Economic Regulation Authority

Performance indicators and definitions handbook

For electricity distributors

April 2025

D290360

Acknowledgement of Country

At the ERA we value our cultural diversity and respect the Traditional Custodians of the land and waters on which we live and work.

We acknowledge their continuing connection to culture and community, their traditions, and stories. We commit to listening, continuously improving our performance, and building a brighter future together.

Economic Regulation Authority

Level 4, Albert Facey House

469 Wellington Street, Perth WA 6000

Telephone 08 6557 7900

Email info@erawa.com.au

Website www.erawa.com.au

This document can also be made available in alternative formats on request.

National Relay Service TTY: 13 36 77

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1. Introduction

1.1 Purpose of the handbook

This handbook explains performance indicators that Western Australian electricity distributors must report against annually to the Economic Regulation Authority as a condition of their licence. Its intended audience is electricity distribution and integrated regional licence holders.

The handbook is amended from time to time to assist licensees to understand reporting obligations. Changes over time can be tracked in the version history (section 7) included for the first time in 2024. Further information for distributors about their reporting obligations is in the Electricity Compliance Reporting Manual.

1.2 Reporting obligations

The ERA administers the licensing scheme under Part 2 of the *Electricity Industry Act 2004*. Distribution and integrated regional licences issued under the scheme impose certain obligations on licence holders, including the type and format of information that you must provide to the ERA as the regulator.

Previously, licensees reported *distribution* and *network quality & reliability* performance data to the ERA using two separate spreadsheets. Both have been condensed to a single datasheet: Electricity Performance Reporting Datasheet - Distribution. The handbook is a reference for licensees when completing the datasheet.

Distribution data

Licensees report distribution performance data under the Code of Conduct for the Supply of Electricity to Small Use Customers 2022. The data is entered to its own form on the datasheet, which includes 26 indicators across the following five categories:

1. Customer connections
2. Complaints
3. Streetlights
4. Call centre performance
5. Compensation payments

The ERA derives a further 11 indicators using information provided on the input form.

Network quality and reliability of supply data

Licensees report NQ&R performance data under the Electricity Industry (Network Quality and Reliability of Supply) Code 2005. The data is entered to its own form on the datasheet, which includes 32 indicators across the following four categories:

1. Network and asset information
2. Network reliability
3. Complaints
4. Compensation payments

The ERA derives a further nine indicators using information provided in the datasheet.

The ERA publishes this data in an annual performance report, which is accessed by a range of stakeholders. The data is used to monitor performance trends, identify challenges facing energy consumers, and to monitor broader changes in Western Australia's electricity markets.

2. Definitions and terms used

Act means the *Electricity Industry Act 2004*.

Administrative processes or customer service complaints includes complaints about meter readings, timeliness of correspondence and other customer communications, the complaints handling process, timeliness of response to complaints and any other process of a general administrative nature.

AEMO means the Australian Energy Market Operator.

Attach has the same meaning as in the regulations.

Call centre means a dedicated facility for receiving and transmitting telephone calls in relation to customer service operations of the distributor.

CBD feeder means the area supplied with electricity by the Milligan Street or Hay Street zone substations.

Complaint means an expression of dissatisfaction made to or about an organisation regarding its products, services, staff, or the handling of a complaint, where a response or resolution is expected or legally required.

Connection means a customer premises attached to the distribution system and energised.

Connection provided means the establishment of a new distribution connection on the distribution system during the year ending 30 June.

Customer Average Interruption Duration Index (CAIDI) is the average time to restore supply to a customer when a sustained interruption has occurred, or SAIDI divided by SAIFI.

De-energise means the removal of the supply voltage from the meter at the customer's premises, while leaving the premises connected to the distribution system.

Directed load shedding means load shedding directed by AEMO.

Disconnection means to de-energise a customer's supply address.

Discrete area means the areas defined in Schedule 1, items 2 and 3 of the NQ&R Code.

