



**FINAL DECISION**  
**Endeavour Energy distribution**  
**determination**  
**2015–16 to 2018–19**

**Attachment 11 – Service target**  
**performance incentive scheme**

April 2015

© Commonwealth of Australia 2015

This work is copyright. In addition to any use permitted under the Copyright Act 1968, all material contained within this work is provided under a Creative Commons Attributions 3.0 Australia licence, with the exception of:

- the Commonwealth Coat of Arms
- the ACCC and AER logos
- any illustration, diagram, photograph or graphic over which the Australian Competition and Consumer Commission does not hold copyright, but which may be part of or contained within this publication. The details of the relevant licence conditions are available on the Creative Commons website, as is the full legal code for the CC BY 3.0 AU licence.

Requests and inquiries concerning reproduction and rights should be addressed to the:

Director, Corporate Communications  
Australian Competition and Consumer Commission  
GPO Box 4141, Canberra ACT 2601

or [publishing.unit@acc.gov.au](mailto:publishing.unit@acc.gov.au).

Inquiries about this publication should be addressed to:

Australian Energy Regulator  
GPO Box 520  
Melbourne Vic 3001

Tel: (03) 9290 1444

Fax: (03) 9290 1457

Email: [AERInquiry@aer.gov.au](mailto:AERInquiry@aer.gov.au)

AER reference: 54420

## Note

This attachment forms part of the AER's final decision on Endeavour Energy's revenue proposal 2015–19. It should be read with other parts of the final decision.

The final decision includes the following documents:

Overview

Attachment 1 - Annual revenue requirement

Attachment 2 - Regulatory asset base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency benefit sharing scheme

Attachment 10 - Capital expenditure sharing scheme

Attachment 11 - Service target performance incentive scheme

Attachment 12 - Demand management incentive scheme

Attachment 13 - Classification of services

Attachment 14 - Control mechanism

Attachment 15 - Pass through events

Attachment 16 - Alternative control services

Attachment 17 - Negotiated services framework and criteria

Attachment 18 - Connection policy

Attachment 19 - Analysis of financial viability

# Contents

<b>Note</b> .....	<b>11-2</b>
<b>Contents</b> .....	<b>11-3</b>
<b>Shortened forms</b> .....	<b>11-4</b>
<b>11 Service target performance incentive scheme</b> .....	<b>11-6</b>
<b>11.1 Final decision</b> .....	<b>11-6</b>
<b>11.2 Endeavour Energy’s revised proposal</b> .....	<b>11-9</b>
<b>11.3 AER’s assessment approach</b> .....	<b>11-10</b>
11.3.1 Interrelationships.....	11-11
<b>11.4 Reasons for final decision</b> .....	<b>11-11</b>
11.4.1 Application of STPIS .....	11-11
11.4.2 Applicable components and parameters.....	11-12
11.4.3 Revenue at risk .....	11-12
11.4.4 Reliability of supply component .....	11-13
11.4.5 Customer service component.....	11-18

## Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	expenditure forecast assessment Guideline for electricity distribution
F&A	framework and approach
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model

Shortened form	Extended form
RIN	regulatory information notice
RPP	revenue and pricing principles
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

## 11 Service target performance incentive scheme

The national Service Target Performance Incentive Scheme (STPIS) is intended to balance the incentives to reduce expenditure with the need to maintain or improve service quality. It achieves this by providing financial incentives to distributors to maintain and improve service performance where customers are willing to pay for these improvements.<sup>1</sup>

The STPIS establishes targets based on historical performance, and provides financial rewards for distributors exceeding performance targets and financial penalties for distributors failing to meet targets. These rewards and penalties are calculated by taking into account the value of customer reliability (VCR). This aligns the distributors' incentives with the long term interests of consumer, which is consistent with the National Electricity Objective (NEO).

The STPIS has two components, the s-factor component and the guaranteed service levels (GSL) scheme. The s-factor component adjusts the revenue that a distributor earns depending on reliability of supply and customer service performance. The GSL scheme sets threshold levels of service for distributors to achieve and requires direct payment to customers who experience service levels below those at the predetermined level.

While the regulatory regime as a whole encourages a business to improve its operating and capital efficiency, the STPIS is designed to ensure that this increase in efficiency is not at the expense of deterioration in service performance for customers. Further, the STPIS is designed to encourage a business to improve its service performance where customers are willing to pay for these improvements. The STPIS plays an important part in balancing the incentives on regulated businesses to ensure outcomes are consistent with the NEO of the National Electricity Law (NEL), in terms of efficient price and non-price outcomes for the long-term benefit of users.<sup>2</sup>

### 11.1 Final decision

We do not accept Endeavour Energy's proposal that the application of the STPIS should be dependent on whether we accept its revised opex and capex proposals. Our approved expenditure forecast in the final decision reasonably reflects the capex and opex criteria and provides a sufficient amount for a prudent Endeavour Energy incurring efficient costs to maintain reliability.

