TasNetworks
Delivering your power

Distribution Annual Reporting Regulatory Information Notice, 2020-21

Basis of Preparation

CONTACT

This document is the responsibility of the Regulation, Policy and Strategic Asset Management Group within Tasmanian Networks Pty Ltd (ABN 24 167 357 299). Please contact the indicated owner of the document with any queries or suggestions.

RESPONSIBILITIES

Document Owner

Regulation Leader
Tasmanian Networks Pty Ltd
1 – 7 Maria Street
Lenah Valley TAS 7008

Document Management

Regulation, Policy and Strategic Asset Management Group

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 Regulatory Information Notice (**RIN**) issued in November 2019 by the Australian Energy Regulator (**AER**), under Division 4 of Part 3 of the National Electricity (Tasmania) Law. The Annual Reporting RIN is a means of the AER collecting the information required to monitor TasNetworks' compliance with the distribution determination applying to the regulatory control period that commenced on 1 July 2019 (referred to as the current Distribution Determination).

The information and explanatory material included in this BoP relate to TasNetworks' activities as Tasmania's licensed Distribution Network Service Provider (**DNSP**) during the 2020-21 Regulatory Year (referred to throughout this document as the current reporting period).

AER's Instructions

The AERs instructions in completing the annual reporting RIN is to provide a BoP that demonstrates how the information provided in response to the RIN request complies with the requirement of the RIN. The minimum requirements of the BoP as per schedule 1 of the notice are set out below.

Table 1 - AER Requirements of the BoP

1.1 (d) (i)	demonstrate how the information provided is consistent with the requirements of the notice.
(ii)	explain the source from which we obtained the information provided.
(iii)	explain the methodology we applied to provide the required information, including any assumptions made.
(iv)	explain, in circumstances where we cannot provide actual information: (1) why it was not possible for TasNetworks to provide actual information; (2) what steps we are taking to ensure we can provide the information in the future; (3) if an estimate has been provided, the basis for the estimate, including the approach used, assumptions made and reasons why it is our best estimate, given the information sought in the notice

Structure of this document

This document is presented in three parts:

Section 1

- Explanation of compliance to Schedule 1, paragraph 1.1 (a) of the RIN notice as it applies to the financial information provided within the Microsoft Excel workbooks attached to the AER's RIN at Appendix B.
- Explanation of compliance to Schedule 1, paragraph 1.1 (b) of the RIN notice as it applies to the non-financial information provided within the Microsoft Excel workbooks attached to the AER's RIN at Appendix B.

Section 2

All additional information requested by the AER in Schedule 1 of the RIN notice:

- Paragraphs 1.1 (c,e,f,g); and
- Paragraphs 1.2 – 1.8.

Section 3

All additional information requested by the AER in Schedule 1 of the RIN notice:

- Paragraphs 2-10.

Definitions and interpretation

AER	Australian Energy Regulator
CAM	Cost Allocation Method
CAT tool	Customer Advocacy Team tool (TasNetworks' customer service platform), retired on 8 December 2018
DBill	TasNetworks' Market and Billing System
DM	TasNetworks' Electronic Document Management System
DNSP	Distribution Network Service Provider
Inservice	TasNetworks' Outage Management System
Gentrack	TasNetworks' Market Systems Database
GTech	Intergraph G/Technology Geographic Information System
GSL	Guaranteed Service Level
MAIFI	Momentary Average Interruption Frequency Index
OpenScape	TasNetworks' call management system
OTTER	Office of the Tasmanian Economic Regulator
Podium	TasNetworks' customer service platform
POW	Programme of Work
PI Historian	TasNetworks' real-time data historian application
RIN	Regulatory Information Notice
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
WASP	TasNetworks' program-of-work management system (Works, Assets, Solutions and People) , which was retired on 3 March 2018
UG	Underground (cable)
UMS	Unmetered supply
Secondary Systems	Encompasses protection systems, SCADA and Network Control
Substations Primary Systems	Encompasses power transformers, switchbays, transmission cables and reactive plant
TasNetworks	Refers to Tasmanian Networks Pty Ltd, acting in its capacity as a licensed Distribution Network Service Provider in the Tasmanian jurisdiction of the National Electricity Market.
Telecommunications	Encompasses any telecommunications related asset
Transmission Lines	Encompasses towers, support structures and conductors

Table of Contents

Introduction **1**
AER's Instructions 1
Structure of this document 2
Definitions and interpretation 3
Table of Contents **4**
Section 1: **6**
Workbook 1 – Annual Reporting **6**
Template 3.6 Quality of services **6**
Table 3.6.5: Quality of supply metrics 6
Table 3.6.6: Complaints - Technical quality of supply 9
Table 3.6.7: Customer service metrics 10
Table 3.6.8: Network feeder reliability 11
Table 3.6.9: Network feeder reliability – planned outages 12
Template 4.1 Public lighting **13**
Table 4.1.4: Public lighting metrics by tariff 13
Template 6.2 Reliability and customer service performance **13**
Table 6.2.1: Unplanned minutes off supply (SAIDI) 13
Table 6.2.2: Unplanned interruption to supply (SAIFI) 13
Template 6.6 STPIS customer service **14**
Table 6.6.1: Telephone Answering 14
Table 6.6.2: Inadequately served customers 15
Template 6.7 STPIS daily performance **15**
Table 6.7.1: Daily performance data 15
Template 6.8 STPIS exclusions **16**
Table 6.8.1: STPIS exclusions 16
Template 6.9 STPIS Guaranteed Service Level (GSL) **16**
Table 6.9.1: Guaranteed service levels – Jurisdictional GSL scheme 16
Table 6.9.2: Guaranteed service levels – AER GSL scheme 17
Template 7.8 Avoided transmission use of service (TUOS) payments **17**
Template 7.8: Avoided TUOS payments 17
Template 7.10 Jurisdictional schemes **18**
Template 7.10: Jurisdictional schemes 18
Template 7.11 Demand Management Incentive Scheme **18**
Table 7.11: DMIA expenditure in the regulatory reporting year 18
Template 8.1 Income **19**
Table 8.1.1: Income statement 19

Template 8.2 Capex **20**
Table 8.2.1: Capex by purpose – SCS 20
Table 8.2.2: Capex by purpose – Material difference explanation 20
Table 8.2.3: Capex other 20
Table 8.2.4: Capex by asset class 21
Table 8.2.5: Capital contributions by asset class 21
Table 8.2.6: Disposals by asset class 21
Template 8.4 Opex **21**
Table 8.4.1: Operating & Maintenance Expenditure by Purpose 21
Template P1 Cost reflective tariff and metering **22**
Table P1.1: Annual customer numbers by meter type and customer segment 22
Table P1.2: Annual customer numbers with Interval/smart meter type by Non-cost reflective network tariff and customer segment. 23
Table P1.3: Annual customer by tariff 25
Workbook 2 – New Historical **26**
Template 2.2 Repex **26**
Table 2.2.1: Replacement expenditure, volumes and assets failures by asset catagory 26
Template 2.5 Connections **27**
Table 2.5.2: Cost metrics by connection classification 27
Template 2.6 Non network expenditure **29**
Table 2.6.4: Information & communications technology – capex by purpose 29
Template 2.10 Overheads **29**
Table 2.10.1: Network overheads expentiture 29
Table 2.10.2: Corporate overheads expenditure 29
Template 2.11 Labour **30**
Table 2.11.3: Labour 30
Template 8.2 Capex **30**
Table 8.2.7: Immediate expensing of capex 30
Workbook 3 – STPIS Data **31**
Template 2.10 Overheads **31**
Table 3.6.8: Network feeder reliability 31
Table 3.6.9: Network feeder reliability – planned outages 32
Template 6.2 Reliability and customer service performance **32**
Table 6.2.1: Unplanned minutes off supply (SAIDI) 32
Template 6.7 STPIS daily performance **33**
Table 6.7.1: Daily performance data 33
Template 6.8 STPIS exclusions **34**
Table 6.8.1: STPIS exclusions 34

Section 2: 35
1.1(c) Adjustments to statutory accounts 36
1.1(e) Regulatory accounting principles and policies 38
1.1(f) Capitalisation policy 41
1.1(g) Overhead allocation under Cost Allocation Method 41
1.2 Material changes in regulatory accounting principles and policies 41
1.3 Material changes in allocation of overheads 42
1.4 Previously provided policies 42
1.5 Differences between actuals and forecasts (inc. 1.6 Explanation of differences) 43
1.7 Differences between STPIS targets and actual performance (inc. 1.8 Explanation of differences) 44
Section 3: 46
2. Compliance 47
2.1 Classification of distribution services 47
2.2 Application of negotiated distribution service criteria 49
2.3 Identification of negative change events 49
3. Cost allocation to the distribution business 50
3.1(a) Costs allocated on a causation basis 50
3.1(b) Costs allocated other than on a direct or causation basis 52
4. Cost allocation to service segments 53
5. Capitalisation policy 53
6. Demand Management Incentive Scheme Compliance Report 53
6.2 Reporting 54
6.2.1 DMIS Projects in 2020-2021 54
7. Demand Management Innovation Allowance Mechanism 55
7.1 Governance 56
7.1.1 DMIA spending in 2020/21 56
7.1.2 Compliance with DMIA Criteria 56
7.1.3 Project selection process 56
7.2 Statement on costs 57
7.3 DMIA Project Summary 57
7.4 New Projects 57
7.4.1 Dynamic EV Charging Trial 57
7.4.2 Project nature and scope 57
7.4.3 Project aims and expectations 58
7.4.4 How and Why Project Complies with Project Criteria 58
7.4.5 Implementation approach 58
7.4.6 Results 59
7.4.7 Implementation costs of the project 59

7.4.8 Project Progress & identifiable benefits 61
7.5 Existing Projects 61
8. Tax standard lives 61
9. Tax Reporting – Immediate Expensing 61
10. Regulatory Investment Test Expenditure 61
11 Corporate Structure 62
11.1 (a) TasNetworks group structure 62
11.1 (b) TasNetworks organisational structure 63
12. Audit and review reports 64
13. Confidential information 64

Section 1:

Explanation of compliance to Schedule 1, paragraph 1.1 (a) of the RIN notice as it applies to the financial information provided within the Microsoft Excel workbooks attached to the AER's RIN at Appendix B.

Explanation of compliance to Schedule 1 paragraph 1.1 (b) of the RIN notice as it applies to the non-financial information provided within the Microsoft Excel workbooks attached to the AER's RIN at Appendix B.

Workbook 1 – Annual Reporting

Template 3.6 Quality of services

Table 3.6.5: Quality of supply metrics	**Consistency of information with the requirements of the RIN** The information provided about voltage variations in *Table 3.6.5 – Quality of supply* is consistent with the requirements of the Annual Reporting RIN, in that: • The number of over voltage events and number of customer national metering identifiers (**NMI**) receiving over voltage due to the various causes has been provided where available; • The number of over voltage events are those that occurred in the financial year and the number of customers receiving over voltage are customers NMIs dealt with through claims or insurance claim in the financial year (the event may be from a prior FY) • variations in voltage at zone substations and at measurement points on feeders are provided where available. Where inaccurate information, or information derived from inaccurate data was present, these sites were regarded as not "measured", as the reported value would not represent the actual number of variations.
	Source of information • Information about over-voltage was obtained through the Podium; • Over-voltage due to voltage regulation or other cause information was also obtained through the Podium; • Voltage variation information was obtained from TasNetworks' historical SCADA measurements of voltages, stored in PI Historian; and • Voltage excursions according to these requirements were determined through the application of PI analysis to archived voltage measurements stored in TasNetworks' PI Historian.
	Methodology and assumptions made • The number of over voltage events due to high voltage injection, has been defined as the number of events where a complaint has been received by one or more customer(s); • The number of customers receiving over voltage due to high voltage injection, has been defined as the number of customer (NMIs dealt with through claims or insurance) by that event; Definition of high voltage injection is an event where a dramatic increase in voltage occurs to a NMI due to asset trauma for example failed neutral or HV/LV clash. • The number of over voltage events - due to lightning is defined as the number of events where a complaint has been received by one or more customer(s); • The number of customers receiving over voltage due to lightning, has been defined as the number of customer NMIs that have been dealt with for either claims or insurance, by that event; • The number of over voltage events - due to voltage regulation or other cause is defined as the number of events where a complaint has been received by one or more customer(s);

- The number of customers receiving over voltage due to voltage regulation or other cause is defined as the number of sites investigated where the complaint is verified as involving over voltage. This is consistent with the value reported in TasNetworks' OTTER Annual Regulatory Report for the same performance metric; and
- Over-voltage events – due to voltage regulation or other cause and customers receiving over-voltage – due to voltage regulation or other cause will be identical due to our complaint process. Complaints are captured at the suspected site of voltage issue, not on a per customer basis.

Voltage variation

- There are no power quality or event disturbance recording devices installed at any zone substations or on feeders in TasNetworks' distribution network, which means that it is not possible to record voltage variations that are equal to or less than 10 seconds in length;
- TasNetworks has performed all analysis using 4 second SCADA data and found no reportable events with durations <10 seconds in length – if higher granularity data were available then it is possible events could have been found.
- Zone Substations are defined as any substation that converts from a voltage at or above 33 kV to a voltage below 33 kV, but above 1 kV. Substations that are operated by TasNetworks, in its capacity as a Transmission Network Service Provider, and fit this definition, have not been included in this Annual Reporting RIN;
- For one minute and steady state measurements, basis for inclusion of SCADA points as measurements is that the data is sufficiently precise and of high enough resolution that the number of voltage variations reported is representative of the actual number of variations;
- All zone substations have voltage transformers of high precision (with appropriate dead banding) and have SCADA polling with a four second interval;
- Where appropriate, voltage measurements from devices in the distribution network have been included as feeder measurements;
- No recloser SCADA points were included as feeder measurements as the accuracy of their voltage transformers is +2.5% which is inadequate for accurate measurement of voltage variations;
- TasNetworks has three types of voltage regulator sites in its 11 kV and 22 kV network; three phase ground mounted Y-Y units, cooper voltage regulators in "open delta" and cooper voltage regulators in "closed delta" configurations;
- Cooper voltage regulator sites have voltage transformers with a precision of +/- 1%, and many of these sites have SCADA which allows transmission of these voltage measurements. Cooper regulator sites are not configured with fixed time interval polling, but instead use unsolicited polling which means that voltage measurements are only sent when the voltage exceeds a defined dead band of ±20 V. This results in a variable interval between voltage measurements;
- A small number of three phase voltage regulator sites now have SCADA configured. As this data has been brought into the SCADA Historian it has been included in the analysis.
- For each point the number of measurements has been used to validate the quality of the SCADA point and historian storage. Where the quality of the measurement could not be validated, the measurement has been excluded from analysis;
- For each measurement point that is considered valid, variations outside the standard range have been defined as variations from the *nominal voltage*. This is a change from past practice in TasNetworks' RIN reporting, as the set-points of many of these terminal or zone substations and downstream voltage regulators have had their set points changed part way through this current reporting period;
- The voltage ranges used are those specified in the Tasmanian Electricity Code (**TEC**), TasNetworks' jurisdictional voltage standard. In this standard, voltage ranges are specified for 'steady state', and 'one minute' variations. The TEC was updated in 2017 and Table 2 of Chapter 8 changed these requirements:
    - 'Steady state' voltage variations for 1kV-22kV now refers to AS 61000.3.100 Section 5.2
    - 'One minute' voltages variations for 1kV-22kV are all now +/- 10%.

