SA POWER NETWORKS JURISDICTIONAL SERVICE STANDARDS FOR THE 2015-2020 REGULATORY PERIOD

Implementation of Service Standard Targets

October 2014
The Essential Services Commission of South Australia is the independent economic regulator of the water, electricity, gas, ports and rail industries in South Australia. The Commission’s primary objective is the protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services. For more information, please visit www.escosa.sa.gov.au.
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<td>Australian Energy Market Agreement</td>
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<td>NEL</td>
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<td>$T_{MED}$</td>
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<td>Unplanned System Average Interruption Duration Index (normalised to exclude MED)</td>
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<td>USAIFI$_n$</td>
<td>Unplanned System Average Interruption Frequency Index (normalised to exclude MED)</td>
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</tbody>
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1. BACKGROUND

The Essential Services Commission of South Australia (Commission) is the independent economic regulator of essential services in South Australia. In undertaking its regulatory functions, the Commission’s primary objective is the protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services.¹

Economic regulation of SA Power Networks is undertaken jointly by the Commission and the Australian Energy Regulator (AER).

The Commission’s powers and functions in relation to SA Power Networks are contained in the Electricity Act 1996 (Electricity Act) and the Australian Energy Market Agreement (AEMA).²

Under the Electricity Act, SA Power Networks is required to hold a licence authorising it to operate the electricity distribution system in South Australia. The Commission is the licensing authority for the purposes of the Electricity Act. The Electricity Act mandates certain licence terms and conditions, while providing the Commission with the discretionary power to include additional licence terms and conditions.

In addition, the AEMA provides for State and Territory Governments to retain responsibility for developing service reliability standards to ensure network security and reliability (jurisdictional service standards). The Commission is responsible for developing, implementing and administering the jurisdictional service standards for SA Power Networks. The Commission’s current regulatory requirements for SA Power Networks are set out in the terms and conditions of its electricity distribution licence; the Electricity Distribution Code; and Electricity Industry Guideline No. 1 - Distribution.

SA Power Networks is subject to five year price determination periods, regulated by the AER under the National Electricity Law (NEL), National Electricity Rules (NER), National Energy Retail Law (NERL) and National Energy Retail Rules (NERR). The current determination period ends on 30 June 2015.

It is appropriate for the Commission to consider and review the jurisdictional service standards prior to the commencement of a new price regulation period for SA Power Networks. Further, before making, varying or revoking an industry Code, the Commission must consult with the industry Minister and such representative bodies and participants in the regulated industry as the Commission considers appropriate.³ The Commission consulted with the South Australian community to develop the jurisdictional service standards, to apply to SA Power Networks for the next regulatory period 2015-2020, by

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¹ Essential Service Commission Act 2002, section 6(a).
³ Essential Service Commission Act 2002, section 28(3).
releasing an Issues Paper\textsuperscript{4} in March 2013 and a Draft Decision\textsuperscript{5} in November 2013. The Commission’s Final Decision, released in May 2014, set out the jurisdictional service standards to apply to SA Power Networks for the 2015-2020 regulatory period.

While the Final Decision set out the framework and approach to setting the service standards, the final network reliability targets could not be set until data were available for 2013-14. The Commission has now assessed SA Power Networks’ reliability data for the five year period 2009-10 to 2013-14 and set the final targets to apply for the 2015-2020 regulatory period.

This paper sets out the amendments to the \textit{Electricity Distribution Code} and \textit{Electricity Industry Guideline No. 1 - Distribution} to give effect to the Commission’s decisions on the final jurisdictional service standards for SA Power Networks for the 2015-2020 regulatory period.


SA Power Networks Jurisdictional Service Standards for the 2015-2020 Regulatory Period

Implementation of Service Standard Targets
2. ELECTRICITY DISTRIBUTION CODE

The *Electricity Distribution Code* is made by the Commission under Part 4 of the Essential Services Commission Act. Chapter 2 sets out the binding service standards (and targets) for SA Power Networks. It also includes the requirements for the Guaranteed Service Level Scheme (GSL Scheme).

