

# Attachment 10 Service target performance incentive scheme

2020-25 Regulatory Proposal 31 January 2019

## This section outlines:

 > the proposed application and components of the Service Target
Perfomance Incentive Scheme (STPIS)
that will apply to SA Power Networks for
the 2020-25 Regulatory Control Period;
and

 how we propose to set STPIS performance targets for the 2020-25
Regulatory Control Period.





#### **Company information**

SA Power Networks is the registered Distribution Network Service Provider (**DNSP**) for South Australia. For information about SA Power Networks visit <u>www.sapowernetworks.com.au</u>

#### Contact

For enquiries about this Revenue Proposal please contact: Richard Sibly Head of Regulation SA Power Networks GPO Box 77 Adelaide SA 5001 sapn2020proposal@sapowernetworks.com.au

#### Disclaimer

This document forms part of SA Power Networks' Regulatory Proposal (**the Proposal**) to the Australian Energy Regulator (**AER**) for the 1 July 2020 to 30 June 2025 regulatory control period (2020-25 **RCP**). The Proposal and its attachments were prepared solely for the current regulatory process and are current as at the time of lodgment.

This document contains certain predictions, estimates and statements that reflect various assumptions concerning, amongst other things, economic growth and load growth forecasts. The Proposal includes documents and data that are part of SA Power Networks' normal business processes, and are therefore subject to ongoing change and development.

Whilst care was taken in the preparation of the information in this Regulatory Proposal, and it is provided in good faith, SA Power Networks, its officers and shareholders accept no responsibility or liability for any loss or damage that may be incurred by any person acting in reliance on this information or assumptions drawn from it for a different purpose or in a different context.

#### Copyright

This publication is copyright. SA Power Networks reserves to itself all rights in relation to the material contained within this publication. You must not reproduce any content of this publication by any process without first obtaining SA Power Networks' permission, except as permitted under the Copyright Act 1968 (Cth).

© All rights reserved.

#### Note

This attachment forms part of our Proposal for the 2020-25 RCP. It should be read in conjunction with the other parts of the Proposal.

Our Proposal comprises the overview and attachments listed below, and the supporting documents that are listed in Attachment 18:

| Document      | Description                                |  |  |  |
|---------------|--|--|--|--|
|               | Regulatory Proposal overview               |  |  |  |
|               | Customer and stakeholder engagement report |  |  |  |
| ۰ ،           | o , , , , , , ,                            |  |  |  |
| • • •         | k <sup>· ·</sup>                           |  |  |  |
| • •           | k k  |  |  |  |
| • •           | k .  |  |  |  |
| • • •         | #  |  |  |  |
| • • •         | λ  |  |  |  |
| • • •         | #  |  |  |  |
| • • •         |  |  |  |  |
| • • •         | #  |  |  |  |
| • • •         | o · · · · · ·                              |  |  |  |
| Attachment 11 | Demand management incentives and allowance |  |  |  |
| Attachment 12 | Classification of services                 |  |  |  |
| Attachment 13 | Pass through events                        |  |  |  |
| Attachment 14 | Alternative Control Services               |  |  |  |
| Attachment 15 | Negotiated services framework and criteria |  |  |  |
| Attachment 16 | Connection policy                          |  |  |  |
| Attachment 17 | Tariff Structure Statement                 |  |  |  |
| Attachment 18 | List of Proposal documentation             |  |  |  |
|               |  |  |  |  |

## Contents

| Content     | s     |  | .4  |
|-------------|-------|--|-----|
| 10          | Serv  | ice target performance incentive scheme  | .6  |
| 10.1        | Intro | oduction   | 6   |
| 10.2        | Rule  | requirements   | . 6 |
| 10.3        | STPI  | S to apply for the 2020-25 RCP   | . 7 |
| 10.4        | Impr  | rovements in STPIS performance targets for the benefit of customers  | . 9 |
| 10.4        | 4.1   | Distribution System reliability performance  | . 9 |
| 10.4        | 4.2   | CBD feeder category reliability performance  | 10  |
| 10.4        | 4.3   | Urban feeder category reliability performance  | 11  |
| 10.4        | 4.4   | Rural Short feeder category reliability performance  | 12  |
| 10.4        | 4.5   | Rural Long feeder category reliability performance   | 13  |
| 10.4        | 4.6   | Telephone response GOS   | 14  |
| 10.5        | Adju  | stment to performance targets for the 2020-25 RCP  | 16  |
| 10.5<br>the |       | Adjustment for transitional arrangements from the 2010-15 and 2015-20 RCPs and where rd or penalty exceeds the R@R cap | 16  |
| 10.5        | 5.2   | Adjustment for hardening the network expenditure (if approved)   | 19  |
| 10.5        | 5.3   | Adjustment for low reliability feeders expenditure (if approved)   | 19  |
| Shorten     | ed Fo | rms  | 20  |

## List of figures

| Figure 10-1: Distribution System STPIS USAIFI normalised performance and target | 10 |
|---|----|
| Figure 10-2: Distribution System STPIS USAIDI normalised performance and target | 10 |
| Figure 10-3: CBD STPIS USAIFI performance and target                            | 11 |
| Figure 10-4: CBD STPIS USAIDI performance and target                            | 11 |
| Figure 10-5: Urban STPIS USAIFI normalised performance and target               | 12 |
| Figure 10-6: Urban STPIS USAIDI normalised performance and target               | 12 |
| Figure 10-7: Rural Short STPIS USAIFI normalised performance and target         | 13 |
| Figure 10-8: Rural Short STPIS USAIDI normalised performance and target         | 13 |
| Figure 10-9: Rural Long STPIS USAIFI normalised performance and target          | 14 |
| Figure 10-10: Rural Long STPIS USAIDI normalised performance and target         | 14 |
| Figure 10-11: Telephone response GOS  | 15 |

