inflated into nominal values.
No assumptions were necessary in the preparation of the worksheet.
Actual/estimated/NULL – and why?
Actual.

Changes from last year's source/methodology/assumptions

No changes.

STPIS

Source of information

The Service Target Performance Incentive Scheme (STPIS) reward is the AER confirmed STPIS amount.

Methodology and assumptions made

The incentive schemes rewards have been reflected in the year that the penalty or reward is applied.

The reported STPIS outcome was extracted from the information provided by the AER.

No assumptions were required for preparing this worksheet.

Actual/estimated/NULL – and why?

Actual reported revenue is used in the collation of this information. No estimates are used in the collation of this information.

Changes from last year's source/methodology/assumptions

No changes.

Template 3.2 Provisions

Table 3.2.3 Provisions

Source of information

Opening and closing balances for annual leave, long service leave, superannuation and other minor provisions were taken from the audited Regulatory Financial Statements.

Amounts incurred and charged against the provision during the period – being annual leave or long service leave taken or paid out for departures – were taken from the payroll system.

Amounts incurred and charged against the provision during the period were taken from the detailed superannuation general ledger accounts.

The reported provisions are consistent with information previously reported in the audited Regulatory Financial Statements.

Methodology and assumptions made

Annual Leave

Increases to the provision were derived as the reconciling item as all other factors were known.

Long service leave

Increases to the provision were derived as the reconciling item as all other factors were known.

Superannuation

Increases to the provision during the period was derived as the reconciling item as all other factors were known. Interest incurred on the defined benefit liability and actuarial gains and losses have been classified as neither Opex nor capital expenditure (Capex).

Other provisions

Other minor provisions include provisions for redundancies, workers compensation, timebank and provisions for employee incentives.

Amounts incurred and charged against the provisions during the period, increases to the provisions and reversals of unused amounts of the provisions were taken from the general ledger.

Split between Operating and Capital Expenditure

The provision balances and movements have been allocated between Opex and Capex using labour dollars as the driver.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Template 3.3 Assets (regulatory asset base)

Table 3.3.1: Regulatory asset base values

Source of information

The reported RAB information has been sourced from the reconciliations of property, plant and equipment, and the underlying detailed asset records for prescribed transmission assets.

Methodology and assumptions made

Information reported in table 3.3.1 is the aggregate of the asset value roll forward presented by the assets in table 3.3.2.

RAB financial information includes data on overhead lines, underground cables, transformers and other assets.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Table 3.3.2: Asset value roll forward

<p>Source of information</p> <p>The reported RAB information has been sourced from the reconciliations of property, plant and equipment, and the underlying detailed asset records for prescribed transmission assets.</p>
<p>Methodology and assumptions made</p> <p>RAB financial information includes data on overhead lines, underground cables, transformers and other assets. Aggregate RAB values were able to be directly attributed to the disaggregated asset categories by reviewing the underlying detailed asset records and allocating them directly to the asset categories as required.</p> <p>For each asset category presented:</p> <ul style="list-style-type: none"> • opening values agreed with the previous year’s closing values; • the inflation addition reflects a consumer price index (CPI) increase to the opening net book value of the assets; • straight line depreciation is calculated based upon the estimated useful lives of the assets; • regulatory depreciation is the net of the inflation addition and the straight line depreciation; • recorded additions are based on the cost of the assets for regulatory accounting purposes; • Roll Forward Model adjustments have been captured in the actual additions for the financial year; • recorded disposals are based on actual assets that were sold or scrapped in the financial year and reduced from the asset base; and • closing values are derived from the sum of all elements noted above.
<p>Actual/estimated/NULL – and why?</p> <p>Actual.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>No changes.</p>

Table 3.3.3: Total disaggregated regulatory asset base asset values

<p>Source of information</p> <p>The reported RAB information has been sourced from the reconciliations of property, plant and equipment for prescribed transmission assets.</p>
<p>Methodology and assumptions made</p> <p>RAB financial information includes data on overhead lines, underground cables, transformers and other assets.</p>
<p>Actual/estimated/NULL – and why?</p> <p>Actual.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>No changes.</p>

Table 3.3.4: Asset lives

Source of information
The reported RAB information has been sourced from the reconciliations of property, plant and equipment, and the underlying detailed asset records for prescribed transmission assets.
Methodology and assumptions made
RAB financial information includes data on overhead lines, underground cables, transformers and other assets. Assets are allocated a useful life at acquisition based on the useful lives historically prescribed to relevant assets per the applicable revenue determinations.
Actual/estimated/NULL – and why?
Actual.
Changes from last year’s source/methodology/assumptions
No changes.