This chapter sets out the record of amendments to the current version of the *Electricity Distribution Code* (EDC/11) to reflect the Commission’s final decisions on the service standards and GSL Scheme.

The amended *Electricity Distribution Code* (EDC/12) will apply from 1 July 2015.

2.1 Preliminary matters

The interpretation and definitions clauses have been moved from the schedules to the preliminary matters chapter for consistency with the Commission’s other industry codes.

New definitions have been included as follows:

- **Feeder categories** (CBD Feeder; Urban Feeder; Rural Short Feeder and Rural Long Feeder) – adopting the definitions originally developed by the Steering Committee on National Regulatory Reporting Requirements and included in the Australian Energy Regulator’s Service Target Performance Incentive Scheme⁶

- **Major Event Days or (MEDs)** – referencing the exclusion methodology in the Institute of Electrical and Electronics Engineers IEEE Standard 1366-2012⁷

- **USAIDIₙ** - Unplanned System Average Interruption Duration Index (normalised to exclude MEDs)

- **USAIFIₙ** - Unplanned System Average Interruption Frequency Index (normalised to exclude MEDs)

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⁶ In 2000-01, the Utility Regulators Forum, comprised of representatives from jurisdictional economic regulators, established a Steering Committee on National Regulatory Reporting Requirements to develop a core set of nationally-consistent performance reporting requirements for the electricity industry. The final recommendation was that distribution feeders should be classified to take into account feeder line lengths, customer densities and the level of redundancy and interconnection in sections the network. The four categories developed through this process were adopted by the Australian Energy Regulator in its Service Target Performance Incentive Scheme. Refer [http://www.accc.gov.au/system/files/March%202002%20National%20Regulatory%20Reporting%20for%20Electricity%20Distribution%20and%20Retailing%20Businesses.pdf](http://www.accc.gov.au/system/files/March%202002%20National%20Regulatory%20Reporting%20for%20Electricity%20Distribution%20and%20Retailing%20Businesses.pdf) and [http://www.aer.gov.au/node/7967](http://www.aer.gov.au/node/7967) for further background.

⁷ The IEEE has developed an exclusion methodology to systematically remove statistical outliers from reliability performance data to give a picture of underlying network performance. The excluded events are termed Major Event Days or (MEDs), the majority of which result from severe or abnormal weather events (although other factors can result in MEDs). Its purpose is to allow major events to be studied separately from daily operations, and in the process, to better reveal trends in daily operation that would be hidden by the large statistical effect of major events. Refer clause 3.5 of IEEE standard 1366-2012.
The current definitions have been reviewed for consistency with the Electricity Act, the National Electricity Law and National Energy Retail Law, where relevant.

2.2 Customer Service Standards and Targets

The current customer service standards and targets concern responsiveness by SA Power Networks to telephone and written enquiries from customers. SA Power Networks will be required to continue to use its best endeavours\(^8\) to meet the following customer service responsiveness targets:

<table>
<thead>
<tr>
<th>Category</th>
<th>Customer Service measure</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer service</td>
<td>Time to respond to telephone calls</td>
<td>85% within 30 seconds</td>
</tr>
<tr>
<td>Customer service</td>
<td>Time to respond to written enquiries</td>
<td>95% within 5 business days</td>
</tr>
</tbody>
</table>

Clause 2.1 of EDC/12 contains the customer service standards and targets. No amendments were required to this clause as a result of the final decision. However, the clause has been renumbered from 1.1.2 to 2.1.

2.3 Network Reliability Standards and Targets

The reliability of SA Power Networks’ distribution network is measured by the frequency and the duration of unplanned interruptions:

- Unplanned System Average Interruption Duration Index (normalised to exclude MED) – expressed as \(USAIDI_n\)
- Unplanned System Average Interruption Frequency Index (normalised to exclude MED) - expressed as \(USAIFI_n\)

The network performance service standards have been set to reflect differences in the levels of interconnection and redundancy in SA Power Networks’ physical network across the state. This results in four broad categories of feeders (CBD, Urban, Rural Short and Rural Long), regardless of the geographic location of the individual feeder.