## **List of tables**

| Table 10-1 Summary of AER's STPIS position in the 2020-25 F&A and SA Power Networks' proposed           |        |
|---|--------|
| approach  | 8      |
| Table 10-2: STPIS targets and incentive rates if the LN method had applied to 2010-15 RCP               | 17     |
| Table 10-3: Revenue adjustment to reliability and telephone response GOS component of the STPIS rep     | gime   |
| for the 2020-25 RCP   | 18     |
| Table 10-4: Adjustment required to 2020-25 RCP STPIS performance targets for the 2020-25 RCP becau      | use of |
| the 2014/15 regulatory year being capped at the R@R   | 18     |
| Table 10-5: Adjustment required to 2020-25 RCP STPIS performance targets to account for the amended     | ment   |
| to the MAIFI definition   | 18     |
| Table 10-6: Indicative STPIS targets for the 2020-25 RCP  | 18     |
| Table 10-6: Adjustment to STPIS targets for the 2020-25 RCP if hardening the network expenditure        |        |
| approved  | 19     |
| Table 10-7: Adjustment to STPIS targets for the 2020-25 RCP if low reliability feeder expenditure appro | oved   |
|   | 19     |
|   |        |

## **10** Service target performance incentive scheme

#### **10.1 Introduction**

The STPIS<sup>1</sup> is designed to provide a financial incentive for Distribution Network Service Providers (**DNSPs**) (like SA Power Networks) to maintain and improve their service performance. It provides a counter balance to the Efficiency Benefit Sharing Scheme (**EBSS**) and Capital Expenditure Sharing Scheme (**CESS**) that rewards DNSPs for lowering expenditure. The STPIS ensures that rewards under these schemes are not achieved at the expense of lowering service quality for customers. Unlike the EBSS and CESS, STPIS-based financial rewards (or penalties) over a regulatory control period (**RCP**) are added to (or subtracted from) the DNSPs' annual revenue requirement within the same RCP.

The STPIS measures underlying reliability performance and telephone response grade of service  $(GOS)^2$  excluding Major Event Days (MEDs). A day is classified as a MED where the daily<sup>3</sup> Unplanned System Average Interruption Duration Index (USAIDI) exceeds a predetermined MED USAIDI threshold (T<sub>MED</sub>). All recent<sup>4</sup> MEDs have resulted from major significant weather events. A DNSP is also permitted to exclude the performance on MEDs when determining telephone response GOS. SA Power Networks has excluded MEDs from its telephone response GOS performance.

For the 2020–25 RCP, SA Power Networks proposes to apply version 2 of the STPIS published by the AER in November 2018<sup>5</sup> as:

- it provides a financial incentive for SA Power Networks to maintain and improve service performance during the 2020–25 RCP; and
- it ensures that cost efficiencies encouraged under other incentive schemes are not at the expense of service quality for customers.

#### **10.2 Rule requirements**

The National Electricity Rules (**NER**) set out three relevant requirements in relation to the STPIS. They are:

- the building block proposal must contain a description of how the DNSP proposes any STPIS specified in the Framework and Approach (F&A) paper should apply for the 2020–25 RCP6;
- the building blocks used to calculate the annual revenue requirement for each regulatory year of the 2020–25 RCP must include (amongst other things) any revenue increments or decrements for the regulatory year arising from the application of the STPIS7; and
- the building block determination must specify how any applicable STPIS is to apply to a DNSP in the 2020–25 RCP8.

The STPIS to apply to SA Power Networks in the 2020–25 RCP must be developed and implemented in accordance with clause 6.6.2 of the NER. In developing and implementing the STPIS, the AER must:

• consult with the authority responsible for the administration of relevant jurisdictional electricity legislation (ie the Essential Services Commission of South Australia (ESCoSA);

<sup>6</sup> NER S6.1.3(4).

<sup>&</sup>lt;sup>1</sup> AER, Electricity distribution network service providers—Service target performance incentive scheme, version 2.0 November 2018.

<sup>&</sup>lt;sup>2</sup> Telephone GOS is the number of telephone calls offered to an agent and answered by an agent in 30 seconds.

<sup>&</sup>lt;sup>3</sup> The daily SAIDI is determined by the contribution to SAIDI from an interruption that commenced on that day (midnight to midnight). <sup>4</sup> Since 1 January 2009.

<sup>&</sup>lt;sup>5</sup> AER, Electricity distribution network service providers—Service target performance incentive scheme, version 2.0 November 2018.

<sup>&</sup>lt;sup>7</sup> NER 6.4.3(a)(5).

<sup>&</sup>lt;sup>8</sup> NER 6.3.2(a)(4).

- ensure that service standards and service targets (including guaranteed service levels (GSLs)) set by STPIS do not put at risk the DNSP's ability to comply with relevant service standards and service targets (including GSLs) as specified in jurisdictional electricity legislation;
- consider a number of specified matters, including (amongst other things) the past performance of the distribution network; and
- have regard to the Distribution Reliability Measures Guidelines.

In the 2020-25 F&A, the AER stated that it intends to continue to apply version 1.2 of the national STPIS to SA Power Networks for the 2020–25 RCP<sup>9</sup>. The AER also set out the components of the STPIS that it proposes to apply to SA Power Networks.

At the time of the F&A, the AER was undertaking a review of the STPIS and it noted that if the review was completed in time, SA Power Networks may need to apply the revised STPIS for the 2020–25 RCP<sup>10</sup>. The AER has completed this review and on 14 November 2018 the AER published version 2 of the STPIS (**2018 STPIS**).

The 2018 STPIS requires that performance targets must not deteriorate over the RCP and must be based on average performance over the past five regulatory years<sup>11</sup>.

