Annual Reporting – Amended RIN

Workbook 1

Basis of Preparation

2020-21

energex

Part of Energy Queensland

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Compliance with the RIN Requirements

Table 1.1 Demonstration of Compliance below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 1.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
3.6.6.1 - The total number of complaints made to Energex where the complaint raised issues about voltage variations. Complaint is a written or verbal expression of dissatisfaction about an action, a proposed action, or a failure to act by a distributor, its employees or contractors. This includes failure by a distributor to observe its published practices or procedures.	Demonstrated in Methodology Section (below).
3.6.6.2 - The proportion of complaints made to Energex where the complainant raised issues about: • low voltage supply • voltage dips • voltage swell • voltage spike (impulsive transient) • waveform distortion • TV or radio interference • solar related • noise from appliances other - any matter that is not low voltage supply, voltage dips, voltage swell, voltage spike, TV or radio interference, waveform distortion or noise from appliances.	Demonstrated in Methodology Section (below).

3.6.6.3 - The proportion of complaints where the event that gave rise to the complaint was: • likely to be faulty network equipment • likely to be network interference by network service provider equipment • likely to be network interference by another customer • likely to be a network limitation • likely to be a customer internal problem • not able to be identified • likely to be environmental likely to be a cause other than faulty network equipment, network interference by network service provider equipment, network interference by another customer, a network limitation, a customer internal problem, environmental, or not able to be identified.	Demonstrated in Methodology Section (below).

Sources

The source from which Energex obtained the required information is Ellipse and reported in DMA report PQU010.

Methodology

Voltage complaints (VI01) made to Energex are classified to work category (14/01) and a symptom code will be allocated at time of entry. These codes are audited by quality of supply officers at the time a work request is raised, and again reviewed on completion of the investigation. Once the investigation has been completed the likely cause is allocated.

Each voltage complaint requires initial desktop investigation. This may include contacting the customer first and gather relevant information prior to visiting the site. Depending on the nature of the complaint, power quality monitoring may be required for some complaints.

Based on the site monitoring and investigations, voltage complaints are remediated, and root cause of the complaint recorded.

Further reference can be made to Energex's Voltage Investigation Process LP111.

Assumptions

Voltage complaints made by customers to Energex are genuine.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

Table 3.6.7 - Customer Service Metrics

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Compliance with the RIN Requirements

Table 1.2 Demonstration of Compliance below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 1.2 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
3.6.7.1 Timely Provision of Services	
As per definition in STPIS guideline v2.0 November 2018: New connections: the connection of electricity supply to customer's premises on or before the date agreed to with the customer. For the 'customer service' component, this is expressed as a percentage of the total number of new connections. Note: Does not include re-energisation of existing premises.	Volumes of new connections to the network are sourced from corporate service order reports which identify each service order's market outcome status (complete, incomplete, and cancelled). Only those with a status of "complete" for the financial year were included in figures reported.
3.6.7.2 Timely Repair of Faulty Street Lights	
Street lights - average monthly number "out" is the total number of street lights reported by customers as not working over the year, divided by twelve.	The data is sourced from the Ellipse MSQ620 report. The date range is 2020-21 financial year, workgroup is CXOXCDP, Category of work is 13/01 Street light Repairs/Mntce (PEACE)
Street light repair - Faulty street lights not repaired within 5 business days of fault report or agreed date is the number of street lights reported as not working within the reporting period that were not repaired within 5 business days of the fault report, or were not repaired by the agreed date.	The data is sourced from Report Explorer ELL00195 Outstanding/Not on time report. The date range is 2020-21 financial year, workgroup is CXOXCDP.
Street lights - average number of days to repair is the average number of days to repair street lights that were reported as not working.	This data is sourced from our contractor supplied quarterly report Mean days to Repair. Job with "complex attributions" are omitted from the report e.g. traffic control required, major

	circuit maintenance required and on by day lights.
Street light repair - number of street light faults is the number of street lights reported by customers as not working in the reporting period.	The data is sourced from the Network Data Group. There is a data base which is maintained by this group which controls all public lighting asset information. The total number of street lights is for all Rate 1 and Rate 2 street lights only, Rate 3 lights have been omitted.
3.6.7.3 Call Centre Performance	
Calls to call centre fault line is the total number of calls to call centre fault line to be reported: • including any answered by an automated response service and terminated without being answered by human operator; and • excluding missed calls where the call centre fault line is overloaded.	Data is sourced from Cisco Unified Intelligence Center (CUIC) which records all calls that are made to the Energex fault lines.
Calls to fault line answered within 30 seconds • As per definition in STPIS guideline V2.0 November 2019 Telephone Answering • Calls to the fault line answered in 30 seconds where the time to answer a call is measured form when the call enters the telephone system of the call centre (including that time when it may be ringing unanswered by any response) and the caller speaks with a human operator, but excluding the time that the caller is connected to an automated interactive service that provides substantive information. This measure does not apply to: ○ calls to payment lines and automated interactive services; ○ calls abandoned by the customer within 30 second of the call being queued for response by a human operator. Where the time in which a telephone call is abandoned is not measured, then an estimate of the number of calls abandoned within 30 seconds will be determined by taking 20 per cent of all calls abandoned.	Data is extracted from the telephony system through CUIC. There is a metric to show all calls that were answered or abandoned within 30 seconds. Calls to the automated lines were excluded from the count.

Calls to fault line - average waiting time before call answered is the average time in seconds from when calls enter the system (including that time when a call may be ringing unanswered) and the caller speaks to a human operator or is connected to an interactive service that provides the information requested.	Data is extracted from CUIC. There is no measure to ascertain if a terminated call in the automated interactive service has been provided the information requested. Therefore, the average wait time was reported on calls that have been queued for answer by a human operator.
Call centre - number of overload events is the number of times that the call centre queuing system is inadequate to queue all incoming calls.	Data is not available in a report as human intervention generally would take place to 'avalanche' calls in queue.
Calls abandoned - percentage is (calls abandoned/calls to call centre fault line)* 100. Calls abandoned include all calls received and queued for a response by a human operator but are abandoned before being answered by the operator. This includes those calls abandoned prior to 30 seconds.	Data was extracted using CUIC. Queues aligned with those for the "calls to call centre fault line" metric.
3.6.7.4 Number of Customer Complaints	
Complaint - reliability of supply is the number of complaints relating to the reliability of supply.	With the exception of the Reliability of Supply complaints, the categories required within table 3 of the RIN do not exist within the Energex systems. A process of aligning Energex system with the categories in table 3 was undertaken and is explained in more detail in the methodology section.
Complaint - technical quality of supply is the number of complaints relating to the technical quality of supply.	
Complaint - administrative process or customer service is the number of complaints relating to the administrative process or customer service of the Energex, excluding those reported under 'connection and augmentation'.	With the exception of the Reliability of Supply complaints, the categories required within table 3 of the RIN do not exist within the Energex systems. A process of aligning Energex system with the categories in table 3 was undertaken and is explained in more detail in the methodology section.
Complaint - connection or augmentation is the number of complaints about: • the quality and timeliness of a new connection; and • the cost, timeliness and quality of augmentation works	With the exception of the Reliability of Supply complaints, the categories required within table 3 of the RIN do not exist within the Energex systems. A process of aligning Energex system with the categories in table 3 was undertaken and is explained in more detail in the methodology section.

Complaint - other is the number of complaints that are not under the categories of 'connection & augmentation', 'reliability of supply', 'quality of supply' and 'administrative process or customer service'.	With the exception of the Reliability of Supply complaints, the categories required within table 3 of the RIN do not exist within the Energex systems. A process of aligning Energex system with the categories in table 3 was undertaken and is explained in more detail in the methodology section.

Sources

Table 1.3 below demonstrates the sources from which Energex obtained the required information:

Table 1.3 Data Sources

Variable	Source
3.6.7.1 Timely Provision of Services	
Number of connections made	EPM sourced from PEACE CIS
Number of connections not made on or before agreed date	EPM sourced from PEACE CIS
3.6.7.2 Timely Repair of Faulty Street Lights	
Street lights - average monthly number "out"	Ellipse MSQ620
Street lights - not repaired by "fix by" date	Report Explorer ELL00195
Street lights - average number of days to repair	Contractor supplied quarterly report, Mean days to Repair
Total number of street lights	Network Data Group
3.6.7.3 Call Centre Performance	
Calls to call centre fault line	Cisco Unified Intelligence Center (CUIC)
Calls to fault line answered within 30 seconds	CUIC
Calls to fault line - average waiting time before call answered	CUIC
Call centre - number of overload events	N/A
Percentage of calls abandoned	CUIC
3.6.7.4 Number of Customer Complaints	
Complaint - reliability of supply	Cherwell (Complaint Management System) via SQL query
Complaint - technical quality of supply	Ellipse and reported in DMA report PQU010

Complaint - administrative process or customer service	Cherwell via SQL query
Complaint - connection or augmentation	Cherwell via SQL query
Complaint - other	Cherwell via SQL query
Total number of complaints	Cherwell via SQL query

Methodology

Connection Volumes

New connection volumes are sourced from PEACE via the use of the corporate reporting solution, EPM. The report provides information on completion status and timeliness. These are used to populate the relevant metrics.

Call Centre/Telephony

As per the assumptions below, calls that are made to Energex are recorded at certain intervals as the call transitions between the automated IVR and queueing for answer by a human operator. The call data is recorded by the Cisco system managed jointly by Optus and Energy Queensland. This data is extracted using the Cisco Unified Intelligence Centre, a web-based application.

A pre-existing report was utilised in CUIC to report on the measures required for STPIS/RIN. These reports were run and the data extracted to provide the figures required. In addition, throughout the year, the Customer Performance team tracks our performance against STPIS on a daily basis. The extracted data is cross-checked against this for validation.

Complaint Data

The complaint data is extracted from the enterprise data warehouse (EDW) using an SQL query. This extract is filtered to only show complaints data. This report shows the Energex complaint categorisation, and this is used to assign it an AER complaint category. Any issues with the data are referred back to the CIR team to investigate as subject matter experts for validation.

Street lights - average monthly number "out"

An Ellipse report (MSQ620) is run with the data date range of 2020-21 financial year for workgroup is CXOXCDP with a category of work is 13/01 Street light. The total of this report is divided by 12 to give the average monthly to be reported.

Street lights - not repaired by "fix up" date

A report (Explorer ELL00195 Outstanding/Not on time report) is run with the date range of 2020-21 financial year with a workgroup is CXOXCDP. The total of this report is reported as the result for the regulatory year.

Street lights - average number of days to repair

The results from the four quarterly contractor reports are combined to give the mean days to repair for the regulatory year.

Total number of street lights

The Network Data Group runs a query on public lighting asset data base which calculates the total number of street lights. Rate 1, 2 and 4 street lights only are included, Rate 3 lights have been omitted.

Assumptions

That the information relating to the complaint is described at the time of creation and that the field staff enter the resultant cause following investigations.

Call Centre Performance

Energex has a number of phone numbers including a Loss of Supply line, Emergency line and General Enquiry line. Energex assumes a Fault call is a call made to either the Loss of Supply or Emergency lines. The Loss of Supply and Emergency lines use an IVR which has the capability to automatically identify the location of a caller (where Energex recognises the number through Call Line Identification- CLI) and to provide specific outage advice to those callers. This automated IVR information positively satisfies a large proportion of the callers to the Loss of Supply line. Calls that proceed through the IVR are subsequently recorded at various stages, such as when they are answered and when the call ends. This allows collection of data such as average wait time and volume of calls answered within 30 seconds.

Calls to fault line - average waiting time before call answered & Calls Abandoned - Percentage

Any call that disconnects whilst in the automated interactive services (IVR) is pegged as abandoned in CUIC and therefore it is difficult to identify if they have been provided the information they requested by the IVR. These calls are recorded in a separate part of the call flow and can therefore be excluded from calls that abandon whilst being queued for answer by a human operator. To ensure a more precise measure and avoid making assumptions on the IVR data, calls to the IVR have been removed from the measure for both of these metrics.

Customer Complaints

Customer complaints can be received through various channels however the primary ones are via telephone or email interactions. Complaints are entered into the Energex Complaint Management System, Cherwell. These are handled by the Customer Investigations and Resolutions (CIR) team, during their process they determine the validity of the complaint. Complaint's that are not valid due to

either not meeting the definition of a complaint or a duplicate are changed to enquiries or withdrawn respectively.

Definition of a complaint as per our Customer Service Standard (03808):

An expression of dissatisfaction made to or about an organisation, related to its products, services, staff or the handling of a complaint, where a response or resolution is explicitly or implicitly expected or legally required.

This definition aligns with the Australian/New Zealand Standard (AS/NZS 10002:2014).

Additionally, the CIR team will categorise the complaint with a type and up to 3 sub categories based upon the details of the complaint. With the exception of Reliability of Supply, the categories utilised in Cherwell do not align with the categories provided by the AER. A process was undertaken to best fit the complaint categories in Cherwell to the AER definitions. Each year this process is carried out for any additional categories that have been added or haven't previously been used. A brief overview of the decision making process for each category is described below.

Complaints relating to the connection, maintenance or alteration to the network have been categorised within the Connection or Augmentation category.

Complaints relating to staff behaviour, meter reading, communication and correspondence and marketing or media have been categorised within the Administrative Process or Customer Service category.

Complaints relating to the driving and/or parking of Energex vehicles and general feedback relating to suppliers or installers have been categorised within the Other category.

Rate 1 and 2 street lights only are included.

Rate 3 lights have been omitted.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Updated and simplified call flows were introduced into the telephony platform throughout July 2019 which has reduced the number of different queues that compile all fault call types. This has no impact on reporting. This has meant that when compiling the telephony data for 2020-21, reporting against all new and legacy queues has taken place to ensure a full dataset for the financial year.

3.6.7.3 - Call Centre Performance

2020-21 is the first year an overload event has been reported relating to a fire at the Callide Power Station on 25 May 2021, tripping multiple transmission lines which resulted in over 400,000 customers without power supply across Queensland. The volumes of calls received as a result of this event exceeded the licencing capacity of the Contact Centre Technology platform for customers to receive automated outage information, forcing customers to queue to speak directly to an agent. The number of customers waiting for their call to be answered exceed 700 resulting in a manual forced message to be given to customers and clearing the queues as the volumes exceed the capacity for available resources to appropriately manage.

BoP - 3.6.8 Network Feeders

Table 3.6.8 - Network Feeder Reliability

Compliance with the RIN Requirements

Energex has prepared the information provided in Template 3.6.8 Network Feeders, Table 3.6.8 - Network Feeder Reliability in accordance with the RIN requirements, including the Principles and Requirements set out in Appendix A and definitions in Appendix F to the RIN and in accordance with Economic Benchmarking RIN instructions and definitions (November 2013).