Template 3.4 Operational data

Table 3.4.1: Energy delivery

Source of information
Information has been sourced from TasNetworks’ metering system (MABS OLAP tool), which captures energy supplied to other connected transmission networks, distribution networks and end-users.
Methodology and assumptions made
Energy supplied to other connected transmission networks over Basslink is measured on the Tasmanian side of the network for both imports and exports. It is calculated as the sum of import energy and export energy. Energy supplied to distribution networks and directly connected end users and pumping stations is measured at the downstream settlement location which does not include transmission losses. Only energy export from the network is considered in calculating the energy supplied values, energy import is not considered. In the public version of the spreadsheet, TOPED0102 (to Distribution networks) keeps the value used in the confidential version. While TOPED0103 to TOPED0113 values are blacked out when there is either a single customer or a single dominant customer in the group.
Actual/estimated/NULL – and why?
Information is actual data from TasNetworks’ metering system (MABS OLAP tool).
Changes from last year’s source/methodology/assumptions
No changes from last year’s source/methodology/assumptions.

Table 3.4.2: Connection points

<p>Source of information</p> <p>Information has been sourced from TasNetworks’ metering system (MABS OLAP tool) which contains details of all TNI connection points.</p>
<p>Methodology and assumptions made</p> <p>Connection points are taken as the TNI in use across the regulatory year. Generation connections have been considered as entry points. Substations are considered as exit points, which may contain a mix of customers (Directly connected customers, distribution connections and auxiliary loads). Interconnector (Basslink) has been considered in the presentation of the connection point numbers as an exit point only, and not as an entry point. Note: Boyer (TBYA & TBYB) and St Leonards (TSL2 & TSL3) substations contains two TNIs each—these are considered as single connection points.</p>
<p>Actual/estimated/NULL – and why?</p> <p>Actual.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>No changes.</p>

Table 3.4.3: System demand

<p>Source of information</p> <ul style="list-style-type: none"> • Raw demand data from TasNetworks NEM Metering and billing system (MABS OLAP) tool (Network Planning team) • Temperature corrected data from TasNetworks Probability of exceedance (POE) data preparation tool (Network Planning team)
<p>Methodology and assumptions made</p> <p>Basslink has been considered in the presentation of the coincident and non-coincident maximum transmission system demand information. The export through Basslink was added in the rest of the network demand.</p> <p>Average demand MW and MVAR was calculated using metering half-hourly kWh and kVARh data of each connection point (divided by 0.5h to get average demand and divided by 1000 to convert to MW and MVAR) Coincident and non-coincident MW maximum are then obtained.</p> <p>In calculating MVA, calculated MW and MVAR were accounted (square root of summation of MW squared and MVAR squared). The non-coincident MVA values are the summated maximum MVA of the connection points. Coincident and non-coincident MW and MVA calculation and weather correction are based on 1 April 2024 to 1 April 2025 recorded maximum demand values instead of financial year values (i.e., regulatory year). The reason to consider that period is that the transmission network maximum demand occurs during winter and RIO definition for winter given for Category Analysis is April to September.</p> <p><u>Weather correction process</u></p>

Weather data was obtained for the appropriate Bureau of Meteorology weather stations around the state. The weather correction process involves temperature sensitivity analysis at each connection point to determine the demand response to a change in temperature of one degree.

Coincident and non-coincident weather adjusted maximum demand (MW and MVA) is derived from the POE tool, which is based on the following methodology and assumptions:

- historic daily maximum and minimum temperatures were obtained from the Bureau of Meteorology. Daily effective temperatures have been calculated in accordance with the definition provided by National Institute of Economic and Industry Research, which is defined as the weighted average of the overnight minimum and the previous daily maximum. The daily minimum was assigned a weight of 0.8, while the previous day's maximum a weight of 0.2 in this calculation;
- annual minimum effective temperatures in each season for the period from 1970 to current regulatory year were extracted from the calculated daily effective temperatures;
- the temperatures at 10% and 50% probability of exceedance were derived from the annual minimum effective temperatures in each season for the period from 1970 to current regulatory year;
- in weather correction of non-coincident maximum demand, each connection point maximum demand was weather corrected based on its closest weather station data; and
- daily maximum demand has been taken from metering data and effective temperature data has been taken from previous calculations for weekdays for the current reporting period.

The assumption has been made that Basslink flow, directly connected transmission customers and auxiliary loads are not dependent on weather, and these loads have not been forecast to change with the 10% or 50% probability of exceedance (PoE).

Weather adjustments for each season have been done separately. December to February, March to May, June to August, and September to November are considered Summer, Autumn, Winter and Spring months respectively.

The linear variation of daily maximum demand of each season against daily effective temperature was taken as demand sensitivity to temperature. In general, Tasmanian demand goes up when temperature goes down in all seasons (even in Summer, maximum demand records in a low temperature day). If the linear relationship gives a positive coefficient, which means demand goes up when temperature goes up, that coefficient is not used in the weather correction process and the coefficient is considered as zero.

The difference between the PoE temperature and the lowest of the daily effective temperature or the historic maximum of annual lowest effective temperatures has been multiplied by the load sensitivity to determine the total change in demand for the probability of exceedance.

Summation of weather correction maximum demand of each connection is taken as system non-coincident weather adjusted summated maximum demand.