The 2018 STPIS allows a DNSP to propose a variation to the application of the STPIS in its regulatory proposal, provided that the proposal is in writing and<sup>12</sup>:

- includes the reasons for and an explanation of the proposed variation;
- demonstrates how the proposed variation is consistent with the objectives in clause 1.5 of the 2018 STPIS; and
- if appropriate, includes the calculations and/or methodology which differ to that provided for under the 2018 STPIS.

The 2018 STPIS also allows DNSPs to propose modifications to components of the STPIS, including the revenue at risk (**R@R**)<sup>13</sup>, performance targets<sup>14</sup>, the value of customer reliability (**VCR**) used to set incentive rates for the reliability of supply component<sup>15</sup>, the parameter weighting used to set incentive rates for the reliability of supply component<sup>16</sup>, the incentive rates for the telephone answering parameter<sup>17</sup> and the MED boundary<sup>18</sup>.

Section 19 of Schedule 1 of the Reset Regulatory Information Notice (**Reset RIN**) also sets out a number of information requirements in relation to the STPIS. This Attachment, along with the information provided in Appendices 10.1, 10.2 and 10.3 and the Workbook 1 RIN template worksheets 6.1 Telephone answering and 6.2 Reliability and customer service performance, address these information requirements.

### 10.3 STPIS to apply for the 2020–25 RCP

#### **Proposed application of STPIS**

<sup>&</sup>lt;sup>9</sup> AER, *Final framework and approach – SA Power Networks Regulatory control period commencing 1 July 2020*, July 2018, p 63. <sup>10</sup> Ibid.

<sup>&</sup>lt;sup>11</sup> Clauses 3.2.1(a) and 5.3.1(a) of the 2018 STPIS.

<sup>&</sup>lt;sup>12</sup> Clause 2.2 of the 2018 STPIS.

<sup>&</sup>lt;sup>13</sup> Clause 2.5(b) and 5.2(c) of the 2018 STPIS.

<sup>&</sup>lt;sup>14</sup> Clause 3.2.1(a) and 5.3.1(b) of the 2018 STPIS.

<sup>&</sup>lt;sup>15</sup> Clause 3.2.2(d) of the 2018 STPIS.

<sup>&</sup>lt;sup>16</sup> Clause 3.2.2(f)(2) of the 2018 STPIS.

<sup>&</sup>lt;sup>17</sup> Clause 5.3.2(a)(2) of the 2018 STPIS.

<sup>&</sup>lt;sup>18</sup> Clause 2.2 and Appendix D of the 2018 STPIS.

SA Power Networks proposes that the AER apply the 2018 STPIS to SA Power Networks for the 2020–25 RCP as contemplated in the F&A.

#### Proposed application of components of the STPIS

SA Power Networks proposes that the AER apply the components of the 2018 STPIS to SA Power Networks for the 2020–25 RCP in a manner that is consistent with the AER's proposed approach as set out in the F&A with the clarifications as set out in Table 10-1.

Table 10-1 sets out and compares the AER position in the F&A with SA Power Networks' proposed approach.

| Table 10-1 Summary | of AFR's STPIS      | nosition in the | 2020-25 F&A and SA  | Power Networks' | proposed approach |
|--------------------|---------------------|-----------------|---------------------|-----------------|-------------------|
| Table IV-I Summar  | y 01 ALIX 3 3 11 13 | position in the | 2020-23 I GA and 3A |                 | proposed approach |

| STPIS component           | AER's F&A position  | SA Power Networks proposed approach   |
|---------------------------|---|---|
| Revenue at risk           | Set revenue at risk within the range of ±5%   | Accept  |
| Segment the<br>network    | Segment the network according to the<br>four feeder categories (CBD, Urban,<br>Rural Short and Rural Long) as per the<br>scheme's definitions   | Accept noting that this involves updating<br>feeder category performance to reflect the<br>2018 STPIS which specifies that a<br>prolonged interruption has a duration of<br>greater than three minutes (as compared<br>to one minute)   |
| Performance<br>parameters | Apply the System Average Interruption<br>Duration Index ( <b>SAIDI</b> ), System Average<br>Interruption Frequency Index ( <b>SAIFI</b> )<br>and customer service (telephone<br>answering) parameters | Accept noting that SA Power Networks<br>proposes only to apply the service<br>standards factor (S-factor) for improved (or<br>deteriorated) service compared to service<br>targets for reliability of supply and<br>telephone response GOS service  |
| Performance<br>targets    | Set performance targets based on SA<br>Power Networks' average performance<br>over the past five regulatory years   | Accept noting that adjustments are<br>required to the performance targets (both<br>reliability and customer service) for the<br>2020–25 RCP in accordance with clauses<br>3.2.1(a)(1A) and (1B), and 5.3.1(b)(1A) and<br>(1B) of the 2018 STPIS, and Appendix F.<br>The adjustment is required because the<br>outcome of the 2014/15 performance<br>exceeded the R@R cap of 3%, and we are<br>proposing expenditure to address<br>reliability performance on MEDs and<br>selected 'poor performing' feeders |
| Exclusions                | Apply the method in the STPIS for<br>excluding specific events from the<br>calculation of annual performance and<br>performance targets   | Accept noting that SA Power Networks is<br>proposing to use the 2018 STPIS 2.5 eta<br>method to determine the MED SAIDI<br>thresholds   |
| Incentive rates           | Apply the method and VCR as indicated<br>in AEMO's 2014 Value of Customer<br>Reliability Review final report  | Accept noting that the AER has<br>commenced its review of the VCR, which is<br>planned to be completed by the end of the<br>2019 calendar year. If the review is<br>completed as planned it is likely that the  |

| STPIS component              | AER's F&A position  | SA Power Networks proposed approach   |
|------------------------------|---|---|
|                              |   | VCR determined by that review will be used to set the incentive rates for the 2020–25 RCP |
| Guaranteed<br>Service Levels | Not apply the GSL component of the<br>STPIS if SA Power Networks remains<br>subject to a jurisdictional GSL scheme<br>(as set out in the South Australian<br>Electricity Distribution Code) | Accept  |

The following sections detail:

- the improvements in service levels experienced by customers; and
- the adjustments to the reliability and customer service targets required by the STPIS performance for the 2014/15 regulatory year which exceeded the cap on the R@R and the proposed reliability improvements.