Distribution system has the same meaning as in the Act.

Energise has the same meaning as in the regulations.

Energy delivered means the electricity consumed by end-customers of the distribution network. This includes energy produced by embedded generators and consumed within the distribution area through the distribution network, unread meters, and unmetered consumption (including estimated theft).

High voltage (HV) line means a line used to distribute electricity from a (zone) substation, operating at a nominal voltage between 1 kV and 33 kV.

Interactive voice response (IVR) means a phone system that detects voice or keypad inputs and can respond with recorded or dynamically generated audio to direct callers.

Line length means the route length in kilometres of lines in service, including overhead lines, underground cables, or a combination of the two. Line length does not include low voltage service connections. Note, a double-circuit line counts as two lines, and each three-phase line, single-phase line, or SWER line counts as one line.

Long rural feeder means a feeder that is not a CBD or urban feeder, with a total feeder route length greater than 200 km.

Low voltage (LV) line means a line that operates at a nominal voltage of 1 kV or below.

Major event day is defined in the Institute of Electrical and Electronics Engineers (IEEE) standard 1366-2003, *IEEE Guide for Electric Power Distribution Reliability Indices*.

Metropolitan area means the region described in Schedule 3 of the *Planning and Development Act 2005*, the districts of Mandurah and Murray under the Local Government Act 1995, and the townsites of Albany, Bunbury, Geraldton, Kalgoorlie, Boulder, Karratha, Port Hedland, and South Hedland under the Land Administration Act 1997 section 26.

Network means distribution works that used to convey electricity under a distribution licence.

Network service area means the area in square kilometres covered by the licensee's distribution network. Areas within the network service area not provided with a service by the distributor (for example, national parks or inset areas) are still in the service area.

Non-residential customer means a customer who is not a residential customer.

Not provided on or before the agreed date means connections or reconnections not provided within any regulated time limit, or by the date agreed with the customer.

NQ&R Code means the Electricity Industry (Network Quality and Reliability of Supply) Code 2005.

Outage means a state on the network where it is not able to perform its intended function due to an event associated with a network component (Note: an outage may not always result in an interruption of supply to a supply address).

Planned interruption means a sustained interruption of supply to a supply address caused by scheduled works, for example, preventative maintenance, repairs, and network augmentation. Customers are notified in advance of planned interruptions. Planned meter replacements are excluded.

Reconnection means to re-energise a customer premises following disconnection.

Regional area means all areas not the metropolitan area.

Regulations means the Electricity Industry (Obligation to Connect) Regulations 2005.

Residential customer means a customer who receives a residential tariff for the electricity supplied to them, or who consumes electricity for residential purposes.

System Average Interruption Duration Index (SAIDI) means the sum of durations of sustained interruptions, in minutes, divided by the number of customers.

System Average Interruption Frequency Index (SAIFI) means the total number of sustained interruptions divided by the number of customers.

SCADA means supervisory control and data acquisition.

Short rural feeder means a feeder that is not a CBD or urban feeder, with a total feeder route length less than 200 km. Rural short feeders may include feeders in urban areas with low load densities.

Stand-alone power system means wires, apparatus, equipment, plant, or buildings (including generating works, a distribution system or any storage works) which together are used, or to be used, for, or in connection with, or to control, the supply of electricity to a single customer or not more than a prescribed number of customers, and which are not connected to another electricity network.

Sub-transmission (ST) line means a line 22 kV or above, used to distribute electricity from a transmission connection point to one or more (zone) substations.

Sustained interruption means a loss of electricity associated with an outage on any part of the network of more than one minute in duration. The interruption starts when recorded by equipment such as a SCADA system or, where such equipment does not exist, at the time the first customer reports the network outage. The interruption ends when supply resumes to the part of the distribution network affected by the outage, or when the supplier estimates it has restored it, if there is no equipment available to record the time of restoration.

SWER means a single-wire earth return.

Total capacity of transformers means the total rated capacity of distribution network transformers in megavolt-amps.

