

# **Attachment 8.2**

## **STPIS Approach Paper**

### **2019-24 Regulatory Period**

**April 2018**



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## 1. Summary

### 1.1 Purpose

The primary purpose of the Australian Energy Regulator (AER) Service Target Performance Incentive Scheme (STPIS) is to provide incentives to Distribution Network Service Providers (DNSPs) to:

- (a) maintain the existing level of supply reliability; and
- (b) efficiently improve supply reliability where it fails to meet the service levels customers expect.

The scheme rewards or penalises a DNSP at the end of each year when their reliability performance for that year is above or below their baseline historic performance, which is typically measured over five years. There are two exceptions:

- > The reward or penalty is capped at the STPIS revenue at risk percentage determined at each regulatory reset.
- > Where a DNSP is funded to improve overall network performance, STPIS targets are adjusted to reflect this.

The AER uses normalised network performance to set and measure these targets, as this reflects the interruptions customers experience that the DNSP can influence.

### 1.2 Current Regulatory Period

The 2014-2019 regulatory period was the first time Essential Energy was subject to the STPIS. Key parameters of the STPIS for 2014-19 include:

- > 2.5 per cent revenue was at risk, balancing the risk to customers and Essential Energy.
- > Performance targets were based on average performance trends of actual data over the previous five years.
- > The incentive rates were based on the Value of Customer Reliability (VCR), which was developed by the Australian Energy Market Operator (AEMO) in 2014. The VCR values were indexed to July 2015.
- > The Telephone Answering parameter was applied to 0.25 per cent of revenue at risk, using a substituted target based on the average answering performance of Victorian DNSPs and an incentive rate of -0.04 per cent per unit.

### 1.3 AER Framework and Approach

The AER has set out its proposed application of STPIS for the 2019-24 regulatory period in its July 2017 publication *Framework and Approach: Ausgrid, Endeavour Energy and Essential Energy, Regulatory Control Period commencing 1 July 2019* (Framework and Approach). The AER has stated that the STPIS scheme will apply in its standard form. Key elements of the AER's framework and approach position on STPIS and displayed in table 1.

**Table 1 - AER's Framework and Approach Position**

Scheme Design Aspect	AER's Position
The maximum revenue at risk under STPIS	Set revenue at risk at $\pm 5$ per cent
How the DNSP's network will be segmented	Urban, short rural, *long rural
The applicable parameters for the s-factor (service standards factor) adjustment of annual revenue across customer service, reliability and quality of supply components	SAIDI, SAIFI, Telephone Answering

Scheme Design Aspect	AER's Position
Performance targets for the applicable parameters in each network segment	Set performance targets based on the DNSP's average performance over the past five regulatory years
The criteria for certain events to be excluded from the calculation of annual performance and performance targets	Apply the methodology in the national STPIS scheme
Incentive rates determining the relative importance of measured performance against targets across applicable parameters in each network segment	Apply the methodology and VCR values as indicated in the AEMO's 2014 <i>Value of Customer Reliability Review</i> final report

(\*Missing - likely to be an omission, as long rural is a significant category for Essential Energy)

## 1.4 Essential Energy's Approach

Essential Energy generally aligns with the proposed approach to STPIS detailed by the AER, with some minor exceptions as detailed in section 2.2 of this document.

Details of Essential Energy's approach are included below in Table 2 (Essential Energy's Approach).

**Table 2 - Essential Energy's Approach**

Scheme Design Aspect	Essential Energy
The maximum revenue at risk under STPIS	Set revenue at risk at $\pm 5$ per cent (standard application by AER)
How the DNSP's network will be segmented	Urban, short rural, long rural
The applicable parameters for the s-factor (service standards factor) adjustment of annual revenue across customer service, reliability and quality of supply components	SAIDI, SAIFI, Telephone Answering
Performance targets for the applicable parameters in each network segment	Set performance targets based on the DNSP's average performance over the past five regulatory years
The criteria for certain events to be excluded from the calculation of annual performance and performance targets	Apply the methodology indicated in the revised draft national STPIS scheme
Incentive rates determining the relative importance of measured performance against targets across applicable parameters in each network segment	Apply the methodology and VCR values as indicated in the AEMO's 2014 <i>Value of Customer Reliability Review</i> final report

## 2. Requirements Under the National Electricity Rules (NER)

### 2.1 Summary of the NER

Clause 6.6.2(b)(3) of the NER sets out the factors the AER must consider when developing and implementing the STPIS scheme.

- (i) the need to ensure that benefits to electricity consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for Distribution Network Service Providers; and*
- (ii) any regulatory obligation or requirement to which the Distribution Network Service Provider is subject; and*
- (iii) the past performance of the distribution network; and*
- (iv) any other incentives available to the Distribution Network Service Provider under the Rules or a relevant distribution determination; and*
- (v) the need to ensure that the incentives are sufficient to offset any financial incentives the Distribution Network Service Provider may have to reduce costs at the expense of service levels; and*
- (vi) the willingness of the customer or end user to pay for improved performance in the delivery of services; and*
- (vii) the possible effects of the scheme on incentives for the implementation of non-network options.*

These factors also form the objectives set out in Clause 1.5 of the STPIS Guideline. Clause 2.2 of the STPIS Guideline requires that DNSPs proposing variations to the scheme must demonstrate how they are consistent with the scheme's objectives.