- AS 61000.3.100 Section 5.2 takes a probabilistic approach to voltage limitations. The minimum and maximum voltage limits are expressed as first and ninety-ninth percentile limitations ($V_{1\%}$ and $V_{99\%}$ respectively). The 'steady state' limits for voltage variation are therefore taken to be these $V_{1\%}$ and $V_{99\%}$ values, despite the standard AS 61000.3.100 allowing voltage changes beyond this range for 2% of the time.
- The voltage ranges relevant for this RIN submission are:
  - +6% /-10% from the *nominal* voltage of 11.0 kV or 22.0 kV for steady state variations in zone substation;
  - +/-10% from the *nominal* voltage of 11.0 kV or 22.0 kV for 1 minute variations in zone substations; and
  - +6%/-10% from the *nominal* voltage of 11.0 kV or 22.0 kV for steady state variations on feeder measurements;
- Where the voltage drops back into the nominal bandwidth, any subsequent excursions are classified as new events. Reductions in the measured voltages values below 1kV are not considered to be variations, as it indicates failure of secondary systems, or loss of supply;
- Voltage excursions according to these requirements were determined through the application of PI Historian analysis to archived voltage measurements stored in TasNetworks' PI historian;
- PI Historian analysis calculations were applied to each of the following measurement types:
  - Voltage Variation Steady State (Voltage Regulator Load A);
  - Voltage Variation Steady State (Voltage Regulator Load B);
  - Voltage Variation Steady State (Voltage Regulator Load C);
  - Voltage Variation Steady State (Voltage Regulator Source A);
  - Voltage Variation Steady State (Voltage Regulator Source B);
  - Voltage Variation Steady State (Voltage Regulator Source C);
  - Voltage Variation 10% 1m (Zone Substation); and
  - Voltage Variation Steady State (Zone Substation).
- The data from the PI Historian analysis is exported as an XML file, and imported into excel for cleansing and analysis, using excel functions;
- The number of events at a site is determined by applying the logical OR function to the time series data, for all of the measurements available at site. An excursion of any measurement at a site is counted as an excursion of that site;
- For zone substations, there is typically a voltage measurement on each bus in the zone substation. For cooper regulator sites, there are two measurements per tank on each site. Open delta regulator sites therefore have four measurements, and closed delta regulator sites have six measurements;
- Overlapping/duplicate events at each site (from different SCADA points) were identified and excluded;
- Any events in which the voltage drops to zero at any point were identified and excluded.
- Any events that occurred where customers were not connected to that supply were excluded from the count;
- Any event at sites that have been identified as having poor data or measurement quality were identified and excluded; and
- For one minute variations in zone substations, any event that exceeds one minute in duration is picked up as a steady state variation and would be counted twice. In the table of one minute events, these events are identified and excluded.
- The percentage of feeders monitored is taken to be the number of feeders with one or more voltage regulator with SCADA communications available.

Use of estimates

- No estimates have been used in the collation and presentation of this information.

Table 3.6.6: Complaints - Technical quality of supply

Consistency of information with the requirements of the RIN

The information provided about complaints regarding technical quality of supply is consistent with the requirements of the Category Analysis RIN, in that:

- the data refers to the complaints made by customers regarding technical quality of supply issues which resulted in an investigation by TasNetworks on their standard of service.

Source of information

The volume of customer complaints received in the current reporting period relating to technical quality of supply has been derived from records kept in the Podium's customer complaint management tool.

Methodology and assumptions made

- The data was extracted from Voltage and Radio Frequency complaints captured in the Podium. Each individual element of 3.6.6 has been filtered in order to supply the individual inputs to apply in the current reporting period; and

Complaints found to be unsubstantiated are included in the category of 'Other'.

The filers used are presented in the table below

RIN category	Data filters
Low voltage supply	Voltage Type = Under
Voltage dips	Voltage Type = Under + Other Sag Dip = True
Voltage swell	Has Voltage Over Due to Solar = False Has Surge Swell = True
Voltage spike (impulsive transient)	Voltage type = Normal Is Transient = True
Waveform distortion	Is Harmonic = True
TV or radio interference	RFI case type
Solar related	Has Voltage OverDue To Solar = True
Noise from appliances	N/A
Other	Is Harmonics = False Is Transient = False HasSag/Dip = False Has voltge due to Solar = False Has Surge/Swell = False

Use of estimates

No estimates have been used in the collation and presentation of this information.

Table 3.6.7: Customer service metrics	**Consistency of information with the requirements of the RIN** The information provided in relation to customer service metrics is consistent with the requirements of the Annual Reporting RIN, in that: • the data refers to complaints made by customers regarding their: technical quality of supply, reliability of supply, customer service and connection issues that resulted in investigations by TasNetworks of their standard of service. **Source of information** • Information regarding 3.6.7.1, the timely provisions of services for the number of connections is compiled from Bravo's Service Order Management (SOM). • Information regarding the timely repair of faulty street lights was compiled from SOM for all public lighting faults logged. • Information regarding call centre performance was sourced from the OpenScape Contact Centre Enterprise Reporting Tool. • The volumes of customer complaints to TasNetworks in the current reporting period have been derived from records kept in the Podium, which is TasNetworks' customer complaint management tool. • The number of lights were sourced from Gentrack in TasNetworks based on contract of both public and private and a tariff of TASUMSSL. • The 2019-2020 number of lights were sourced from Gentrack in Tasnetworks based on contratct type of Public
	Methodology and assumptions made ***Timely provisions of services*** • Number of connections made is the total number of New Connection service orders completed. • Number of connections not made on or before agreed date includes the total number of New Connection service orders completed after their guaranteed service date or after their agreed scheduled date (whichever is applicable). ***Timely repair of streetlights*** • The count of faults for the current reporting period has been extracted to form a dataset of reported faults; • The average monthly number "out" has been interpreted as the average number of street light faults reported per month for the reporting period. • The data captured included reported date and completed date and subtracting the reported date from completed date provided the days taken to repair each fault. Only working days were included in the count of days taken to repair each fault; • A count was made of the number of faults where days to repair was greater than 7 business days to provide the number of faults repaired by the fix date; 7 business days is in the customer charter document and also part of the electrical code. • *Average days to repair* is the average of the days to repair faults for the full year; and ***Call centre performance*** • OpenScape collates the data and can demonstrate call volumes and wait times for calls that enter the fault queue; • Calls to call centre fault line and calls to fault line answered within 30 seconds are inclusive of Major Event Day data; and • OpenScape is unable to report on the number of overload events, therefore this has been listed as N/A. The telephony system capacity is 240 fault calls at any one time, anecdotally, we have not had this many calls in the queue at one time but cannot provide a report or source data to demonstrate this. ***Number of customer complaints*** • The data was extracted to measure the number of customer complaints stored in the Podium

	• The volume of data pertained to all customer complaints created in the current reporting period; and • The data was filtered in order to identify each of the five individual complaint topics listed. ○ Complaint - connection or augmentation refers to The Podium subject levels – Connections/EWR Related & New Customer Supply. ○ Complaint - reliability of supply refers to The Podium subject levels – Unplanned outages/Duration & Frequency. ○ Complaint - administrative process or customer service – unable to report – TasNetworks complaints are not categorised in this way. ○ Complaint – other is the total number of customer complaints with connections & reliability related complaints removed.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Table 3.6.8: Network feeder reliability	**Consistency of information with the requirements of the RIN** • The information provided regarding customer numbers is consistent with the requirements of the Annual Reporting RIN, in that:TasNetworks has classified its distribution feeders as per the AER's instructions and definitions for feeder categorisation in the AER's STPIS scheme. Number of distribution customers reported for each feeder is the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period. 20.5 customers missing feeder assignments are not reported against feeder. • Sub-transmission feeders have been excluded; • Energy not supplied was calculated using average feeder demand derived from feeder maximum demand and an estimated load factor, divided by the number of customers on the feeder (Economic Benchmarking RIN Table 3.6.2); • TasNetworks has interpreted excluded events as those specified under clauses 3.3 and 5.4 of the AER's STPIS scheme.
	Source of information The information regarding network feeder reliability has been sourced from the InService and the current period distribution economic benchmarking RIN template and also from GTech (GIS system) for NMI to feeder relationship.
	Methodology and assumptions made • Queries were run from InSights (Inservice source data replicated here for SAIDI and SAIFI calculation) to extract a base data set of outages, customers and distribution transformers for the current reporting period. • All reliability performance indices (SAIDI, SAIFI, and MAIFI) have been calculated using disconnected customers and customer durations as per the AER requirements. ***Feeder ID / Name, Description of the feeder service area, Length of high voltage distribution lines, Feeder kVA*** • Feeder attributes were extracted from SDW including number of customers connected. Feeder customer count is at the time of data extraction. ***Feeder classification*** • Feeder classifications were determined by applying the AER's feeder categorisation rules: ○ Feeders were classified as 'urban' if the maximum demand of the feeder divided by the total length of the feeder was greater than 0.3 MVA/km;

	○ Feeders were classified as 'Short Rural' if the maximum demand of the feeder divided by the total length of the feeder was less than or equal to 0.3 MVA/km and the total length of the feeder was less than or equal to 200km; and ○ Feeders were classified as 'Long Rural' if the maximum demand of the feeder divided by the total length of the feeder was less than or equal to 0.3 MVA/km and the total length of the feeder greater than 200 km. • Where there was no maximum demand available for a feeder, the classification was manually assessed based on their location and the classification of other feeders from that substation. ***Number of distribution customers*** A copy of the breakdown of customer numbers by feeder section was obtained from the source data of TasNetworks' Economic Benchmarking RIN response for the current reporting period. ***Maximum demand (MVA), Energy not supplied*** Feeder maximum demands, unplanned energy not supplied, and planned energy not supplied, were sourced from the same source of information used to report current Economic Benchmarking RIN, *Table 3.6.2 Energy Not Supplied*. ***All unplanned and planned outage information*** Outages were sourced from Inservice. ***All momentary feeder outage information*** No momentary feeder outage information was sourced for this template.
	Use of estimates No estimates have been used in the collation and presentation of this information.
Table 3.6.9: Network feeder reliability – planned outages	**Consistency of information with the requirements of the RIN** The information provided about planned outages is consistent with the requirements of the Annual Reporting RIN, in that: • The information provided includes single premise interruptions; and • Customer numbers used to derive SAIDI and SAIFI is defined as the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period.
	Source of information The reliability indices relating to planned outages reported by TasNetworks draw on data obtained from Inservice.
	Methodology and assumptions made • Reliability performance indices (SAIDI, SAIFI) have been calculated using disconnected customers and customer duration • Outage base data for the regulatory year was extracted from InSights (InService source data replicated here for SAIDI and SAIFI calculation) including, for each outage, customers and distribution transformers, and filtered to remove outages which did not occur on mainland Tasmania (e.g. excluding Bass Strait Islands and unmetered supply (UMS)). • This data was then cleansed to ensure completeness of reliability areas, communities, feeders and customers disconnected. All other outages were manually inspected to identify issues and any missing information. Where a transformer bordered on two reliability areas, the reliability area of highest value was chosen (e.g. urban over high density rural).
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 4.1 Public lighting

Table 4.1.4: Public lighting metrics by tariff	**Consistency of information with the requirements of the RIN** Information has been presented for public lighting in accordance with the definitions and requirements of the RIN in that: • Public and contract lighting volumes have been allocated to the published tariff categories; • Public and contract lighting revenues received have been allocated to the published tariff categories. **Source of information** The revenue and volume data in this table is sourced from TasNetworks' market and billing systems dBill and Gentrack. **Methodology and assumptions made** Public lighting volumes have been extracted from Gentrack by tariff type on a monthly basis and averaged to provide and an average volume for the year. Public lighting revenue has been extracted from dBill by tariff type. **Use of estimates** No estimates have been used in the collation and presentation of this information.