Energex has populated all variables for cells shaded yellow as required by the RIN.

Energex has not populated information in relation to Momentary Feeder outages (MAIFI) which is greyed out and not applicable to it for the regulatory control period.

Sources

Energex has sourced data from its internal outage management and asset management systems (PON/EPM/NFM) for the relevant regulatory year.

Consumption for the "Energy Not Supplied" was sourced from the Network billing system Peace.

Feeder Maximum Demand data is sourced from Netplan and the line length data set for sourced from the Energex NFM System and represents the network as it was configured at the end of the relevant regulatory year.

Methodology

Energex queried the corporate reporting system EPM/PON/NFM to retrieve:

- Outage data by transformer with the associated attributes of allocated feeder, category, duration, customer minutes lost and customers interrupted and feeder customer numbers.

Current 11kv feeders at the end of the reporting period with customers allocated.

- Feeder location data.
- Feeder length overhead and underground.
- Energex queried the corporate reporting system NETPLAN to retrieve:
- Maximum demand for a feeder where available

This data was combined to produce table 3.6.8 Network Feeder Reliability.

As relevant, Energex has also applied definitions and methodology as set out in the AER's Electricity DNSPs, STPIS (December 2018) and Economic Benchmarking RIN instructions and definitions (November 2013), which remains applicable to Energex for the current regulatory control period.

In order to obtain the information for the relevant regulatory year, Energex applied the following:

- Relevant Financial Year (Between 1 July and 30 June)
- Include all distribution feeders that experienced completed sustained (> 3 min) unplanned and planned interruptions.
- A customer is defined as a premise having an assigned Active NMI with an Active Account. Customer numbers are held in the ECORP database.
- The totals of the two line length data in this Table 3.6.8 represents the Feeders Overhead and Underground line lengths as at the end of the regulatory year.
- An event caused by a customer's electrical installation, failure or request of that electrical installation which only affects supply to that customer is not deemed an interruption as defined, in STPIS 2018 Appendix A]. These following events have been confirmed through site inspection to have resulted from faults and failures within the customer's installation or request and as such are considered to be an event beyond the boundary of the electricity supply network and therefore handles as an exclusion from Energex reported reliability performance under the STPIS.

Table 3.6.8 - Network Feeder Reliability

Feeder ID/Name Energex used its unique identifier for each feeder in the reported data.

Description of the service area for the feeder is as per the Geographical location The feeder service area consists of the suburbs traversed by the feeder. Where a feeder has no customers allocated the location data may not be available. (i.e. Feeder is decommissioned or reconfigured)

Feeder classifications are CBD, Urban (UR) & Short Rural (SR) as per the definitions in Appendix A of the AER's Electricity DNSP's, STPIS (December 2018). Reporting is based on the feeder's classification the end of the regulatory year.

Number of distribution customers on a feeder is the total of customers connected at the end of the regulatory year (30 June). If the feeder was only active for a short period throughout the year the customers used where the total of customers connected to the feeder when the feeder became inactive in the regulatory.

Length of HV distribution lines [overhead] Energex has applied the Overhead route length measurement where available as per the STPIS guidelines.

Length of HV distribution lines [underground] Energex has applied the Underground route length measurement where available as per the STPIS guidelines.

Maximum demand values on a distribution feeder during the regulatory year are provided in MVA. This is provided by Energex's System Development Group through the Current State Assessment report for distribution feeders.

Energy Not Supplied MWh (unplanned and planned) has been calculated using data reported for unplanned/planned customer minutes off supply (Mins) multiplied by the average consumption by feeder (in minutes) sourced from Peace.

This is in accordance with methodology Chapter 7. Table 7.2 approach three *"average consumption of customers on the feeder based on their billing history"* as defined in the Economic Benchmarking RIN instructions and definitions (November 2013) for energy not supplied, inclusive of the exclusions under clause 3.3(b) (Major Event Days) and exclusive of the exclusions in accordance with clauses 3.3(a) of the AER's STPIS scheme and exclusive of Customer Installation Faults/Failures which reside beyond the electricity supply network.

The calculations are based on current connectivity by feeder and not connectivity at the time of the outage. For some feeders that no longer active or have changed connectivity in the system the average consumption per minute over all feeders is used. The methodology adopted is irrespective of the time of day the outages occurred.

Total number of unplanned outages records the total number of completed sustained unplanned interruptions that occurred on that distribution feeder during the relevant regulatory year, inclusive of exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme.

Unplanned customer minutes off-supply (SAIDI) (including excluded events and MEDs) represents SAIDI calculated by the summated feeder unplanned customer minutes on the feeder for the year divided by the number of customers on the feeder for the relevant regulatory year, inclusive of all exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and inclusive customer installation faults/failures which reside beyond the electricity supply network.

Unplanned customer minutes off-supply (SAIDI) (after removing excluded events and MED) represents SAIDI calculated by the summated feeder unplanned customer minutes on the feeder for the year divided by the number of customers on the feeder for the relevant regulatory year, after removing all exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and exclusive customer installation faults/failures which reside beyond the electricity supply network.

Unplanned interruptions (SAIFI) (including excluded events and MEDs) represents SAIFI calculated by the summated feeder unplanned customer interruptions on the feeder for the year divided by the number of customers on the feeder for the relevant regulatory year, inclusive of all

exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and inclusive customer installation faults/failures which reside beyond the electricity supply network.

Unplanned interruptions (SAIFI) (after removing excluded events and MEDs) represents SAIFI calculated by the summated feeder unplanned customer interruptions on the feeder for the year divided by the number of customers on the feeder for the relevant regulatory year, after removing all exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and exclusive customer installation faults/failures which reside beyond the electricity supply network.

Total number of planned outages records the total number of completed sustained planned interruptions that occurred on the distribution feeder during the relevant regulatory year.

Planned customer minutes off-supply (SAIDI) (including MEDs) represents SAIDI calculated by the summated feeder planned customer minutes on the feeder for the year divided by the average number of customers on the feeder for the relevant regulatory year, inclusive of STPIS exclusions in accordance with clauses 3.3(b) of the AER's STPIS scheme and inclusive customer installation faults/failures or Requests which reside beyond the electricity supply network.

Planned customer minutes off-supply (SAIDI) (after removing MED) represents SAIDI calculated by the summated feeder planned customer minutes on the feeder for the year divided by the average number of customers on the feeder for the relevant regulatory year, after removing STPIS exclusions in accordance with clauses 3.3(b) of the AER's STPIS scheme and inclusive customer installation faults/failures or Requests which reside beyond the electricity supply network.

Planned interruptions (SAIFI) (including MEDs) represents SAIFI calculated by the summated feeder planned customer interruptions on the feeder for the year divided by the average number of customers on the feeder for the relevant regulatory year, inclusive of STPIS exclusions in accordance with clauses 3.3(b) of the AER's STPIS scheme and inclusive customer installation faults/failures or Requests which reside beyond the electricity supply network.

Planned interruptions (SAIFI) (after removing MED) represents SAIFI calculated by the summated planned feeder customer interruptions on the feeder for the year divided by the average number of customers on the feeder for the relevant regulatory year, after removing STPIS exclusions in accordance with clauses 3.3(b) of the AER's STPIS scheme and inclusive customer installation faults/failures or Requests which reside beyond the electricity supply network.

Assumptions

Energex has supplied outage data from the corporate reporting system EPM (Energex Performance Management). In classifying each interruption by category there were individual transformer interruptions where a category could not be retrieved (Null category) and these are therefore not included in the reported figures as listed below.

In order to obtain the information for the relevant regulatory year, Energex applied the following assumptions:

- All outages with a null cause code were assigned by Default "General No Cause Reported" (GN-NR) and incorporated into reporting.
- Energex has supplied outage data from the corporate reporting system EPM (Energex Performance Management). In classifying each interruption by category there were individual transformer interruptions where a category could not be retrieved (Null category) and these are therefore not included in the reported figures as listed below.
- The most recently updated meter consumption data sourced from Peace for each NMI was extracted, standardised and loaded into a table. The most recently updated feeder data from NFM linking each NMI to the relevant Feeder was joined to the meter data table. A query was then run to consolidate all NMIs' annual consumption data relating to each feeder to give their annual consumption. The total is then used to calculate the average customer consumption per minute per feeder.

Estimated Information

Energex has provided 'Actual Information' in relation to all Reliability statistics from the outage management system.

Energex has provided 'Estimated Consumption data Information', therefore the Energy not Supplied is an Estimate in Table 3.6.8 for the relevant regulatory year.

Where information is provided it is done so in accordance with the AER's definitions and applying the assumptions and methodology that is described within this Basis of Preparation.

Explanatory Notes

Not applicable.

BoP - 3.6.9 Network Reliability

Table 3.6.9 - Network Reliability - Planned Outages

Table 3.6.9.1 - Planned Minutes off Supply (SAIDI)

Table 3.6.9.2 - Planned Interruptions to Supply (SAIFI)

Compliance with the RIN Requirements

Energex has prepared the information provided in Template 3.6.9 Network Reliability, Table 3.6.9.1 Planned Minutes of Supply (SAIDI) and Table 3.6.9.2 Planned Interruptions to Supply (SAIFI) in accordance with the RIN requirements, including the Principles and Requirements set out in Appendix A and definitions in Appendix F to the RIN.

Energex has populated all variables for cells shaded yellow as required by the RIN.

Energex has not populated information in relation to Long Rural which is greyed out and not applicable to it for the regulatory control period.

Sources

Energex has sourced data from its internal outage management PON/EPM for the relevant regulatory year.

Methodology

Energex queried the transformer outage data from EPM to establish the Customer Minutes Lost (CML) and Customers Interrupted (CI) for the reporting period.

3.6.9 - Network Reliability - Planned Outages

3.6.9.1 - Planned Minutes Off Supply (SAIDI)

SAIDI for each regulated feeder classification are calculated based on the following criteria:

- Relevant Financial Year (Between 1 July and 30 June)
- Completed planned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, Urban (UR) & Short Rural (SR)
- SAIDI calculation - Customer minutes divided by average number of customers

Inclusive of the STPIS exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme for Electricity DNSPs (December 2018) and inclusive customer installation faults/failures and requests which reside beyond the electricity supply network.

3.6.9.2 - Planned Interruptions Off Supply (SAIFI)

SAIFI for each regulated feeder classification are calculated based on the following criteria:

- Relevant Financial Year (Between 1 July and 30 June)
- Completed planned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, Urban (UR) & Short Rural (SR)
- SAIFI calculation - Customer interruptions divided by average number of customers

Inclusive of the STPIS exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme for Electricity DNSPs (December 2018) and inclusive customer installation faults/failures and requests which reside beyond the electricity supply network.

Assumptions

There were only two unplanned outage incidents that experienced and "Unallocated" Transformers (Transformers with Null category assigned).

Null Feeder Classification error

- INCD-491575-g - was on the 33kv Subtransmission network and therefore excluded.
- INCD-515718-g - was excluded due to be STPIS Clause - 3.3(a)(3) automatic load shedding due to the operation of under frequency relays following the occurrence of a power system under-frequency condition'.

Null Cause error

- All outages with a null cause code were assigned by Default "General No Cause Reported" (GN-NR) and incorporated into reporting.

Estimated Information

Energex has provided actual information in Table 3.6.9.1 and Table 3.6.9.2 for the relevant regulatory year.

Where information is provided it is done so in accordance with the AER's definitions and applying the assumptions and methodology that is described within this Basis of Preparation.

Explanatory Notes

Not applicable.

BoP – 4.1 Public Lighting

Table 4.1.4 Public Lighting Metrics by Tariff

Compliance with the RIN Requirements

Table 2.1 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 2.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
Energex must ensure that the data provided for public lighting services reconcile to internal planning models used in generating Energex's proposed revenue requirements.	This requirement has been taken into account in preparing RIN Template 4.1. For details please refer to 4.1.4 Methodology.
Energex is not required to distinguish expenditure for public lighting services between standard or alternative control services in regulatory template 4.1.	This requirement has been taken into account in preparing RIN Template 4.1. For details please refer to 4.1.4 Methodology.
Energex is not required to distinguish expenditure for public lighting services as either capex or opex in regulatory template 4.1.	This requirement has been taken into account in preparing RIN Template 4.1. For details please refer to 4.1.4 Methodology.
Energex must report expenditure data as a gross amount, by not subtracting customer contributions from expenditure data.	This requirement has been taken into account in preparing RIN Template 4.1. For details please refer to 4.1.4 Methodology.
Energex must report data for non-contestable, regulated public lighting services. This includes work performed by third parties on behalf of Energex.	This requirement has been taken into account in preparing RIN Template 4.1. For details please refer to 4.1.4 Methodology.
Energex must not report data in relation to gifted assets, negotiated public lighting services or public lighting services which have been classified as contestable by the AER.	This requirement has been taken into account in preparing RIN Template 4.1. For details please refer to 4.1.4 Methodology.
Energex is not required to report data in respect of GSLs, where a GSL scheme does not exist for a public lighting service.	This requirement has been taken into account in preparing RIN Template 4.1. For details please refer to 4.1.4 Methodology.
In the basis of preparation, Energex must explain how the average unit cost for public lighting services was estimated.	This requirement has been taken into account in preparing RIN Template 4.1. For details please refer to 4.1.4 Methodology.