Unplanned interruption means a sustained interruption that is not a planned interruption, or where the distributor/transmitter does not give the required notice to the customer of an interruption.

Urban feeder means a feeder, which is not a CBD feeder, with actual maximum demand greater than 0.3MVA/km over the reporting period; and the feeder is located in the areas of the State defined under “metropolitan area” in clause 3 of the Code of Conduct.

3. Completing and submitting the datasheet

The datasheets have been amended in 2025 to simplify annual performance reporting.

Main points

Only edit yellow shaded cells on the datasheet.

Pay attention to the reporting unit column when entering data. Previously, derived indicators were displayed prominently, but these have been removed to simplify the form. If you have previously used an automated process or script to fill the datasheet, you will need to update your process.

If data is available: enter the data.

Where an indicator is applicable but there are no instances to report: enter '0'.

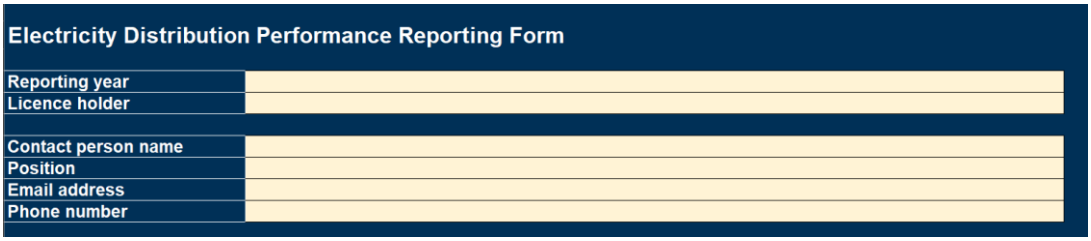
Leaving blank cells: If the activity is not applicable, such as where a licensee does not supply electricity to a certain category of customer, leave the cell blank. It is no longer necessary to insert 'N/A' when the indicator is not relevant to the licensee.

If the data is unavailable: leave the input cell blank and add a comment to explain.

Comment field: Use these cells to clarify any data. For example, where data has changed significantly between reporting periods or to advise that cells have been left blank deliberately. Licensees must add an explanation when the data shows a **variance of more than 10% from the previous year.**

Step 1 – Enter preliminary information

Use the dropdown boxes to enter the reporting year and the relevant licence holder. Add the details of who the ERA may contact to clarify any information.

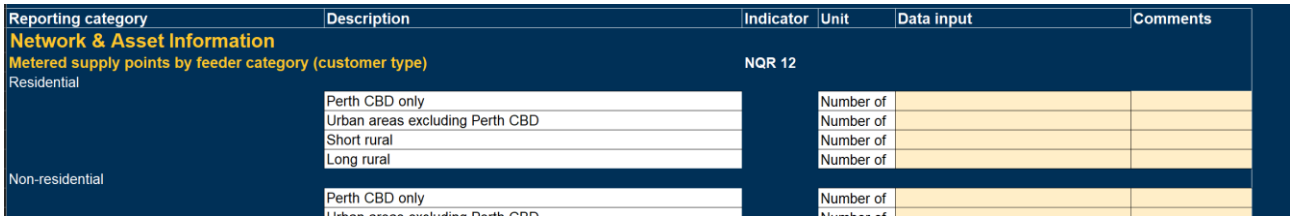


Electricity Distribution Performance Reporting Form	
Reporting year	
Licence holder	
Contact person name	
Position	
Email address	
Phone number	

Record Distribution and NQ&R data using the same datasheet.

Step 2 – Enter information about the reporting year into the datasheet

Enter data into the 'Data input' column for each of the indicators.