#### **10.4 Improvements in STPIS performance targets for the benefit of customers**

This section highlights the benefits to customers resulting from the operation of the STPIS regime, since the 2010–15 RCP. It details the annual STPIS performance outcomes for the whole network operated by SA Power Networks, for the four feeder categories of CBD, Urban, Rural Short and Rural long as per the scheme's definitions, and for the telephone response GOS for the period from 2005/06 to 2017/18. It includes a forecast outcome for 2018/19. It also includes the STPIS targets for each RCP, including the proposed 2020–25 STPIS targets are based on the average performance over the last five regulatory years<sup>19</sup>, including the 2018/19 forecasts. The quoted percentage improvements are based on the change in the STPIS targets from the initial 2010–15 RCP to the 2020–25 RCP forecast.

The graphs in this section are normalised by excluding the service performance on MEDs<sup>20</sup> are based on the natural logarithm (**LN**) method for determining  $T_{MED}$ . Further details in relation to this method and the adjustments made to STPIS performance are set out in section 10.6.1.

The graphs highlight a 4% adjustment (ie uplift or easier target) in the UASIFI and USAIDI targets for each feeder category. This adjustment results from a transition from the 2010–15 to the 2015–20 RCP, where there was a change in how MEDs were determined. See Section 10.5.1 for more detail.

#### 10.4.1 Distribution System reliability performance

This subsection details the STPIS annual reliability performance of SA Power Networks' distribution system, the average performance for the STPIS Target Setting Period (**TSP**) and the applicable performance target<sup>21</sup> since 1 July 2005 (or indicative target for the 2020–25 RCP).

Figure 10-1 and Figure 10-2 below highlight that for the whole of our network there has been an average improvement in Unplanned System Average Interruption Frequency Index (**USAIFI**) (ie reduction in the number of customer supply interruptions) of 24% and an improvement in USAIDI of 12% (ie reduction in customer minutes without supply).

<sup>&</sup>lt;sup>19</sup> The 2020–25 STPIS targets will be based on the past five regulatory years in the AER's distribution determination for the 2020–25 RCP and will include the actual performances for the 2018/19 regulatory year.

<sup>&</sup>lt;sup>20</sup> MEDs are determined using the 2018 STPIS 'safe harbour' LN method. This LN method was not used for the 2010–15 RCP, when we sought, and the AER agreed to use the Box-Cox method to determine MEDs.

<sup>&</sup>lt;sup>21</sup> The 2018/19 results are forecast and highlighted with a slightly different colour shade.

The incentive provided by the STPIS has resulted in, on average, 340,000 fewer customer interruptions since the STPIS first applied to SA Power Networks in the 2010–15 RCP. This improved performance is reflected in lower forecast performance targets for the 2020–25 RCP compared to the 2010–15 RCP performance targets.

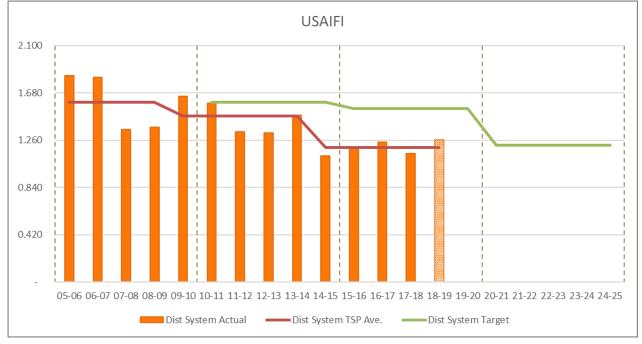


Figure 10-1: Distribution System STPIS USAIFI normalised performance and target

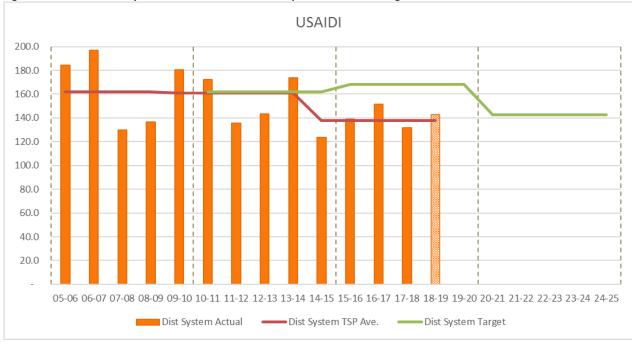


Figure 10-2: Distribution System STPIS USAIDI normalised performance and target

#### 10.4.2 CBD feeder category reliability performance

Figure 10-3 and Figure 10-4 below highlight that for CBD classified distribution feeders there has been an average improvement in USAIFI (ie reduction in the number of customer supply interruptions) of 23% and an improvement in USAIDI of 18% (ie reduction in customer minutes without supply). This improved performance is reflected in lower forecast performance targets for the 2020–25 RCP as compared to the

2010–15 RCP performance targets. However, a number of unrelated cable failures in the 2017/18 regulatory year resulted in poor performance in that regulatory year and consequently the forecast performance target is higher than the 2015–20 RCP performance target. That poor performance resulted in a STPIS penalty for the CBD feeder category in the 2015–20 RCP.