Sources

Table 2.2 below demonstrates the sources from which Energex obtained the required information:

Table 2.2 Data Sources

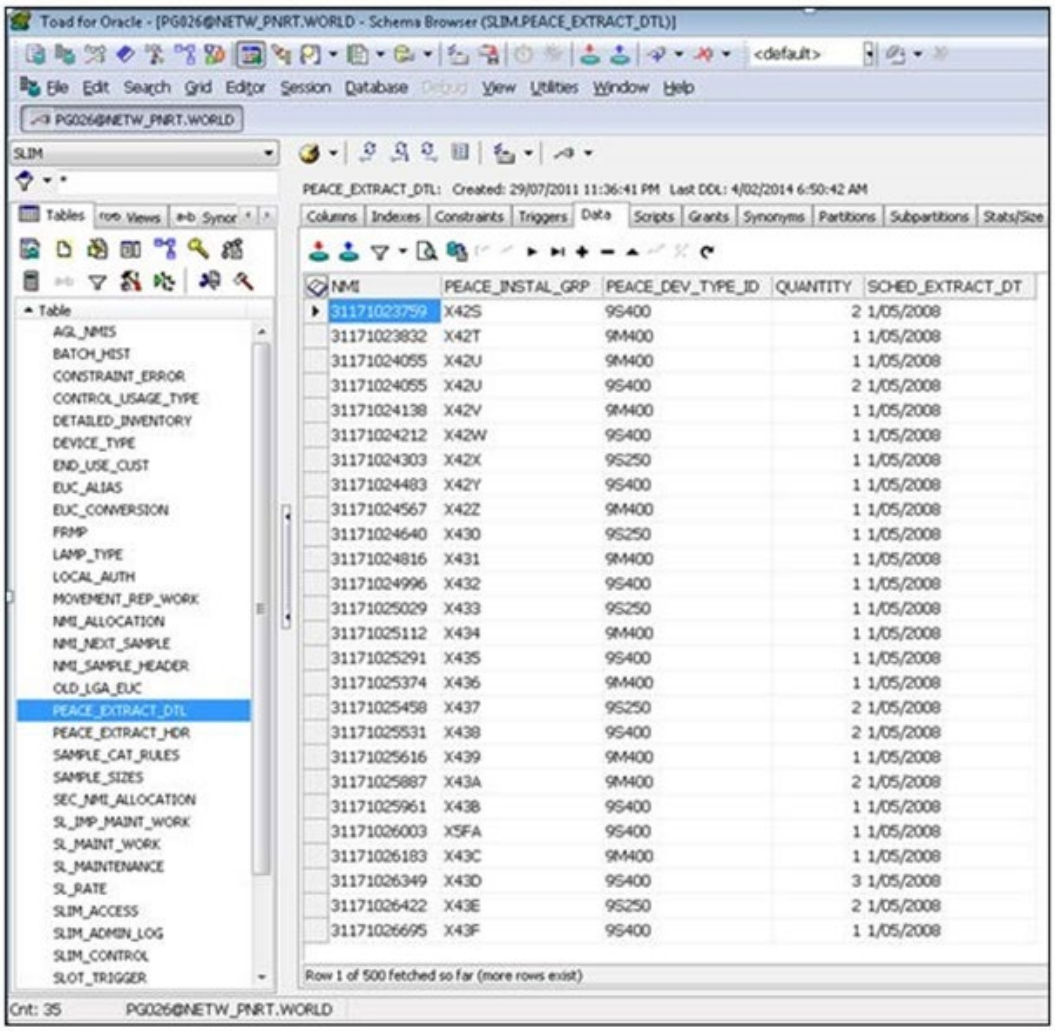
Variable	Source
The current population of lights by light tariff	Peace/Oracle/NFM/SLIM
Total revenue for each Public Lighting tariff	Peace

Methodology

Volumes

A report was extracted from both the SLIM database and the Oracle database to generate all the data required.

- SLIM.PEACE_EXTRACT-DTL is a SLIM (Street light Inventory Manager) Table, located in the SLIM schema, containing light types and numbers for all the street light NMI's billed through the Peace billing system. The Table provides a snapshot of the number of lights held in NFM and SLIM at the 1st day of each month. Street light NMI's are billed monthly and the numbers captured in this Table are indicative of the number of lights to be billed as at the end of the previous month. A screenshot of the report is provided below.



- RIN.MAJORMINOR is a local Table created to identify what constitutes a Major or Minor type of light. The data in this Table is in accordance with Australian Standard AS/NZ 1158. A screenshot of the report is provided below.

Revenue

A report was extracted from both PEACE to generate all the data required. SQL is below:

```
SELECT xx.inv_item_code,
  xx.DESCR,
  SUM(xx.qty_charged) AS qty_charged,
  SUM(xx.total_amt) AS total_amt
FROM  ( SELECT ini.inv_item_code,
    udesc.DESCR,
    inv.debtornum,
    MAX(ini.qty_charged) AS qty_charged,
    SUM(ini.amt_inv_item) AS total_amt
  FROM  energydb.eb_invoice inv,
    energydb.eb_inv_item ini,
    energydb.tm_unmet_desc udesc
  WHERE ini.e_invnum    = inv.e_invnum
```

```
AND  inv.date_r  BETWEEN '01-JUL-2020' AND '30-JUN-2021'
AND  udesc.price_comp_code  = ini.inv_item_code
AND  udesc.sub_chg_source_code = 'ACSSC'
AND  udesc.date_effective  = '01-JUL-2020'
GROUP BY ini.inv_item_code,
  udesc.DESCR,
  inv.debtornum ) xx
        GROUP BY xx.inv_item_code,
xx.DESCR
          ORDER BY xx.inv_item_code
```

The following is a screenshot showing the end result. These results where then grouped into the appropriate tariffs being convention vs LED.

INV_ITEM_CODE	DESCR	TOTAL_AMT
9210	Rate 1 Metal Halide Major	$133,203.47
9211	Rate 1 Metal Halide Minor	$5,211.73
9212	Rate 1 Mercury Vapour Major	$605,954.65
9213	Rate 1 Mercury Vapour Minor	$9,262,185.97
9214	Rate 1 Sodium Vapour Major	$14,681,359.26
9215	Rate 1 Sodium Vapour Minor	$2,925,603.51
9216	Rate 1 Fluorescent Minor	$6,741,283.43
9218	Rate 1 LED Minor	$557,706.83
9219	Rate 1 LED Major	$311,291.42
9310	Rate 2 Metal Halide Major	$44,219.92
9311	Rate 2 Metal Halide Minor	$5,221.60
9312	Rate 2 Mercury Vapour Major	$31,626.56
9313	Rate 2 Mercury Vapour Minor	$5,487,744.72
9314	Rate 2 Sodium Vapour Major	$7,220,786.26
9315	Rate 2 Sodium Vapour Minor	$1,436,454.97
9316	Rate 2 Fluorescent Minor	$1,521,791.24
9317	Rate 2 Incondescent Minor	$14,249.05
9318	Rate 2 LED Minor	$383,962.58
9319	Rate 2 LED Major	$224,307.67
9418	Rate 4 LED Minor	$6,995.28
9419	Rate 4 LED Major	$2,151.31

Assumptions

Volumes

- Only Energex owned, operated and maintained public lighting tariffs have been provided.
    - Rate 1 Conventional Major
    - Rate 1 Conventional Minor
    - Rate 1 LED Minor
    - Rate 1 LED Major
    - Rate 2 Conventional Major
    - Rate 2 Conventional Minor

    - Rate 2 LED Minor
    - Rate 2 LED Major
    - Rate 4 LED Minor
    - Rate 4 LED Major
- All Rate 3 public lights have been excluded on the basis that they are supplied, installed, owned and maintained by the Public Body.

Revenue

- All revenue is based on ACS Daily fixed charges. Energy charges have been excluded.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in table CA 4.1.4.

Explanatory Notes

Not applicable.

BoP - 6.2 STPIS Reliability

Table 6.2.1 - Unplanned Minutes off Supply (SAIDI)

Table 6.2.2 - Unplanned Interruptions to Supply (SAIFI)

Table 6.2.4 - Distribution Customer Numbers

Compliance with the RIN Requirements

Energex has prepared information provided in Template 6.2 table 6.2.1 unplanned minutes of supply (SAIDI), table 6.2.2 Unplanned Interruptions to Supply (SAIFI) and table 6.2.4 Distribution Customer Numbers for current year in accordance with the RIN requirement, including the Principles and Requirements set out in Appendix A and definitions in Appendix F to the RIN.

Energex has populated all variables for cells shaded yellow as required by the RIN.

Energex has not populated information in relation to Long Rural and all variables relating to "Average customer numbers", which are greyed out and not applicable to it under the RIN issued.

Sources

Energex has sourced data from its internal outage management and asset management systems (PON/EPM/NFM) for the relevant regulatory year.

Methodology

Energex queried the corporate reporting system EPM to retrieve all unplanned sustained transformer interruptions. Associated fields such as category, duration, cause, Customer Minutes Lost (CML) and Customers Interrupted (CI) were recorded against these interruptions.

Distribution Feeders are classified as CBD, Urban (UR) & Short Rural (SR) as per the definitions in Appendix A of the AER's Electricity Distribution Network Service Providers (DNSPs), Service Target Performance Incentive Scheme (STPIS) (December 2018). Reporting is based on the feeder's classification at the end of the relevant regulatory year as at 30 June.

An event caused by a customer's electrical installation, failure or request of that electrical installation which only affects supply to that customer is not deemed an interruption as defined in STPIS 2018 [Appendix A]. These following events have been confirmed through site inspection to have resulted from faults and failures within the customer's installation or request and as such are considered to be an event beyond the boundary of the electricity supply network and therefore handles as an exclusion from Ergon Energy reported reliability performance under the STPIS.

Exclusions are applied in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme for Electricity DNSPs (December 2018)) and excluding Customer Installation Faults/Failures which reside beyond the electricity supply network.

Whole of Network statistics (in the absence of specification) were assumed to encompass the summation of CBD, Urban (UR) & Short Rural (SR) (customer minutes, customer interruptions and customer numbers).

6.2.1 - Unplanned Minutes off Supply (SAIDI)

Total sustained minutes off supply

SAIDI for each feeder classification are calculated based on the following criteria:

- Relevant Financial Year (Between 1 July and 30 June)
- Completed unplanned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, UR & SR
- Feeder Classification: Whole of network (summation of CBD, UR & SR)
- SAIDI calculation - Customer minutes divided by average number of customers

Inclusive of the exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and Customer Installation Faults/Failures which reside beyond the electricity supply network.

*Total of excluded events*see 3.3 of STPIS*

SAIDI for each feeder classification based on the following criteria:

- Relevant Financial Year (Between 1 July and 30 June)
- Completed unplanned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, UR & SR
- Feeder Classification: Whole of network (summation of CBD, UR & SR)
- SAIDI calculation - Customer minutes divided by average number of customers

Summation of the exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and Customer Installation Faults/Failures which reside beyond the electricity supply network.

Total sustained minutes off supply after removing excluded events

SAIDI for each feeder classification was calculated based on the following criteria:

- Relevant Financial Year (Between 1 July and 30 June)

- Completed unplanned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, UR & SR
- Feeder Classification: Whole of network (summation of CBD, UR & SR)
- SAIDI calculation - Customer minutes divided by average number of customers

Exclusive of the exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and Customer Installation Faults/Failures which reside beyond the electricity supply network.

Table 6.2.2 - Unplanned Interruptions to Supply (SAIFI) Total sustained interruptions

SAIFI for each feeder classification are calculated based on the following criteria:

- Relevant Financial Year (Between 1 July and 30 June)
- Completed unplanned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, UR & SR
- Feeder Classification: Whole of network (summation of CBD, UR & SR)
- SAIFI calculation - Customer interruptions divided by average number of customers

Inclusive of the exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and Customer Installation Faults/Failures which reside beyond the electricity supply network.

Total of excluded events* see 3.3 of STPIS

SAIFI for each feeder classification based on the following criteria:

- Relevant Financial Year (Between 1 July and 30 June)
- Completed unplanned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, UR & SR
- Feeder Classification: Whole of network (summation of CBD, UR & SR)
- SAIFI calculation - Customer interruptions divided by average number of customers

Summation of the exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and Customer Installation Faults/Failures which reside beyond the electricity supply network.

Total sustained interruptions off supply after removing excluded events

SAIFI for each feeder classification was calculated based on the following criteria:

- Relevant Financial Year (Between 1 July and 30 June)

- Completed unplanned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, UR & SR
- Feeder Classification: Whole of network (summation of CBD, UR & SR)
- SAIFI calculation - Customer interruptions divided by average number of customers

Exclusive of the exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and Customer Installation Faults/Failures which reside beyond the electricity supply network.

Table 6.2.4 - Distribution Customer Numbers

Customer numbers at the start of the reporting period is the number of Customers (by feeder), measured on the first day of the Relevant Regulatory Year (1 July).

Customer numbers at the end of the reporting period is the number of Customers (by feeder), measured on the last day of the Relevant Regulatory Year (30 June).

A Customer is a distribution customer with an active account and active National Metering Identifier (NMI) i.e. inactive accounts are excluded.

Note: the whole of network customer number represents the sum of the total numbers of the customers on all three feeder classifications (CBD, UR & SR) for each of the start and end of the report period.

The (greyed out) number of distribution customers is calculated 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.

Furthermore, the (greyed out) calculated average number of distribution customers for whole of network is the average of the total numbers of customers on all three feeder classifications (CBD, UR & SR) at the beginning of the reporting period (1 July) and the total number of customers at the end of the reporting period (30 June), rounded up to nearest whole number.

Assumptions

No assumptions were made.

Estimated Information

Energex has provided actual information in Table 6.2.1 for the relevant regulatory year. Where information is provided it is done so in accordance with the AER's definitions and in accordance with Clauses 3.3(a) & (b) of the AER's STPIS scheme for Electricity DNSP's (December 2018)) and applying the assumptions and methodology that is described within this Basis of Preparation.

Explanatory Notes

Not applicable.

BoP - 6.6 Customer Service

Table 6.6.1 - Telephone Answering

Compliance with the RIN Requirements

Table 3.1 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 3.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
As per definition in STPIS guideline V2.0, November 2018: ***Telephone Answering*** Calls to the fault line answered in 30 seconds where the time to answer a call is measured from when the call enters the telephone system of the call centre (including that time when it may be ringing unanswered by any response) and the caller speaks with a human operator, but excluding the time that the caller is connected to an automated interactive service that provides substantive information. This measure does not apply to: • calls to payment lines and automated interactive services; • calls abandoned by the customer within 30 seconds of the call being queued for response by a human operator. Where the time in which a telephone call is abandoned is not measured, then an estimate of the number of calls abandoned within 30 seconds will be determined by taking 20 per cent of all calls abandoned.	Using a custom report in CUIC, data is filtered to ensure that only calls to the Loss of Supply and Emergency lines that have been queued for a human operator are extracted. The data is split into daily intervals to comply with removal of excluded events as per STPIS requirements.

Sources

Table 3.2 specifies the sources from which Energex obtained the required information:

Table 3.2 Data Sources

Variable	Source
Telephone Answering	Cisco Unified Intelligence Center (CUIC)

Methodology

As per the assumptions below, calls that are made to Energex are recorded at certain intervals as the call transitions between the automated IVR and queueing for answer by a human operator. The call data is recorded by the Cisco system managed jointly by Optus and Energy Queensland. This data is extracted using the Cisco Unified Intelligence Center, a web-based application.

A pre-existing report was utilised in CUIC to report on the measures required for STPIS/RIN. These reports were run, and the data extracted to provide the figures required. In addition, throughout the year, the Customer Performance team tracks our performance against STPIS daily. The extracted data is cross-checked against this for validation.

Excluded events including Major Events Days (MEDs) for STPIS are confirmed by and obtained from the Network Performance & Reporting team.