In calculating coincident weather adjusted maximum demand (MW and MVA), the procedure applied to connection point is used (i.e., linear variation of daily system maximum demand against temperature was taken as demand sensitivity to temperature). Temperature considered for this calculation is the weighted average temperature based on the load at that time.

Power factor

Average power factors were calculated over the financial year 2024–25, which is the regulatory year.

Average overall network power factor conversion is the average total megawatts divided by average total megavolt-amperes. Average power factor conversion for 220 kV lines is the average total megawatts divided by average total megavolt-amperes of 220 kV connection points except Basslink.

Average power factor conversion for lines is the average total megawatts divided by average total megavolt-amperes of connection points:

- 110KV lines average of 110KV connection points;
- 44KV lines average of 44KV connection points;
- 33KV lines average of 33KV connection points;
- 22KV lines average of 22KV connection points;
- 11KV lines average of 11KV connection points; and
- 6.6KV lines average of 6.6KV connection points.

Actual/estimated/NULL – and why?

Raw demand data is sourced from TasNetworks metering system and is, hence, actual information.

Temperature corrected data is estimated information. It is calculated from TasNetworks POE data preparation tool, which is based on the relationship between maximum demand and temperatures.

Changes from last year's source/methodology/assumptions

Power factor for 44 kV is added.

Template 3.5 Physical assets

Table 3.5.1: Transmission system capacities

3.5.1.1 and 3.5.1.3 overhead network length and estimated capacity by voltage class

Source of information

Information regarding the circuit length measurements and continuous load ratings has been sourced from the SAP, and Ratings Information System (RIS).

Methodology and assumptions made

In determining the length of the overhead network circuits for table 3.5.1.1, Overhead Network Length of Circuit at Each Voltage, information was extracted from SAP for the current reporting period, and for energised service status only. Only those overhead network and underground cable circuits owned by TasNetworks were included in the calculations, not those assets managed by TasNetworks but owned by third parties. Unregulated assets were excluded from the analysis.

For Transmission System Capacities tables, the weighted average MVA capacity was calculated from regulated circuit rating and circuit length data from SAP, consistent with the definition provided in the RIO. The estimated average capacity used in the calculation for transmission lines was the maximum winter capacity for each circuit.

The methodology used to estimate the overhead weighted average MVA for 220kV (TPA0304) differs from the methodology used in the 2023-24 RIO submission, this accounts for the step change. In 2023-24 the figure reported used the summer maximum capacity.

The methodology used in this submission uses only the minimum rating of a circuit. Therefore, is much more reflective of the capability of the network.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

This year’s submission uses the maximum winter capacity for each circuit, last year’s submission used summer capacity.

3.5.1.2 and 3.5.1.4 underground network length and estimated capacity by voltage class

Source of information

Information regarding the circuit length measurements and continuous load ratings has been sourced from the SAP, and Transmission Circuit Rating sheets which are upheld by the Master Data team.

Methodology and assumptions made

For table 3.5.1.4, the weighted average MVA capacity was calculated from circuit rating and circuit length data from SAP, consistent with the definition provided in the RIO. The estimated average capacity used in the calculation for transmission cables was the maximum continuous current rating capacity of the cable.

In determining the length of the underground cable circuits for table 3.5.1.2, information was extracted from SAP.

Cable MVA rating details are based on an engineering assessment of the manufacturer data and installation methods, and for new installations that are provided by the contractor for entering into SAP.

Transmission cables include both cables which connect directly between other substations (including Starwood and Trevallyn to Mowbray circuits) and short connection cables between GIS switchgear and OH transition such as occurs at Creek Road and Risdon Substations.

Actual/estimated/NULL – and why?

Estimated – only length along the x-axis is accounted for.

Changes from last year’s source/methodology/assumptions

No changes.

3.5.1.5 and 3.5.1.6 Transmission system capacities

Source of information

Information regarding the transformer capacities continuous load ratings has been sourced from the SAP, and Ratings Information System (RIS).

Methodology and assumptions made

Transformer information was extracted from SAP and is the maximum continuous loading rating as detailed on name plate for table 3.5.1.5.

For the Basslink interconnector the available load details are in MWs. The power factor value detailed in table 3.4.3.3 (TOPSD0305) for 220 kV lines was applied to arrive at the MVA value reported in TPA0505 (interconnector capacity). The MW value (500MW continuous) was obtained from Basslink website (www.basslink.com.au) to give a total MVA of 520MVA (rounded figure) at power factor of 0.96.

In calculating transformer capacity for terminal points to Distribution Network Service Provider (DNSP) systems (TPA0502) have included transformers supplying to a bus where that bus supplies DNSP load. In TPA0503 transformers within the boundary of TNSP and owned by TNSP supplying load directly to the end-users (a direct-connected customer).

To assist with determining the transformer capacity for directly connected end-users owned by the TNSP (TPA0503) reference was made to TasNetworks' 'Transmission Customer Engagement' intranet portal to ascertain which customers TasNetworks has and which substation they are supplied from. Further confirmation was obtained using substation Power Circuit One Line Diagrams (PCOLD) or operational diagrams to ensure that the substations in question only had a direct connect customer as the single point load and no supply to the DNSP.