Template 6.2 Reliability and customer service performance

Table 6.2.1: Unplanned minutes off supply (SAIDI) **Table 6.2.2: Unplanned interruption to supply (SAIFI)**	**Consistency of information with the requirements of the RIN** The information provided about system reliability in Tables 1 and 2 is consistent with the requirements of the Annual Reporting RIN, in that: • TasNetworks' reliability statistics have been calculated in accordance with the methodology approved by the AER; • The information provided does not include subsequent outages caused by network switching during fault finding; and • Customer numbers used to derive SAIDI and SAIFI is defined as the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period. **Source of information** • The SAIDI and SAIFI statistics reported are based on data sourced from InService; • Customer numbers are drawn from a number of sources: SDW, DBill and GenTrack. • NMI to Classification is drawn from GTech (GIS system). **Methodology and assumptions made** ***General*** All reliability performance indices (SAIDI, SAIFI) have been calculated using disconnected customers and customer duration. ***SAIDI & SAIFI*** • Queries were run in InSights (InService source data replicated here for SAIDI and SAIFI calculation) to extract a base data set of outages, outage assets, customers and distribution transformers for the current reporting period;

	• The outage data was then filtered to exclude any outages for the current reporting period which were not on mainland Tasmania (e.g. outages on Bass Strait Islands and UMS); • This data was then cleansed to ensure completeness of reliability areas, communities, feeders and customers disconnected. All other outages were manually inspected to identify issues and additional/missing information sourced from the asset history data warehouse. Where a transformer bordered on two reliability areas, the reliability area of highest value was chosen e.g. urban over high density rural; • SAIDI and SAIFI impacts on the reliability area and the system were then calculated; • Outages used to calculate the MED threshold for the current reporting period using the 2.5 Beta methodology are taken from the previous five financial years. The daily system SAIDI (with STPIS exclusions applied) for the current reporting period, was calculated and daily SAIDI was compared to the calculated MED threshold to determine which days were MEDs for exclusion; • All events that occurred on MEDs, planned outages and events that meet the STPIS exclusion criteria were excluded from the calculation of SAIDI and SAIFI; and • An extract of base outage data was used to determine reliability area and system SAIDI and SAIFI for the current reporting period. ***Customer numbers*** • A count of NMIs at the beginning and end of financial year was undertaken by reliability area. • Those queries excluded NMIs on the Bass Strait Islands, UMS and NMIs with a status of 'Extinct'. • A small volume of NMIs with unknown reliability areas were redistributed proportionally across the rest of the population of NMIs.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 6.6 STPIS customer service

Table 6.6.1: Telephone Answering	**Consistency of information with the requirements of the RIN** The information provided about telephone answering in Table 1 is consistent with the requirements of the Annual Reporting RIN, in that: • the total number of calls received reflects the number of calls to TasNetworks' fault line to speak with an operator (132004); and • the number of calls answered within 30 seconds has been taken from the time that a call enters TasNetworks' telephone system to the time that the caller speaks with an operator, excluding the time that callers are connected to an automated interactive service that provides substantive information. • "Number of calls after removing excluded events" is number of calls excluding major event days and other allowable exclusions as per the AER's STPIS guideline are applied to these figures (excludes calls abandoned in 30 seconds).
	Source of information The STPIS customer service information provided was sourced from OpenScape, the call management system used by TasNetworks.
	Methodology and assumptions made • The number of calls answered in 30 seconds was calculated by applying the percentage of calls answered within 30 seconds to the number of total calls answered on the day; and • Major event days and other allowable exclusions as per the AER's STPIS guideline have been applied to these figures.

	Use of estimates No estimates have been used in the collation and presentation of this information.
Table 6.6.2: Inadequately served customers	**Consistency of information with the requirements of the RIN** The information provided about inadequately served customers in Table 2 is consistent with the requirements of the Annual Reporting RIN, in that: • Inadequately served customers statistics have been calculated in accordance with the methodology approved by the AER; • TasNetworks maintain customer information by Feeder level. • STPIS exclusion criteria were applied for the calculation of ISC SAIDI and ISC SAIFI.
	Source of information Outage events are captured at NMI level in InService which also has the relationship to the Feeder.
	Methodology and assumptions made • For ISC threshold caluculation, Network SAIDI for previous three years is averaged and multipled by 4 times. • NMI's level SAIDI/SAIFI is calculated to report the highest unplanned SAIDI value of ISC customer. • Average unplanned SAIDI/SAIFI is calculated only for customers who are above the ISC threshold. • Top 5 Feeder based on the ISC SAIDI, ISC SAIFI and ISC customer counts were reported.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 6.7 STPIS daily performance

Table 6.7.1: Daily performance data	**Consistency of information with the requirements of the RIN** The daily performance data provided is consistent with the requirements of the Annual Reporting RIN, in that: • the number of calls received is the number of calls to TasNetworks' fault line (132004); and • the number of calls answered within 30 seconds is the time taken to answer a call, measured from when a call enters the telephone system of the call centre to the moment that the caller speaks with an operator, but excluding the time that the caller is connected to an automated interactive service that provides substantive information.
	Source of information The STPIS customer service information provided was sourced from OpenScape, the call management system used by TasNetworks.
	Methodology and assumptions made ***Customer Service*** Call performance data is extracted on a monthly basis, and includes the date and time of every call received, answered, and its service level.

	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 6.8 STPIS exclusions

Table 6.8.1: STPIS exclusions	**Consistency of information with the requirements of the RIN** The STPIS exclusion outage data provided in Table 6.8 is consistent with the requirements of the Annual Reporting RIN.
	Source of information The exclusion event information reported are based on data sourced from Inservice.
	Methodology and assumptions made • Queries were run on InSights (Inservice source data replicated here for SAIDI and SAIFI calculation) to extract a base data set of outages, outage assets, customers and distribution transformers for the current reporting period; • The duration of interruption column provides the customer duration (customers x outage duration. • The outage data was then filtered to exclude any outages for the current reporting period which were not on mainland Tasmania (e.g. outages on Bass Strait Islands and UMS); • All events that meet the STPIS exclusion criteria in the STPIS guidelines 3.3(a) were selected • There is no event caused by inadequate transmission planning.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 6.9 STPIS Guaranteed Service Level (GSL)

Table 6.9.1: Guaranteed service levels – Jurisdictional GSL scheme	**Consistency of information with the requirements of the RIN** The GSL jurisdictional data provided is consistent with the requirements of the Annual Reporting RIN, in that: • The information provided is the sum of all payments made to customers under the jurisdictional GSL scheme that applies to TasNetworks and the payments made to customers under our customer charter; and • The information provided is consistent with GSL information provided in the category analysis and economic benchmarking RINs.
	Source of information • The number and value of GSL payments made to customers in the current reporting period have been derived from records in the GSL Tool. • The number and value of all other payments made to customers in the current reporting period have been derived from records kept in the Charter Payment Tool. Payments made to customers for delays to connections under the Customer Charter are: • 1 Day Past GSD $30 Proactive Payment • 2 Days Past GSD $60 Proactive Payment • 3 Days Past GSD $90 Proactive Payment

	• 4 Days Past GSD $120 Proactive Payment • 5 Days Or More Past GSD $150 Proactive Payment
	Methodology and assumptions made • TasNetworks' obligation under a jurisdictional scheme to make payments to customers is limited to metrics relating to reliability of supply only. The amounts reported for all other categories are voluntary payments made by TasNetworks in recognition of a breach of our customer charter. There are no entries under 'appointments' or streetlight faults as they are not incuded in the TasNetworks' Customer Charter.
	Use of estimates No estimates have been used in the collation and presentation of this information.
Table 6.9.2: Guaranteed service levels – AER GSL scheme	**Consistency of information with the requirements of the RIN** TasNetworks has no performance or reporting obligations under STPIS in relation to AER Guaranteed Service Levels.
	Source of information TasNetworks has no performance or reporting obligations under STPIS in relation to AER Guaranteed Service Levels.
	Methodology and assumptions made TasNetworks has no performance or reporting obligations under STPIS in relation to AER Guaranteed Service Levels.
	Use of estimates TasNetworks has no performance or reporting obligations under STPIS in relation to AER Guaranteed Service Levels.

Template 7.8 Avoided transmission use of service (TUOS) payments

Template 7.8: Avoided TUOS payments	**Consistency of information with the requirements of the RIN** The information provided in Template 7.8 regarding Avoided Cost Payments is consistent with the requirements of the Annual Reporting RIN, in that: • Avoided cost payments have been calculated as required under clause 5.5(h) of the NER.
	Source of information The expenditure data reported has been sourced from TasNetworks' financial systems.
	Methodology and assumptions made Avoided cost payments have been calculated in accordance with TasNetworks' avoided TUoS for Embedded Generators procedure, using actual meter data.
	Use of estimates

	No estimates have been used in the collation and presentation of this information.

Template 7.10 Jurisdictional schemes

Template 7.10: Jurisdictional schemes	**Consistency of information with the requirements of the RIN** TasNetworks currently has no jurisdictional schemes and therefore has not made any payments. This has been noted in the template and no values have been reported.
	Source of information TasNetworks currently has no jurisdictional schemes and therefore has not made any payments. This has been noted in the template and no values have been reported.
	Methodology and assumptions made TasNetworks currently has no jurisdictional schemes and therefore has not made any payments. This has been noted in the template and no values have been reported.
	Use of estimates TasNetworks currently has no jurisdictional schemes and therefore has not made any payments. This has been noted in the template and no values have been reported.

Template 7.11 Demand Management Incentive Scheme

Table 7.11: DMIA expenditure in the regulatory reporting year	**Consistency of information with the requirements of the RIN** The information provided about the Demand Management Incentive Scheme (DMIS) projects submitted for approval is consistent with the requirements of the Annual Reporting RIN, in that: • only those projects classified as Demand Management have been discussed within this report.
	Source of information The data used to complete the DMIS template were sourced from TasNetworks' financial systems.
	Methodology and assumptions made Raw data was sourced from TasNetworks' financial systems for the relevant period. All projects with the demand management identifier (functional area DMIA (Demand Management Incentive Allowance)) were extracted from the financial ledger.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 8.1 Income

Table 8.1.1: Income statement

Consistency of information with the requirements of the RIN

The information provided with regards to income is consistent with the requirements of the Annual Reporting RIN, in that:

- all revenue data reconciles to TasNetworks' audited statutory accounts for the current reporting period

Source of information

The following data sources have been used to provide income information;

- TasNetworks' financial systems; and
- Detailed revenue splits for fee based services sourced from SOM and DBill.

Methodology and assumptions made

Standard control Services (SCS) Distribution Revenue

This represents billing revenue associated with standard control services distribution use of system (**DUoS**) charges for all customers. Billing revenue was originally sourced from DBill and subsequently entered into TasNetworks' financial systems with the relevant dimensional identifiers.

Alternative Control Services (ACS) Public Lighting

This represents revenue associated with the asset component of the approved tariff prices for public lighting. Data has been sourced from TasNetworks' financial systems.

ACS Metering

This represents revenue associated with the metering component of the approved distribution network tariffs. Data has been sourced from TasNetworks' financial systems.

ACS Fee based services

This represents revenue associated with items classified as fee based services as per the current Distribution Determination. Data has been sourced from TasNetworks' financial systems. Adjustments were required for fee based services to exclude charges which were incorrectly allocated as fee based services and have been reallocated to customer capital contributions.

ACS Quoted Services, Negotiated Services Other Revenue

Data has been sourced from TasNetworks' financial systems.

Unregulated Services Distribution Revenue

This represents revenue associated with the PAYG metering charge. Data has been sourced from TasNetworks' financial systems.

Capital Contributions SCS

Capital contributions have been allocated in TasNetworks' financial system in accordance with the approved method in the current Distribution Determination. Adjustments to the final capital contributions were made in accordance with the reallocation of revenue from ACS Fee Based Services and ACS Quoted Services detailed above.

ACS Public Lighting Capital Contributions

This represents capital contributions relating to public lighting.

Unregulated Services Profit from the sale of fixed assets

This represents the distribution portion of the sale of fixed assets as per the audited statutory accounts for the current reporting period.

SCS TUOS Revenue

This represents the billing revenue associated with standard control services TUoS for all customers. Billing revenue was originally sourced from DBill and subsequently entered into TasNetworks' financial systems with the relevant dimensional identifiers.

Unregulated Services Other Revenue

	This represents any revenue item that is not classified as regulated in the current Distribution Determination, this includes Transmission related revenue. ***TUOS Expenditure*** Represents the cost of goods sold in relation to transmission charges. Data is sourced from TasNetworks' financial systems. ***Costs Not Allocated to Distribution Business*** This represents costs associated with the Transmission sector of TasNetworks. ***Maintenance Costs*** These costs are as per template 8.4 (opex) in this RIN. ***Operating Expenses*** These costs are as per template 8.4 (opex) in this RIN. ***Depreciation*** Depreciation has been split across the relevant service classifications as per the Regulated Asset Base (RAB) Roll Forward Model for the current reporting period. ***Depreciation not allocated to DB*** These costs represent the depreciation allocated to the Transmission sector of TasNetworks and is as per the Transmission regulated accounts for the current reporting period. ***Finance Charges*** These costs are as per TasNetworks' audited statutory accounts for the current reporting period. ***Feed in Tariff Scheme*** • The Feed in Tariff (**FiT**) Scheme is a State Government initiative whereby TasNetworks provides energy retailers with the variance between a legacy solar tariff rate and an OTTER determined 'fair and reasonable' tariff rate. • In accordance with Government policy, this expense has been allocated to unregulated distribution services.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 8.2 Capex

Table 8.2.1: Capex by purpose – SCS **Table 8.2.2: Capex by purpose – Material difference explanation** **Table 8.2.3: Capex other**	**Consistency of information with the requirements of the RIN** The information provided about capex in Tables 8.2.1 - 6 is consistent with the requirements of the Annual Reporting RIN, in that: • expenditure has been reported across service classifications in line with the AER approved CAM; and • expenditure has been reconciled back to TasNetworks' audited statutory accounts. • TasNetworks does not have any related parties with which it has dealings and, therefore, did not pay any margins or management fees during the current reporting year. **Source of information** The capital expenditure information reported has been sourced from TasNetworks' financial systems. **Methodology and assumptions made** ***General***

Table 8.2.4: Capex by asset class **Table 8.2.5: Capital contributions by asset class** **Table 8.2.6: Disposals by asset class**	There are a number of adjustments which have been made to TasNetworks' audited statutory accounts data to produce a regulatory view. These are as follows: • a 'true up' of any under/over recovery of corporate and shared services expenditure has been allocated back against work category codes based on direct labour hours, in line with the AER approved CAM; and • an allocation of the cash movement in provisions during the year has been allocated against work category codes based on direct labour hours, in line with the AER approved CAM. This treatment is consistent with the methodology used to determine the allowance in the current regulatory control period determination. ***Capex by purpose – SCS, Capex other*** • Expenditure is captured in TasNetworks' financial systems at a detailed work category level (which is used to define the services being carried out). This data has then been mapped to the AER RIN service classifications according to the work category; and • Expenditure incurred in relation to corporate and shared assets has been allocated across the service classifications in line with the AER approved CAM. ***Capex by purpose – Material difference explanation*** The commentary provided has been sourced through analysis of expenditure against forecasted spend. ***Capex by asset class*** Expenditure is captured in TasNetworks' financial system at a detailed work category level and allocated to each of the asset classes depending on the work category. A mapping template has been used to allocate costs to each asset class which is consistent with the methodology used for the current Distribution Determination. ***Capital contributions by asset class*** Contributions are captured in the financial system at a detailed work category level. The contributions by work category have then been allocated to the relevant asset class using a TasNetworks mapping template. This methodology is consistent with that used for the current Distribution Determination. Where a customer contribution has not been assigned to a specific work category it has been applied on a pro-rata basis across all work category codes. ***Disposals by asset class*** Disposals reflect the proceeds from the sale of assets and have been sourced from the fixed asset register in TasNetworks' financial systems. **Use of estimates** No estimates have been used in the collation and presentation of this information.