The network reliability targets require SA Power Networks to use its best endeavours to provide network reliability in line with its average historical performance in the period 2009-10 to 2013-14. The reliability targets exclude SA Power Networks’ performance during severe or abnormal weather events using the Institute of Electrical and Electronics Engineers

\(\text{USAIDI}_n\)

\(\text{USAIFI}_n\)

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Major Event Day (MED) exclusion methodology. The network reliability targets for SA Power Networks are as follows:

<table>
<thead>
<tr>
<th>Feeder Category</th>
<th>SAIDI&lt;sub&gt;n&lt;/sub&gt;</th>
<th>SAIFI&lt;sub&gt;n&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBD Feeders</td>
<td>15</td>
<td>0.15</td>
</tr>
<tr>
<td>Urban Feeders</td>
<td>120</td>
<td>1.30</td>
</tr>
<tr>
<td>Short Rural Feeders</td>
<td>220</td>
<td>1.85</td>
</tr>
<tr>
<td>Long Rural Feeders</td>
<td>300</td>
<td>1.95</td>
</tr>
</tbody>
</table>

Clause 2.2 of EDC/12 contains the network reliability service standards and targets. The reliability targets table has been amended as follows to reflect the final decision:

- current regional targets have been removed and replaced with feeder category targets
- targets have been set based on USAIDI<sub>n</sub> and USAIFI<sub>n</sub> data provided by SA Power Networks for the period 2009-10 to 2013-14
- additional notation has been included with the table to clarify that targets exclude MEDs.

The clause has been renumbered from 1.1.3 to 2.2.

### 2.4 Guaranteed Service Level Scheme

The average network reliability and customer service standards are based on SA Power Networks’ average performance as experienced by groups of customers. In contrast, the Commission’s GSL Scheme provides payments to individual customers who receive service that does not meet the separately defined levels of service in the following areas:

- timeliness of appointments, connection of a new supply address and repair of faulty street lights; and
- frequency and duration of supply interruptions.

While GSL payments are intended to be payment made in recognition of the inconvenience experienced by customers receiving poor performance and not as a form of compensation, by their nature they also provide a financial incentive for the regulated business, to minimise the payments required to be made under such a scheme. That is, there is a trade-off between making the payments or undertaking capital and/or operational expenditure to address any underlying issue.

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9 The IEEE standard 1366-2012 includes a methodology to identify Major Event Days (MED) in which the daily SAIDI exceeds a MED threshold value (T<sub>MED</sub>). Statistically, days having a daily system SAIDI greater than T<sub>MED</sub> are days on which the energy delivery system experienced stresses beyond that normally expected (such as during severe weather events). Activities that occur on MED are separately analysed and reported.
Clause 2.3.1(b) has been amended to clarify SA Power Networks’ current practice in this area. The amended clause excludes the requirement for SA Power Networks to make a GSL payment where the six business day timeframe for new connections is exceeded in instances where the customer has accepted a different connection timeframe to the standard six business day requirement.

The duration of supply interruptions GSLs have been amended to include a new long duration supply interruption GSL payment of $605 for single interruptions in excess of 48 hours. The new long duration GSL payment is an acknowledgement that interruptions in excess of 48 hours are (and should be) extraordinary events that are well outside the average level of service experienced by most customers.

To maintain the value of the original GSL payments set for the 2005-2010 regulatory period, the GSL payment amounts for the 2015-2020 regulatory period have been increased to reflect movements in the Consumer Price Index (CPI) from June 2005 to December 2013, rounded to the nearest $5.00.

Clause 2.3 of EDC/12 contains the Guaranteed Service Level scheme categories, thresholds and payment amounts. This clause has been amended to reflect the revised GSL payment amounts set out in the final decision. The clause has been renumbered from 1.1.4 to 2.3.