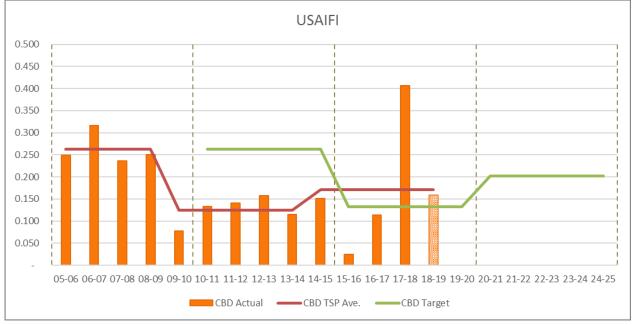
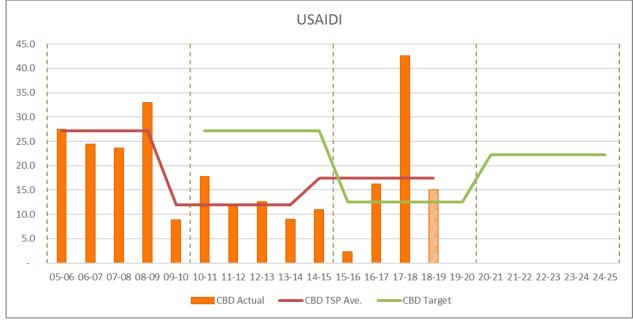


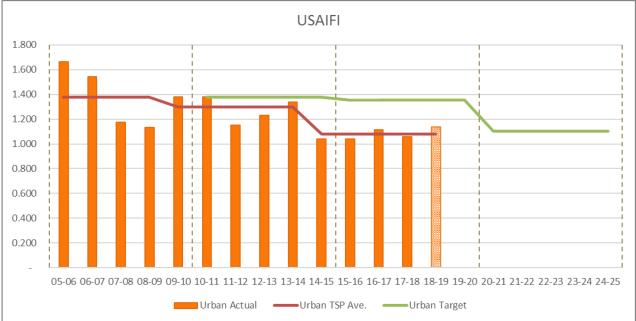
Figure 10-3: CBD STPIS USAIFI performance and target

#### Figure 10-4: CBD STPIS USAIDI performance and target



#### 10.4.3 Urban feeder category reliability performance

Figure 10-5 and Figure 10-6 below highlight that for Urban distribution feeders there has been an average improvement in USAIFI (ie reduction in the number of customer supply interruptions) of 20% and improvement in USAIDI of 8% (ie reduction in customer minutes without supply). This improved performance is reflected in lower forecast performance targets for the 2020–25 RCP as compared to the 2010–15 RCP performance targets.





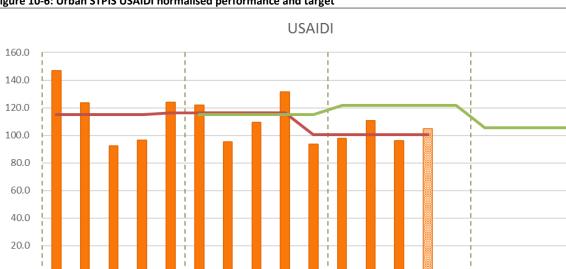


Figure 10-6: Urban STPIS USAIDI normalised performance and target

#### 10.4.4 Rural Short feeder category reliability performance

Urban Actual

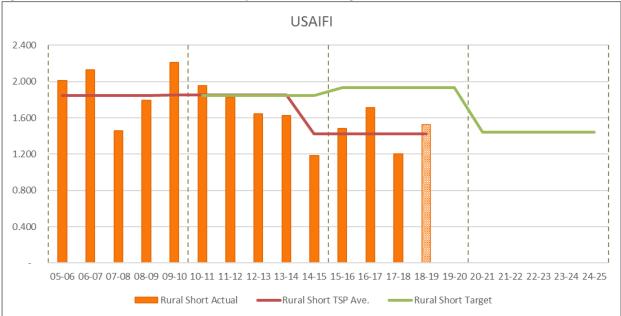
\_

Figure 10-7 and Figure 10-8 below highlight that for Rural Short distribution feeders there has been an average improvement in USAIFI (ie reduction in the number of customer supply interruptions) of 22% and an improvement in USAIDI of 12% (ie reduction in customer minutes without supply). This improved performance is reflected in lower forecast performance targets for the 2020–25 RCP as compared to the 2010–15 RCP performance targets.

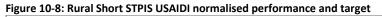
05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15 15-16 16-17 17-18 18-19 19-20 20-21 21-22 22-23 23-24 24-25

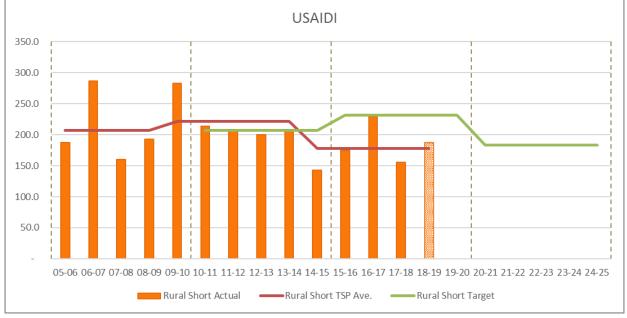
Urban Target

Urban TSP Ave.



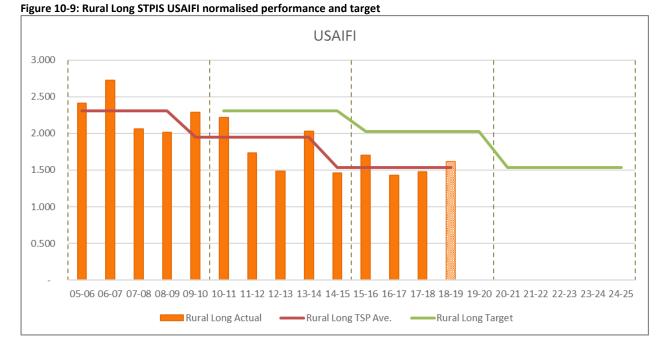
#### Figure 10-7: Rural Short STPIS USAIFI normalised performance and target





#### 10.4.5 Rural Long feeder category reliability performance

Figure 10-9 and Figure 10-10 below highlight that for Rural Long distribution feeders there has been an average improvement in USAIFI (ie reduction in the number of customer supply interruptions) of 34% and improvement in USAIDI of 14% (ie reduction in customer minutes without supply). This improved performance is reflected in lower forecast performance targets for the 2020–25 RCP compared to the 2010–15 RCP performance targets.