Template 8.4 Opex

Table 8.4.1: Operating & Maintenance Expenditure by Purpose	**Consistency of information with the requirements of the RIN** The information provided about opex in Tables 8.4 is consistent with the requirements of the Annual Reporting RIN, in that: • expenditure has been reported across service classifications in line with the AER approved CAM; and • expenditure has been reconciled back to TasNetworks' audited statutory accounts. **Source of information**

	The expenditure information reported has been sourced from TasNetworks' financial systems (SAP).
	Methodology and assumptions made The financial data has been extracted at a business (Distribution or Transmission) level and then at a functional area level to allow the information to be allocated in accordance with the RIN requirements. The opex work categories are allocated RIN sub categories and service classifications (standard control, alternative control, negotiated and unregulated services) so that the information can be aligned with the RIN template tables. Corporate and Shared Services costs have been allocated across the service classifications in line with the AER approved CAM. Costs that were directly attributed to service classifications have been allocated on that basis. All other Corporate and Shared costs have been allocated in line with the AER approved CAM. Once the information has been reported in alignment with the RIN reporting requirement the results are then reconciled to TasNetworks' audited statutory accounts. Any adjustments are shown in the RIN reporting template and are only minor in nature.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template P1 Cost reflective tariff and metering

Table P1.1: Annual customer numbers by meter type and customer segment	**Consistency of information with the requirements of the RIN** The data provided in Table P1.1 is consistent with the requirements of the Annual Reporting RIN.
	Source of information The data for all variable in these table are sourced from Brave. Brave captures the NMI, meter type, and customer classification (ie Residential/business), and primary tariff. The data has been Data.
	Methodology and assumptions made P1.1.1 Residential Classification of residential customers is by the customer classification field in the extract from Brave. Classification of meter type is as follows'

Meters	Type
BASIC	6
COMMS2	1-3
COMMS3	1-3
COMMS3,COMMS4	4
COMMS4	4
COMMS4,COMMS4C	4
COMMS4,COMMS4D	4
COMMS4C	4

COMMS4C,COMMS4D	4
COMMS4D	4
MRAM	4
UMCP	Exclude

No customers are on type 5 meters

P1.1.2 – Non-Residential (low voltage)
Classification of residential customers is by the customer classification field in the extract from Brave. Non-residential customers that aren't high voltage customer (see P1.1.3 below are considered low voltage.
Classification of meter type is per the table above.

P1.1.3 – Non-residential (high voltage and above)
Classification of residential customers is by the customer classification field in the extract from Brave. High voltage customers are classified based on the network tariff they are connected to. High voltage network tariffs are:

- TAS15
- TASSDM
- TASCUS1-4

Classification of meter type is per the table above.

Use of estimates

No estimates have been used in the collation and presentation of this information.

Table P1.2: Annual customer numbers with Interval/smart meter type by Non-cost reflective network tariff and customer segment.

Consistency of information with the requirements of the RIN

The data provided in Table P1.2 is consistent with the requirements of the Annual Reporting RIN.

Source of information

The data for all variable in these table are sourced from Brave.

Brave captures the NMI, meter type, and customer classification (ie Residential/business), and primary tariff. The data has been Data.

Methodology and assumptions made

P1.2.1 Residential
Classification of residential customers is by the primary networks tariff each NMI is connected to (cost reflective tariff are excluded from this table).

- TAS31 – Non cost-reflective
- TAS87 – Cost-reflective
- TAS93 – Cost-reflective
- TAS97 – Cost-reflective
- TAS101 – Non cost-reflective

-

Cost-reflective: Time of use (ToU) or flexible tariffs i.e. where the tariff includes varying rates per kWh depending on the time or use, and/or contains a demand/capacity component.

Non-cost reflective: Flat rate or block based tariffs - i.e. where the rate per kwh depends only on the customer's total usage, but does not depend on when usage occurs.

Residential and business customer may also have additional connections on the following tariffs, however as this is an additional tariff to either TAS31 or TAS22 we haven't included any connections to these tariffs to avoid double counting NMI's.

- TAS41
- TAS61
- TAS63

Classification of meter type is as follows'

Meters	Type
BASIC	6
COMMS2	1-3
COMMS3	1-3
COMMS3,COMMS4	1-3
COMMS4	1-3
COMMS4,COMMS4C	1-3
COMMS4,COMMS4D	1-3
COMMS4C	1-3
COMMS4C,COMMS4D	1-3
COMMS4D	1-3
MRAM	1-3
UMCP	Exclude

Customers on Type 1-3 meters are included.

No customers are on type 4 or 5 meters

P1.2.2 – Non-Residential (low voltage)

Classification of non-residential customers is by the primary networks tariff each NMI is connected to (cost reflective tariff are excluded from this table).

- TAS22 – Non cost-reflective
- TAS75 – Cost-reflective
- TAS82 – Cost-reflective
- TAS88 – Cost-reflective
- TAS89 – Cost-reflective
- TAS94 – Cost-reflective
- TAS98 – Cost-reflective
- TASUMS – Non cost-reflective
- TASUMSSL – Cost reflective

Residential and business customer may also have additional connections on the following tariffs, however as this is an additional tariff to either TAS31 or TAS22 we haven't included any connections to these tariffs to avoid double counting NMI's.

- TAS41
- TAS61
- TAS63

	Use of estimates No estimates have been used in the collation and presentation of this information.
Table P1.3: Annual customer by tariff	**Consistency of information with the requirements of the RIN** The data provided in Table P1.3 is consistent with the requirements of the Annual Reporting RIN.
	Source of information The data for all variable in these table are sourced from Brave. Brave captures the NMI, meter type, and customer classification (ie Residential/business), and primary tariff. The data has been Data.
	Methodology and assumptions made P1.3.1 Residential Classification of residential customers is by the primary networks tariff each NMI is connected to **Non cost-reflective tariffs** • TAS31 • TAS101 • **Cost-reflective tariffs** • TAS87 • TAS93 • TAS97 ***Cost-reflective:*** Time of use (ToU) or flexible tariffs i.e. where the tariff includes varying rates per kWh depending on the time or use, and/or contains a demand/capacity component. ***Non-cost reflective***: Flat rate or block based tariffs - i.e. where the rate per kwh depends only on the customer's total usage, but does not depend on when usage occurs. Residential and business customer may also have additional connections on the following tariffs, however as this is an additional tariff to either TAS31 or TAS22 we haven't included any connections to these tariffs to avoid double counting NMI's. • TAS41 • TAS61 • TAS63 P1.3.2 – Non-Residential (low voltage) Classification of non-residential customers is by the primary networks tariff each NMI is connected to. **Non cost-reflective tariffs** • TAS22 • TASUMS • TAS34 (abolished from 2019) • TASCURT (abolished from 2019)

	Cost-reflective tariffs • TAS75 • TAS82 • TAS88 • TAS89 • TAS94 • TAS98 • TASUMSSL Residential and business customer may also have additional connections on the following tariffs, however as this is an additional tariff to either TAS31 or TAS22 we haven't included any connections to these tariffs to avoid double counting NMI's. • TAS41 • TAS61 • TAS63 P1.3.3 – Non-Residential (high voltage) Classification of non-residential (high voltage) customers is by the primary networks tariff each NMI is connected to. **Cost-reflective tariffs** • TASSDM • TAS15 • TASCUS1-4
	Use of estimates No estimates have been used in the collation and presentation of this information.

Workbook 2 – New Historical

Template 2.2 Repex

Table 2.2.1: Replacement expenditure, volumes and assets failures by asset catagory	**Consistency of information with the requirements of the RIN** The information provided in Template 2.2 regarding replacement expenditure is consistent with the requirements of the Annual Reporting RIN.
	Source of information Data was obtained from SAP. TasNetworks' outage management system (InService) was also used to source information relating to outages. Asset failures were sourced from the Distribution Substation Asset Failure Register because the records in SAP are currently not mature enough to provide accurate asset failure reporting.
	Methodology and assumptions made ***Poles Staking*** • For staking wooden pole replacements (i.e. staking an existing pole), sources of data included: ○ all completed condition related pole staking. ○ pole staking material recorded in SAP.

	• The quantity reported for staking wooden pole are based on actual materials allocated through identified Repex work categories in SAP. Each piece of material used that correlates to an asset category has been classified as such, enabling the pole replacements arising as a result from other Repex drivers to be identified and counted, for inclusion in the count of replacements. • For pole refurbishments, the staking of wooden poles and the reinstatement of steel / steel and concrete poles has been included. Steel and concrete pole reinstatements have been classified as concrete poles for the purposes of reporting. • TasNetworks records tasks against each pole that requires staking, and the data provided reflects tasks recorded in SAP for any work under the Repex work categories. • The condition-based replacement of poles is not deemed to constitute an asset failure, based upon the definition provided. • TasNetworks records pole failures in its risk database, and a tabular record of Asset Inspector's Pole Failure Inspection Reporting for each unassisted pole failures is also stored in TasNetworks' Document Management System (**DM**). Unassisted pole failures are annually reported but are not reported in SAP as each suspected unassisted failure pole is forensically inspected by an Asset Inspector. The Asset Inspector submits a Pole Failure Inspection Report that is risk reviewed and recorded in the DM. The annual summary is submitted in RIN supporting references. The annual tally of unassisted pole failures is an important internal and internetwork benchmark for risk comparison, and for identifying dynamics in risk trends in pole failure in the population. • Where an unassisted pole failure is also a staked pole, it is recorded as a staked failure and a pole failure. • For the breakdown of voltages for poles replaced by other drivers for Repex, the voltage has been assumed based on the ratio of other poles.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 2.5 Connections

Table 2.5.2: Cost metrics by connection classification	**Consistency of information with the requirements of the RIN** Information has been presented for connections in accordance with the definitions and requirements of the RIN in that: • TasNetworks has reported expenditure data as gross amounts, and has not subtracted customer contributions from the connections expenditure data • TasNetworks has applied the definitions of complex connections in Appendix F of the RIN to provide guidance on the type of work which is to be reported as connection services for the purposes of Table 2.5.2, as opposed to augmentation (reported under Template 2.3) • Only augmentation expenditure relating to connections provided in response to customer connection requests has been reported in regulatory Template 2.5 • The costs associated with the provision of connection services has been reconciled to the Annual Reporting RIN.
	Source of information • The costs associated with the provision of connection services have been sourced from TasNetworks' financial systems and reconciled to the Annual Reporting RIN. • The volume data reported in Tables 2.5.2 has been sourced from TasNetworks' financial and Works Management systems.
	Methodology and assumptions made ***Financial***

In relation to the provision of connection services, TasNetworks' financial systems does not distinguish between the connection classifications used in Table 2.5.2 (i.e. simple and complex LV or HV connections).

In order to report the costs associated with each type of connection classification stipulated in Table 2.5.2, the total cost of providing connection services in the current reporting period has been apportioned between the classifications in Table 2.5.2 on the basis of unit rates developed specifically for the purposes of weighting the connection volumes reported in Table 2.5.2.

Residential – Complex Connection HV

Number of completed residential connections requiring HV cable/conductor and/or a distribution substation.

Residential – Complex Connection LV

Number of completed residential connections not requiring HV cable/ conductor and/or a distribution substation.

Residential – Simple Connection LV

This is the balance after deducting the values for Complex Connections LV and HV from the total of Residential Underground and Overhead in table 2.5.1.

Commercial/Industrial – Complex Connection HV (Customer connected at HV)

Number of completed commercial/industrial connections by requiring a HV circuit breaker.

Commercial/Industrial – Complex Connection HV (Customer connected at LV,minor HV works)

Assume all "complex connection HV (customer connected at LV)" connections requires upstream work as the work orders cannot differentiate between minor or major works.

Commercial/Industrial – Complex Connection HV (Customer connected at LV,upstream asset works)

Number of completed commercial/industrial connections not requiring a HV circuit breaker. Assumes all connections require upstream asset works.

Commercial/Industrial – Simple Connection LV

This is the balance after deducting all values for Complex Connections HV from the total of Commercial/Industrial Underground and Overhead in table 2.5.1.

Subdivision – Complex connection LV

Number of completed lots that do not require HV cable/conductors.

Subdivision – Complex Connection HV

Number of completed lots that required HV cable/conductors. Assumes all Complex connections HV have upstream asset works.

Embedded Generation – Simple Connection LV

This is the balance after deducting all values for Complex Connections HV from the total of Embedded Generation Underground and Overhead in table 2.5.1.

Embedded Generation – Complex Connection HV (small capacity)

Number of completed embedded generation connections <= 22kV (i.e. HV/LV). Sourced data from SAP with materials incurred against completed work orders that were of the type 'RECLOSER,Auto'.

Embedded Generation – Complex Connection HV (large capacity)

Number of completed embedded geneneration connections > 22 kV (i.e. subtransmission). Sourced data from SAP with materials incurred against completed work orders that were of the typr 'RECLOSER,Auto'.

Use of estimates

No estimates have been used in the collation and presentation of this information.

Template 2.6 Non network expenditure

Table 2.6.4: Information & communications technology – capex by purpose	**Consistency of information with the requirements of the RIN** The information provided in Template 2.6 regarding non network expenditure is consistent with the requirements of the Annual Reporting RIN.
	Source of information TasNetworks financial systems'.
	Methodology and assumptions made Recurrent and non-recurrent ICT expenditure has been split into relevant categories based on assessment of individual projects/programs.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 2.10 Overheads

Table 2.10.1: Network overheads expentiture	**Consistency of information with the requirements of the RIN** Template provided as part of Category Analysis RIN – refer Category Analysis Basis of Preparation.
	Source of information As above
	Methodology and assumptions made As above.
	Use of estimates No estimates have been used in the collation and presentation of this information.
Table 2.10.2: Corporate overheads expenditure	**Consistency of information with the requirements of the RIN** Template provided as part of Category Analysis RIN – refer Category Analysis Basis of Preparation.
	Source of information As above.
	Methodology and assumptions made As above.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 2.11 Labour

Table 2.11.3: Labour	**Consistency of information with the requirements of the RIN** The information provided for labour expenditure is consistent with the requirements of the RIN in that it includes all expenditure used to deliver standard control services that is associated with people.
	Source of information • TasNetworks Financial Systems • TasNetworks Payroll System
	Methodology and assumptions made • Labour expenses have been sourced from TasNetworks' financial system (SAP). • Non-labour costs are sourced from template 8.2 and 8.4 in this RIN.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 8.2 Capex

Table 8.2.7: Immediate expensing of capex	**Consistency of information with the requirements of the RIN** The information provided in Template 8.2 regarding immediate expensing of capex is consistent with the requirements of the Annual Reporting RIN.
	Source of information Tasnetworks did not immediately expense any capital expebditure for income tax purposes in 2020-21.
	Methodology and assumptions made Not applicable.
	Use of estimates Not applicable.