<table>
<thead>
<tr>
<th>GSL category</th>
<th>Regulatory Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010-2015 (GST Inc)</td>
</tr>
<tr>
<td>Timeliness of appointments - no more than 15 minutes late</td>
<td>$25</td>
</tr>
<tr>
<td>Promptness of new connections - within 6 business days</td>
<td>$60 per day to a maximum of $300</td>
</tr>
<tr>
<td>Timeliness of street light repairs – within 5 business days (CBD, Metropolitan Adelaide, Whyalla, Mount Gambier, Mount Barker, Gawler, Stirling, Murray Bridge, Port Augusta, Willunga, Port Pirie and Port Lincoln)</td>
<td>$25 per 5 business day period</td>
</tr>
<tr>
<td>Timeliness of street light repairs – within 10 business days (All other areas)</td>
<td>$25 per 10 business day period</td>
</tr>
<tr>
<td>Frequency of supply &gt;9 and ≤12 interruptions</td>
<td>$90</td>
</tr>
<tr>
<td>Frequency of supply &gt;12 and ≤15 interruptions</td>
<td>$140</td>
</tr>
<tr>
<td>Frequency of supply &gt;15 interruptions</td>
<td>$185</td>
</tr>
</tbody>
</table>

Adjustment using change in Adelaide CPI - all groups from June Quarter 2005 to December Quarter 2013 (ABS Catalogue No. 6401.0).
<table>
<thead>
<tr>
<th>GSL category</th>
<th>Regulatory Period</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010-2015 (GST Inc)</td>
<td>2015-2020 (GST Inc)</td>
<td></td>
</tr>
<tr>
<td>Duration of supply interruption &gt;12 and ≤15 hours</td>
<td>$90</td>
<td>$100</td>
<td></td>
</tr>
<tr>
<td>Duration of supply interruption &gt;15 and ≤18 hours</td>
<td>$140</td>
<td>$150</td>
<td></td>
</tr>
<tr>
<td>Duration of supply interruption &gt;18 and ≤24 hours</td>
<td>$185</td>
<td>$200</td>
<td></td>
</tr>
<tr>
<td>Duration of supply interruption &gt;24h and ≤48 hours</td>
<td>$370</td>
<td>$405</td>
<td></td>
</tr>
<tr>
<td>Duration of supply interruption &gt;48 hours</td>
<td>n.a.</td>
<td>$605</td>
<td></td>
</tr>
</tbody>
</table>

2.5 Reconnection after disconnection

No amendments were required to this clause as a result of the final decision. However, the clause has been renumbered from 1.1.5 to 2.4.

2.6 Compliance and record keeping

No amendments were required to this clause as a result of the final decision. However, the clause has been renumbered from 1.1.1 to 2.5.

2.7 Report to Commission

No amendments were required to this clause as a result of the final decision. However, the clause has been renumbered from 1.1.6 to 2.6.

2.8 Country lines

No amendments were required to this clause as a result of the final decision. However, the clause has been renumbered from 1.1.7 to 2.7.

2.9 Quality of Supply

The quality of supply standards for voltage, voltage fluctuations and related factors applicable to SA Power Networks are governed by various Australian Standards. Clause 1.1.6 of EDC/11 duplicates a statutory requirement for SA Power Networks to comply with the Australian Standards. To avoid duplication of regulatory requirements, clause 1.1.6 has been removed from EDC/12 to reflect the final decision.

2.10 Connection of Embedded Generation Units

The terms of the existing Chapter 2 have not been amended but the chapter has been renumbered to Chapter 3.

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11 Refer Regulation 46 of the *Electricity (General) Regulations 2012*. 

SA Power Networks Jurisdictional Service Standards for the 2015-2020 Regulatory Period
Implementation of Service Standard Targets
3. ELECTRICITY INDUSTRY GUIDELINE NO. 1 - DISTRIBUTION

*Electricity Industry Guideline No. 1 - Distribution* contains SA Power Networks’ performance reporting requirements. The amendments to the performance monitoring and reporting framework focus on the following particular areas of SA Power Networks’ performance:

- assessment of performance against the network reliability targets on a feeder category basis
- operational responsiveness and reliability performance during MEDs
- identification and management of individual feeders with ongoing low-reliability performance
- reliability performance outcomes for customers in geographic regions against average historical performance, and
- assessment of the number of GSL Scheme payments made in each geographic region.