Reporting category	Description	Indicator	Unit	Data input	Comments
Network & Asset Information					
Metered supply points by feeder category (customer type)		NQR 12			
Residential					
	Perth CBD only		Number of		
	Urban areas excluding Perth CBD		Number of		
	Short rural		Number of		
	Long rural		Number of		
Non-residential					
	Perth CBD only		Number of		

Reporting basis: point in time vs whole reporting year

Some indicators are based on a moment in time (for example, 30 June) whereas others cover the whole reporting year. For example, indicator CCD7 (total number of connections on the distribution system) should be reported as the number of connections that are on the distribution system(s) on 30 June. Indicator CCD1 (total number of new connections provided) should be reported as the number of new connections provided throughout the reporting year. This is marked in the description field of each indicator.

Reporting basis: number-of-customers vs number-of-incidents

Some indicators require reporting to be on a number-of-customers basis whereas others are on a number-of-incidents basis. For example, Indicator NQR1 (Number of premises of small use customers interrupted for more than 12 hours continuously) should be reported on a number-of-customers/premises basis. This means that if a premises of a small use customer is interrupted for more than 12 hours continuously, and more than once during a reporting year, the premises should only be counted once. Indicator CCD4 (Total number of reconnections provided) should be reported on a number-of-incidents basis. This means that if a premises is reconnected more than once during a reporting year, each reconnection should be recorded separately.

Step 3 – Submit datasheet to the ERA

The completed datasheet for the reporting year must be submitted no later than 31 August 2025 to: licensing@erawa.com.au.

After the ERA has reviewed a licensee's datasheet and the licensee has addressed any comments, the ERA will instruct the licensee to publish the datasheet on the licensee's website by a specific date.

4. Full indicator list – distribution

This section includes the full set of collected indicators on the distribution form of the datasheet.

Table 1: Complete set of collected indicators on the distribution form of the datasheet.

Reporting category	Description	Indicator	Unit
1 Customer connections			
Customer numbers	New connections provided	**CCD1**	Number of
Customer numbers	New connections not provided by the agreed date	**CCD2**	Number of
Customer numbers	Reconnections provided	**CCD4**	Number of
Customer numbers	Reconnections that were not provided within the prescribed time	**CCD5**	Number of
Customer numbers	Connections on the distribution system as of June 30	**CCD7**	Number of
2 Complaints			
Complaints	Complaints received total (excluding NQR7 complaints)	**CCD8**	Number of
Complaints	Administrative process or customer service complaints	**CCD9**	Number of
Complaints	Total number of other complaints	**CCD10**	Number of
Complaints	Customer complaints concluded within 15 business days (excluding NQR7 complaints)	**CCD11**	Number of
Complaints	Customer complaints concluded within 20 business days (excluding NQR7 complaints)	**CCD13**	Number of
Complaints	Complaints about the installation or operation of a pre-payment meter at a customer's supply address	**CCD19**	Number of
Complaints	Pre-payment meter complaints resolved within 15 business days	**CCD20**	Number of
3 Streetlights			
Streetlights	Streetlights reported faulty in the metropolitan area	**CCD24**	Number of

Streetlights	Streetlights reported faulty in regional areas	**CCD25**	Number of
Streetlights	Streetlights not repaired within five days in the metropolitan area	**CCD26**	Number of
Streetlights	Streetlights not repaired within nine days in regional areas	**CCD28**	Number of
Streetlights	Streetlights in the metropolitan area as of June 30	**CCD30**	Number of
Streetlights	Streetlights in regional areas as of June 30	**CCD31**	Number of
Streetlights	Mean number of days to repair faulty streetlights in the metropolitan area	**CCD32**	Days
Streetlights	Mean number of days to repair faulty streetlights in the regional area	**CCD33**	Days
4 Call centre performance			
Call centre performance	Telephone calls to a call centre of the distributor	**CCD34**	Number of
Call centre performance	Telephone calls to a call centre answered within 30 seconds	**CCD35**	Number of
Call centre performance	Mean period before a call is answered	**CCD37**	Seconds
Call centre performance	Calls unanswered	**CCD38**	Number of
5 Compensation payments			
Compensation payments	Number and sum of payments made under clause 98 of the Code of Conduct	**CCD22**	Number of, dollars
Compensation payments	Number and sum of payments made under clause 97 of the Code of Conduct	**CCD23**	Number of, dollars

5. Full indicator list – network quality and reliability

This section includes the full set of collected indicators on the NQ&R form of the datasheet. The purpose is to provide those completing the datasheet with a single point of reference for all indicators. See network reliability (section 6.7) for full derivation of SAIDI, SAIFI, and CAIDI indexes.