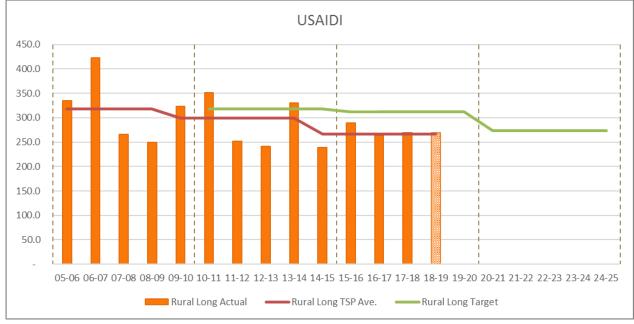


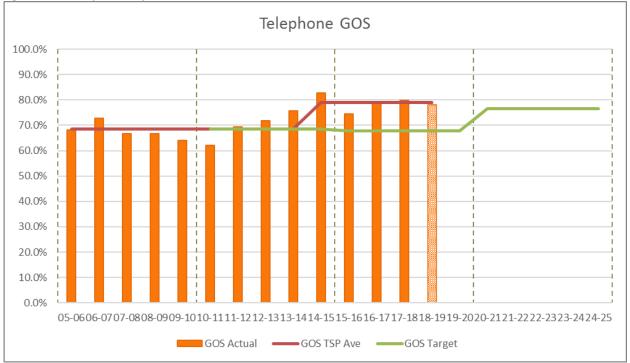
Figure 10-10: Rural Long STPIS USAIDI normalised performance and target

#### 10.4.6 Telephone response GOS

This subsection details the STPIS telephone response GOS performance, the average performance over the TSP and the applicable performance target since 1 July 2005 (or indicative target for the 2020–25 RCP).

Figure 10-11 below highlights a 11% improvement in the percentage of agent calls answered within 30 seconds (ie the telephone response GOS). This improved performance is reflected in higher forecast performance targets for the 2020–25 RCP compared to the 2010–15 RCP performance targets.

#### Figure 10-11: Telephone response GOS



### 10.5 Adjustment to performance targets for the 2020–25 RCP

In accordance with the AER's STPIS, DNSPs are annually rewarded for improvements, or penalised for declines, in performance compared to historic averages (normally determined over a five-year period). The annual performance that resulted in the reward or penalty is then used to establish STPIS performance targets for future RCPs. However, there are exceptions to this where:

- the reward or penalty is capped<sup>22</sup> by the R@R; and/or
- a DNSP has been funded to improve performance, in which case the performance targets are adjusted to reflect the funded improvement.

Under the first exception listed above, the past performance is used to establish future STPIS performance targets by adjusting targets, so they align with the STPIS reward or penalty for that regulatory year. This adjustment ensures that DNSPs do not receive a windfall gain (where performance was worse than the cap) or a windfall loss (where performance was better than the cap) in future RCPs.

## 10.5.1 Adjustment for transitional arrangements from the 2010–15 and 2015–20 RCPs and where the reward or penalty exceeds the R@R cap

In accordance with clause 2.2 of the 2018 STPIS, a DNSP can propose variations to the operation of the STPIS, in its regulatory proposal, for a RCP. If the AER approves the variation in its distribution determination for that DNSP then the variation(s) will apply for that RCP.

SA Power Networks proposed such a variation for the 2010–15 RCP, which was approved by the AER in its distribution determination for the 2010–15 RCP. SA Power Networks proposed the use of a different conversion method (ie the Box-Cox (**BC**) method), in preference to the 'safe harbour' LN method used by STPIS, to convert the daily unplanned SAIDI into a 'normal' distribution. Statistical methods were then applied to this converted data to determine the  $T_{MED}$ .

The AER in conjunction with the approval of the variation (ie the adoption of the BC method) determined that the R@R should be capped at  $\pm 3\%^{23}$  for the 2010–15 RCP.

Even though the BC method resulted in an improved normal distribution, it had some issues related to volatility of the value of  $T_{MED}$  due to a few MEDs with extreme USAIDI values. Therefore, during the distribution determination process for the 2015–20 RCP, SA Power Networks proposed, and the AER accepted a reversion to the LN method for the 2015–20 RCP. This change in method created a transitional issue between the 2010–15 and 2015–20 RCPs, as the STPIS performance calculated using the BC method was significantly different to the STPIS performance calculated using the LN method.

Clause 2.6 of version 1.2 of the STPIS (being the STPIS that applied to the 2015-20 distribution determination) specified that a DNSP could propose an arrangement or method to deal with transitional issues. Accordingly, SA Power Networks proposed in its regulatory proposal for the 2015–20 RCP, and the AER accepted, transitional arrangements for the transition from the 2010–15 RCP to the 2015–20 RCP, which included:

- recalculating the STPIS performance targets for the 2010–15 RCP using the LN method;
- recalculating the incentives rates24 that would have applied using those recalculated targets;
- determining the resulting reward or penalty for each regulatory year of the 2010–15 RCP that would have resulted from those amended targets and incentive rates;

<sup>&</sup>lt;sup>22</sup> See AER's STPIS version 2.0 November 2018, sub-clause 3.2.1(a)(1B) pg 11.