Assumptions

Energex has several phone numbers including a Loss of Supply line, Emergency line and General Enquiry line. Energex assumes a Fault call is a call made to either the Loss of Supply or Emergency lines. The Loss of Supply and Emergency lines use an IVR which has the capability to automatically identify the location of a caller (where Energex recognises the number through Call Line Identification- CLI) and to provide specific outage advice to those callers. This automated IVR information positively satisfies a large proportion of the callers to the Loss of Supply line. Calls that proceed through the IVR are subsequently recorded at various stages, such as when they are answered and when the call ends. This allows collection of data such as average wait time and volume of calls answered within 30 seconds.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

No changes in methodology between 2019-20 and 2020-21. Telephone answering information has been prepared in accordance with the AER's amended STPIS 2.0, November 2018, effective 1 July 2020.

Table 6.6.2 – Inadequately Served Customers

Compliance with the RIN Requirements

Energex Network has prepared the information provided in Template 6.6 STPIS Customer Service, Table 6.6.2 Inadequately Served Customers in accordance with the RIN requirements, including the Principles and Requirements set out in Appendix A and definitions in Appendix F to the RIN.

Energex Network has populated all variables for cells shaded yellow as required by the RIN.

Energex has applied the AER's clarification received on 25 August 2020 which states that where there is no historical data to produce the three-year averages, the following methods should be applied:

- for the first two years, distributors report the actual numbers (rather than a three-year average). Alternatively, if back-casting of data under the new three-minute threshold for sustained outage is possible, a distributor may choose to report the three-year rolling average.
- From the third year onwards distributors report three-year rolling averages.

Sources

Energex has sourced data from its internal outage management and asset management systems (PON/EPM/NFM) for the relevant regulatory year.

Methodology

Energex queried the corporate reporting system EPM/PON/NFM to retrieve:

- Outage data by transformer with the associated attributes of allocated feeder, category, duration, customer minutes lost and customers interrupted and feeder customer numbers.

This data was combined to produce table 6.6 Inadequately served customers.

As relevant, Energex has also applied definitions and methodology as set out in the AER's Electricity DNSPs, STPIS (December 2018) and Economic Benchmarking RIN instructions and definitions (November 2013), which remains applicable to Energex for the current regulatory control period.

In order to obtain the information for the relevant regulatory year, Energex applied the following:

- Relevant Financial Year (Between 1 July and 30 June)
- Only completed unplanned sustained (> 3 min) interruptions are included.
- Feeders with the feeder classification of CBD, Urban (UR) & Short Rural (SR) as per the definitions in Appendix A of the AER's Electricity DNSP's, STPIS (December 2018)
- Feeder customers are the total of customers connected at the end of the regulatory year (30 June). If the feeder was only active for a short period throughout the year the customers used

where the total of customers connected to the feeder when the feeder became inactive in the regulatory year.

- Exclusive of an event caused by a customer's electrical installation, failure or request of that electrical installation which only affects supply to that customer is not deemed an interruption as defined, in STPIS 2018 Appendix A]. These following events have been confirmed through site inspection to have resulted from faults and failures within the customer's installation or request and as such are considered to be an event beyond the boundary of the electricity supply network and therefore handles as an exclusion from reported reliability performance under the STPIS.
- Feeder SAIDI is calculated by the summated feeder unplanned customer minutes on the feeder for the year divided by the number of customers on the feeder for the relevant regulatory year, after removing all exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and exclusive customer installation faults/failures which reside beyond the electricity supply network.
- Feeder SAIFI is calculated by the summated feeder unplanned customers interrupted on the feeder for the year divided by the number of customers on the feeder for the relevant regulatory year, after removing all exclusions in accordance with clauses 3.3(a) & (b) of the AER's STPIS scheme and exclusive customer installation faults/failures which reside beyond the electricity supply network.

Table 6.6.2 - Inadequately Served Customers

A - SAIDI Values

Threshold SAIDI value for inadequately served customers – The Threshold for inadequately served customers = greater than 4 times the Network average for unplanned SAIDI on a three-year rolling average basis compared with a network average customer. (Network Average is the Whole of Network SAIDI (UR, SR, LR)). Calculated using the EB 3.6 RIN data DQS0106 (SAIDI). e.g. Average (DQS0106) * 4

Average unplanned SAIDI of inadequately served customers is the average Feeder SAIDI for all the Feeders that exceeded the Threshold SAIDI.

Highest unplanned SAIDI of inadequately served customers represents the Highest Feeder SAIDI.

B - SAIFI Values

Average unplanned SAIFI of inadequately served customers is the average Feeder SAIFI for all the Feeders that exceeded the Threshold SAIDI.

Highest unplanned SAIFI of inadequately served customers represents the Highest Feeder SAIFI.

C - TOP 5 FEEDERS WITH MOST INADEQUATELY SERVED CUSTOMERS

SAIDI Values represents the Feeder ID and Feeder SAIDI value for Top 5 feeders with the highest Feeder SAIDI that exceeded the Threshold SAIDI.

SAIFI Values represents the Feeder ID and Feeder SAIFI value for Top 5 feeders with the highest Feeder SAIDI that exceeded the Threshold SAIDI.

NUMBER OF INADEQUATELY SERVED CUSTOMERS represents the Feeder ID and Feeder customers for Top 5 feeders with the highest Feeder SAIDI that exceeded the Threshold SAIDI.

Assumptions

No assumptions were made.

Estimated Information

Energex has provided 'Actual Information' in relation to all Reliability statistics from the outage management system.

Explanatory Notes

Not applicable.

BoP - 6.7 STPIS Daily Performance

Table 6.7.1 - Daily Performance Data - Unplanned

Compliance with the RIN Requirements

Table 4.1 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 4.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
The excluded events to be removed from the data refer only to events listed in clause 3.3(a) of the STPIS, with respect to reliability data, and in clause 5.4 of the STPIS with respect to customer service parameters. Customer service information must be reported as per the definitions in the STPIS, that is excluding: • calls to payment lines and automated interactive services. • calls abandoned by the customer within 30 seconds of the call being queued for response by a human operator (where the time in which a telephone call is abandoned is not measured, then an estimate of the number of calls abandoned within 30 seconds will be determined by taking 20 per cent of all calls abandoned).	Using several reports in CUIC, relevant data is extracted for the fault lines that have been queued for a human operator.

Sources

Table 4.2 below demonstrates the sources from which Energex obtained the required information:

Table 4.2 Data Sources

Variable	Source
Telephony Data	Cisco Unified Intelligence Center (CUIC)

Methodology

As per the assumptions below, calls that are made to Energex are recorded at certain intervals as the call transitions between the automated IVR and queueing for answer by a human operator. The call data is recorded by the Cisco system managed jointly by Optus and Energy Queensland. This data is extracted using the Cisco Unified Intelligence Centre, a web based application.

A pre-existing report was utilised in CUIC to report on the measures required for STPIS. These reports were run and the data extracted to provide the figures required. In addition, throughout the year, the Customer Performance team tracks our performance against STPIS on a daily basis. The extracted data is cross-checked against this for validation.

Excluded events including Major Events Days (MEDs) for STPIS are confirmed by and obtained from the Network Performance & Reporting team.

Assumptions

Energex has a number of phone numbers including a Loss of Supply line, Emergency line and General Enquiry line. Energex assumes a Fault call is a call made to either the Loss of Supply or Emergency lines... The Loss of Supply and Emergency lines use an IVR which has the capability to automatically identify the location of a caller (where Energex recognises the number through Call Line Identification- CLI) and to provide specific outage advice to those callers. This automated IVR information positively satisfies a large proportion of the callers to the Loss of Supply line. Calls that proceed through the IVR are subsequently recorded at various stages, such as when they are answered and when the call ends. This allows collection of data such as average wait time and volume of calls answered within 30 seconds.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

No changes in methodology between 2019-20 and 2020-21.

BoP - 6.8 STPIS Exclusions

Table 6.8.1 – STPIS Exclusions

Compliance with the RIN Requirements

Energex has prepared information provided in Template 6.8 table 6.8.1 STPIS Exclusions in accordance with the RIN requirements, including the Principles and Requirements set out in Appendix B (template), Appendix A and definitions in Appendix F to the RIN.

Energex has also applied the AER's clarification received on 18 March 2021 that the number of interruptions to be reported in column G of the Excel template is the number of customer interruptions (i.e. the number of customers impacted by interruptions).

Energex has populated all variables for cells shaded yellow as required by the RIN.

Energex has not populated information in relation to Momentary Feeder outages (MAIFI) which is greyed out and not applicable to it for the regulatory control period.

Sources

Energex has sourced data from its internal outage management and asset management systems (PON/EPM/NFM) for the relevant regulatory year.

Methodology

Energex queried the corporate reporting system EPM to retrieve all unplanned sustained transformer interruptions. Associated fields such as category, duration, cause, Customer Minutes Lost (CML) and Customers Interrupted (CI) were recorded against these interruptions.

Data is to be in accordance with clauses 3.3(a), *Service Target Performance Incentive Scheme* (December 2018), including Customer Installation Faults/Failures which reside beyond the electricity supply network. STPIS Exclusions requires Energex to enter details of all exclusions for the relevant regulatory year.

In order to obtain the information for the relevant regulatory year, Energex applied the following:

- Relevant Financial Year (Between 1 July and 30 June)
- Completed unplanned sustained (> 3 min) interruptions
- Feeder Classifications: CBD, UR & SR
- Inclusive of events caused by a customer's electrical installation, failure or request of that electrical installation which only affects supply to that customer is not deemed an interruption as defined, in STPIS 2018 [Appendix A]. These following events have been confirmed through site inspection to have resulted from faults and failures within the customer's installation or request and as such are considered to be an event beyond the boundary of the

electricity supply network and therefore handles as an exclusion from reported reliability performance under the STPIS.

Date of event records the date that the outage event commenced.

Outage ID records the Outage Event Unique Identifier of the event.

Feeder ID/Name records the Feeders asset name interrupted.

Feeder classification are CBD, Urban (UR) and Short Rural (SR) as per the definitions in Appendix A of the AER's Electricity DNSP's, STPIS (December 2018).

Cause of Event category as provided by the AER in the RIN.

Unplanned Number of Interruptions represents the Number of Customers Interrupted on a Feeder affected within the Interruption. One outage could be interrupting supply across multiple feeders and Feeder Categories.

Unplanned Duration of Interruption records the minutes from the commencement of the feeder within the outage event. Duration between when First Customer that lost supply on a feeder and when last customer is restored on a feeder.

Total unplanned minutes off supply represents the contribution to an individual feeder's unplanned customer minutes by an outage event.

Event category referring to the exclusion ID number in accordance with clauses 3.3(a), *Service Target Performance Incentive Scheme* (December 2018).

Effect on unplanned MAIFI by feeder classification not required.

Please provide separate explanation to confirm the outage was not due to inadequate transmission connection planning records the detailed exclusion in accordance with clauses 3.3(a), *Service Target Performance Incentive Scheme* (December 2018).

Assumptions

No assumptions were made.

Estimated Information

Not applicable. Energex has provided actual information.

Explanatory Notes

Not applicable.

BoP - 6.9 STPIS GSL

Table 6.9.1 - Guaranteed Service Levels - Jurisdictional GSL Scheme

Compliance with the RIN Requirements

Table 5.1 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 5.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
Table 6.9.1 collects information relating to jurisdiction GSL scheme parameters. These parameters can be found in the jurisdictional scheme relevant to NSP. Please identify each parameter in the relevant sub-tables and provide the volume and value of GSL payments. For GSL parameters that do not fit within the provided sub-tables provided, please enter a heading and identify the relevant parameter(s).	GSLs have been reported as per their categorisation in the Electricity Distribution Network Code (Section 2.3).

Sources

Table 5.2 specifies the sources from which Energex obtained the required information:

Table 5.2 Data Sources

Variable	Source
GSL Data - Responsible Area	Cherwell (Complaints Management System)
GSL Data - Count and Payment Value	EPM

Methodology

Guaranteed Service Level (GSL) payments are processed using the corporate Complaint Management System (Cherwell). The implementation of Cherwell allowed GSL's to be automatically identified in the vast majority of instances; additionally, customers/staff can manually raise a GSL request.

Daily the information contained in Cherwell undergoes an Extract Transform Load (ETL) process and is made available in the Energex Data Warehouse. This data can be accessed via the Energex Performance Management (EPM) platform.

Once the data is extracted it goes through a series of checks to ensure its veracity. These include but are not limited to;

- Cross referencing of data to the quarterly EDNC reports provided to the QCA
- Data validation against the dollar values and analysis of any abnormalities using the source system
- Sample set randomly selected and checked against the source system.

These methods in combination with the processes utilised by the Customer Investigations and Resolutions (CIR) team ensure that the data provided is accurate.

Please note, that the dollar figure for each category will not always be divisible by the GSL payment amount. These instances have been investigated and it has been identified that this is the result of one or more premises reaching the payment cap for GSL's for the financial year ($496) as well as the updated GSL scheme for the 2020-25 period and the cross-over with the previous scheme amounts.

Assumptions

GSL's have been identified using the categories in the Queensland Competition Authority's (QCA) Electricity Distribution Network Code (EDNC).

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Energex complies with version 4 of the Electricity Distribution Network Code which took effect on 1 July 2020. Version 4 implemented changes to the GSL scheme arising from the QCA’s review, completed in 2019, of the scheme.

BoP - 7.8 Avoided TUOS Payments

Table 7.8.1 - Avoided TUOS Payments

Compliance with the RIN Requirements

Table 6.1 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 6.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
Avoided TUOS payment are the payments made by Energex in accordance with clause 5.5(h) of the NER: A Distribution Network Service Provider must pass through to a Connection Applicant the amount calculated in accordance with paragraph (i) for the locational component of prescribed TUOS services that would have been payable by the Distribution Network Service Provider to a Transmission Network Service Provider had the Connection Applicant not been connected to its distribution network ('avoided charges for the locational component of prescribed TUOS services').	Energex has reported Avoided TUOS payment in accordance with the clause 5.5(h) of the NER.
Embedded generators NER definition: A Generator who owns, operates or controls an embedded generating unit.	Energex has reported Avoided TUOS payment in accordance with the NER definition for Embedded Generators. Energex has applied these definitions consistently.
Market network service providers NER definition: A Network Service Provider who has classified any of its network services as a market network service in accordance with Chapter 2 and who is also registered by AEMO as a Market Network Service Provider under Chapter 2.	Not applicable
Other (avoided TUOS payment) is any avoided TUOS payment made by a person that is not an Embedded Generator or Market Network Service Provider.	Not applicable

Sources

Table 6.2 below demonstrates the sources from which Energex obtained the required information:

Table 6.2 Data Sources

Variable	Source
Embedded generators	Separately identified in the SAP Statutory Trial Balance FIR3021
Market network service providers	Not applicable
Other	Not applicable

Methodology

A specific account code from the SAP Statutory Trial Balance FIR3021 is used to identify Avoided TUOS payments.

Assumptions

No assumptions were made.