Workbook 3 – STPIS Data

Template 2.10 Overheads

Table 3.6.8: Network feeder reliability	**Consistency of information with the requirements of the RIN** The information provided regarding customer numbers is consistent with the requirements of the Annual Reporting RIN, in that: • TasNetworks has classified its distribution feeders as per the AER's instructions and definitions for feeder categorisation in the AER's STPIS scheme. Sub-transmission feeders have been excluded; • Energy not supplied was calculated using average feeder demand derived from feeder maximum demand and an estimated load factor, divided by the number of customers on the feeder (Economic Benchmarking RIN Table 3.6.2); and • TasNetworks has interpreted excluded events as those specified under clauses 3.3 and 5.4 of the AER's STPIS scheme.
	Source of information The information regarding network feeder reliability has been sourced from the InService and the current period distribution economic benchmarking RIN template and also from GTech (GIS system) for NMI to feeder relationship.
	Methodology and assumptions made • Queries were run from InSights (Inservice source data replicated here for SAIDI and SAIFI calculation) to extract a base data set of outages, customers and distribution transformers for the current reporting period. • All reliability performance indices (SAIDI, SAIFI, and MAIFI) have been calculated using disconnected customers and customer durations as per the AER requirements. ***Feeder ID / Name, Description of the feeder service area, Length of high voltage distribution lines, Feeder kVA*** • Feeder attributes were extracted from SDW including number of customers connected. Feeder customer count is taken as the average number of customers on the feeder throughout the period identified at the time of data extraction. ***Feeder classification*** • Feeder classifications were determined by applying the AER's feeder categorisation rules: ○ Feeders were classified as 'urban' if the maximum demand of the feeder divided by the total length of the feeder was greater than 0.3 MVA/km; ○ Feeders were classified as 'Short Rural' if the maximum demand of the feeder divided by the total length of the feeder was less than or equal to 0.3 MVA/km and the total length of the feeder was less than or equal to 200km; and ○ Feeders were classified as 'Long Rural' if the maximum demand of the feeder divided by the total length of the feeder was less than or equal to 0.3 MVA/km and the total length of the feeder greater than 200 km. • Where there was no maximum demand available for a feeder, the classification was manually assessed based on their location and the classification of other feeders from that substation. ***Number of distribution customers*** A copy of the breakdown of customer numbers by feeder section was obtained from the source data of TasNetworks' Economic Benchmarking RIN response for the current reporting period.

	Maximum demand (MVA), Energy not supplied Feeder maximum demands, unplanned energy not supplied, and planned energy not supplied, were sourced from the same source of information used to report current Economic Benchmarking RIN, *Table 3.6.2 Energy Not Supplied*. ***All unplanned and planned outage information*** Outages were sourced from Inservice. ***All momentary feeder outage information*** No momentary feeder outage information was sourced for this template.
	Use of estimates No estimates have been used in the collation and presentation of this information.
Table 3.6.9: Network feeder reliability – planned outages	**Consistency of information with the requirements of the RIN** The information provided about planned outages is consistent with the requirements of the Annual Reporting RIN, in that: • The information provided includes single premise interruptions; and • Customer numbers used to derive SAIDI and SAIFI is defined as the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period.
	Source of information The reliability indices relating to planned outages reported by TasNetworks draw on data obtained from Inservice.
	Methodology and assumptions made • Reliability performance indices (SAIDI, SAIFI) have been calculated using disconnected customers and customer duration • Outage base data for the regulatory year was extracted from InSights (InService source data replicated here for SAIDI and SAIFI calculation) including, for each outage, customers and distribution transformers, and filtered to remove outages which did not occur on mainland Tasmania (e.g. excluding Bass Strait Islands and unmetered supply (UMS)). • This data was then cleansed to ensure completeness of reliability areas, communities, feeders and customers disconnected. All other outages were manually inspected to identify issues and any missing information. Where a transformer bordered on two reliability areas, the reliability area of highest value was chosen (e.g. urban over high density rural).
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 6.2 Reliability and customer service performance

Table 6.2.1: Unplanned minutes off supply (SAIDI)	**Consistency of information with the requirements of the RIN** The information provided about system reliability in Tables 1 and 2 is consistent with the requirements of the Annual Reporting RIN, in that: • TasNetworks' reliability statistics have been calculated in accordance with the methodology approved by the AER; • The information provided does not include subsequent outages caused by network switching during fault finding; and

Table 6.2.2: Unplanned interruption to supply (SAIFI)	• Customer numbers used to derive SAIDI and SAIFI is defined as the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period.
	Source of information • The SAIDI and SAIFI statistics reported are based on data sourced from InService; • Customer numbers are drawn from a number of sources: SDW, DBill and GenTrack. • NMI to Classification is drawn from GTech (GIS system).
	Methodology and assumptions made ***General*** All reliability performance indices (SAIDI, SAIFI) have been calculated using disconnected customers and customer duration. ***SAIDI & SAIFI*** • Queries were run in InSights (InService source data replicated here for SAIDI and SAIFI calculation) to extract a base data set of outages, outage assets, customers and distribution transformers for the current reporting period; • The outage data was then filtered to exclude any outages for the current reporting period which were not on mainland Tasmania (e.g. outages on Bass Strait Islands and UMS); • This data was then cleansed to ensure completeness of reliability areas, communities, feeders and customers disconnected. All other outages were manually inspected to identify issues and additional/missing information sourced from the asset history data warehouse. Where a transformer bordered on two reliability areas, the reliability area of highest value was chosen e.g. urban over high density rural; • SAIDI and SAIFI impacts on the reliability area and the system were then calculated; • Outages used to calculate the MED threshold for the current reporting period using the 2.5 Beta methodology are taken from the previous five financial years. The daily system SAIDI (with STPIS exclusions applied) for the current reporting period, was calculated and daily SAIDI was compared to the calculated MED threshold to determine which days were MEDs for exclusion; • All events that occurred on MEDs, planned outages and events that meet the STPIS exclusion criteria were excluded from the calculation of SAIDI and SAIFI; and • An extract of base outage data was used to determine reliability area and system SAIDI and SAIFI for the current reporting period. ***Customer numbers*** • A count of NMIs at the beginning and end of financial year was undertaken by reliability area. • Those queries excluded NMIs on the Bass Strait Islands, UMS and NMIs with a status of 'Extinct'. • A small volume of NMIs with unknown reliability areas were redistributed proportionally across the rest of the population of NMIs.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 6.7 STPIS daily performance

Table 6.7.1: Daily performance data	**Consistency of information with the requirements of the RIN** The daily performance data provided is consistent with the requirements of the Annual Reporting RIN, in that: • the number of calls received is the number of calls to TasNetworks' fault line (132004); and

	• the number of calls answered within 30 seconds is the time taken to answer a call, measured from when a call enters the telephone system of the call centre to the moment that the caller speaks with an operator, but excluding the time that the caller is connected to an automated interactive service that provides substantive information.
	Source of information The STPIS customer service information provided was sourced from OpenScape, the call management system used by TasNetworks.
	Methodology and assumptions made ***Customer Service*** Call performance data is extracted on a monthly basis, and includes the date and time of every call received, answered, and its service level.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Template 6.8 STPIS exclusions

Table 6.8.1: STPIS exclusions	**Consistency of information with the requirements of the RIN** The STPIS exclusion outage data provided in Table 6.8 is consistent with the requirements of the Annual Reporting RIN.
	Source of information The exclusion event information reported are based on data sourced from Inservice.
	Methodology and assumptions made • Queries were run on InSights (Inservice source data replicated here for SAIDI and SAIFI calculation) to extract a base data set of outages, outage assets, customers and distribution transformers for the current reporting period; • The outage data was then filtered to exclude any outages for the current reporting period which were not on mainland Tasmania (e.g. outages on Bass Strait Islands and UMS); • All events that meet the STPIS exclusion criteria in the STPIS guidelines 3.3(a) were selected. • There is no event caused by inadequate transmission planning.
	Use of estimates No estimates have been used in the collation and presentation of this information.

Section 2:

All additional information requested by the AER in Schedule 1 of the RIN notice:

- Paragraphs 1.1 (c,e,f,g); and paragraphs 1.2 to 1.7.

1.1(c) Adjustments to statutory accounts

In addition to the completed Financial Information Templates attached at Appendix B to the RIN, TasNetworks is required to provide the AER with information that reconciles and explains adjustments between the Statutory Accounts and the Financial Information Templates, separately listing each adjustment made to derive the information submitted in the financial templates.

TasNetworks has provided the required explanatory material and in doing so specified the amount of each adjustment and described the nature and basis of the adjustment. The adjustments made to TasNetworks' audited statutory accounts in preparing the information presented in the Financial Information Templates are reproduced in the following table.

Journal Number/ Template Number	Account Debited / Account Credited	Income Statement		Balance Sheet	
		Debit	Credit	Debit	Credit
1	Current Assets (Accrued Income)			2,590,558	
1	Income Statement (Distribution Revenue – Standard Control Services)		2,646,191		
1	Income Statement (Distribution Revenue – Metering Services)	55,633			
	Adjustment to exclude Unbilled Use of System accrual from Distribution revenue.				
2	Income Statement (Distribution Revenue – Standard Control Services)		1,718,618		
2	Income Statement (TUOS Revenue – Standard Control Services)		79,016,621		
2	Income Statement (TUOS Expense – Standard Control Services)	80,651,866			
2	Income Statement (Distribution Expense Avoided TUOS – Standard Control Services)	83,373			
	Gross up revenue and exps to reflect TUOS exp previously net off Distribution Income and adjust Standard Control Revenue for difference between transmission TUOS charge and TUOS revenue				
3	Income in Advance			8,425,058	
3	Income Statement (Contributions Revenue)	6,135,269			
3	Income allocated to unregulated (including Transmission related income)	2,289,789			
	Adjustment to reverse deferral of income required under AASB15 and realloc non Distribution revenue				
4	Income Statement (Interest Income)	90,645			
4	Income Statement (not allocated to DB)		90,645		
5	Income Statement (Profit from the Sale of fixed assets)	136,168			
5	Income Statement (Transmission and unregulated)		136,168		

Journal Number/ Template Number	Account Debited / Account Credited	Income Statement		Balance Sheet	
		Debit	Credit	Debit	Credit
6	Income Statement Other Revenue	210,307,104			
6	Income Statement (Transmission and unregulated)		210,307,104		
7	Depreciation not allocated to DB	68,115,794			
7	Depreciation		68,115,794		
8	Finance Charges not allocated to DB	83,999,760			
8	Finance Charges		83,999,760		
9	Other expenses allocated to Transmission / Unregulated	68,544,962			
9	Other expenses		68,544,962		

1.1(e) Regulatory accounting principles and policies

In providing the financial information specified in Schedule 1 of the AER's Regulatory Information Notice, TasNetworks is required to adhere to the principles and requirements set out by the AER in Appendix A of the RIN. The following table records TasNetworks' compliance with the requirements of Appendix A.

Principle		Statement of compliance	Supporting information
1.	**General**		
1.1	(a)	TasNetworks' financial information presented in the RIN templates has been derived from its audited statutory accounts.	• Independent audit opinion
	(b)	The financial information provided by TasNetworks' can be verified with reference to its audited statutory accounts.	• Independent audit opinion
	(c)	TasNetworks' Regulatory Accounting Statements reflect the economic substance of transactions rather than their legal form.	• Independent audit opinion
	(d)	TasNetworks' financial information includes only costs that have been incurred in or relate to the provision of standard control services, alternative control services, negotiated distribution services and unregulated distribution services.	• TasNetworks' regulatory accounts include only costs that have been incurred in or relate to the provision of distribution services that have been allocated to the distribution business and to service segments in accordance with TasNetworks' CAM
	(e)	TasNetworks' financial information has been presented on a fair and consistent basis and reflects only those costs, revenues, assets and liabilities that may be reasonably attributed to TasNetworks.	• Costs, revenue, assets and liabilities have been reported as per TasNetworks' chart of accounts and agree with TasNetworks' audited statutory accounts • Independent audit opinion
	(f)	In so far as is reasonably practicable, TasNetworks' financial information has been prepared in accordance with the general rules and format, and use the accounting principles and policies applicable to TasNetworks' audited statutory accounts, except as otherwise required by the Regulatory Information Notice.	• Independent audit opinion
	(g)	TasNetworks' financial information has been presented in an understandable manner, without compromising relevance or reliability.	• Independent audit opinion
	(h)	TasNetworks' Regulatory Accounting Statements and financial information state fairly the financial position of TasNetworks, as at the conclusion of the current reporting period.	• Independent audit opinion