For table 3.5.1.6, SAP was interrogated for details of any listed spare assets.

Cold spare capacity is taken to be the continuous rating (highest rating) for all spare transformers (DCOM OPSP & DCOM STSP).

The cold spare network transformer (200 MVA) of capacity is counted in TPA0501 however supply transformer spare transformer capacity of 292.5 MVA is counted under Others, TPA0506. It was never reported prior to FY25.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

The cold spare network transformer (200 MVA) of capacity is counted in TPA0501 however supply transformer spare transformer capacity of 292.5 MVA is counted under Others, TPA0506. It was never reported prior to FY25.

Template 3.6 Quality of service

Table 3.6.1: Service component

Source of information

Information for table 3.6.1 is sourced from TasNetworks' Enterprise Resource Planning (ERP) System – SAP – as supplied to the AER in the Annual STPIS Compliance submission. This information aligns with the Transmission STPIS outcome approved by the AER.

Methodology and assumptions made

The definition used for determining information is included in:

- AER Transmission STPIS version 5 - October 2015

Service Parameter 1: Average Circuit Outage Rate

$$\frac{\text{No. of events (defined circuits unavailable) per annum}}{\text{Total no. of defined circuits}} * 100$$

Definition: the actual number of times defined transmission circuits are unavailable due to unplanned (fault/forced) outages divided by the total number of defined (lines/transformer/reactive) circuits.

"Any outage of an asset that is providing prescribed transmission services" is considered in the STPIS reporting. In SAP, assets that are providing prescribed transmission services are tagged as "CRITICAL" and "NON-CRITICAL". Outages on other non-prescribed assets are excluded.

Service Parameter 2: System Minute

$$\frac{\text{System minute} = \sum(\text{MWh unsplied} * 60)}{\text{MW peak demand}}$$

MW peak demand means the maximum amount of aggregated electricity demand recorded at entry points to the TNSP's transmission network and interconnector connection points at any time previously.

Service Parameter 3: Average Outage Duration

$$\frac{\text{Aggregate duration (in minutes) of all unplanned outages with loss of supply}}{\text{No. of events}}$$

Definition: the cumulative summation of the outage duration time for the period, divided by the number of outage events where loss of supply occurred during the period.

The start of each outage event starts when a loss of supply occurs and ends at the point at which supply restoration is offered to the customer.

The impact of each event is capped at seven days.

Service Parameter 4: Proper Operation of Equipment

Failure of protection system formula:

No. of protection system failure events per annum

Where:

‘protection system failure events’ are those events where the relevant protection or control equipment does not operate for a fault event as designed or where the relevant equipment operates when there is no relevant fault event.

Material failure of the SCADA system formula:

No. of SCADA failures per annum

Incorrect operational isolation of primary or secondary equipment formula:

No. of incorrect operational isolation events per annum

Where:

‘incorrect operational isolation events’ are those events where primary or secondary equipment has not been properly isolated during scheduled emergency maintenance, irrespective of whether an outage occurred as a result.

Actual/estimated/NULL – and why?

Actuals.

Changes from last year’s source/methodology/assumptions

No changes.

Table 3.6.2: Market impact component

Source of information

Information for table 3.6.2 is sourced from AEMO data accessed via ez2view desktop application and aligns with the information supplied to the AER in the Annual STPIS Compliance submission. This information aligns with the Transmission STPIS outcome approved by the AER.

Methodology and assumptions made

The definition used for determining information is included in:

- AER Transmission STPIS version 5 - October 2015

Actual/estimated/NULL – and why?

Actuals.

Changes from last year’s source/methodology/assumptions

No changes.

Table 3.6.3: System losses

Source of information

Information is obtained from MABS OLAPS.

Methodology and assumptions made

System losses (TQS03) is calculated as in accordance with the RIO:

$$\frac{(\textit{Electricity inflows} - \textit{electricity outflows}) * 100}{\textit{electricity inflows}}$$

where:

- electricity inflows are the total electricity inflow into TasNetworks’ transmission network including from generation, other connected TNSPs at the connection point, and connected DNSPs as measured by revenue meters; and
- electricity outflows are 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.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

No changes.