Estimated Information

Energex has provided Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

BoP - 7.10 Juris Scheme

Table 7.10.1 - Jurisdictional Scheme Payments

Compliance with the RIN Requirements

Table 7.1 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 7.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
Business must list each relevant jurisdictional scheme individually and report information for each scheme separately from other schemes. Jurisdictional Scheme Payment In respect of a Jurisdictional Scheme, the amounts Energex is required under the Jurisdictional Scheme obligations to: • pay to a person • pay into a fund established under an Act of a participating jurisdiction • credit against charges payable by a person • reimburse a person • less any amounts recovered by the DNSP from any person in respect of those amounts other than under the NER.	The Queensland Solar Bonus Scheme (SBS) established under section 55A of the Electricity Act is classified as a jurisdictional scheme pursuant to clause 6.18.7A of the National Electricity Rules (NER). The Australian Energy Market Commission (AEMC) Levy is also classified as a jurisdictional scheme in accordance with rule 6.18.7A of the NER.

Sources

Table 7.2 below demonstrates the sources from which Energex obtained the required information:

Table 7.2 Data Sources

Variable	Source
Solar PV	SAP Statutory Trial Balance FIR3021
Australian Energy Market Commission Levy	SAP FIR3029 for Ellipse GL acct and element

Methodology

Solar PV - specific account code from SAP Statutory Trial Balance FIR3021 is used to identify Solar PV payments.

AEMC Levy - specific account code from the SAP FIR3029 Transaction details report is used to identify the AEMC levy payments.

Assumptions

No assumptions were made.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

BoP - 7.11 Demand Management Incentive Scheme

Table 7.11.1 - DMIS - Projects Submitted for Approval

Compliance with the RIN Requirements

Table 8.1 - Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
The Demand Management Incentive Scheme applying to Energex as set out in the 2020-25 Distribution Determination.	Eligible and Committed projects have been identified and are detailed in the Energex Demand Management Incentive Scheme Annual Report 2020-21. Template 7.11.1 - Demand Management Incentive Scheme for 2020-21 has been completed outlining the DMIS projects submitted for approval as part of Schedule 1.

Sources

Table 8.2 - Demonstration of Compliance

Variable	Source
DMIS Projects submitted for Approval (Operating Expenditure and Capital Expenditure)	Report AR RIN 7.11.1 DMIS-Projects Submitted for Approval

Methodology

The information provided in Table 7.11.1 DMIS is operational expenditure and relevant net benefit of AER approved committed projects for 2020-21. Operating and capital expenditure (direct cost) for each project is obtained from Report AR RIN 7.11.1 DMIS-Projects Submitted for Approval. For DMIS, each project can be identified by a project name that has a DMIS prefix.

Assumptions

No assumptions were made.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

Table 7.11.2 - DMIAM - Projects Submitted for Approval

Compliance with the RIN Requirements

Table 9.3 - Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
The Demand Management Innovation Allowance Mechanism applying to Energex as set out in the 2020-25 Distribution Determination.	The AER approved the current DMIAM allowance of $1.1 million per annum for the 2020-25 regulatory period. The actual spend for DMIAM projects in 2020-21 met the annual allowance.

Sources

Table 9.4 - Demonstration of Compliance

Variable	Source
DMIAM Projects submitted for Approval (Operating Expenditure and Capital Expenditure)	Report AR RIN 7.11.2 DMIAM-Projects Submitted for Approval

Methodology

The information provided in Table 7.11.2 DMIAM and projects submitted for approval is consistent with what is reported in Schedule 1 of the RIN. Operating and capital expenditure (direct cost) for each project is obtained from Report AR RIN 7.11.2 DMIAM-Projects Submitted for Approval. For DMIAM, each project is identified by a project name that has a DMIA prefix.

Assumptions

No assumptions were made.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

BoP - 8.1 Income

Table 8.1.1 - Income Statement

Table 8.1.1.1 - Revenue

Table 8.1.1.2 - Expenditure

Table 8.1.1.3 - Profit

Compliance with the RIN Requirements

Table 10. below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 10.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
Audited statutory accounts: Energex is required to provide financial information that has been prepared in accordance with the *Corporations Act*, including relevant accounting standards. This definition encompasses audited statutory trial balance if the DNSP is not required to submit General or Special Purpose Financial Statements as a statutory reporting requirement for the regulatory year under the *Corporations Act*.	All disclosures have been reconciled to the Audited Statutory Trial Balance of Energex's Parent Entity, Energy Queensland Limited.
The adjustments made to Audited statutory accounts to arrive at the accounts for the Distribution Business. The adjustments should include unregulated activities and any other adjustments.	Adjustments reflect both regulated, unregulated and other regulatory adjustments. Regulated adjustments relate to reclassifications within the Annual Performance Regulatory Information Notice (AR RIN) while unregulated adjustments relate to items that are treated as unregulated under the AER service classification framework. Other regulatory adjustments relate to CAM addendum changes, recognition of debt raising costs and ACS metering opex costs.
Distribution Business comprises standard control services + alternative control services + negotiated services.	As Energex does not currently have negotiated services, Distribution Business comprises both Standard Control Services and Alternative Control Services only.
Standard control services as defined in the 2020-25 Distribution Determination.	Standard control services have been reported in line with the AERs Final Decision for the 2020-25 Regulatory control period.
Alternative control services must align with those alternative	Alternative control services align with the services set out in

control services set out in the 2020-25 Distribution Determination (Attachment 12 - Classification of services June 2020)	Attachment 12 - Classification of Services June 2020.
8.1.1.1.1 Revenue - Definition	
Distribution Revenue is revenue earned from the provision of standard control services, alternative control services and negotiated services and excludes capital contributions.	Distribution revenue reflects both standard control and alternative control services. Capital contributions are excluded. Energex does not currently have any negotiated services.
Dual function assets are high-voltage transmission assets forming part of a distribution network.	Energex does not operate dual function assets.
Cross boundary revenue is Inter-DNSP revenue which is revenue from another DNSP for using Energex's distribution network.	Not applicable as no cross boundary revenue is reported.
Capital contributions (customer contributions) from unrelated parties provided to Energex in relation to the provision of services, including connection, public lighting or augmentation activities (net of standard service changes). The amount contributed can be either monetary or in the form of a contributed (gifted) asset.	Capital contributions revenue has been reconciled to the Audited Statutory Accounts. The adjustment represents a reclassification for Ancillary Network Services Revenue – Major from Other Revenue to Contribution revenue.
TUOS revenue is revenue from TUOS charges.	TUOS revenue has been reconciled to the Audited Statutory Accounts.
Jurisdictional scheme amounts has the meaning given in clause 6.18.7A(d)	Jurisdictional scheme amounts represent Solar PV.
Recoverable works (revenue) is revenue recovered by Energex from a responsible party or third party in relation to recoverable works expenditure incurred.	Recoverable works revenue represents recoveries for emergency repairs recovered from a customer. These represent recoveries for costs to repair damage on the network following a person's act or omission, for which that person is liable, and are successful in later recovering such costs under common law.
8.1.1.2 - Expenditure - Definition	
TUOS cost is transmission charges to be paid to transmission network service providers which include Avoided TUOS payments. **Avoided TUOS payments** are the payments made by Energex in accordance with clause 5.5(h) of the NER **Cross boundary charges** are inter-DNSP payments which are the cost of using another DNSP's distribution network.	TUOS costs reflect payments made to transmission network service providers. As per the requirements of Template 8.1.1 avoided TUOS payments and cross boundary expenditure are disclosed separately.
Finance charges include for the purpose of the Financial	Finance charges include capitalised interest and finance

Information Templates (Income worksheet) interest expenses.	lease interest charge. The CAM addendum file has removed the finance lease interest charge component.
Impairment losses are a special, non-recurring charge taken to write down an asset with an overstated book value.	Impairment losses are included in depreciation, amortisation and impairment expense in statutory accounts but have been disclosed separately for AR RIN reporting purposes.
Jurisdictional Scheme Payment In respect of a Jurisdictional Scheme, the amount a DNSP is required under the Jurisdictional Scheme obligations to: (a) pay to a person (b) pay into a fund established under an Act of a participating jurisdiction (c) credit against charges payable by a person (d) reimburse a person less any amount recovered by the DNSP from any person in respect of those amounts other than under the NER.	The Queensland Solar Bonus Scheme (SBS) established under Section 55A of the Electricity Act is classified as a jurisdictional scheme pursuant to clause 6.18.7A of the National Electricity Rules. The Australian Energy Market Commission (AEMC) levy is also classified as a jurisdictional scheme in accordance with rule 6.18.7A of the NER.
Maintenance expenditure is those expenditures which are directly and specifically attributable to Maintenance that are not Capital Expenditure.	Maintenance expenditure has been reported in line with the AERs specified requirements.
Operating expenditure excluding maintenance expenditure is Energex's operating expenditure excluding any Maintenance expenditure.	Operating expenditure has been reported in line with the AERs specified requirements.
Recoverable works is the expenditure incurred by Energex in relation to recoverable works	Recoverable works represents recoverable works expenditure for damage to the network. Where Energex is successful in recovering the cost of the emergency repairs from a third party, this payment or revenue is netted off from expenditure on regulated activities.

Sources

Table 10.1 below demonstrates the sources from which Energex obtained the required information:

Table 10.1 Data Sources

Variable	Source
Distribution revenue (excluding DFA revenues)	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Dual function asset revenue (TX)	Not applicable as no revenue reported
Cross boundary revenue	Not applicable as no revenue reported
Contributions	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP

	Regulatory model
Interest income	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Jurisdictional scheme amounts	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Profit from sale of fixed assets	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
TUOS revenue	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Pass through revenue (F-factor)	Not applicable as no revenue reported
Recoverable works	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Other revenue	FIR3027 SAP Data extract and FIC3018 SAP Regulatory model
TUOS expenditure	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Avoided TUOS expenditure	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Cross boundary expenditure	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Depreciation	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model, Ellipse fixed asset register, RFM, EB RIN Assets
Finance charges	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Impairment losses	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Jurisdictional scheme amounts	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Loss from sale of fixed assets	FIR3021 SAP Statutory Trial Balance and FIC3018 SAP Regulatory model
Maintenance expenditure	FIR3027 SAP Data extract and FIC3018 SAP Regulatory model

Operating expenditure excluding maintenance expenditure	FIR3027 SAP Data extract and FIC3018 SAP Regulatory model
Recoverable works	FIR3027 SAP Data extract and FIC3018 SAP Regulatory model
Other	FIR3027 SAP Data extract and FIC3018 SAP Regulatory model
Income tax expense	FIR3021 Statutory Trial Balance, Ellipse fixed asset register

Methodology

Audited Statutory Accounts

The audited statutory accounts information is extracted from the SAP general ledger. Adjustments are made between the audited statutory accounts and the AR RIN.

Adjustments

Adjustments reflect both regulated and unregulated adjustments together with CAM addendum adjustments. Regulated adjustments relate to reclassifications within the regulatory accounts while unregulated adjustments relate to items that are treated as unregulated under the AER framework. Further details on these adjustments can be found in Schedule 1 section 1.2.

Standard Control Services and Alternative Control Services Revenue Approach

Table 10.2 Demonstration of Compliance

Revenue Variable	Approach
Distribution revenue (excluding DFA revenues)	Separately identified in the FIR3021 SAP Statutory Trial Balance into their respective SCS and ACS components
Dual function asset revenue (TX)	Not applicable
Cross boundary revenue	Not applicable
Contributions	Separately identified in the FIR3021 SAP Statutory Trial Balance into their respective SCS and ACS components
Interest income	Classified as Unregulated under the AER framework
Jurisdictional scheme amounts	Separately identified in the FIC3018 SAP Regulatory Model by a specific account code
Profit from sale of fixed assets	Written down value (WDV) of disposed assets is reclassified to Loss from Sale of Fixed Assets. Gross proceeds from sale

	of assets are classified as unregulated.
TUOS revenue	Separately identified in the FIR3021 SAP Statutory Trial Balance
Pass through revenue (F-factor)	Not applicable
Recoverable works	Separately identified in the FIR3027 Report Item Details by Functional Area
Other revenue	Separately identified in the FIR3027 Report Item Details by Functional Area
TUOS expenditure	Separately identified in the FIC3018 SAP Regulatory Model
Avoided TUOS expenditure	Separately identified in the FIC3018 SAP Regulatory Model
Cross boundary expenditure	Separately identified in the FIC3018 SAP Regulatory Model
Depreciation	Separately identified in the FIC3018 SAP Regulatory Model, Ellipse fixed asset register, RFM, EB RIN Assets
Finance charges	Separately identified in the FIC3018 SAP Regulatory Model
Impairment losses	Separately identified in the FIC3018 SAP Regulatory Model
Jurisdictional scheme amounts	Separately identified in the FIC3018 SAP Regulatory Model
Loss from sale of fixed assets	Ellipse fixed asset register
Maintenance expenditure	Separately identified in the FIC0318 SAP Regulatory Model, Opex accounts
Operating expenditure excluding maintenance expenditure	Separately identified in the FIC3018 SAP Regulatory Model, Opex accounts
Recoverable works	Separately identified in the FIC3018 SAP Regulatory Model
Other	Separately identified in the FIC3018 SAP Regulatory Model
Income tax expense	Separately identified in the FIC3018 SAP Regulatory Model, Ellipse fixed asset register

Assumptions

No assumptions were made.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

BoP - 8.2 CAPEX

Table 8.2.1 - CAPEX by Purpose - Standard Control Services

Compliance with the RIN Requirements

Table 11.1 below demonstrate how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 11.1 Demonstration of Compliance.