Principle		Statement of compliance	Supporting information
2.		**Cost allocation to the regulated distribution business**	
2.1		All costs in TasNetworks' audited statutory accounts that relate to or have been incurred in the provision of distribution services have been allocated to TasNetworks in accordance with paragraph 2.3 of Appendix A – Principles and Requirements.	• All costs that relate to or have been incurred in the provision of distribution services have been allocated to TasNetworks in accordance with paragraph 2.3 of Appendix A • Audit opinion and audited statutory accounts
2.2		All costs in TasNetworks' audited statutory accounts that relate to or have been incurred in the provision of distribution services and allocated to TasNetworks as per principle 2.1 have been allocated to a standard control service, alternative control service, negotiated distribution service or unregulated distribution service.	• All costs relating to or incurred in the provision of distribution services have been allocated to categories of distribution services in accordance with TasNetworks' approved CAM • Independent audit opinion
2.3	(a)	All costs allocated to TasNetworks under requirement 2.1 that are directly attributable to TasNetworks have been allocated to TasNetworks.	• All costs relating to or incurred in the provision of distribution services that are directly attributable to TasNetworks' Distribution Business have been allocated in accordance with TasNetworks' approved CAM
	(b)	All costs allocated to TasNetworks under requirement 2.1 that are not directly attributable to TasNetworks have been allocated to TasNetworks on a causation basis using an appropriate allocator (determined in accordance with Schedule 1 of the RIN), unless the item is not material.	• All costs relating to or incurred in the provision of distribution services that are not directly attributable to the distribution business have been allocated in accordance with TasNetworks' approved CAM
	(c)	All costs allocated to TasNetworks under requirement 2.1 that are directly attributable to TasNetworks but not directly attributable to a *standard control service*, *alternative control service*, *negotiated distribution service* or *unregulated distribution service* have been allocated across distribution services in accordance with TasNetworks' approved Cost Allocation Method.	• All costs allocated to TasNetworks' Distribution Business that are directly attributable to the Distribution Business but not a category of distribution service have been allocated to asset categories in accordance with TasNetworks' approved CAM
	(d)	All fixed asset costs have been allocated to an Asset Category on either a directly attributable basis or a causal basis using appropriate allocators.	• Distribution fixed assets costs have been allocated to TasNetworks' Distribution Business either directly or on a causation basis in accordance with TasNetworks' approved CAM
	(e)	All operating and maintenance costs have been allocated to an Activity Area/cost category on either a directly attributable basis, or a causation basis using an appropriate allocator.	• Operating or maintenance costs allocated to a cost category on a directly attributable or causation basis have been allocated using the allocators set out in TasNetworks' CAM

Principle	Statement of compliance	Supporting information
3.	**Capital contributions**	
3.1	Customer capital contributions have been treated by TasNetworks in accordance with the method approved in the AER's current Distribution Determination.	• Capital contributions have been recognised in line with TasNetworks' Customer Capital Contributions policy
4.	**Regulatory Asset Base**	
4.1	No asset revaluations or adjustments for impairment have been made that have not been agreed to or required by the AER.	• Any asset revaluations and adjustments for impairment made in TasNetworks' audited statutory accounts have been reflected in TasNetworks' regulatory accounts
4.2	No asset revaluations or adjustments for impairment made in TasNetworks' audited statutory accounts have been reflected in TasNetworks' Financial Information templates.	• In the case of grid assets, TasNetworks' accounting policies require statutory asset values to align with regulatory asset values • Therefore, asset revaluations and adjustments for impairment made in TasNetworks' audited statutory accounts (see metering asset impairment referenced in relation to Principle 5.2) have been reflected in TasNetworks' regulatory accounts
4.3	Capital works expenditure has been allocated to the relevant asset categories and has not been shown as work-in-progress, and all expenditure on capital works has been allocated to an asset category.	• Capital work in progress has been included as part of capital additions based on an "as incurred" methodology • Capital additions have been allocated to asset categories and the value of those additions aligned with TasNetworks' audited financial statements • Independent audit opinion
4.4	Goodwill and any related impairments have not been included in the Financial Information templates.	• Goodwill and impairment of assets have not been allocated to TasNetworks' Distribution Business
5.	**Avoided cost payments**	
5.1	All avoided cost payments made by TasNetworks to embedded generators relating to the deferral of augmentation of TasNetworks' distribution network and the transmission network in Tasmania have been disclosed.	
6.	**Regulatory accounting principles and policies**	
6.1	TasNetworks' regulatory accounting principles and policies are based on a recognisable and rational economic basis, and conform to the measurement principles of the Australian Accounting Standards.	• Overheads have been allocated to services based on TasNetworks' approved CAM

Principle	Statement of compliance	Supporting information
7.	**Basis of preparation**	
	For all information in the financial information templates, as well as the non-financial information templates, TasNetworks has explained in a separate document the basis on which the information was prepared, and this explanatory material has been made available for the purposes of audit and review.	• BoPs have been provided to auditors and the AER
8.	**Forecasts from the current Distribution Determination**	
8.1	Forecasts from the current Distribution Determination have been adjusted to the same dollar terms as the actual data reported in the financial information templates.	• Independent audit opinion
8.2	Capital, maintenance and operating expenditure forecasts have been reported in nominal dollars from the current Distribution Determination.	• Independent audit opinion
8.3	Financial forecasts have been deflated by removing the impact of the inflation forecast by the AER in the current Distribution Determination and reinflated on the basis of actual inflation outcomes.	• Independent audit opinion

1.1(f) Capitalisation policy

There were no changes in the capitalisation policy from the previous regulatory year.

1.1(g) Overhead allocation under Cost Allocation Method

TasNetworks is required to provide a statement of the policy applied in the current reporting period for determining the allocation of overheads to service segments in accordance with the CAM approved by the AER.

Overheads have been allocated to service segments in accordance with the approved CAM. The CAM encompasses both the method and policy for the allocation of costs.

1.2 Material changes in regulatory accounting principles and policies

There were no material changes in regulatory accounting principles and policies made in the current reporting period.

1.3 Material changes in allocation of overheads

No material changes in the allocation of overheads were made in the current reporting period.

1.4 Previously provided policies

Information requested in Schedule 1, paragraph 1.1 (e), (f) and (g) has been previously provided.

1.5 Differences between actuals and forecasts (inc. 1.6 Explanation of differences)

For each of the items listed in the following table, TasNetworks is required to identify any differences of greater than or equal to ±10 per cent between the amounts reported in the Financial Information Templates and the corresponding amounts provided for by the AER in the current Distribution Determination, and provide details of the operational activities and/or drivers that caused each material difference.

Item	Forecast $'000 nominal	Actual $'000 nominal	Variance	Explanatory information
1.5(a) Total operating expenditure[1]	91,063	90,510	-0.61%	• Operating expenditure variances from forecasts are detailed in *Template 8.4. Opex* Table 8.4.1. Material differences between forecast and actual expenditure are explained in Table 8.4.3.
1.5(b) Total capital expenditure[2]	143,179	152,274	6.4%	• Capital expenditure variances are detailed in Table 8.2.1 of *Template 8.2 Capex*, with material differences between forecast and actual expenditure explained in Table 8.2.2 (Material difference explanation).

Notes to table

1,2 Applies to Standard control services only.

1.7 Differences between STPIS targets and actual performance (inc. 1.8 Explanation of differences)

Following is an explanation of any material differences between the target performance measures specified by the AER under the Service Target Performance Incentive Scheme (STPIS)[1] and TasNetworks' actual performance in 2020-21.

The supply reliability categories used in the following tables are as defined in the Tasmanian Electricity Code and the performance targets are as per the Australian Energy Regulator's final determination of the SAIDI and SAIFI targets for TasNetworks' STPIS[2].

Supply reliability category	Reliability Index	Target	Actual	Variance	Explanation
Critical infrastructure	SAIFI	*0.25*	*0.17*	*0.08*	• *The Critical Infrastructure supply reliability category recorded a lower SAIDI and SAIFI than their respective target values.*
	SAIDI	*32.98*	*11.12*	*21.86*	
High density commercial	SAIFI	*0.26*	*0.26*	*0.0*	• *The High Density Commercial supply reliability category recorded a SAIFI that was equal to the target value.* • *The High Density Commercial supply reliability category recorded a higher SAIDI that was higher to the target. The major contributor was due to equipment causes which contributed 71% of the target value.*
	SAIDI	*20.07*	*41.62*	*-21.55*	
Urban	SAIFI	*1.08*	*1.04*	*0.04*	• *The Urban supply reliability category recorded lower SAIDI and SAIFI than their respective target values.*
	SAIDI	*89.66*	*84.07*	*5.59*	
High density rural	SAIFI	*2.47*	*2.30*	*0.17*	• *The High Density Rural supply reliability category recorded lower SAIDI and SAIFI than their respective target values.*
	SAIDI	250.96	242.94	8.02	

1 Australian Energy Regulator, *Electricity distribution network service providers Service target performance incentive scheme*, November 2009.

2 AER - Final decision - TasNetworks distribution determination 2019-24 - Attachment 10 - Service target performance incentive scheme - April 2019.

Supply reliability category	Reliability Index	Target	Actual	Variance	Explanation
Low density rural	SAIFI	3.22	2.73	0.49	• The Low Density Rural supply reliability category recorded a lower SAIDI and SAIFI than their respective target values.
	SAIDI	400.4	368.19	32.21	

Section 3:

All additional information requested by the AER in Schedule 1 of the RIN notice:

- Paragraphs 2-13.

2. Compliance

2.1 Classification of distribution services

The following is an explanation of the procedures and processes used by TasNetworks to ensure that its distribution services have been classified as set out by the AER in the current Distribution Determination.

Cost capture and financial management systems
TasNetworks' chart of accounts and costing systems have been established so that both operating expenditure and capital expenditure can be separately accounted for and reported in accordance with TasNetworks' AER approved CAM and regulatory reporting requirements.

In accordance with the AER Guidelines and the Rules provisions, TasNetworks commits to the CAM. TasNetworks' principles, processes and policies all support compliance with the CAM. This includes the processes of attributing costs directly and of allocating shared costs to categories of service.

TasNetworks' cost allocation principles and policies consider the direct allocation of costs to:

- Prescribed transmission services
- Negotiated transmission services
- Non-regulated transmission services
- Standard control distribution services
- Alternative control distribution services
- Negotiated distribution services
- Unregulated or unclassified services

Costs that are not directly allocated to one particular service type (e.g. most corporate overheads) are subject to a shared allocation of costs between the following:

- Prescribed transmission services
- Negotiated transmission services
- Non-regulated transmission services
- Standard control distribution services
- Alternative control distribution services
- Negotiated distribution services
- Unregulated or unclassified services

The chart of accounts structure enables costs to be attributed directly to the categories of services provided by TasNetworks, or automatically allocates costs between them.

When costs are incurred they are allocated to the following chart of account dimensions in the financial systems:

- responsibility centre/department/cost centre - defined as the area in the business that is responsible for the work performed;

- functional area - defined as the nature of the work being performed and is also used to identify between capital and operating expenditure as well as the type of work and associated service classification (work category); and
- cost element/General Ledger code - defined as the nature of the costs incurred such as labour or contracted services.

The above dimensions form the basis of the cost hierarchy. Each dimension is assigned to a service classification. By establishing a clear relationship between dimensions and the categories of services, the financial systems ensure that costs are correctly attributed to the relevant service.

TasNetworks has 3 main types of costs:

- directly allocated or attributable costs (such as timesheet labour, materials, fleet or direct coding to cost number or via journal such as licences fees, invoices for contracted services etc.);
- on costs for labour, materials and fleet; and
- shared costs (allocated on the basis of causal cost allocators).

Registration of project cost numbers and approval process
Projects are required to be approved in accordance with TasNetworks gated investment framework. The gated investment governance framework (framework) is TasNetworks' governing document for the management and control of capital and operational investments. The framework ensures that TasNetworks expenditure program is managed to ensure the most effective and efficient use of capital and operating funds it has available. The framework forms part of TasNetworks' broader governance framework for the management of business risks. Expenditure must be approved in line with the approved delegations framework.

Reporting and monitoring of costs
Finance distributes monthly reports to management and the Board, outlining the costs incurred against each service classification (work category). An analytical review of the costs is undertaken and any anomalies are investigated (e.g. if any incorrect allocations of costs are identified).

TasNetworks has established a governance committee which consists of senior management from across the business. The gated investment governance process framework is TasNetworks' governing procedure for the management and control of capital and operational expenditure. The committee meets monthly to provide commercial oversight of expenditure on TasNetworks' program of work, and monitor spending in accordance with the AER's service classifications. It provides a forum to discuss future and current commercial and technical aspects of the business' investment decisions.

Quarterly expenditure reset/reforecast
TasNetworks undertakes a detailed review of expenditure incurred against each service classification as part of the quarterly expenditure re-forecasting process. The purpose of this process is to re-forecast the expected end of financial year expenditure. This process engages stakeholders across the business and provides an opportunity for detailed review and interrogation of the expenditure. This process provides comfort that costs are being captured in the financial systems and reported against service classifications as appropriate.

Cost allocation methodology
TasNetworks ensures compliance with the AER approved CAM, which sets out the methodology for allocating overheads to the different service classification types as determined by the AER. For each different overhead cost allocation pool the process undertaken to ensure allocation of overheads is in accordance with the CAM.

A final review was undertaken at the end of the current reporting period to ensure that the allocation of costs to each service classification was in accordance with the AER approved CAM.

2.2 Application of negotiated distribution service criteria

As part of its response to the Annual Reporting RIN for the current reporting period, TasNetworks is required to document the procedures and processes used to ensure that the negotiated distribution service criteria, as set out in the AER's current Distribution Determination, have been applied when determining prices for negotiated distribution services.

During the current Regulatory Control Period, TasNetworks has no negotiated distribution services.

2.3 Identification of negative change events

TasNetworks' annual revenue cap sets the amount of revenue we can collect from our customers in relation to the provision of distribution network services. The revenue cap for each regulatory year may include a pass through for the unforeseen costs or savings that arise from the occurrence of certain change events that have previously been defined as pass through events by the AER. Negative pass through events are change events that result in TasNetworks realising savings in the costs of providing direct control services. Under Chapter 6 of the Rules, TasNetworks is required to submit written notification to the AER of a negative change event within 90 business days of becoming aware of the occurrence of such an event.

There were no negative change events in the current reporting period.

3. Cost allocation to the distribution business

All costs recorded in TasNetworks' audited statutory accounts that relate to or are incurred by TasNetworks in the provision of distribution services must be allocated to TasNetworks in its capacity as a regulated distribution business, for the purposes of the Regulatory Accounting Statements submitted by TasNetworks in response to the RIN.

3.1(a) Costs allocated on a causation basis

TasNetworks is required to identify items in its Regulatory Accounting Statements that, for the current reporting period, have been allocated to its distribution business (excluding unregulated services) on a causation basis, rather than a directly attributable basis, and explain the basis on which this was done.