<sup>&</sup>lt;sup>23</sup> See AER's Final Decision South Australian distribution determination 2010-11 to 2014-15 Section 12.6 pg 202.

<sup>&</sup>lt;sup>24</sup> Incentive rates are used to determine the reward or penalty associated with the variation from the STPIS performance target.

- adjusting 25 the STPIS performance for each regulatory year of the 2010–15 RCP so that the variation from the targets determined using the LN method provided the same outcome as that received from the STPIS regime using the BC method; and
- using the adjusted STPIS performance for each regulatory year to determine the STPIS targets for the 2015–20 RCP.

In effect, the STPIS outcomes were determined as if the LN method applied to the 2010–15 RCP. The STPIS performance for each regulatory year of the 2010–15 RCP that was calculated using the LN method were then adjusted to align with the STPIS outcomes provided by the BC method (ie to align the actual rewards and penalties). This ensured that we did not receive a windfall gain or loss due to the transition from the BC method to the LN method in the 2015–20 RCP.

The STPIS performance targets for the 2015–20 RCP were equivalent to the average performance over the five years from 2009/10 to 2013/14 inclusive. Therefore, the actual performance for the 2009/10 regulatory year and the adjusted performance for the 2010/11 to 2013/14 regulatory years were used to calculate the average performance over that period. This adjustment resulted in about a 4% uplift (ie easier target) for each of the 2015–20 RCP STPIS targets.

The STPIS performance targets for the 2020–25 RCP will be based on the average performance over the five years from 2014/15 to 2018/19 inclusive. As the 2014/15 regulatory year forms part of the 2010–15 RCP, a transitional arrangement will need to apply to that year.

However, this transition will be easier as STPIS performance for the 2014/15 regulatory year exceeded the R@R 3% cap (ie the performance in the 2014/15 regulatory year would have resulted in a higher reward but for the R@R 3% cap). Consequently, we only need to calculate what the STPIS outcome for the 2014/15 regulatory year would have been if the LN method had applied to the 2010–15 RCP.

Table 10-2 below details the STPIS performance targets and incentive rates that would have applied to the STPIS regime if the LN method had applied to the 2010–15 RCP.

| Average performance | CBD    | Urban  | Rural Short | Rural Long |
|---------------------|--------|--------|-------------|------------|
| USAIDI              |        |        |             |            |
| Target              | 27.1   | 114.9  | 206.7       | 318.3      |
| Incentive rate      | 0.0092 | 0.0513 | 0.0094      | 0.0115     |
| USAIFI              |        |        |             |            |
| Target              | 0.263  | 1.378  | 1.846       | 2.305      |
| Incentive rate      | 0.8410 | 4.4064 | 1.1406      | 1.7253     |
| Telephone response  |        |        |             |            |
| Target              | 70.0%  |        |             |            |
| Incentive           | 0.04   |        |             |            |

These targets and incentive rates were reviewed and approved by the AER when setting the STPIS performance targets for the 2015–20 RCP.

The 2018 STPIS requires that the STPIS targets for an upcoming RCP be adjusted where the STPIS performance for a particular regulatory year does not lie between the upper and the lower bound of the R@R (ie the STPIS outcome was capped at the R@R for a regulatory year). This occurred, as highlighted above, in the 2014/15 regulatory year. As the STPIS performance for the 2014/15 regulatory year will be an input to establishing the STPIS targets for the 2020–25 RCP, the STPIS raw targets (ie the STPIS targets

<sup>&</sup>lt;sup>25</sup> The performance was adjusted using a single factor for each of the feeder categories (ie each performance was proportionally adjusted).

calculated from the actual annual performance for five years from the 2014/15 regulatory year to the 2018/19 regulatory year) must be adjusted in accordance with the 2018 STPIS.

Appendix F to the 2018 STPIS sets out the steps to be applied to adjust the performance targets, when performance for a particular regulatory year is capped by the R@R. Such adjustments are required to be made to all the feeder category reliability targets and the telephone GOS response target for the 2020–25 RCP.

Under the LN method, the STPIS outcome should have been 7.111% of revenue, but as the R@R was 3% for the 2014/15 regulatory year, the STPIS targets need to be adjusted by the equivalent of 4.111% of revenue. Table 10-3 below shows the portion of the revenue adjustment to the reliability and telephone response GOS components of the STPIS.

| % of Revenue        | Reliability | Reliability Telephone response<br>GOS |        |
|---------------------|-------------|---------------------------------------|--------|
| 2014/15 performance | 6.547%      | 0.563%                                | 7.111% |
| Annual Cap          | 2.926%      | 0.074%                                | 3.000% |
| Difference          | 3.622%      | 0.489%                                | 4.111% |

Table 10-3: Revenue adjustment to reliability and telephone response GOS component of the STPIS regime for the 2020-25 RCP

SA Power Networks has used the steps detailed in Appendix F of the 2018 STPIS to calculate the adjustment to the STPIS targets for the 2020–25 RCP. Table 10-4 below shows the adjustment (added to the raw target) required to the feeder category reliability targets and the telephone response GOS target for the 2020–25 RCP.

Table 10-4: Adjustment required to 2020-25 RCP STPIS performance targets for the 2020-25 RCP because of the 2014/15 regulatory year being capped at the R@R

| Measure adjustment | CBD    | Urban  | Rural Short | Rural Long |
|--------------------|--------|--------|-------------|------------|
| USAIDI             | 4.86   | 4.86   | 4.86        | 4.86       |
| USAIFI             | 0.0451 | 0.0451 | 0.0451      | 0.0451     |
| Telephone response | -2.44% |        |             |            |

As highlighted previously, the 2018 STPIS requires the back casting of the reliability data to incorporate the amendment to the Momentary Average Interruption Frequency Index (MAIFI) definition which now includes interruptions of three minutes or less, where previously it included interruptions of one minute or less. As such, any interruption where the duration is longer than one minute and no more than three minutes must be excluded from the STPIS reliability outcomes to establish the 2020–25 RCP STPIS targets. Table 10-5 details the adjustment to the STPIS targets required by the amendment to the definition of MAIFI. The numbers in the Table are added to the targets.