Table 2: Complete set of collected indicators on the NQ&R form of the datasheet.

Reporting category	Description	Indicator	Unit
1 Network and asset information			
Network and asset information	Metered supply points by feeder category (Perth CBD only, urban areas excluding Perth CBD, short rural, long rural) for both residential and non-residential customers, and by supply voltage (sub-transmission voltage, high voltage, low voltage)	**NQR12**	Number of
Network and asset information	Unmetered supply points by feeder category (Perth CBD only, urban areas excluding Perth CBD, short rural, long rural)	**NQR13**	Number of
Network and asset information	Energy delivered by feeder category (Perth CBD only, urban areas excluding Perth CBD, short rural, long rural) for both residential and non-residential customers, and by supply voltage (sub-transmission voltage, high voltage, low voltage)	**NQR14**	GWh
Network and asset information	Line length by feeder category (Perth CBD only, urban areas excluding Perth CBD, short rural, long rural) for both underground and overhead lines, and by supply voltage (sub-transmission voltage, high voltage, low voltage)	**NQR15**	km
Network and asset information	Total number and capacity of each sub-transmission and distribution transformers	**NQR16**	Number of, MVA
Network and asset information	Total distribution losses	**NQR17**	Percentage
Network and asset information	Size of network service area	**NQR18**	km^2
Network and asset information	Total poles	**NQR19**	Number of
Network and asset information	Peak electrical demand	**NQR20**	MW
2 Network reliability			
Network reliability	Total number of interruptions lasting 12 hours or more and the number of premises interrupted as a result, across the whole network	**NQR1**	Number of
Network reliability	Premises interrupted more than 9 times (urban areas) or 16 times (non-urban) across the reporting year	**NQR2**	Minutes

Network reliability	Mean duration of supply interruption to premises for each discrete area (Perth CBD, urban areas excluding Perth CBD, non-urban areas, standalone power systems)	**NQR3**	Minutes
Network reliability	Mean number of supply interruption to premises for each discrete area (Perth CBD, urban areas excluding Perth CBD, non-urban areas, standalone power systems)	**NQR4**	Minutes
Network reliability	Mean percentage of time that electricity has been supplied to premises for each discrete area	**NQR5**	Percentage
Network reliability	Mean cumulative duration of supply interruptions to premises (Perth CBD, urban areas excluding Perth CBD, non-urban areas, standalone power systems)	**NQR6**	Minutes
Network reliability	Overall SAIDI for the total network and for each feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC1**	Average minutes per connection
Network reliability	Distribution network (planned) SAIDI for the total network and for each feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC2**	Average minutes per connection
Network reliability	Distribution network (unplanned) SAIDI for the total network and for each feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC3**	Average minutes per connection
Network reliability	Normalised distribution network SAIDI for the total network and for each feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC4**	Average minutes per connection
Network reliability	Overall SAIFI for the total network and for each feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC5**	Average incidents per connection
Network reliability	Distribution network (planned) for the total network and for each feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC6**	Average incidents per connection
Network reliability	Distribution network (unplanned) for the total network and for each feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC7**	Average incidents per connection
Network reliability	Normalised distribution network SAIDI for the total network and for each feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC8**	Average incidents per connection