Requirements (instructions and definitions)	Consistency with requirements
Reported expenditure must INCLUDE capital contributions. Forecast expenditure is to be taken from Energex's 2020-25 Distribution Determination. If allocating based on assumptions, then provide method in Basis of Preparation. All adjustments must be explained in Basis of Preparation with supporting documentation attached.	Energex has reported Capital contributions for both Standard Control Services (SCS) and Alternative Control Services (ACS) (excluding public lighting) in Table 8.2.1. Capital contributions are included in the 'Connections and customer-initiated works' line item. Capital contributions only includes Type 1 capital contributions.
For tables 8.2.1 and 8.2.3: Reported expenditure must INCLUDE any profit margins or management fees paid directly or indirectly to related party contractors (not including actual incurred expenses of the related party contractor) for the regulatory reporting period. 'Related Party Margin Expenditure' must COMPRISE ONLY profit margins or management fees paid directly or indirectly to related party contractors (not including actual incurred expenses of the related party contractor) for the regulatory reporting period.	Energex has reported all 'Related Party Margin Expenditure' including profit margins or management fees paid directly or indirectly to related party contractors (not including actual incurred expenses of the related party contractor) for the regulatory reporting period. The 'Related Party Margin Expenditure' only comprises of profit margins or management fees paid directly or indirectly to related party contractors (not including actual incurred expenses of the related party contractor) for the regulatory reporting period.
8.2.1 Capex by purpose - Standard Control Services Each line item in this table 8.2.1 must INCLUDE the capital contributions. Capex by purpose (or driver) categories must reflect the categories in Energex's 2020-25 Distribution Determination to enable a direct comparison to be made between forecast and actual data. (These categories should match those in Worksheet 2.1 (Expenditure Summary), Table 2.1.1 of Energex's Reset RIN response, except where specific adjustments were made by the AER in its determination). Adjusted forecast to be in equivalent dollar terms to the	Energex has reported Capital contributions for both Standard Control Services and Alternative Control Services (excluding public lighting) in Table 8.2.1. Capital contributions are included in the 'Connections and customer-initiated works' line item. Capital contributions only includes Type 1 capital contributions. Energex has reported capex in accordance with Energex's 2020-25 Distribution Determination. The adjusted forecast methodology is documented in the 'Methodology' section below. This approach also applies to tables 8.2.3, 8.2.4, 8.2.5, 8.2.6 and 8.2.7.

actual expenditure for the Relevant Regulatory Year.	
8.2.1 Capex by Purpose - SCS - Voltage Level (Subtransmission, HV, LV, other)	
Asset replacement	Demonstrated in Approach
Augmentation	Demonstrated in Approach
Connections and customer-initiated works	Demonstrated in Approach

Sources

Table 11.2 below demonstrate the sources from which Energex obtained the required information:

Table 11.2 Data Sources

Variable	Source
AR RIN Template 8.2.1 Capex by Purpose - Standard Control Services – Capex by Expenditure	
Asset replacement	FIC3013 Ellipse Regulatory Model data extract FIN084, ABS, 2020 Determination
Augmentation	FIC3013 Ellipse Regulatory Model data extract FIN084, ABS, 2020 Determination
Connections and customer-initiated works	FIC3013 Ellipse Regulatory Model data extract FIN084 and FIR3029, EQL Tax gifted assets summary, ABS, 2020 Determination
Non-network	SAP FIR3027 Capex hierarchy for non-network categories, ABS, 2020 Determination, Energex Cost Allocation Method (CAM) effective 1 July 2020 workpaper
Capitalised network overheads	FIC3013 Ellipse Regulatory Model data extract FIN084, ABS, 2020 Determination
Capitalised corporate overheads	FIC3013 Ellipse Regulatory Model data extract FIN084, ABS, 2020 Determination
Related Party Margins	Ergon Energy provided Margin information based on invoice numbers issued to Energex that fall within Energex's AP data. The transactions with related party margins were mapped into the AR RIN categories.
AR RIN Template 8.2.1 Capex by Purpose - SCS - Voltage Level (Subtransmission, HV, LV, other)	
Asset replacement	SAP HANA

Augmentation	Tableau reporting solution for financial transactions
Connections and customer-initiated works	DMA RIN Solution
AR RIN Template 8.2.1 Capex by Purpose - Standard Control Services – Related Party Margins	
Asset replacement	Ellipse General Ledger, ABS, 2020 Determination
Augmentation	Ellipse General Ledger, ABS, 2020 Determination
Connections and customer-initiated works	Ellipse General Ledger, ABS, 2020 Determination
Non-network	Ellipse General Ledger, ABS, 2020 Determination, Energex Cost Allocation Method (CAM) effective 1 July 2020, 2020-21 Energex CAM Work paper (CAM WP)
Capitalised network overheads	FIC3013 Ellipse Regulatory Model data extract FIN084, ABS, 2020 Determination
Capitalised corporate overheads	FIC3013 Ellipse Regulatory Model data extract FIN084, ABS, 2020 Determination
Related Party Margins	Ergon Energy provided Margin information based on invoice numbers issued to Energex that fall within Energex's AP data. The transactions with related party margins were mapped into the AR RIN categories.

Methodology

Capex by expenditure

The appropriate disaggregation of the Forecast amounts has been determined based on the AER's Queensland Distribution Determination 2020-21 to 2025-26 (the Final Decision), which is the culmination of:

- Energex's proposed expenditure and revenue requirements sourced from Energex's Regulatory Proposal 2020-2025 (the Proposal);
- Amendments to the Proposal's capital and operating programs as directed by the AER in the Final Decision; and
- Amendments to the Proposal's expenditure and revenue requirements (including escalation factors) as directed by the AER in the Final Decision.

Energex prepared detailed Forecast calculations which formed the Forecast totals included in the Final Decision. The detailed information was sourced from the Proposal at the detailed level and updated based on the AER Final Decision.

For the AR RIN, the Forecast amounts also include an adjustment for the actual Consumer Price Index (CPI). In accordance with the Final Decision, the CPI applied is for the six-month period to December 2020 to obtain the December 2020 dollars Weighted Average of Eight Capital Cities as per the Australian Bureau of Statistics. Thereafter the CPI inflation rate will be an annual inflation rate for December to December for the remainder of the regulatory control period.

In recognition of the use of non-network assets in the delivery of ACS, an allocation of non-network capex is made in accordance with Energex approved CAM. This adjustment between SCS, ACS (excluding metering – this is recognised in opex) and Unregulated is reflected in the general ledger each month.

The AER approved the allocation method of non-network assets to service classifications on the basis of the share of direct labour. There is a strong causal relationship between the number of staff and the need for and use of non-network activities. This adjustment is also reflected in Template 8.2.3 Capex Other (to include the ACS allocation (excluding Metering)).

Related Party Margins

Ergon Energy provided Margin information based on invoice numbers issued to Energex that fall within Energex's AP data. The transactions with related party margins were mapped into the AR CAPEX RIN categories.

Capex by Voltage Level

Connections

- Connections Capex in Table 8.2.3 has been classified as "Other". This represents the allocation of non-network capex made in accordance with Energex approved CAM, together with in-kind capital contributions.

Table 11.3 below demonstrates the approach used to obtain the required information.

Table 11.3 Approach

Variable	Source
8.2.1 Capex by Purpose - SCS - Voltage Level (Subtransmission, HV, LV, other)	
Asset replacement	The Category Analysis (CA) RIN Repex AER Asset classes have been mapped based on AR RIN requirement as follows: CA RIN AER Asset Class with Voltage AR RIN category <=1KV LV >1kV<=22kV HV >22kV Sub-Transmission SCADA, Public Lightning, other non-AER assets (e.g.: Batteries, OHEW) Other CA RIN Repex expenditure for respective AER asset classes were consolidated and allocated accordingly to AR RIN categories.
Augmentation	The Category Analysis (CA) RIN Augex AER Asset classes have been mapped based on AR RIN requirement as follows: CA RIN Augmentation CAPEX Category AR RIN Category • 'LV Feeders' LV • 'HV Feeders' and 'Distribution Substations' HV • 'Subtransmission Lines' and 'Subtransmission Substations, Switching Stations, Zone Substations' Sub-Transmission • 'Other Assets' and 'Land Purchases and Easements' Other The CA RIN categories were consolidated and allocated accordingly to AR RIN categories.
Connections and customer-initiated works	CA RIN AER Asset Class with Voltage AR RIN category • <=1KV LV • >1kV<=22kV HV

	• >22kV Sub-Transmission N/A Other

Assumptions

Asset Replacement

- AR RIN Asset replacement expenditure is obtained by mapping Category Analysis (CA) RIN template Table 2.2.1 AER asset class to respective Annual Reporting (AR) RIN category (LV, HV, Sub Transmission and others) based on voltage level (refer section 16.3.2 below).
- For full details on CA RIN Table 2.2.1 process, refer basis of preparation document BoP 2.2.1 Repex Expenditure and Volume.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Non-network ICT services were previously provided by a related third party (“Sparq Solutions”) and an asset service fee and operational charge was treated as an operating cost in Energex/Ergon Energy. This cost formed part of the general overhead pool which was allocated to the program of work under the CAM applicable at that time. From 2020-21, organisational changes have resulted in ICT services being provided in-house and the capital and operating costs are now allocated under the 2020-25 CAM. As a result, there will be no related party ICT costs reported and the actual ICT capex will be included in the respective RAB’s and operating costs will be recorded in opex or overheads as applicable and allocated based on the CAM.

Table 8.2.2 - CAPEX by Purpose - Material Difference Explanation

Compliance with the RIN Requirements

Not applicable.

Sources

AR RIN Table 8.2.1

Methodology

Not applicable.

Assumptions

No assumptions have been made.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

Table 8.2.3 - CAPEX Other

Compliance with the RIN Requirements

Table 11.4 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 11.4 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
8.2.3 Capex Other Alternative control services must align with those alternative control services set out in the 2020-25 Distribution Determination (Attachment 12 - Classification of services June 2020).	Energex has reported Alternative Control Services in accordance with the 2020-25 Distribution Determination (Attachment 12 - Classification of Services June 2020). Capital contributions for public lighting and connections have been included.
Related Party Margin	Ellipse system entries of Ergon Energy accounts payable transactions and intercompany transactions with Inter District Indicators (IDIs). Margin amount is provided by the relevant Ergon Energy department.
8.2.3 Capex Other - Voltage Level (Subtransmission, HV, LV, other) – Capex by Voltage level	
Public lighting	Demonstrated in Approach
Connection services	Demonstrated in Approach
Metering services	Demonstrated in Approach
Ancillary network services	Demonstrated in Approach

Sources

Table 11.5 below demonstrate the sources from which Energex obtained the required information:

Table 11.5 Data Sources

Variable	Source
AR RIN Template 8.2.3 Capex Other	
Public lighting	FIC3013 Ellipse Regulatory Model data extract FIN084, ABS, Capex hierarchy for non-network categories, Energex Cost Allocation Method (CAM) effective 1 July 2020 workpaper.
Connection services	SAP FIR3029 for capital contributions, SAP FIR3027 Capex hierarchy for non-network categories, Energex Cost

	Allocation Method (CAM) effective 1 July 2020 workpaper.
Metering services	Meter Replacement Program costs and non-network metering capex allocation have been reflected in ACS metering opex as no capex was provided for Energex metering in the 2020-2025 regulatory determination.
Ancillary network services	SAP FIR3027 Capex hierarchy for non-network categories, Energex Cost Allocation Method (CAM) effective 1 July 2020 workpaper.
Related Party Margins	Ergon Energy provided Margin information based on invoice numbers issued to Energex that fall within Energex's AP data. The transactions with related party margins were mapped into the AR RIN categories.
AR RIN Template 8.2.3 Capex Other - Voltage Level (Subtransmission, HV, LV, other) – Capex by Voltage level	
Public lighting	FIC3013 Ellipse Regulatory Model data extract FIN084, Capex hierarchy for non-network categories, Energex Cost Allocation Method (CAM) effective 1 July 2020 workpaper.
Connection services	SAP FIR3029 for capital contributions, SAP FIR3027 for Capex hierarchy non-network categories, Energex Cost Allocation Method (CAM) effective 1 July 2020 workpaper.
Metering services	N/A
Ancillary network services	FIR3027 for Capex hierarchy non-network categories, Energex Cost Allocation Method (CAM) effective 1 July 2020 workpaper.

Methodology

Refer to Template 8.2.1 for the methodology applied to derive the Forecast amounts and the non-network capital expenditure allocation.

Each ACS line item reflects the non-network capital allocation discussed above in Template 8.2.1 Capex by Purpose. Metering capex has been reflected in metering opex. Ancillary Network Services capex for rearrangement of network assets is excluded on the basis that this expenditure is funded by the customer and is not added to the relevant asset base for regulatory purposes. These activities are recognised as capex for statutory reporting purposes.

Capital contributions have been included for public lighting and connections ACS service types. In certain instances, there may be differences between the capital expenditure incurred and the revenue billed to the customer due to timing differences. A summary of these timing differences is provided below:

Service Type	Expenditure	Revenue	Variance
Connection Services	36,283,569.08	35,784,787.03	498,782.05
Ancillary Network Services	11,520,980.16	13,674,168.07	- 2,153,187.91

Energex does not have any Negotiated Services.

Related Party Margin

Ergon Energy provided Margin information based on invoice numbers issued to Energex that fall within Energex's AP data. The transactions with related party margins were mapped into the AR CAPEX RIN categories.

Capex by Voltage Level

Public lighting

- LV
- Separately identified in the FIC3013 Ellipse Regulatory Model FIN084. Disclosure includes capital contributions, capitalised overhead and non-network capital expenditure allocation.

Connection services

- Disclosure represents non-network capital expenditure allocation and includes Type 2 capital contributions.

Ancillary network services

- Disclosure represents non-network capital expenditure allocation. Ancillary network services have no capital contribution revenue.

Metering Services

- Meter replacement program capex and non-network capital expenditure allocation has been reflected in ACS Metering opex.

Assumptions

Not applicable.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Variance explanations are provided by purpose, rather than by asset class. These variance explanations can be found in Template 8.2.2.

Table 8.2.4 - CAPEX by Asset Class

Compliance with the RIN Requirements

Table 11.6 below demonstrate how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 11.6 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
8.2.4 Capex by Asset Class Energex to enter in Table 8.2.4 each Asset Class specified in 2020-25 distribution determination as listed in the AER's final decision in its Roll Forward Model and Post - tax Revenue Model and enter information against that asset class.	Energex has entered information against each asset class specified in the 2020-25 Distribution Determination. Energex has included Type 1 capital contributions in each asset class, as per the AER instructions for this table.

Sources

Table 11.7 below demonstrate the sources from which Energex obtained the required information:

Table 11.7 Data Sources

Variable	Source
AR RIN Template 8.2.4 Capex by Asset Class	
Each individual asset class listed in the AER - Final decision - Energex distribution determination - Post tax revenue model – June 2020	FIC3013 Ellipse Regulatory Model FIN084, SAP FIR3027 Capex hierarchy for non-network categories, ABS, 2020 Determination, Energex Cost Allocation Method (CAM) effective 1 July 2020 workpaper.

Methodology

Refer to Template 8.2.1 for the methodology applied to derive the Forecast amounts and the non-network capital expenditure allocation.

Capex projects which do not have specific asset categories assigned are allocated to regulatory asset categories based on the general ledger activity code used for the project.

Forecast and actual amounts include capital contributions for connections, large customer connections and subdivisions. Actuals include capital contributions for Type 1 capital contributions. These include cash contributions for SCS and ACS and a portion of ACS gifted assets for Energex constructed assets, which have been separately identified.

Each SCS non-network asset class reflects the non-network capital allocation to other service classifications discussed above in Template 8.2.1 Capex by Purpose.

Movements in provisions are allocated on a pro-rata basis to as-incurred capex for the various asset classes and are deducted from each asset class capex spend.