Item 3.1(a): Costs allocated on a causal, rather than direct basis			
Cost item	**3.2(a) Amount**	**3.2(b) Allocation method & rationale**	**3.2(c) Allocator(s)**
People & Performance	$11,897,380	The costs associated with TasNetworks' People and Performance Division (which provides HR strategy, change management, HR policies, industrial relations, recruitment, performance management systems, learning and development, HR advice and support, and payroll and timekeeping across the corporation) are allocated to TasNetworks' Distribution Business on the basis of employee numbers. The number of FTEs working in each division was chosen as the allocator for People and Performance costs on the basis that it reflects the amount of effort that the People and Performance Division would reasonably put into providing services to each division and the use of the relevant services by each division.	Allocated on the basis of FTE head count
Information Technology	$14,081,211	The allocation to services on the basis of applicable causal drivers including IT applications, PCs and mobile devices reflects the strong causal link between the number of TasNetworks people who use PCs and the work load and direct cost to deliver information technology to the business.	Allocated to departments on the basis of applicable causal drivers including IT applications, PCs and mobile devices.
Facilities Management	$134,267	The costs of operating and managing all owned and leased sites occupied by TasNetworks employees is allocated between TasNetworks' services through ABC surveys which have an underlying basis of the drivers of costs such as staff effort, floor space occupied, location and type and nature of facility.	Allocated on the basis of ABC surveys using estimated staff effort and applicable facility drivers.

Item 3.1(a): Costs allocated on a causal, rather than direct basis			
Cost item	**3.2(a) Amount**	**3.2(b) Allocation method & rationale**	**3.2(c) Allocator(s)**
Compliance and Risk	$383,926 Insurance moved to its own CC	The costs associated with TasNetworks' centralised compliance and risk functions (including Insurance) are shared between TasNetworks' services on the basis of ABC surveys using estimated staff effort where a line of sight exists between cost and service, Insurance premiums are allocated on the basis of asset values and the balance allocated on weighted average basis.	Allocated on the basis of ABC surveys using estimated staff effort where a line of sight exists between cost and service, with the balance allocated on weighted average Insurance premiums are allocated on the basis of asset values
Regulation and Revenue Reset	$2,726,939	The costs associated with regulation and revenue reset is shared between TasNetworks' services on the basis of the ABC surveys using estimated staff effort.	Allocated on the basis of ABC surveys using estimated staff effort.
Customer Engagement & Network Operations Division	$5,076,238	The costs associated with (the 15 departments) Customer Engagement and network operations Division - the management of network operations, large customer and market relationships, retailer management, the Customer Contact Centre, billing enquiries and dispute resolution, and telecommunications asset, network and customer management is shared between TasNetworks' services on the basis of the ABC surveys using estimated staff effort	Allocated on the basis of ABC surveys using estimated staff effort.
Strategic Asset Management Division	$8,919,105	The costs associated with (the 11 departments) Strategic Asset Management Division – the management of asset strategy and planning, network analysis and planning is shared between TasNetworks' services on the basis of the ABC surveys using estimated staff effort.	Allocated on the basis of ABC surveys using estimated staff effort.
Works and Service Delivery Management Costs	$35,027,705	Works and Service Delivery Management Costs include those costs relating to the management, planning, operating and monitoring the works program. This includes a portion of non-productive time for field based employees (down time to attend meetings and undertake administrative tasks). Costs are allocated to the Distribution and then down to service category level on the basis of direct labour hours.	Allocated based on labour hours

3.1(b) Costs allocated other than on a direct or causation basis

TasNetworks is required to identify those items in its Regulatory Accounting Statements for the current reporting period that were not allocated to its distribution business on a direct basis, and were also unable to be allocated on a causation basis. For each item identified, TasNetworks is required to explain the reasons why causal allocation could not be applied, indicate the materiality of the amount in question, and the means by which the cost was actually allocated.

Item 3.1(b): Costs allocated other than on a causal or direct basis				
Cost item	**3.3(a) Amount**	**3.3(b) Materiality**	**3.2(c) Allocation method & rationale**	**3.2(d) Reasons for non-causal allocation**
Office of the CEO and Board, Company Secretary and General Counsel, Strategy and Stakeholder relations, Information Management, Contracts, Financial Analysis and Reporting Group, Fleet Services	$11,016,519	Office of the CEO, Corp Secretary, Finance and Strategy and Stakeholder relations costs are deemed to be immaterial on the basis that the allocation is less than 10% of the total cost allocation to the Distribution Business.	The costs associated with centralised management and the provision of administrative support for TasNetworks' are allocated between services on the basis of the weighted average of the total cost allocations that have a direct or causal driver.	While shared services costs are allocated between divisions using causal cost drivers, reflecting the generally variable nature of these costs, corporate costs are allocated using non-causal cost drivers because of the generally fixed nature of these costs, and the fact that they tend to be driven by corporate governance requirements rather than business activity. The weighted average of the total cost allocations that have a causality driver is an effective non-causal allocator of corporate costs because it leverages causal allocators and is based on sound causal data, which is in turn underpinned by reliable and objective data sources.

4. Cost allocation to service segments

All costs relating to or incurred in the provision of distribution services and allocated to TasNetworks' distribution business in the current reporting period are required to be allocated to a service segment.[3] All costs allocated from the distribution business to a service segment must are allocated in accordance with the cost allocation methodology approved by the AER.

Tables 3.1 (a) and 3.1(b) detail those costs which are allocated to service segments on a causation basis and those not allocated via a causation basis, the method and the materiality level as applicable to those costs.

5. Capitalisation policy

There were no changes in the capitalisation policy from the previous regulatory year.

6. Demand Management Incentive Scheme Compliance Report

6.1. Introduction

This section has been prepared to satisfy the requirement for TasNetworks to submit a Demand Management Incentive Scheme (**DMIS**) Compliance Report to the Australian Energy Regulator (**AER**) in accordance with Section 2.4 of the AER's Demand Management Incentive Scheme for electricity distribution network service providers 2017. TasNetworks, as part of the AER's "TasNetworks Transmission and Distribution Determination, 2019 to 2024" has accepted the new changes proposed for DMIS.

The DMIS objective is to provide distributors with an incentive to undertake efficient expenditure on relevant non-network options relating to demand management (the scheme objective).

The annual report must include two parts—Part A and Part B. Part A includes information on **committed projects** and Part B contains information on projects that TasNetworks has identified as **eligible projects**.

Tasnetworks is required to report on:

- For each **committed project**:
  a. The volume of demand management delivered,
  b. An estimate of the realised benefits, and
  c. The total incentive to be claimed.

- For each **eligible project** identified as a preferred option:
  a. The present value of costs and benefits,
  b. A description of responses to the **request for demand management solutions**
     i. Description of proposal,
     ii. Proposed costs and deliverables,
     iii. For a potential credible solution, an estimate of the project's net benefit.
     c. If the project is to proceed as a committed project, whether the project will occur via a demand management contract or via a demand management proposal.
  d. The expected costs of delivering the demand management solution.
  e. The kVA per year of network demand able to be called upon, influenced, dispatched or controlled.

[3] Service segment refers to standard control services, alternative control services and negotiated services.

- Any projects where a decision has been made to defer or not proceed with an eligible project that previously (either in 2020-21 or in previous years) was to proceed as a committed project, and

- Any projects where a decision has been made to proceed with a network option to meet an identified need that previously was to proceed as a committed project.

This submission lists all DMIS projects undertaken by TasNetworks during the 2020 – 2021 financial year.

6.2 Reporting

6.2.1 DMIS Projects in 2020-2021

There were zero (0) committed demand management projects and zero (0) eligible demand management project under development in 2020/2021.

6.2.2 Compliance with DMIS

This report has been written in accordance with Section 2.4 of the AER Demand Management Incentive Scheme (December 2017).

6.2.3 Demand Management project selection criteria

To determine the validity of a project for DMIS use a NPV based assessement is used to determine whether a demand management solution can reduce demand and/or defer network investment as part of its network planning processes. This allows all relevant costs and benefits for both preferred network solutions as well as various demand management deferral options to be quantively assessed.

For the network options these costs and benefits include:

- The expected capital costs of the preferred network option;
- The expected benefits of implementing the preferred network solution which include associated costs with:
    - Avoided supply interuptions to customers (unserved energy);
    - Avoided maintenance of aged network assets;
    - Avoided environmental impact; and
    - Avoided safety risk.

For the various demand management deferral options these cost and benefits include:

- The time-value-of-money benefit associated with deferring the network option;
- The avoided unserved energy for a given quantum of demand reductions;
- The expected costs of delivering demand reductions; and
- An options value benift.

Based on the NPV assessment, a demand management project is considered feasible if the expected available budget exceeds the expected cost of delivering the demand management project.

6.3 PART A – Committed Projects

There were zero (0) committed demand management projects in the 2020 – 2021 financial year.

6.4 PART B – Eligible Projects

There were no committed demand management projects in the 2020 – 2021 financial year.

6.5 Demand Management Projects That Have Changed

There were no changed demand management projects in the 2020 – 2021 financial year.

7. Demand Management Innovation Allowance Mechanism

This submission has been prepared under the Demand Management Innovation Allowance (DMIA) scheme applied to TasNetworks by the Australian Energy Regulator (AER).

Under Section 2.3 of the AER's final determination for The Demand Management Innovation Allowance Mechanism, Dec 2017, TasNetworks is required to submit an annual report on expenditure under the DMIA for each regulatory year.

The annual report must include:

1. the amount of the allowance spent by the distributor;
2. a list and description of each eligible project on which the allowance was spent;
3. a summary of how and why each eligible project complies with the project criteria;
4. For each eligible project on which the allowance was spent, and in a form that is capable of being published separately for each individual eligible project, a project specific report that identifies and describes:
    a. The nature and scope of the eligible project;
    b. The aims and expectations of the eligible project;
    c. How and why the eligible project complies with the project criteria;
    d. The distributor's implementation approach for the eligible project;
    e. The distributor's outcome measurement and evaluation approach for the eligible project;
    f. The costs of the eligible project:
        i. incurred by the distributor to date as at the end of that regulatory year;
        ii. incurred by the distributor in that regulatory year; and
        iii. expected to be incurred by the distributor in total over the duration of the eligible project.
    g. For ongoing eligible projects:
        i. a summary of project activity to date;
        ii. an update of any material changes to the project in that regulatory year; and
        iii. reporting of collected results (where available).
    h. for eligible projects completed in that regulatory year:
        i. reporting of the quantitative results of the project;
        ii. an analysis of the results; and
        iii. a description of how the results of the eligible project will inform future demand management projects, including any lessons learnt about what demand management projects or techniques (either generally or in specific circumstances) are unlikely to form technically or economically viable non-network options.

i. any other information required to enable an informed reader to understand, evaluate, and potentially reproduce the demand management approach of the eligible project.

5. Where an eligible project has extended across more than one regulatory year of the regulatory control period, details of the actual expenditure on each such project or program in each regulatory year of the regulatory control period to date.
6. A statutory declaration signed by an officer of the distributor delegated by the chief executive officer of the distributor, certifying that the costs being claimed for each demand management project:
    a. are not recoverable under any other jurisdictional incentive scheme;
    b. are not be recoverable under any state or Australian Government scheme; and
    c. are not otherwise included in forecast capital expenditure or operating expenditure approved in the AER's distribution determination for the regulatory control period under which the mechanism applies, or under any other incentive scheme in that distribution determination.
7. Each of the projects in the DMIA submission is defined as an 'eligible project' based upon the following criteria listed under Section 2.2.1. of the AER's final determination for The Demand Management Incentive Scheme, Dec 2017.
8. An eligible project must:
9. be a project or program for researching, developing or implementing demand management capability or capacity; and
10. be innovative, in that the project or program:
    a. is based on new or original concepts; or
    b. involves technology or techniques that differ from those previously implemented or used in the relevant market; or
    c. is focused on customers in a market segment that significantly differs, from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect demand; and
11. have the potential, if proved viable, to reduce long term network costs

Accordingly, this submission details DMIA projects undertaken by TasNetworks in the 2020/21 financial year.

7.1 Governance

7.1.1 DMIA spending in 2020/21

There were **one** (1) new projects and **zero** (0) ongoing DMIA projects under implementation or development for which TasNetworks incurred costs in 2020/21.

TasNetwork's submission identifies claimable costs incurred **totalling $0**.

7.1.2 Compliance with DMIA Criteria

Information addressing items Section 2.3 of the AER's final determination for The Demand Management Innovations Allowance Mechanism, Dec 2017 can be found in the sections below.

7.1.3 Project selection process

When opportunities are identified for new projects, TasNetworks uses the following methodology when assessing projects for funding under the DMIA allowance:

Concept Stage: For new concepts, approval for project research and development is carried out by the Future Networks Team Leader, Future Networks who ensures that the proposed project meets the funding criteria specified under the DMIA Scheme. This component of the project is defined as a Conceptual Project.

Development Stage: Where early stage research and development indicates a potential viable demand reduction solution, the project is approved to proceed to the Development Stage where a project proposal for a full trial is prepared. Approval to proceed to Developmental Stage is by the Future Networks Team Leader, Future Networks.

Delivery Stage: The project proposal is reviewed by the Future Networks Team Leader, Future Networks to ensure it meets the funding criteria specified under the DMIA Scheme and checks are also made to ensure that budget projects costs are within the DMIA allowance. After consideration of the available DMIA budget, proposed projects will be selected for inclusion in the DMIA program and recommended for authorisation at the appropriate delegation level.

7.2 Statement on costs

In submitting this program for inclusion in the DMIA Scheme, TasNetworks confirms that the program costs:

- are not recoverable under any other jurisdictional incentive scheme;
- are not be recoverable under any state or Australian Government scheme; and
- are not otherwise included in forecast capital expenditure or operating expenditure approved in the AER's distribution determination for the regulatory control period under which the mechanism applies, or under any other incentive scheme in that distribution determination.

7.3 DMIA Project Summary

Projects	2020/2021 Actual Costs (exc GST)	Year Initiated
New Projects (initiated 20/21)		
Dynamic EV Charging Trial	$180,343.87	2020
New Project Sub-Total	$0	
Existing Projects (expenditure in 2020/21 and initiated prior)		
Existing Project Sub-Total	$0	
TOTAL	$180,343.87	

7.4 New Projects

7.4.1 Dynamic EV Charging Trial

EV charging or transport electrification has the potential to improve electricity network efficiency by increasing network energy throughput (the amount of energy transported through the network of poles and wires) leading to a reduction in network charges ($ per kWh) to all customers, but the benefit can only be realised if no/limited additional asset investment is required to enable EV charging. If not managed efficiently, even non-EV owners will bear the burden of the additional electricity required to charge EVs in terms of network infrastructure augmentation and addition of fossil fuel peaking plants to manage the peak demand. Residential EV impact study undertaken by Future Networks identified potential network augmentation costs in range of $4.3m – $7.3m with every 10% increase in EV penetration in no intervention scenario, this cost can be reduced to $0.7m-$1.2m with dynamic EV charging or orchestration.