Network reliability	Overall CAIDI for the total network and by feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC9**	Average minutes per incident
Network reliability	Distribution network (planned) CAIDI for the total network and by feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC10**	Average minutes per incident
Network reliability	Distribution network (unplanned) CAIDI for the total network and by feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC11**	Average minutes per incident
Network reliability	Normalised distribution network CAIDI for the total network and by feeder category (CBD only, urban areas excluding Perth CBD, short rural, long rural)	**FC12**	Average minutes per incident
3 Complaints			
Complaints	Total number of NQ&R Code complaints received (that Part 2, or an instrument made under section 14(3) of the NQ&R Code, has not been, or is not being, complied with)	**NQR7**	Number of
Complaints	NQ&R Code complaints concluded within 15 business days	**NQR7A**	Number of
Complaints	NQ&R Code complaints received by discrete area (Perth CBD only, urban areas excluding Perth CBD, all other areas of the State) and for standalone power system customers	**NQR8**	Number of
Complaints	Total amount spent addressing NQ&R Code complaints (that Part 2, or an instrument made under section 14(3) of the NQ&R Code, has not been, or is not being, complied with) other than by way of payment under sections 18 and 19 of the NQ&R Code	**NQR9**	Dollars
4 Compensation payments			
Compensation payments	Payments made, and the sum of payments made, under section 18 of the NQ&R Code	**NQR10**	Number of, dollars
Compensation payments	Payments made, and the sum of payments made, under section 19 of the NQ&R Code	**NQR11**	Number of, dollars

6. Reporting conventions and examples

This section covers reporting conventions for both distribution and NQR parts of the datasheet. These are combined into a single section because both input forms have common reporting areas, such as for complaints and compensation payments.

Some indicators are cumulative and cover the whole reporting period whereas some measure a point in time, such as June 30 at the end of a reporting year or the amount of money owing when a customer entered a payment plan. Previously, differences in the reporting point were shown by colour codes on the spreadsheet. These have been removed to make the forms more accessible.

6.1 Customer numbers

- A reconnection does not include when a pre-payment meter is recharged and the customer premises status changes from de-energised to energised.
- For reporting purposes, reconnections must include all reconnections conducted by the distributor at the request of a retailer regardless of the reason for disconnecting the
- If a distributor operates more than one distribution system, indicator CCD 7 should record the total number of connections on the systems. Use the 'Comments' cell to provide a breakdown of connections by each system.

6.2 Complaints

- Complaints may be received via a variety of media, including telephone, mail, email, social media, or a mobile phone app.
- More than one complaint can be made per customer contact. If a customer makes a complaint about a meter reading matter and a transfer matter in the same communication, then two complaints should be recorded.
- For reporting purposes, complaints must include complaints resolved at the first point of contact.

6.3 Streetlights

$$\text{Mean number of days to repair faulty streetlight} = \frac{\sum \text{business days to repair each light}}{\text{total number of faulty streelight incidents}}$$

6.4 Compensation payments

- Licensees should only include payments of the statutory amount required by each section of the NQ&R Code or the Code of Conduct, as applicable. The payment of *ex gratia* sums exceeding these amounts should be included as part of indicator NQR 21.
- Payments claimed by customers during the reporting year, but that have not been paid as of 30 June, should be excluded.

6.5 Call centre performance

- Average duration before a call is answered = $\frac{\sum \text{answer wait times}}{\text{total number of calls answered}}$
- Call centre indicators exclude calls that do not require operator attention, including interactive voice response calls where the customer does not select an option indicating they wish to speak with a call centre operator, and calls that are terminated before an option to speak with a call centre operator was selected. Example 1 shows how these indicators should be calculated.
- For non-IVR systems, calls that are unanswered includes calls terminated by a customer before being answered by a call centre operator. For IVR systems, it includes calls terminated by a customer after they have selected an option indicating they wish to speak to an operator.
- Calls to third parties, such as contractors acting on behalf of the retailer, should not be included. However, calls received by a contractor that is providing all or part of the distributor's customer service operations, for example an outsourced call centre, should be included.
- For IVR systems, a call wait period commences when a customer selects an option to indicate they wish to speak to an operator.