Table 3.6.4: Energy not supplied

<p>Source of information</p> <p>Information for table 3.6.4 is sourced from TasNetworks' Enterprise Resource Planning (ERP) System – SAP – as supplied to the AER in the Annual STPIS Compliance submission. This information aligns with the Transmission STPIS outcome approved by the AER.</p>
<p>Methodology and assumptions made</p> <p>The definition used for determining information is included in:</p> <ul style="list-style-type: none"> • AER Transmission STPIS version 5 - October 2015 <p>MWh of unsupplied energy used to calculate 3.6.1.2 - Loss of supply event frequency under the transmission STPIS.</p> <p>Unsupplied energy for all applicable outages after exclusions, not just those that exceed the x or y thresholds.</p>
<p>Actual/estimated/NULL – and why?</p> <p>Actuals.</p>
<p>Changes from last year's source/methodology/assumptions</p> <p>No changes.</p>

Template 3.7 Operating environment factors

Table 3.7.1: Terrain factors

<p>Source of information</p> <p>Average number of defects per vegetation maintenance span</p> <p>Average number of defects per vegetation maintenance span data is sourced from the Vegetation Management System.</p> <p><u>Tropical proportion</u></p> <p>This is determined based on the boundaries of the Hot Humid Summer and Warm Humid Summer regions as defined by the Australian Bureau of Meteorology Australian Climatic Zones map.</p> <p><u>Standard Vehicle Access</u></p> <p>Transmission lines that intersect with standard vehicle access roads within a nominated radius were identified with reference to TasNetworks' GIS.</p> <p><u>Altitude</u></p> <p>Span lengths were extracted from SAP.</p> <p>The altitude of each section of transmission line was extracted from TasNetworks' GIS using layers for Transmission towers and 10m contours.</p>

Bushfire risk

To determine the number of maintenance spans in bushfire risk areas, spans have been counted if they fall within the High Bushfire Loss Consequence Area (HBLCA) polygon developed for Tasmania.

Methodology and assumptions made

Average number of defects per vegetation maintenance span

Notifications with a priority code of P1 or P2 are assumed to be defects where vegetation has encroached into the clearance space.

The average number of defects per vegetation maintenance span is calculated by dividing the total number of defects within the reporting period by the total number of maintenance spans within the reporting period.

Tropical proportion

As per the Australian Bureau of Meteorology Australian Climatic Zones map, Tasmania is not covered by the Hot Humid Summer or Warm Humid Summer regions. The tropical proportion remains 0%.

Standard vehicle access

Regulated transmission line routes were overlaid in GIS against 2wd access roads, vehicular tracks were excluded, which are best suited to 4wd access and are typically rugged, unsealed roads. A buffer of 50m was applied to roads, overlap between this and transmission routes are considered Standard Vehicle Access.

While the AER definition of standard vehicle access includes open paddocks, this has been excluded from the presented figure, as open paddocks in Tasmania are not typically traversable by 2wd vehicles in a safe manner.

Altitude

For each transmission tower which was above 600m, forward span, including only spans which are owned by TasNetworks, and in a current operational state.

Data was collected from an ArcGIS workflow. The workflow overlaid elevation and Transmission Towers. Any tower which exceeded 600m in elevation, forward span was counted towards the sum. Decommissioned, Disposed, and Non TasNetworks lines were excluded.

Known source of error would be a small number of towers which are above 600m and line drops below 600m. this is expected to average out with towers which are below 600m and line increases in elevation towards next tower.

Average number of trees per vegetation maintenance span

The determined density factor has been broken down into four bands. The assumption of the number of trees in each band is (developed through an assessment of aerial photos for easements where vegetation maintenance has occurred):

- Pasture = 5 trees per Ha
- Low = 50 trees per Ha
- Medium = 1300 trees per Ha (approximately equal to typical Forestry Tasmania plantation density)
- High = 2000 trees per Ha

TasNetworks does not currently have the asset information to take into account vegetation density variation due to changes in easement geography or vegetation height. Accordingly the quantities reported are all trees within the span rather than those which may require active management.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

Standard vehicle access

Previously, a 10 metre radius was applied to each part of transmission line route to determine if they intersect with standard vehicle access roads. Only those structures that are accessible all year round were included for the purposes of presenting this data. It has been assumed that if standard vehicle access is possible to a tower, then access to the span forward from that tower is also possible. It is this span length that has been counted.

The figure calculated for the above query resulted in an unrealistic figure, as 4wd tracks, and walking tracks were included. These have now been excluded.

Altitude

Decommissioned assets were included previously in this analysis. In the current calculation, decommissioned assets are excluded.

Average number of defects per vegetation maintenance span

Now uses defects on a per span basis, using priority codes of P1 and P2 as the determining factor.

Table 3.7.2: Network characteristics

Source of information

The total route line length has been sourced from information maintained within SAP.

Variability of dispatch information has been sourced from historical metering information and extracted from OLAP tool.

Concentrated load distance information has been calculated from route length information in SAP.

The total number of spans has been sourced from information maintained within SAP.

Methodology and assumptions made

Route line length

Information was extracted from SAP. All assets maintained are included in the information presented.

Variability of dispatch

Variability of dispatch was determined with reference to historical metering information from Hydro, Wind, Gas and Diesel generation. The component of energy generated by renewable energy (hydro and wind powered stations) is expressed as a percentage of the total energy generated. This information was extracted by the Regulated Pricing team.

Concentrated load distance

Concentrated load distance was calculated using the strongest transmission link between the generation node and the load centre. Farrell Substation has been selected as the generation node and George Town as the load centre to meet the AER definition, and route lengths have been used to determine the distance.