The revised *Electricity Industry Guideline No. 1 – Distribution (EG1/12)* will apply from 1 July 2015.

3.1 Customer service responsiveness performance

SA Power Networks will continue to report on its performance against the customer service standards and targets. There are no changes required to the current reporting requirements for customer service responsiveness performance. The reporting requirements in this area are contained in Proformas 1.1 and 1.2.

3.2 Network reliability performance

SA Power Networks will continue to report on its performance against the network reliability service standards and targets. The network reliability reporting requirements have been amended to capture the feeder categories rather than the geographic regions.

The reporting requirements in this area are contained in Proformas 2.1, 2.2 and 2.3.

3.3 Performance during Major Event Days

The removal of the impact of MEDs from the reliability service standards and targets acknowledges that reliability measurements and improvement efforts should focus on performance during the normal course of events to identify changes in the underlying performance of SA Power Networks’ reliability over time. SA Power Networks’ performance during major event days will be considered separately from normal daily operations. This will enable identification and analysis of the impact of abnormal weather conditions on reliability performance, as opposed to the impact of more mild weather (and other factors) on underlying reliability performance.
On a quarterly basis, SA Power Networks will be required to report on:

- the date(s) of the MED
- the location of the MED
- the USAIDI minutes of the MED, and
- the number of customers impacted by the MED.

The quarterly MED reporting requirements are contained in Proforma 2.4.

In addition, on an annual basis, SA Power Networks will be required to provide a more detailed assessment of its performance during any MEDs that occurred throughout the year. This will include:

- a comparison of each MED with similar historic MEDs to determine if the restoration of supply times have declined, improved or remained steady
- the USAIDI resulting from “equipment failure” to indicate if the distribution system is being appropriately maintained to cope with MEDs, and
- the number and amount of GSL payments made for each MED.

### 3.4 Low reliability feeders

Since 2010/11, the Commission has reported on the performance of low-reliability distribution feeders. For the 2015-2020 regulatory period, a low-reliability feeder is defined as an individual feeder with USAIDI<sub>n</sub> performance approximately twice as high as the USAIDI<sub>n</sub> target for that feeder class for two consecutive financial years. Monitoring low-reliability feeders allows for identification of those customers not benefiting from (or receiving performance consistent with) the average reliability standards and targets for an extended period of time.

The current low-reliability feeder reporting requirements for SA Power Networks will continue, with monitoring and reporting at the individual feeder level, on:

- USAIDI and USAIFI performance as at 30 June
- USAIDI<sub>n</sub> and USAIFI<sub>n</sub> as at 30 June
- the geographic location of the feeder, and
- action already undertaken and/or any planned future action to improve the reliability of each identified feeder.

The reporting requirements in this area are contained in Proforma 2.5.
3.5 Average historical performance on a regional basis

SA Power Networks will be required to continue to report on reliability performance outcomes in the seven current geographic regions (by measuring both unplanned interruptions and unplanned interruptions with MEDs removed) against average historical performance in that region and explain departures from longer term (e.g. five year) average performance outcomes. This will also allow the Commission to monitor whether the shift to feeder types results in any degradation of average historical performance at a regional level.

The reporting requirements in this area are contained in Proforma 2.8.

3.6 Reporting on GSL payments

SA Power Networks will continue to report on the total number of GSL payments made in each category. The reporting requirements in this area are contained in Proformas 3.1, 3.2 and 3.3.

SA Power Networks will also be required to report on GSL payments by geographic region. Those data will assist the Commission in determining whether additional GSL payments should be introduced for performance during MEDs. The reporting requirements in this area are contained in Proformas 3.4 and 3.5.