7.4.2 Project nature and scope

This project is focused on understanding the technology and customer EV charging preferences in orchestrating this new form of DER (distributed energy resources). The most unique value of this project is its co-funded by ARENA, participation by multi DNSPs including Jemena, AusNet, United Energy, Evo Energy, and TasNetworks so

project will contribute to collective learning of multiple DNSPs and industry, and project will test future scenario where network capacity is monitored in real time and EV charging is managed dynamically to get the best outcome for the networks and customers.

Insights from project will be fed to the retailers and aggregators to further stake energy market value stream for the customers.

This project will remove barriers unique to the transmission and distribution networks, will facilitate EV uptake for customers and a reduction in the electricity network charges for all customers in Tasmania.

7.4.3 Project aims and expectations

The project aims to determine ways to optimise and defer network asset augmentation required as a result of EV uptake and offer a smoother pathway for all customers.

The project has three main objectives:

Understand what and when spare capacity is available in the network and how the spare capacity can be used to charge EV in a manner that satisfies both customer and network needs

Understand customer preferences and participation in such initiatives

Understand what incremental investment is required after spare network capacity is fully utilised

This is an ARENA funded project put forward as a joint proposal from five DNSPs and its proposal for ARENA funding is led by Jemena Electricity Networks, ARENA will cover half of the expenditure of each of the participating DNSPs

7.4.4 How and Why Project Complies with Project Criteria

The Dynamic EV Charging Trial is a project for researching, developing or implementing demand management capability or capacity especially in determining network capabilities in regards to customers expectations with EV charging. It is innovative using emerging technologies such as LV Monitoring and simulation tools to provide a solution to EV integration. By making these learnings it can reduce long term network costs by minimising augmentation costs.

7.4.5 Implementation approach

The project will be spread over three calendar years (CY 20, 21 and 22) and will have the following milestones:

Milestone 1

DNSPS will develop the detailed scope and design of the project. As the design progresses, the key material and services requirement will be identified and detailed specifications will be developed. It is more of refining costs particularly for the hardware-smart charger, control box etc. This stage will require some strategic decisions to be made on scoping, and design in consultation with all partners. A couple of OEMs will also be invited to provide input .A trial participant strategy will be developed during this time.

Deliverables – Completion of the design

Milestone 2 – Smart Charging Platform development

Development works related to the smart charging such as control box, Tesla API integration, aggregators platform JetCharge (ChargeFox), user interface, API integration with the DNSP side platform and optimisation engine will be completed by JetCharge. DNSPs will develop required platform to integrate with their internal systems as well as with the Charge Fox platform.

Deliverables – Fully tested hardware and software

Milestone 3- Customer recruitment

This is the most critical aspect of the trial given the low number of EVs hence will require concerted efforts from all DNSPs, JET Charge and other associates. A robust marketing plan will be developed to guide the process. This will continue until the end of the year.

Deliverables – Required number of EV owners recruited for the trial

Milestone 4 – Installations and testing

This involves installing the charging equipment at homes and distribution transformer monitoring systems on the Networks within DNSP's areas. The installation is expected to be staggered as the installation process will continue to be refined based on the lessons learnt as the installation progresses.

Deliverables – Onsite installation of the equipment at home and on Networks.

Milestone 5 – Dynamic charging field trials

A 12 month trial period is allocated to run variety of demand response trials offering variety of incentives in five DNSP's areas.

Deliverables – Successful completion of the field trial as per the plan.

Milestone 6 – Analysis and knowledge sharing

DNSPs will collect the data and perform the analysis to underpin the evaluation of the trial.

Deliverables – Knowledge sharing activities.

7.4.6 Results

Key updates from the project so far –

- Project scope and design – Complete
- Smart Charging platform development by JET Charge – Complete
- Customer recruitment and on boarding for TasNetworks – Complete
- DNSP platform development and smart charger installation – In progress

7.4.7 Implementation costs of the project

The costs of the eligible project incurred by the distributor to date as at the end of that regulatory year and incurred by the distributor in that regulatory year is as follows:

Budget Item	2020/21 Actual	Total Actual
Project research and development	$0	$0
Project Delivery	$0	$0
Total (excl GST)	$0	$0

The costs of the eligible project expected to be incurred by the distributor in total over the duration of the eligible project is as follows:

Annual Budget	Yr 1 20/21 ($M)	Yr 2 21/22 ($M)	Total ($M)
Internal Labour (Incl. CAM)	0.293	0.036	0.329
Procure Sub/contractor (Incl. CAM)	0.054	0.077	0.131
ARENA Reimbursement	-0.161	-0.052	-0.213

TasNetworks Contribution (Incl. CAM)	0.185	0.06	0.246
Direct Cost Total	0.347	0.113	0.46

7.4.8 Project Progress & identifiable benefits

Key Deliverables	Start Date	End Date
Finalising agreements-Partners and ARENA	1 May 2020	31 December 2020
Pilot design: Marketing plans, test plans including hardware/ Software specifications, Knowledge Sharing plan.	1 May 2020	31 December 2020
Smart Charging Platform Development	1 January 2021	31 May 2021
Customer recruitment (existing EV owners and through point of sales)	1 January 2021	31 May 2021
Hardware installations and testing- Smart charging infrastructure with Network Sensors	1 June 2021	30 November 2021
Dynamic charging field trials	1 December 2021	31 May 2022
Analysis, final report and knowledge sharing	1 June 2022	30 November 2022

7.5 Existing Projects

There are no existing projects.

8. Tax standard lives

All tax standard asset lives applied to asset classes are the same as those contained in the PTRM approved by the AER in the 2019-24 Distribution Determination.

9. Tax Reporting – Immediate Expensing

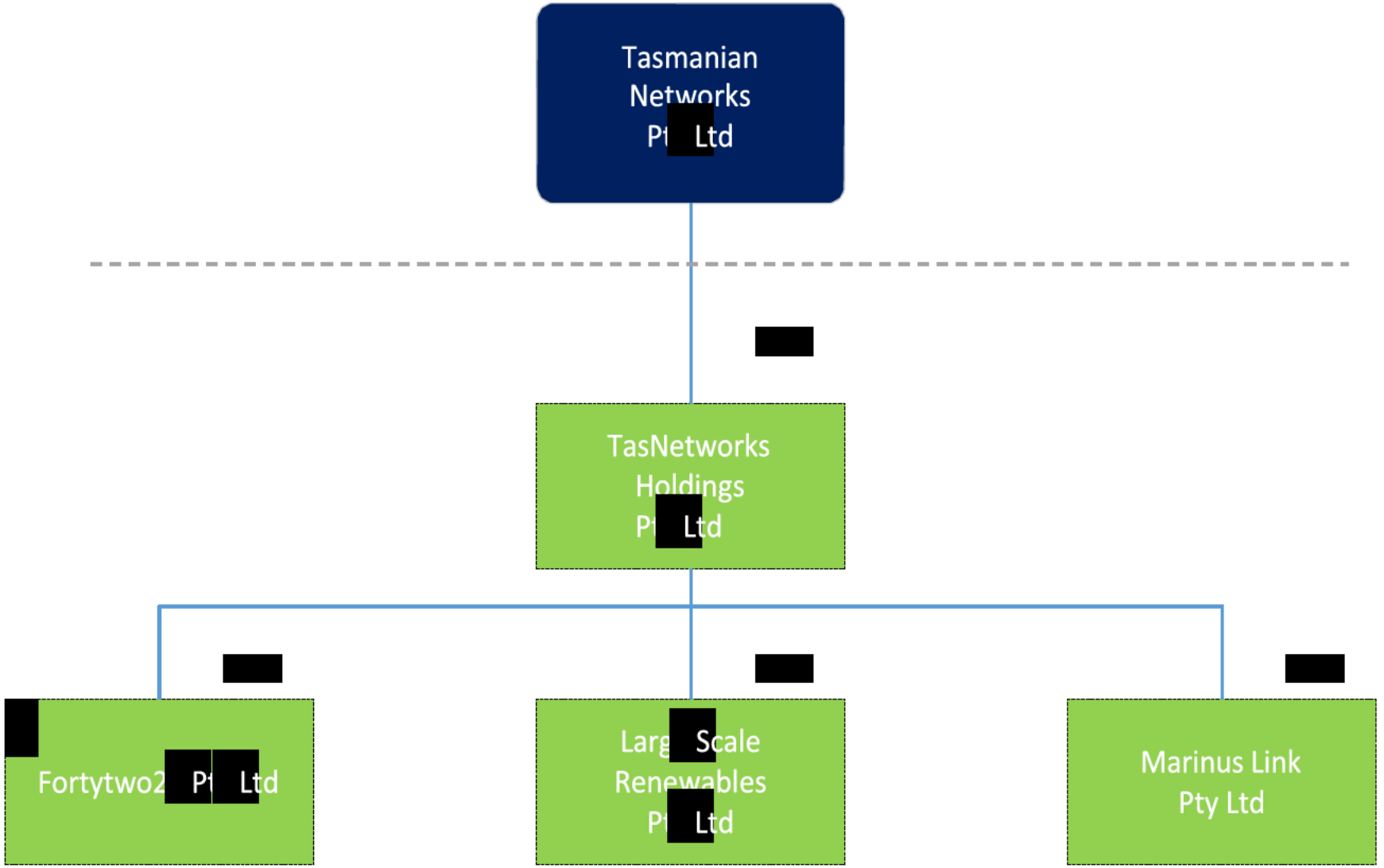
Tasnetworks did not immediately expense any capital expebditure for income tax purposes in 2020-21.

10. Regulatory Investment Test Expenditure

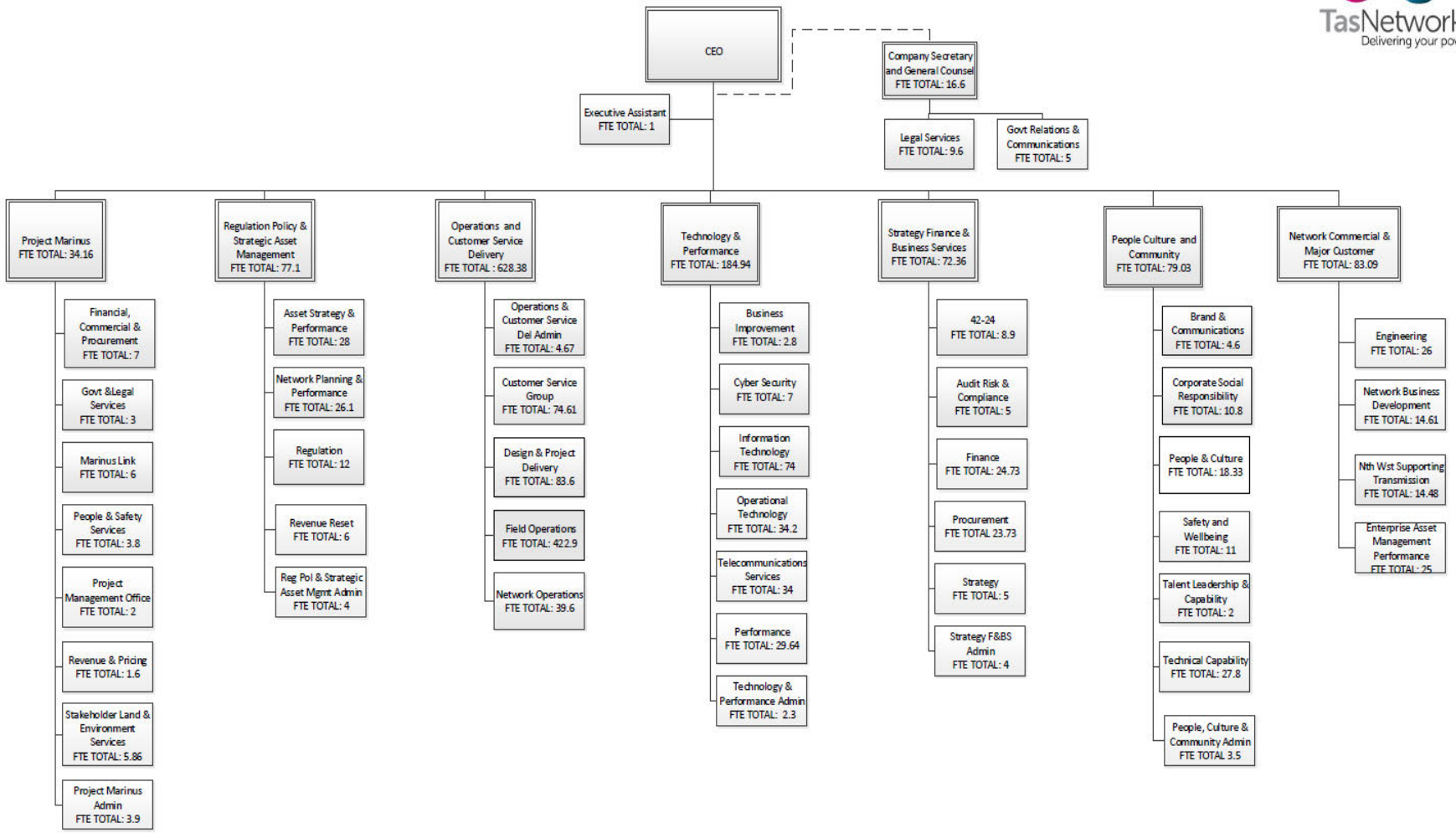
TasNetworks did not administer any projects in the current reporting period of which the expenditure underwent a regulatory investment test for distribution, as defined in r. 5.17 of the NER and the AER's Regulatory i nvestment test for distribution application guidelines.

11 Corporate Structure

11.1 (a) TasNetworks group structure



11.1 (b) TasNetworks organisational structure



12. Audit and review reports

Audit and review certificates from Tasmania Audit Office and GHD are provided as separate attachments with each RIN submission.

13. Confidential information

Confidentiallity documentation has been included in TasNetworks' 2020 RIN submission information

Tasmanian Networks Pty Ltd