It was determined that Farrell Substation would be the largest concentration source of generation at approximately 763 MW of hydro and wind connected.

The largest concentrated load was selected as George Town Substation, where several transmission customers are connected in addition to a moderate distribution system load, approximately 560 MW in total. An additional 478 MW of concentrated load could be realised if Basslink was transferring power from Tasmania.

Total number of spans

The total number of spans has been extracted from SAP using form CL30N and IH06. Only regulated, commissioned and decommissioned spans (where physical deenergised conductor is strung) are included in the information presented. Virtual spans between disposed towers and vacant spans (no conductor strung) have been excluded.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

Concentrated Load Distance

The generation node was selected as Farrell (Previously Sheffield) and load node selected as George Town (Previously Hobart), which more accurately fits the AER definition for concentrated load distance.

Number of Spans

Spans which were decommissioned were included previously, as were spans which were not owned by TasNetworks. This year’s submission excludes spans which are not owned by TN and excludes spans which aren’t commissioned.

Table 3.7.3: Service area factors

Source of information

Filled via 2.7 Vegetation Management.

Template 2.4 Historic Capex by Asset Class

Table 2.4.1 Actual gross capital expenditure – as commissioned

Source of information

TasNetworks Capitalisation Register and SAP.

Methodology and assumptions made

Assets added to the capitalisation registers are considered to be capitalised in that year with the exception of non-network expenditure which is capitalised in the year the cost is incurred.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Table 2.4.2 Actual gross capital expenditure – as incurred

Source of information

Information has been sourced from SAP

Methodology and assumptions made

Costs are mapped against asset class allocations based on functional area breakdowns. SAP reporting it utilised to establish total expenditure at a functional area breakdown.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Template 8.5 Disagg opex

Table 8.5.1 disaggregated opex – operations and maintenance expenditure – audited financial statements

Source of information

Information has been sourced from SAP.

Methodology and assumptions made

Allocations have been made in accordance with mapping based upon functional area breakdowns.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

No changes.

Table 8.5.2 disaggregated opex – operations and maintenance expenditure – regulatory accounts

Source of information
Information has been sourced from SAP.
Methodology and assumptions made
Allocations have been made in accordance with mapping based upon functional area breakdowns.
Actual/estimated/NULL – and why?
Actual.
Changes from last year's source/methodology/assumptions
No changes.

Template 9.1 Disagg Inc

Table 9.1.1 disaggregated income statement

Source of information
Information has been sourced from SAP.
Methodology and assumptions made
Allocations have been made in accordance with mapping based upon functional area breakdowns and general ledger allocations.
Actual/estimated/NULL – and why?
Actual.
Changes from last year's source/methodology/assumptions
No changes.

Template 9.2 RFS Inc

Table 9.2.1 RFS income statement

Source of information
Information has been sourced from SAP.

Methodology and assumptions made

Allocations have been made in accordance with mapping based upon functional area breakdowns and general ledger allocations.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

No changes.

Template 7.6 PTS Price Redn

Table 7.6.1 Price reduction/recover

Source of information

Price reductions from common service charges are sourced from TasNetworks’ financial reporting system. The value of discounts recovered from other transmission customers is derived from TasNetworks’ annual pricing model.

Methodology and assumptions made

The reduction in prices paid by transmission customers have been calculated in accordance with our customer connection contracts and are adjusted against common service charges.

The discounts recovered from other customers reflect the forecast revenue reduction determined during the preparation of annual pricing.

No assumptions were required for preparing this worksheet.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

Prior year information relied solely on actual charges to customers, this year has been reconciled to the regulated financial accounts which include end of year accruals for June.

Template 7.7 Related party transactions

Table 7.7.1 Related party transactions

Source of information

TasNetworks has no related party transactions
Methodology and assumptions made N/A
Actual/estimated/NULL – and why? Null.
Changes from last year’s source/methodology/assumptions No changes.

Template 7.9 MIC

Table 7.9.4 Market impact component

Source of information Information for table 7.9.4 is sourced from AEMO data accessed via ez2view desktop application and aligns with the information supplied to the AER in the Annual STPIS Compliance submission. This information aligns with the Transmission STPIS outcome approved by the AER.
Methodology and assumptions made The definition used for determining information is included in: <ul style="list-style-type: none"> • AER Transmission STPIS version 5 – October 2015
Actual/estimated/NULL – and why? Actuals.
Changes from last year’s source/methodology/assumptions No changes.

Template 7.5 Large projects

Table 7.5.1 Large project operating expenditure

Source of information Information has been sourced from SAP.