Assumptions

Not applicable.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

Table 8.2.5 - Capital Contributions by Asset Class

Compliance with the RIN Requirements

Table 11.8 below demonstrate how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 11.8 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
8.2.5 Capital Contributions by Asset Class Capital contribution represents payments from unrelated parties provided to Energex in relation to the provision of services, including connection, public lighting or augmentation activities (net of standard service charges). The payment can be either monetary or in the form of a contributed (gifted) asset. Total capital contributions means the aggregate of type 1 capital contributions, type 2 capital contributions, and PWC undergrounding capex (equity funded). Asset class is the classes set out in Energex's PTRM and RFM as approved in the 2020-25 Distribution Determination.	Energex has reported capital contributions for each asset class set out in Energex's PTRM and RFM as approved in the 2020-25 Distribution Determination. Energex has split out the Type 1 and Type 2 capital contributions in line with the AER requirements.

Sources

Table 11.9 below demonstrate the sources from which Energex obtained the required information:

Table 11.9 Data Sources

Variable	Source
AR RIN Template 8.2.5 Capital Contributions by Asset Class	
Each individual asset class listed in the AER - Final decision - Energex distribution determination - Post tax revenue model - June 2020	Ellipse General Ledger - data extract FIN062 and SAP data extract FIR3029, EQL Tax gifted assets summary, ABS, 2020 Determination

Methodology

Refer to Template 8.2.1 for the methodology applied to derive the Forecast amounts.

Capital contributions for both Standard Control Services and Alternative Control Services (excluding public lighting) have been included. Only Type 1 capital contributions have been included. These have been identified as cash contributions for SCS and ACS (excluding street lighting) together with

specifically identified Energex built gifted assets. The remainder of the gifted assets are considered Type 2 and have been excluded.

Assumptions

Not applicable.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

Table 8.2.6 - Disposals by Asset Class

Compliance with the RIN Requirements

Table 11.10 below demonstrate how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 11.10 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
8.2.6 Disposal by Asset Class Disposal is the gross proceeds from the sale of assets.	Energex has reported disposals as the gross proceeds from the sale of assets.

Sources

Table 11.11 below demonstrate the sources from which Energex obtained the required information:

Table 11.11 Data Sources

Variable	Source
AR RIN Template 8.2.6 Disposals by Asset Class	
Each individual asset class listed in the AER - Final decision - Energex distribution determination - Post tax revenue model - October 2015	Ellipse fixed asset register, ABS

Methodology

Refer to Template 8.2.1 for the methodology applied to derive the Forecast amounts.

Assumptions

Not applicable.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

Table 8.2.7 – Immediate Expensing of CAPEX

Compliance with the RIN Requirements

Table 11.12 below demonstrate how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 11.12 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
8.2.7 Immediate Expensing of CAPEX Energex to enter in Table 8.2.7 each Asset Class specified in 2020-25 distribution determination as listed in the AER's final decision in its Roll Forward Model and Post - tax Revenue Model and enter information against that asset class.	Energex has entered information against each asset class specified in the 2020-25 Distribution Determination.

Sources

Table 11.13 below demonstrate the sources from which Energex obtained the required information:

Table 11.13 Data Sources

Variable	Source
Each individual asset class listed in the AER - Final decision - Energex distribution determination - Post tax revenue model – June 2020	FIC3013 Ellipse regulatory model data extract FIN084 for overheads, ABS, 2020 Determination

Methodology

Refer to Template 8.2.1 for the methodology applied to derive the Forecast amounts.

Capex projects which do not have specific asset categories assigned are allocated to regulatory asset categories based on the general ledger activity code used for the project.

Amounts represent regulated overhead for each asset class based on the FIC3013 Ellipse regulatory model data extract FIN084.

Assumptions

Not applicable.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

The reduction in immediate expensing of capital expenditure for tax purposes is primarily driven by an underspend in direct capex, with a further favourable impact due to a reduction in allocated overheads as a result of ongoing business efficiencies.

BoP - 8.4 OPEX

Table 8.4.1 - Operating & Maintenance Expenditure - by Purpose

Compliance with the RIN Requirements

Table 2.1 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 12.1 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
8.4.1 Operating & Maintenance Expenditure - by Purpose Energex is to list the operating expenditure categories identified in Energex's regulatory proposal at table 3.2.1.1 current opex categories and cost allocations Energex must specify any expenditure category where the expense is more than 5 per cent of the total standard control services operating expenditure Reported operating expenditure must INCLUDE any profit margins or management fees paid directly or indirectly to related party contractors (not including actual incurred expenditure of the related party contractor) for the regulatory reporting period.	Energex has reported opex in accordance with the categories identified in Energex's regulatory proposal and approved cost allocations. Energex has specified any expenditure category where the expense is more than 5 per cent of the total standard control services. No profit margins or management fees were paid directly or indirectly to related party contractors for the regulatory reporting period. On 24 March 2021, the AER approved Energex's request to combine Inspection costs with Planned Maintenance costs and report these as a new consolidated category of "Preventative Maintenance" as a result of Energy Queensland deploying a new operating system. Therefore, no costs will be reflected against Inspection costs in Energex's template 8.4.1 opex, as these are now reported under 'Preventative Maintenance".

Sources

Table 12.2 below demonstrates the sources from which Energex obtained the required information:

Table 12.2 Data Sources

Variable	Source
Preventative Maintenance	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Corrective repair	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination

Vegetation	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Emergency response/storms	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Other network maintenance costs	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Network operating costs	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Network billing and other energy market services (inc Meter Reading)	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Customer services (inc call centre)	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
DSM initiatives	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Levies	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Debt raising costs	SAP FIR3021 Statutory Trial Balance, Queensland Treasury Corporation interest rates, ABS, 2020-25 Determination
Other operating costs (inc self-insurance)	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, Non-network metering capex allocation, FIC3013 Ellipse Regulatory model FIN084, FIR3021 Statutory Trial Balance, ABS, 2020-25 Determination
Corporate allocations	SAP FIR3027 Report item details, FIC3018 SAP Regulatory model, ABS, 2020-25 Determination
Related Party Margin	Ellipse system entries of Ergon Energy accounts payable transactions and intercompany transactions with Inter District Indicators (IDIs). Margin amount is provided by the relevant Ergon Energy department.

Methodology

For the AR RIN, the Forecast amounts include an adjustment for the actual Consumer Price Index (CPI). In accordance with the Final Decision, the CPI applied is for the six months in 2020-21 to get December 2021 dollars using the Weighted Average of Eight Capital Cities as per the Australian Bureau of Statistics. Thereafter the CPI increase will be the annual December to December inflation for the remainder of the regulatory control period.

Energex has reported the opex values for table 8.4.1 in accordance with its current Cost Allocation Approach as detailed in Table 12.3 below:

Table 12.3 Approach

Variable	Approach
Preventative maintenance	Specific account code from Energex's FIC3018 SAP Regulatory model.
Corrective repair	Specific account code from Energex's FIC3018 SAP Regulatory model, including recognising the revenue received from recovering the cost of emergency repairs from a third party. This has been netted off from expenditure on regulated activities and hence forecasts in the future.
Vegetation	Specific account code from Energex's FIC3018 SAP Regulatory model.
Emergency response/storms	Specific account code from Energex's FIC3018 SAP Regulatory model.
Other network maintenance costs	Specific account code from Energex's FIC3018 SAP Regulatory model.
Network operating costs	Specific account code from Energex's FIC3018 SAP Regulatory model.
Network billing and other energy market services (inc Meter Reading)	Specific account code from Energex's FIC3018 SAP Regulatory model. ACS Energy Market Services costs are allocated to ACS service classifications (i.e. Street lighting, Connection, Ancillary and Metering services) based on the total spend for each service.
Customer services (inc call centre)	Specific account code from Energex's FIC3018 SAP Regulatory model. ACS Call Centre Costs are allocated to ACS service classifications (i.e. Street lighting, Connection, Ancillary and Metering Services) based on the total spend for each service.
DSM initiatives	Specific account code from Energex's FIC3018 SAP Regulatory model.
Levies	Specific account code from Energex's FIC3018 SAP Regulatory model. The adjustment between audited statutory accounts and distribution business relates to the Australian Energy Market Commission Levy as jurisdictional scheme payment is separately reported in Template 7.10.

Debt raising costs	Following the transfer of ownership of Ergon Energy and Energex from the state to Energy Queensland Limited (EQL) on the 30 June 2016, transfers of debt for both DNSPs were made in order to comply with the Government Owned Corporations Regulation 2016 (Regulation). The share of the State Government debt pool held by the DNSPs prior to the formation of the group was a liability held by each DNSP. In accordance with the Regulation, all DNSP debt (Queensland Treasury Corporation Loans) was transferred back to the Government debt pool. It was then transferred to the parent entity (EQL) at the carrying amount, such that: A share of Queensland debt is held in the EQL parent entity Importantly, no debt raising costs were incurred by the DNSPs during 2020-21 as no debt was raised or refinanced. To allocate the Energex portion of Debt Raising Costs from EQL, actuals have been calculated by multiplying the EQLD QTC fees expense by an annual QTC admin fee percentage to derive the total EQL debt raising costs to be allocated to each DNSP. They have been allocated to each DNSP based on their underlying PPE balances.
Other support costs	Separately identified in the FIC3018 SAP Regulatory model.
Corporate allocations	Specific account codes from Energex's FIC3018 SAP Regulatory model.
Related Party Margins	Ergon Energy provided margin information based on invoice numbers issued to Energex that fall within Energex's AP data. The transactions with related party margins were mapped into the AR OPEX RIN categories.

Assumptions

No assumptions were made.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Non-network ICT services were previously provided by a related third party (“Sparq Solutions”) and an asset service fee and operational charge was treated as an operating cost in Energex/Ergon Energy. This cost formed part of the general overhead pool which was allocated to the program of

work under the CAM applicable at that time. From 2020-21, organisational changes have resulted in ICT services being provided in-house and the capital and operating costs are now allocated under the 2020-25 CAM. As a result, there will be no related party ICT costs reported and the actual ICT capex will be included in the respective RAB's and operating costs will be recorded in opex or overheads as applicable and allocated based on the CAM.

Table 8.4.2 - Operating & Maintenance Expenditure - by Purpose - Margins Only

Compliance with the RIN Requirements

Table 12.4 below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 12.4 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
8.4.2 Operating & Maintenance Expenditure - By Purpose - Margins only "Related party margin expenditure' must COMPRISE ONLY profit margins or management fees paid directly or indirectly to related party contractors (for expenditure that is not an actual incurred expenditure of the related party contractor) for the regulatory reporting period. Adjusted forecast to be in equivalent dollar terms to the actual expenditure for the Relevant Regulatory Year	Energex reported all 'Related Party Margin Expenditure' including any profit margins or management fees paid directly or indirectly to related party contractors (not including actual incurred expenses of the related party contractor) for the regulatory reporting period.

Sources

Refer to Table 12.2 Data Sources above.

Methodology

Ergon provided margin information based on invoice numbers issued to Energex that fall within Energex's AP data. The transactions with related party margins were mapped into the AR OPEX RIN categories.

Assumptions

No assumptions were made.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.

Table 8.4.3 - Operating & Maintenance Expenditure - Explanation of Material Difference

Compliance with the RIN Requirements

Table 12. below demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 12.5 Demonstration of Compliance

Requirements (instructions and definitions)	Consistency with requirements
8.4.3 Operating & Maintenance Expenditure - Explanation of Material Difference Where the difference between forecast and actual expenditure shown in table 8.4.1, column I is a Material Difference please explain the main factors driving the difference.	All material differences identified in table 8.4.1 are explained in table 8.4.3.

Sources

AR RIN table 8.4.1

Methodology

Not applicable.

Assumptions

No assumptions have been made.

Estimated Information

Energex has provided actual information, in accordance with the AER's definition.

Explanatory Notes

Not applicable.

BOP – P1 Cost Reflective Tariff and Metering

Compliance with the RIN Requirements

Table 6.5 demonstrates how the information provided by Energex is consistent with each of the requirements specified by the AER.

Table 6.1- Demonstration of Compliance

Requirements (Notice and Definitions)	Consistency with Requirements
Notice Instructions Part B paragraph 2.29: Customer tariff assignment and metering data is to be collected from 2017–2018 (or the 2018 calendar year) until 2023 – 2024. (a) Non-Victorian distributors are to provide customer tariff assignment and metering data from 2017–2018 to 2023–2024 on a financial year basis.	Energex has reported information on a financial year basis.
Notice Instructions Part B paragraph 2.30: Non-Victorian distributors must: (a) complete and submit on 30 November 2021 the data required in *Regulatory Template* P1 in *Workbook 1 – Annual reporting – amended and Workbook 2 – New historical – amended* attached at Appendix A for each of the following years for which it has not previously provided audited or reviewed customer tariff assignment and metering data: (i) 2017–2018 regulatory year (ii) 2018–2019 regulatory year (iii) 2019–2020 regulatory year (iv) 2020–2021 regulatory year	This Basis of Preparation relates to the 2020-21 year reported in Workbook 1.
Notice Instructions Part B paragraph 2.32: Regulatory Template P1 instructions a) All meter and customer numbers provided must be as at 30 June of the relevant regulatory year where data is collected on a financial year basis or as at 31 December of the relevant regulatory year where data was collected on a calendar year basis.	Energex has reported meter and customer numbers for the year ending 30 June 2021.
Notice Instructions Part B paragraph 2.32: Regulatory Template P1 instructions b) Provide an explanation in the comment column of the timing and nature of any	Energex has provided explanations of the timing and nature of any material changes in the level and structure of tariffs in: • Table P1.2 Distribution Customer Numbers – Non-Cost