### 2.2 Links Between Essential Energy's Approach and the NER

Essential Energy broadly agrees with the STPIS scheme outlined in the AER's framework and approach paper, with some exceptions. This section explains our position on how we believe the scheme can best meet the relevant requirements of Clause 6.6.2(b)(3) of the NER.

#### **Exclusion criteria for calculating annual performance and performance targets**

Essential Energy understands that the STPIS scheme is under review following recommendations from the Australian Energy Market Commission (AEMC). To help us develop accurate performance targets, we wish to clarify the specific criteria the AER seeks to apply.

One of the AEMC's recommended exclusion criteria is *"the load interruptions caused or extended by a direction from state or federal emergency services, provided that a fault in, or the operation of, the network did not cause, in whole or part, the event giving rise to the direction."*<sup>1</sup> This exclusion would allow Essential Energy to meet, without penalty, jurisdictional requirements that are not covered under current STPIS exclusions. As the powers that allow emergency services to direct Essential Energy to isolate are not drafted within state electricity legislation, the currently intended exclusion does not apply. We believe this adjustment to the scheme should be applied, as it aligns directly with Clause 6.6.2(b)(3)(ii) of the NER: *"requirement to which the Distribution Network Service Provider is subject"*.

We also believe that a sustained outage definition of greater than three minutes would enable us to implement supply restoration systems that are in the best interests of customers. This incentive for DNSPs to invest in automation technologies would enable faster restoration times at a cost generally below that of customers' willingness to pay. This is especially key for rural customers, where customer densities are often low, so there are fewer people to share the costs. Applying the same VCR across the network means the marginal cost of traditional network reliability improvements far exceeds rural customers' willingness to pay. By contrast, higher customer density (with more people to share the cost) means urban customers are more willing to pay for reliability improvements.

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<sup>1</sup> Final Report – Review of Distribution Reliability Measures – 5 September 2014

One example of a supply restoration system is using containerised, silenced diesel generation to service island satellite communities when their distribution feeder supply is lost. This goes to the NER's *"need to ensure that benefits to electricity consumers likely to result from the scheme are sufficient"* 6.6.2(b)(3)(i). We consider this need is best met when the number of available options is maximised.

In addition, the AER should have regard to *"the possible effects of the scheme on incentives for the implementation of non-network options"* 6.6.2(b)(3)(vii). There are benefits to customers in aligning the interruption threshold with the recommendations of the AEMC, the threshold used by the British regulator Ofgem, and the five-minute threshold defined by the Institute of Electrical and Electronics Engineers (IEEE). By ignoring these options, the AER is failing to unlock the beneficial impact of non-network options on customer reliability.

## 2.3 Customer Service telephony

Essential Energy believes that the calculation for revenue at risk for Customer Service Telephony should be modified for interruptions that span multiple days.

For SAIDI, multiple-day outages start accruing on the day the interruption begins. However, it is often the days following the date the interruption begins that have the greatest impact on Customer Service Telephony.

We recommend that, where an interruption on a major event day spans multiple days, the entire length of the interruption is excluded when working out the values of the parameters and calculating the revenue increment or decrement resulting from the STPIS scheme.

Essential Energy proposes that the following customer service telephony parameters are applied in the 2019-24 STPIS:

- > The performance targets should be based on average performance over the past five regulatory years.
- > Apply -0.040% per unit of the Telephone Answering parameter.
- > Remove calls from the 'next day' after a major event day, noting that we would need to back-cast Essential Energy's performance.

## 3. Forecasting Methodology

### 3.1 Targets

**SAIDI:** 'Total sustained minutes off supply after removing excluded events' are as per the AER determination for the 2014-19 period. The average of the historical value of SAIDI for the last five years is calculated using this value, when this calculation is carried prior to the end of a financial year the annual target value for SAIDI is used for the last period of the calculation. The historic five year average of the "total value of excluded minutes off supply" is added to the targets to obtain the "total sustained minutes off supply".

**SAIFI:** 'Total sustained customer interruptions after removing excluded events' are as per the AER determination for the 2014-19 period. The average of the historical value of SAIFI for the last five years is calculated using this value, when this calculation is carried prior to the end of a financial year the annual target value for SAIFI is used for the last period of the calculation. The historic five year average of the "total value of excluded events" is added to the targets to obtain the "total sustained customer interruptions".

**MAIFI:** Is not reported or calculated.

### 3.2 Daily Performance

**SAIDI:** 'Total sustained minutes off supply' and 'Total sustained minutes off supply after removing excluded events' are as reported to the AER in the Annual Reporting RINs for each financial year. 'Total value of excluded events' is calculated subtracting the latter from the former

**SAIFI:** 'Total sustained customer interruptions' and 'Total sustained customer interruptions after removing excluded events' are as reported to the AER in the Annual Reporting RINs for each financial year. 'Total value of excluded events' is calculated subtracting the latter from the former.

**MAIFI:** Is not reported or calculated.

### 3.3 MED threshold calculation

The MED threshold is calculated over the last five years using daily SAIDI data in alignment with the IEEE method as stipulated in the STPIS guidelines using the 2.5 beta method. The data distribution is confirmed to be normal via a Q-Q plot of the natural logarithms of the daily SAIDI data.

### 3.4 Incentive Rates

Incentive rates are as calculated in Appendix B of the STPIS guidelines.