<p>Methodology and assumptions made</p> <p>Costs have been extracted on a project basis from SAP.</p>
<p>Actual/estimated/NULL – and why?</p> <p>NULL – No opex costs have been incurred on large projects in 2024-25.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>N/A – New requirement</p>

Table 7.5.1 Large project capital expenditure

<p>Source of information</p> <p>Information has been sourced from SAP.</p>
<p>Methodology and assumptions made</p> <p>Costs have been extracted on a project basis from SAP.</p>
<p>Actual/estimated/NULL – and why?</p> <p>Actual.</p>
<p>Changes from last year’s source/methodology/assumptions</p> <p>N/A – New requirement</p>

Template 8.6 Ind asset base roll fwd

Table 8.6.1 Indicative asset base as incurred

<p>Source of information</p> <p>The reported RAB information has been sourced from the reconciliations of property, plant and equipment, and the underlying detailed asset records for prescribed transmission assets.</p>
<p>Methodology and assumptions made</p> <p>RAB financial information includes data on overhead lines, underground cables, transformers and other assets. Aggregate RAB values were able to be directly attributed to the disaggregated asset categories by reviewing the underlying detailed asset records and allocating them directly to the asset categories as required.</p> <p>For each asset category presented:</p> <ul style="list-style-type: none"> • opening values agreed with the previous year’s closing values;

- the inflation addition reflects a consumer price index (CPI) increase to the opening net book value of the assets;
- straight line depreciation is calculated based upon the estimated useful lives of the assets;
- regulatory depreciation is the net of the inflation addition and the straight line depreciation;
- recorded additions are based on the cost of the assets for regulatory accounting purposes;
- Roll Forward Model adjustments have been captured in the actual additions for the financial year;
- recorded disposals are based on actual assets that were sold or scrapped in the financial year and reduced from the asset base; and
- closing values are derived from the sum of all elements noted above.

Actual/estimated/NULL – and why?

Actual

Changes from last year’s source/methodology/assumptions

No changes.

Table 8.6.2 Indicative asset base as commissioned

Source of information

TasNetworks Capitalisation Register and SAP.

Methodology and assumptions made

RAB financial information includes data on overhead lines, underground cables, transformers and other assets. Aggregate RAB values were able to be directly attributed to the disaggregated asset categories by reviewing the underlying detailed asset records and allocating them directly to the asset categories as required.

For each asset category presented:

- opening values agreed with the previous year’s closing values;
- the inflation addition reflects a consumer price index (CPI) increase to the opening net book value of the assets;
- straight line depreciation is calculated based upon the estimated useful lives of the assets;
- regulatory depreciation is the net of the inflation addition and the straight line depreciation;
- recorded additions are based on the cost of the assets for regulatory accounting purposes;
- Roll Forward Model adjustments have been captured in the actual additions for the financial year;
- recorded disposals are based on actual assets that were sold or scrapped in the financial year and reduced from the asset base; and

closing values are derived from the sum of all elements noted above.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

No changes.

Template 8.7 Profitability – tax data

Table 8.7.1 Profitability tax data

Ownership structure

Source of information TasNetworks ownership details
Methodology and assumptions made Nil
Actual/estimated/NULL – and why? Actual
Changes from last year's source/methodology/assumptions No changes.

Tax related information

Source of information The expenditure information reported has been sourced from: <ul style="list-style-type: none">• TasNetworks' SAP financial systems.• NTER Taxation Returns.
Methodology and assumptions made Tax depreciation has been allocated to Transmission Prescribed Services, based upon the functional area assigned to the assets in the asset register in the financial systems. These asset registers are used in preparing and submitting the NTER tax returns. Capital expenditure that was directly attributed to service classifications have been allocated on that basis. Tax depreciation for Corporate and Shared Services assets capitalised in the asset register have been allocated across the service classifications in line with the AER approved Cost Allocation Methodology (CAM). Total tax depreciation is reconciled to TasNetworks' NTER tax returns.
Actual/estimated/NULL – and why? Estimated – Indicative of expected tax outcomes.
Changes from last year's source/methodology/assumptions Previous years used actual due to later timing of information request.

Interest expense

Source of information

The expenditure information reported has been sourced from TasNetworks' financial systems; those systems being:

- SAP systems for distribution and transmission.

Methodology and assumptions made

In order to allocate interest expense to all forms of control:

- total debt is allocated to the respective forms of control; and
- only where directly applicable, individual borrowings are allocated to the forms of control.

The methodology to allocate total debt levels is as follows:

1. Allocation of debt at 1 July 2014 when TasNetworks commenced operations

Debt transferred from Transend Networks was allocated to Prescribed Transmission Services and other relevant forms of control based upon written down asset values (funded by the company) as at 30 June 2014.

2. Shareholder debt / equity withdrawal by Shareholder Direction

The Shareholder withdrew equity / injected debt into the business in the 2014-15, 2015-16 and 2016-17 financial/regulatory years. The increase in debt from these Shareholder directions has been allocated to Prescribed Transmission Services based upon the proportion of opening debt levels at the start of each financial year.

3. Proceeds from asset sales

Where applicable, proceeds from asset sales are allocated to and used to reduce debt for the relevant form of control.