material changes in the level and structure of tariffs in the relevant regulatory year.	Reflective Tariffs – Interval/Smart Meters • Table P1.3 NMI Count – By Tariff Type Not Applicable for: • Table P1.1 Distribution Customer Numbers – by Meter Type
Notice Instructions Part B paragraph 2.32: Regulatory Template P1 instructions c) Provide in the comment column any details of any material tariff re-assignments in the relevant regulatory year.	Energex has provided explanations of material tariff re-assignments in: • Table P1.2 Distribution Customer Numbers – Non-Cost Reflective Tariffs – Interval/Smart Meters • Table P1.3 NMI Count – By Tariff Type Not Applicable for: • Table P1.1 Distribution Customer Numbers – by Meter Type
Appendix F Definitions: Customer Means a connection point between a distribution network and customer that has been assigned a National Metering Identifier, including energised and de-energised connection points but excluding unmetered connection points without a National Metering Identifier. Note: For STPIS and customer tariff assignment and metering purposes, the definition of customer is defined in the AER's Distribution Reliability Measures Guideline.	Energex reports a customer as a distribution customer with an active account and active National Metering Identifier (NMI) i.e. inactive and de-energised accounts are excluded. Energex also complies with 'Electricity DNSP AR RIN variation – Issues Register – Sept 2021'. Refer below for AER responses to DNSP issues 14 and 18: Further AER guidance provided in Issues Register Pre-Draft RIN issue 14. • DNSP Issue: Tariff and metering data - NMI count of meter types. Table P1.3, is NMI count by tariff type which would be an extraction of the number of NMIs billed by tariff in the last month of the year. This item will exclude de-energised or inactive NMIs. If the AER intends for NMI count to reconcile between tables P1.1 and P1.3 then table P1.1 would also need to exclude de-energised or inactive NMIs. Please find attached a previous explanation to the AER concerning the issue of meter reporting categories. • AER response: All tables should exclude de-energised or inactive NMIs. Further AER guidance provided in Issues Register Pre-Draft RIN issue 18. • DNSP Issue: Can the AER please specify whether unmetered supply (UMS) customers should be used in the customer counts provided in Workbook 5? Please

	note that, for the purposes of the five-minute settlement rule change, many UMS assets have been assigned a NMI even though they remain unmetered. • AER response: We consider the exclusion of unmetered tariff data is appropriate and agree the assumptions and methodology should be described in the basis of preparation.
Appendix F Definitions: NMI, NMI count National Metering Identifier, as defined in the NER. The billable number of NMIs.	Energex has reported billable NMIs by excluding inactive and de-energised NMIs as per AER Issues Register clarifications: RIN issue 14 and 18 noted above.
Appendix F Definitions, non-cost reflective tariffs A tariff that is not a cost-reflective tariff. Non-cost reflective tariffs include 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 the usage occurs.	Refer to Table 6.7 EQL Distribution Tariffs to Non-Cost Reflective and Cost Reflective Tariff.
Appendix F Definitions: *Cost reflective tariffs* Time of use (ToU) or flexible tariffs i.e. where the tariff includes varying rates per kWH depending on the time of use, and/or contains a demand/capacity component.	Refer to Table 6.7 EQL Distribution Tariffs to Non-Cost Reflective and Cost Reflective Tariff. Energex also complies with 'Electricity DNSP AR RIN variation – Issues Register – Sept 2021'. Refer below for further AER guidance provided in Issues Register Pre-Draft RIN issue 21. • DNSP Query: Ergon Energy and Energex seek the AER's guidance for Small and Large Business Primary load control tariffs (BPLC/5700, LPLC/5800), when categorising between cost reflective / non-cost reflective tariff categories. In the first instance, we consider these tariffs would be categorised as, 'non-cost reflective tariffs', yet with a switching environment at the discretion of the Network, they could be categorised as 'cost reflective tariffs'. Could the AER please advise, and consider inserting further meaning in the definition for clarity? • AER response: The AER considers the Small and Large Business Primary load control tariffs (BPLC/5700, LPLC/5800) should be reported as cost reflective tariffs. This assumption should be included in the basis of preparation.
Appendix F Definitions: *residential customers* Residential customer means a customer who purchases energy principally for personal, household or domestic use at premises.	Refer to Table 6.7 for criteria used to categorise customers as 'residential'

Appendix F Definitions: *non-residential high voltage customer* Customers other than residential customers who are connected at high voltage.	Refer to Table 6.3 Methodology for criteria used to categorise customers as 'non- residential high voltage'
Appendix F Definitions: *non-residential low voltage customer* Customers other than residential customers who are connected at low voltage.	Refer to Table 6.3 Methodology for criteria used to categorise customers as 'non- residential low voltage'
Appendix F Definitions: Meter, Metering Type Has the meaning prescribed in the NER Metering types are described in Schedule 7.4 to the NER (Types and Accuracy of Metering installations).	Metering type is determined by the *Metering Coordinator* in accordance with annual volume limits in S7.4. For type 6 metering installations, Metrology Procedure Part A section 3.5 defines the volume limit value for customers in Qld. Further AER clarification provided in Issues Register Pre-Draft RIN issue 13. • DNSP Issue: Table P1.1 is a NMI count of meter types, some customers have multiple meters and some customers have multiple meters of different types. We request the AER to clarify whether the data to be provided is the NMI count or meter count? • AER response: The AER is seeking data relating to NMI counts, as per the new definition in Appendix F: 'NMI count' means the billable number of NMIs.'

Table P.1.1 – Distribution Customer Numbers – By Meter Type

Compliance with the RIN Requirements

Table 6.1 demonstrates how the Information provided by Energex is consistent with each of the requirements specified by the instructions and definitions in the Notice, and as described in the methodology within this Basis of Preparation.

Sources

Table 6.2 sets out the sources from which Energex obtained the required information.

Table 6.2 – Information Sources

Reporting Category	Source
Distribution Customer numbers: • Residential Customers • Non-Residential - Low Voltage • Non-Residential – High Voltage	PEACE data in EIP Model EMC2012_Cost _Reflective_Tariff
Meter Type: • Meter Type 1-3 • Meter Type 4 • Meter Type 6	PEACE data in EIP Model EMC2012_Cost _Reflective_Tariff

Methodology

Table 6.3 sets out the methodology which Energex applied to report the required information.

Table 6.3 – Methodology

Reporting Category	Methodology
Distribution Customer numbers: • Residential Customers • Non-Residential - Low Voltage • Non-Residential – High Voltage	Customer data with property assigned to each individual premise that determines status: NMI_STATUS. There is a one to one relationship between the premise and it's assigned NMI, maintained in the PEACE CRM. Include A - "ACTIVE" Exclude X - "EXTINCT"; G - "GREENFIELD"; UNKWN - "UNKWN UNKNOWN"; D - "DEENERGISED Residential - CUSTOMERCLASS = "RES", "NA" Non-Residential - CUSTOMERCLASS = "BUS" Aggregated results extracted using Visualisation Software Tableau

Reporting Category	Methodology
Meter Type: • Meter Type 1-3 • Meter Type 4 • Meter Type 6	Using Meter types 1 to 6: • Types 1 to 4 - Interval meters remote read • Type 5 – Excluded as not used in Queensland • Type 6 – Basic Meters Note: As Type 7 meters are unmetered and have been excluded per AER – Issues Register item 18 noted above. Meter Type is assigned to each individual premise. It is sourced from the CV_DIM_METER. METER_TYPE, which is derived from the PM_SDP_ROLE table. PARTICIPANT_CODE (PARTICIPANT_ROLE = "MIT") attribute in the PEACE CRM. Only one Meter Type has been counted per premise. Aggregated results extracted using Visualisation Software Tableau Refer to Assumptions below in the event where there has been more than one-meter type at the premise.

Table 6.4 sets out the participant code assigned to each premise in the PEACE CRM for Energex customers mapped to AER Meter Type.

Table 6.4 – Meter Type Mapping Table

Participant Code	Meter Type
BASIC	6
COMMS1	1
COMMS2	2
COMMS3	3
COMMS4	4
COMMS4C	4
COMMS4D	4
MRAM	4
SAMPLE	Exclude
UMCP	Unmetered – exclude Issues Register Pre-Draft RIN issue 18.

In a limited number of cases where NMI's have a communications link meter and basic meter, one count per NMI has been reported against Meter type 4 to comply with Issues Register Pre-Draft RIN issue 13.

Approximately 140 NMI's with Meter type 4, were identified to have dual meter installation type 1 and 4 in the source system, PEACE. On further investigation, it was identified meter installation type 1 had been incorrectly assigned. As such, NMI's have been reported against Meter type 4.

Assumptions

Not applicable.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template. Minimal assumptions were applied with immaterial impact on reported results.

Explanatory Notes

A comparison of distribution customers by Meter Type over time shows an increase in customers moving to Type 4 meters. An explanation for the trend can be attributed to the following key drivers:

- Meter exchange because of a customer request or fault; and
- Replacement because meter model becomes non-compliant.

Table P.1.2 – Distribution Customer Numbers – Non-Cost Reflective Tariffs – Interval/Smart Meters

Compliance with the RIN Requirements

Table 6.1 demonstrates how the Information provided by Energex is consistent with each of the requirements specified by the instructions and definitions in the Notice, and as described in the methodology within this Basis of Preparation.

Sources

Table 6.5 sets out the sources from which Energex obtained the required information.

Table 6.5 – Information Sources

Reporting Category	Source
Distribution Customer numbers: • Residential by non-cost reflective Tariff code	PEACE data in EIP Model EMC2012_Cost _Reflective_Tariff Energex Tariff Structure Statement
Distribution Customer numbers: • Non-Residential Low Voltage by non-cost reflective Tariff code	PEACE data in EIP Model EMC2012_Cost _Reflective_Tariff Energex Tariff Structure Statement

Methodology

Table 6.6 sets out the methodology which Energex applied to report the required information.

Table 6.6 – Methodology

Reporting Category	Methodology
Distribution Customer numbers: • Residential by non-cost reflective Tariff code • Non-Residential Low Voltage by non-cost reflective Tariff code	Distribution Customer: • Using NMI_STATUS • Include A - "ACTIVE" • Exclude X - "EXTINCT"; G - "GREENFIELD"; UNKWN - "UNKWN UNKNOWN"; D - "DEENERGISED Residential and Non-Residential: • Residential - CUSTOMERCLASS = "RES", "NA" • Non-Residential - CUSTOMERCLASS = "BUS" Aggregated results extracted using Visualisation Software Tableau into Excel

	Non-cost Reflective Tariff Code: • Network Tariff from Energex Tariff Structure Statement • Exclude the Network Tariff Code's with the following prefixes: G; N; R Apply v-lookup in Excel to aggregated data to return non-cost reflective status to Energex Network Tariff Codes.

Table 6.7 sets out the mapping of Energex Distribution Tariffs to Non-Cost Reflective and Cost Reflective Tariff in accordance with AER defined terms.

Table 6.7 – Energex Distribution Tariffs by Non-Cost Reflective and Cost-Reflective Tariff

Energex Code	Tariff	Primary/Secondary	CRT Status
Residential			
3700	Residential Demand*	Primary	Cost-reflective
3900	Residential Transitional Demand*	Primary	Cost-reflective
6900	Residential ToU Energy*	Primary	Cost-reflective
8900	Residential TOU	Primary	Cost-reflective
8400	Residential Flat	Primary	Non-cost reflective
Small Business			
3600	Small Business Demand*	Primary	Cost-reflective
5700	Small Business Primary Load Control*	Primary	Cost-reflective
3800	Small Business Transitional Demand*	Primary	Cost-reflective
6800	Small Business ToU Energy*	Primary	Cost-reflective
6000	Small Business Wide Inclining Fixed Tariff*	Primary	Non-cost reflective
8500	Small Business Flat	Primary	Non-cost reflective
8800	Business Time of Use	Primary	Cost-reflective
7100	Business Demand	Primary	Cost-reflective

Energex Code	Tariff	Primary/Secondary	CRT Status
SAC Large			
8100	Demand Large	Primary	Cost-reflective
8300	Demand Small	Primary	Cost-reflective
5800	Large Business Primary Load Control*	Primary	Cost-reflective
7200	Large Business Time-of-Use Demand	Primary	Cost-reflective
6600	Large Residential Energy**	Primary	Non-cost reflective
6700	Large Business Energy**	Primary	Non-cost reflective
CAC			
3000	EG 11kV2	Primary	Cost-reflective
4000	11kV Bus	Primary	Cost-reflective
4500	11kV Line	Primary	Cost-reflective
8000	HV Demand	Primary	Cost-reflective
7400	Demand ToU 11kV	Primary	Cost-reflective
ICC			
1000	ICC	Primary	Cost-reflective

**Tariff introduced 1 July 2020*

***Tariff introduced 1 July 2021*

Assumptions

Where a customer on a business tariff has been identified by the Retailer as a residential customer (or vice versa), the NMI counts have been reported based on tariff classification.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template. Minimal assumptions were applied with immaterial impact on reported results.

Explanatory Notes

Not applicable.

Table P.1.3 – NMI Count – By Tariff Type

Compliance with the RIN Requirements

Table 6.1 demonstrates how the Information provided by Energex is consistent with each of the requirements specified by the instructions and definitions in the Notice, and as described in the methodology within this Basis of Preparation.

Sources

Table 6.8 sets out the sources from which Energex obtained the required information.

Table 6.8 - Demonstration of Compliance

Reporting Category	Source
NMI Count for Residential Customers • Cost Reflective • Non-Cost Reflective By Tariff Name and Code	PEACE data in EIP Model EMC2012_Cost _Reflective_Tariff Energex Tariff Structure Statement
NMI Count for Non-Residential Low Voltage • Cost Reflective • Non-Cost Reflective By Tariff Name and Code	PEACE data in EIP Model EMC2012_Cost _Reflective_Tariff Energex Tariff Structure Statement
NMI Count for Non-Residential Low Voltage • Cost Reflective By Tariff Name and Code	PEACE data in EIP Model EMC2012_Cost _Reflective_Tariff Energex Tariff Structure Statement

Methodology

Table 6.9 sets out the methodology which Energex applied to report the required information.

Table 6.9 – Methodology

Reporting Category	Methodology
NMI Count Residential Customers • Cost Reflective • Non-Cost Reflective	Distribution Customer: • Using NMI_STATUS • Include A - "ACTIVE" • Exclude X - "EXTINCT"; G - "GREENFIELD"; UNKWN -

Non-Residential Low Voltage • Cost Reflective • Non-Cost Reflective Non-Residential High Voltage • Cost Reflective By Tariff Code	"UNKWN UNKNOWN"; D - "DEENERGISED Residential and Non-Residential: • Residential - CUSTOMERCLASS = "RES", "NA" • Non-Residential - CUSTOMERCLASS = "BUS" Non-cost Reflective Tariff Code: • Network Tariff from Energex Tariff Structure Statement • Exclude the Network Tariff Code's with the following prefixes: G; N; R High Voltage: The following Network Tariff codes assigned to each NMI have been used to identify the High Voltage sites: • 1000, 3000, 4500,4000, 7400, 8000: Sourced from Table: • CV_DIM_NETWORK_TARIFF_CLASS. NTC Low Voltage: All other customers excluding High Voltage customers Aggregated results extracted using Visualisation Software Tableau into Excel. Apply v-lookup in Excel to aggregated data to return non-cost reflective status to Energex Network Tariff Codes.

Assumptions

Where a customer on a business tariff has been identified by the Retailer as a residential customer (or vice versa), the NMI counts have been reported based on tariff classification and tariff assignment rules in accordance with the AER approved Tariff Structure Statement.

Estimated Information

Energex has provided 'Actual Information' (as per the AER's defined term) in relation to all variables contained in this Template.

Explanatory Notes

Not applicable.