Table 10-5: Adjustment required to 2020-25 RCP STPIS performance targets to account for the amendment to the MAIFI definition.

| Measure adjustment | CBD     | Urban   | Rural Short | Rural Long |
|--------------------|---------|---------|-------------|------------|
| USAIDI             | -0.01   | -0.04   | -0.05       | -0.10      |
| USAIFI             | -0.0141 | -0.0216 | -0.0256     | -0.0505    |

Table 10-6 below shows the Targets after the adjustment for the R@R and the amended MAIFI definition.

| Table 10-6: Indicative STPIS targets for the 2020-25 RCP |       |        |             |            |
|--|-------|--------|-------------|------------|
| Average performance                                      | CBD   | Urban  | Rural Short | Rural Long |
| USAIDI   |       |        |             |            |
| Raw average  | 17.42 | 100.66 | 178.05      | 266.07     |
| Adjusted Target  | 22.26 | 105.48 | 182.86      | 270.83     |

| USAIFI             |        |        |        |        |
|--------------------|--------|--------|--------|--------|
| Raw average        | 0.1711 | 1.0780 | 1.4210 | 1.5366 |
| Adjusted Target    | 0.2020 | 1.1015 | 1.4404 | 1.5312 |
| Telephone response |        |        |        |        |
| Raw average        | 78.9%  |        |        |        |
| Adjusted target    | 76.4%  |        |        |        |

#### 10.5.2 Adjustment for hardening the network expenditure (if approved)

Clause 3.2.1(1A) of the 2018 STPIS requires that the performance targets to apply during the 2020-25 RCP must be modified by any completed or planned reliability improvements where the planned reliability improvements are:

- included in the expenditure program proposed by SA Power Networks in its regulatory proposal for the 2020-25 RCP; and
- expected to result in a material improvement in supply reliability.

SA Power Networks has proposed expenditure to improve the reliability of the distribution network during major storms (refer to Attachment 5 – Capital expenditure, section 5.14.2) and this proposed expenditure meets the requirements in clause 3.2.1(1A) of the 2018 STPIS. This proposed expenditure mainly targets interruptions on MEDs but has some benefit on non-MED days.

We have determined the improvement in the STPIS reliability targets if the improvements had been in place for the full five years from 2013/14 to 2018/19 and propose that if the AER approves our proposed 'hardening of the network expenditure' then our STPIS targets for the 2020–25 RCP should be adjusted by, the amounts in Table 10-6 below. The amounts shown are half the total forecast improvements, as the improvements are planned to be completed evenly over the 2020–25 RCP.

Table 10-7: Adjustment to STPIS targets for the 2020-25 RCP if hardening the network expenditure approved

| % of Revenue | CBD    | Urban   | Rural Short | Rural Long |
|--------------|--------|---------|-------------|------------|
| USAIDI       | 0.00   | -0.52   | -1.07       | -1.27      |
| USAIFI       | 0.0000 | -0.0083 | -0.0085     | -0.0120    |

#### 10.5.3 Adjustment for low reliability feeders expenditure (if approved)

SA Power Networks has proposed expenditure to improve the reliability of feeders in the low reliability feeder category for several years (Attachment 5 – Capital expenditure, section 5.14.2) and this proposed expenditure meets the requirements in clause 3.2.1(1A) of the 2018 STPIS.

We have determined the improvement in the STPIS reliability targets if the improvements had been in place for the full five years from 2013/14 to 2018/19 and propose that if the AER approves our proposed 'low reliability feeder expenditure' then our STPIS targets for the 2020–25 RCP should be adjusted by the amounts in Table 10-7 below. The amounts shown are half the total forecast improvements, as the improvements are planned to be completed evenly over the 2020–25 RCP.

#### Table 10-8: Adjustment to STPIS targets for the 2020-25 RCP if low reliability feeder expenditure approved

| % of Revenue | CBD    | Urban   | Rural Short | Rural Long |
|--------------|--------|---------|-------------|------------|
| USAIDI       | 0.00   | -0.45   | -1.34       | -13.71     |
| USAIFI       | 0.0000 | -0.0042 | -0.0057     | -0.0366    |

## **Shortened Forms**

| 2018 STPIS       | Version 2 of STPIS published 14 November 2018         |
|------------------|---|
| BC               | Box-Cox   |
| CESS             | Capital Expenditure Sharing Scheme                    |
| DNSP             | Distribution Network Service Provider                 |
| EBSS             | Efficiency Benefit Sharing Scheme                     |
| ESCoSA           | Essential Services Commission of South Australia      |
| F&A              | Framework and Approach                                |
| GOS              | Grade of Service                                      |
| GSL              | Guaranteed Service Level                              |
| LN               | Natural Logaithm                                      |
| MAIFI            | Momentary Average Interruption Frequency Index        |
| MED              | Major Event Days                                      |
| NER              | National Electricity Rules                            |
| R@R              | Revene at Risk  |
| RCP              | Regulatory Control Period                             |
| RIN              | Regulatory Information Notice                         |
| SAIDI            | System Average Interruption Duration Index            |
| SAIFI            | System Auverage Interruption Frequency Index          |
| STPIS            | Service Target Performance Incentive Scheme           |
| T <sub>MED</sub> | MED USAIDI Threshold                                  |
| TSP              | Target Setting Period                                 |
| USAIDI           | Unplanned System Average Interruption Duration Index  |
| USAIFI           | Unplanned System Average Interruption Frequency Index |
| VCR              | Value of Customer Reliability                         |
|                  |   |