4. Changes in operational debt levels

The basis of allocating movements in operational (excluding debt / equity withdrawals) debt levels during the financial years to the various forms of control is as follows:

- capital expenditure is treated as being 100% debt funded for all forms of control other than Standard Control Services and Prescribed Services;
- where applicable, customer contributions are netted of capital expenditure for relevant forms of control;
- the remaining balance of the movement in debt is allocated to the remaining forms of control, being Distribution Standard Control and Transmission Prescribed Services, based upon net capital expenditure incurred during the year.

The methodology to allocate interest expense incurred on the debt portfolio to the various forms of control as calculated above is as follows:

The majority of TasNetworks' debt portfolio is managed against a benchmark portfolio (the benchmark portfolio has 1/10th of the portfolio face value repricing each financial year from year 1 to 10) which is aligned to the regulatory regime within which TasNetworks operates. Specific debt is not allocated to Standard Control or Prescribed Services forms of control. The portfolio cost of debt is the same for both regulatory forms of control.

TasNetworks has executed \$100 million of long-term debt with a maturity of up to 30 years to fund specific long life unregulated connection assets. The interest rate assigned to fund these assets is assigned at the time of entering into a contract requiring TasNetworks to fund the asset construction.

The interest rate assigned to all other debt is the average portfolio rate after excluding the above assets funded by the specific long-term borrowings.

Interest expense has been reconciled back to interest expense as reported in TasNetworks published financial statements. Interest associated with the Defined Benefit Superannuation Fund and Finance Leases was excluded on the basis it does not relate to debt activities.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

No changes.

Table 8.7.2 Profitability measures

Source of information

Completed on same basis as 8.7.1.

Methodology and assumptions made

Completed on same basis as 8.7.1.

Actual/estimated/NULL – and why?

Actual.

Changes from last year’s source/methodology/assumptions

No changes.

Template 8.8 Revenue requirements

Table 8.8.1 Revenue Requirements

Source of information

Information is sources from TasNetworks’ annual pricing model and the regulated financial accounts.

Methodology and assumptions made

ADJUSTED ALLOWED REVENUE and REVENUE FROM PRESCRIBED SERVICES

This represents the outcomes of TasNetworks’ annual pricing model.

Other adjustments comprise the following components:

- NTP Fees
- AEMO Participant Fees
- Under and over adjustments to revenue
- Any non-recoverable portions of contractual discounts

REVENUE RECOVERIES

Information provided in this table are sourced from TasNetworks' financial reporting system and are reconciled with Table 3.1.2. Revenue from other sources comprise:

- Intra-regional settlements residue
- Excess demand and standby charges
- Net MLEC
- Other adjustments, e.g., STPIS, MAR adjustments

REVENUE UNDERS AND OVERS

Under/over balance carried forward from the previous reporting period comprises the total over recovery from the prior year less the amount returned to customers in the pricing year.

Interest adjustments are calculated as follows:

- Interest on prior reporting year is calculated by multiplying opening balance by full WACC of year (t)
- Interest on current reporting period movement is calculated by multiplying the net under/over recovery of year (t) by half of the WACC of year (t)
- Interest on unders and overs revenue passed to customers by multiplying by half of the WACC of year (t)

REVENUE RECONCILIATION (T-2)

The same methodology applied to "adjusted allowable revenue" and "revenue recoveries" was applied to values for the 2022-23 reporting period.

Values for estimated year (t-2) under or over recovery and true-up of estimated under and over recovery are provided as per their reporting period and adjustments added on TasNetworks' annual pricing model.

Actual/estimated/NULL – and why?

Actual.

Changes from last year's source/methodology/assumptions

Not applicable.

Definitions and interpretation

Term/Acronym	Description
AER	Australian Energy Regulator
AMP	Asset Management Plan
CAM	Cost Allocation Method
DM	TasNetworks' Electronic Document Management System
DNSP	Distribution Network Service Provider
EMP	Easement Management Plan
Gentrack	TasNetworks' billing and market system (including customer and NMI management)
GTech	Intergraph G/Technology geographic information system
MABS	Metering and Billing System
OPGW	Optical Ground Wire
OTTER	Office of the Tasmanian Economic Regulator
POE	Probability of Exceedance
POW	Programme of Work
RIO	Regulatory Information Order
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SAP	TasNetworks' asset management, finance, procurement, human resources and payroll system
SCS	Standard Control Services
SDW	Spatial Data Warehouse
SOM	TasNetworks' Service Order Management system
TSMP	Transmission System Management Plan
WASP	TasNetworks' program-of-work management system (Works, Assets, Solutions and People)
UG	Underground (cable)
Telecommunications	Encompasses any telecommunications related asset
Secondary Systems	Encompasses protection systems, SCADA systems -
Substations Primary Systems	Encompasses power transformers, switchbays, transmission cables and reactive plant
Transmission Lines	Encompasses towers, support structures and conductors
TasNetworks	Refers to Tasmanian Networks Pty Ltd, acting in its capacity as a licensed Transmission Network Service Provider in the Tasmanian jurisdiction of the National Electricity Market.
VMS	Vegetation Management System



www.tasnetworks.com.au

Transmission Regulatory Information Order, 2024-25
Official