Example 1: Calculating call centre performance indicators.

Distributor A operates a single call centre with integrated IVR technology and a single 1300 number for customers to call.

During the reporting year the licensee recorded the following call data:

Total calls to the 1300 number = 467,450

Number of calls to the call centre = 265,328

Number of calls answered within 30 seconds = 221,846

Number of calls that were unanswered = 4,921

Sum of wait times for answered calls = 217,006 minutes

Calculation of indicators:

- CCD34 = 265,328
- CCD35 = 221,846
- CCD37 = $\frac{60 \times 217{,}006}{265{,}328 - 4921}$ = 50 seconds
- CCD38 = 4,921

6.6 Network and asset information

- Distribution losses = $\frac{\text{electricity supplied-electricity delivered}}{\text{electricity supplied}} \times 100$
- Peak demand is calculated as the maximum coincident demand on each network type at the terminal stations feeding the sub-transmission network, and at the zone substations feeding the high voltage network.
- Total peak demand is the maximum coincident demand in each of the network types.
- The total network peak demand is the maximum coincident demand of the distributor's network.
- Peak demand should be in MW at the time of maximum MVA demand. A distributor's network peak demand does not necessarily coincide with system maximum demand.

6.7 Network reliability

Indicators NQR1 to NQR6 relate to the NQ&R Code. The NQ&R Code requires a distributor to report its annual performance and its average performance over the past four years. The values that the distributor puts in NQR3 to NQR6 should be the four-year average.

Previously, licensees have calculated SAIDI, SAIFI, and CAIDI themselves and then reported the final output to the ERA for each of the areas described on the datasheet. To make this easier for licensees and to reduce the potential for error by standardising the calculation of the indexes for all licensees, the form has been amended since 2024.

Instead of entering SAIDI, SAIFI, and CAIDI manually for each area, users enter the:

- customer base,
- sum of all customer outage durations (in minutes), and
- number of unique customer interruptions.

The form will automatically calculate SAIDI, SAIFI, and CAIDI indicators using these inputs.

When considering the input data for these indexes, apply the following:

- Customer base = $\frac{\sum \text{Customers on the first day of each month during the reporting year}}{12}$
- Overall interruptions should include all sustained planned and unplanned interruptions including those caused by generation outages, transmission outages and directed load shedding.
- Planned and unplanned outages should exclude generation outages, some transmission outages, and directed load shedding. If a distribution outage is caused by a transmission outage and the distributor is also responsible for that transmission system, those outages should be included in indicators related to planned and unplanned outages.
- Normalised indicators include all unplanned interruptions excluding those caused by generation outages, some transmission outages, directed load shedding, and where the daily unplanned SAIDI exceeds the major event day boundary. If a distribution outage is caused by a transmission outage and the distributor is also responsible for that transmission system, those outages should be included in indicators related to a normalised distribution system.

Calculation box 1: Derivations for the SAIDI, SAIFI, and CAIDI indexes

Feeder category = Perth CBD, Urban areas excluding Perth CBD, Short rural, or Long rural

Total network = ∑(Perth CBD, Urban areas excl. Perth CBD, Short rural, Long rural)

$$\boldsymbol{FC1}\ (\boldsymbol{SAIDI\ overall}) = \frac{\sum outage\ durations,\ overall\ (feeder\ category\ or\ total\ network)}{customer\ base}$$

$$\boldsymbol{FC2}\ (\boldsymbol{SAIDI\ distribution\ network\ planned}) = \frac{\sum outage\ durations,\ planned\ (feeder\ category\ or\ total\ network)}{customer\ base}$$

$$\boldsymbol{FC3}\ (\boldsymbol{SAIDI\ distribution\ network\ unplanned}) = \frac{\sum outage\ durations,\ unplanned\ (feeder\ category\ or\ total\ network)}{customer\ base}$$

$$\boldsymbol{FC4}\ (\boldsymbol{SAIDI\ normalised\ distribution\ network}) = \frac{\sum outage\ durations,\ normalised\ (feeder\ category\ or\ total\ network)}{customer\ base}$$

$$\boldsymbol{FC5}\ (\boldsymbol{SAIFI\ overall}) = \frac{No.\ of\ unique\ customer\ interruptions,\ overall\ (feeder\ category\ or\ total\ network)}{customer\ base}$$

$$\boldsymbol{FC6}\ (\boldsymbol{SAIFI\ distribution\ network\ planned}) = \frac{No.\ of\ unique\ customer\ interruptions,\ planned\ (feeder\ category\ or\ total\ network)}{customer\ base}$$

$$\boldsymbol{FC7}\ (\boldsymbol{SAIFI\ distribution\ network\ unplanned}) = \frac{No.\ of\ unique\ customer\ interruptions,\ unplanned\ (feeder\ category\ or\ total\ network)}{customer\ base}$$

$$\boldsymbol{FC8}\ (\boldsymbol{SAIFI\ normalised\ distribution\ network}) = \frac{No.\ of\ unique\ customer\ interruptions,\ normalised\ (feeder\ category\ or\ total\ network)}{customer\ base}$$

$$\boldsymbol{FC9}\ (\boldsymbol{CAIDI\ overall}) = \frac{\sum outage\ durations,\ overall\ (feeder\ category\ or\ total\ network)}{No.\ of\ unique\ customer\ interruptions,\ overall\ (feeder\ category\ or\ total\ network)} = \frac{SAIDI, overall}{SAIFI, overall}$$

$$\boldsymbol{FC10}\ (\boldsymbol{CAIDI, distribution\ network\ planned}) = \frac{\sum outage\ durations,\ planned\ (feeder\ category\ or\ total\ network)}{No.\ of\ unique\ customer\ interruptions,\ planned\ (feeder\ category\ or\ total\ network)} = \frac{SAIDI, planned}{SAIFI, planned}$$

$$\boldsymbol{FC11}\ (\boldsymbol{CAIDI\ distribution\ network\ unplanned})$$
$$= \frac{\sum outage\ durations,\ unplanned\ (feeder\ category\ or\ total\ network)}{No.\ of\ unique\ customer\ interruptions,\ unplanned\ (feeder\ category\ or\ total\ network)}$$
$$= \frac{SAIDI, unplanned}{SAIFI, unplanned}$$

$$\boldsymbol{FC12}\ (\boldsymbol{CAIDI\ normalised\ distribution\ network})$$
$$= \frac{\sum outage\ durations,\ normalised\ (feeder\ category\ or\ total\ network)}{No.\ of\ unique\ customer\ interruptions,\ normalised\ (feeder\ category\ or\ total\ network)}$$
$$= \frac{SAIDI, normalised}{SAIFI, normalised}$$

7. Version history

Version date	Changes
April 2024	• Terms updated to reflect new datasheet and derived indicators removed from immediate view of datasheet. • Definitions sections across reporting categories condensed into single section and duplicates removed. • Version history section added. • Individual sections covering different reporting categories combined into single indicators for distribution and network quality and reliability. • Reporting conventions from different sections combined into single reporting convention section with examples. • SAIDI, SAIFI, CAIDI index derivations expanded to show how datasheet will automatically calculate these indicators.
June 2024	• Amended denominator of SAIDI, SAIFI, and CAIDI calculations so that customer base is a monthly averaged figure and not year-end number of customers. • Added a clarification from the previous handbook related to unplanned outages and the definition of normalised distribution networks.
July 2024	• Minor change to inclusions and exclusions for planned and unplanned outages, so that it uses the same wording as normalised distribution network outages.
April 2025	• Derived indicators removed to match the datasheet. • Minor wording edits to clarify the reporting basis by customer or by incident. • NRR indicators removed for classifying technical complaints. • Updated reporting deadline to 31 August 2025.