The STPIS will provide an incentive for Endeavour Energy to maintain its current levels of reliability or to improve them where customers are willing to pay for these improvements.

---

<sup>1</sup> AER, *Electricity distribution network service providers—service target performance incentive scheme*, 1 November 2009. (AER, *Electricity distribution STPIS*, Nov 2009).

<sup>2</sup> AER, *Electricity distribution STPIS*, Nov 2009, p. 3

Consistent with our draft decision, we will apply the s-factor component of our national STPIS to Endeavour Energy for the 2015–19 regulatory control period.<sup>3</sup> We will not apply the GSL component to Endeavour Energy as the existing NSW jurisdictional GSL arrangements will continue to apply.

In the draft decision, we accepted Endeavour Energy's proposal that:

- the revenue at risk for each regulatory year of the 2015–19 regulatory control period will be capped at  $\pm 2.5$  per cent. Within this there will be a cap of  $\pm 2.25$  per cent for the reliability of supply component and a cap of  $\pm 0.25$  per cent for the customer service component
- to apply the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) of the reliability of supply component of the STPIS and use the Box-Cox transformation to derive the major event day thresholds (MED), and
- to apply an incentive rate of  $-0.04$  per cent per unit of the telephone answering parameter.

Endeavour Energy did not propose alternatives in the revised proposal, and we maintain this position in this final decision.<sup>4</sup>

In the draft decision, we applied Ausgrid's performance trend as the benchmark for estimating the potential reliability improvement for Endeavour Energy as we did not observe any obvious overall reliability improvement trend from Endeavour Energy's past performance. We expected Endeavour Energy should achieve a similar level of SAIDI and SAIFI improvement, after taking into account the relative past investments and sizes of the two distributors.<sup>5</sup> Endeavour Energy rejected this aspect of our draft decision in its revised proposal. It noted a number of differences between the Ausgrid's and Endeavour Energy's network.<sup>6</sup>

We accept that there are differences between the Ausgrid's and Endeavour Energy's network that were not captured in our STPIS analysis. Hence, we accept that setting Endeavour Energy's performance targets based on Ausgrid's trend may not be appropriate.

In our final decisions, we have set the performance targets for Ausgrid and Essential Energy based on their actual improvement trends. We consider that we should apply this consistent approach for all NSW distributors. However, we have not observed an improvement trend with Endeavour Energy's historical data, despite its historical N-1 investment to increasing supply security and network capacity. Rather than drawing the conclusion that we did in the draft decision, we accept that this observation

---

<sup>3</sup> AER, *Electricity distribution STPIS*, Nov 2009

<sup>4</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015

<sup>5</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, pp.24-35.

<sup>6</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p.8.



supports Endeavour Energy's revised submission that its historical N-1 investment did not have the same focus on reliability improvement as that of Ausgrid.

We accept Endeavour Energy's revised proposal to set the performance targets based on the average of the past 5 years without further adjustments. Table 11-1 sets out our final decision on Endeavour Energy's performance targets for reliability of supply component.

**Table 11-1 The proposed performance targets for Endeavour Energy's reliability of supply component**

Year	2015/16	2016/17	2017/18	2018/19
<b>Unplanned SAIDI</b>				
Urban	60.33	60.33	60.33	60.33
Short rural	175.86	175.86	175.86	175.86
<b>Unplanned SAIFI</b>				
Urban	0.800	0.800	0.800	0.800
Short rural	1.765	1.765	1.765	1.765

Source: AER analysis.

We applied the September 2014 AEMO VCR for NSW instead of the VCR prescribed in clause 3.2.2 of the STPIS for the reliability of service component of the STPIS in the draft decision. We considered the most recent VCR better reflects the value customers currently attribute to reliability.<sup>7</sup> Endeavour Energy accepted this new AEMO VCR in the revised proposal. However, it noted the September 2014 VCR should be indexed to July 2015, consistent with the approach set out in the STPIS.<sup>8</sup> We accept that the AEMO VCR should be indexed to the start of the regulatory control period by applying the appropriate CPI adjustment. We also accept Endeavour Energy's average annual energy consumption ( $C_n$ ) estimations in the revised proposal, as the proposed estimation period is consistent with the STPIS period. Table 11-2 below presents our calculated incentive rates to apply to Endeavour Energy's SAIDI and SAIFI targets.

<sup>7</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, p. 35–37.

<sup>8</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, pp.5–7.

**Table 11-2 The proposed incentive rates on Endeavour Energy's reliability of supply targets**

Network type	Urban	Short rural
Unplanned SAIDI	0.0605	0.0096
Unplanned SAIFI	4.7033	1.0384

Source: AER analysis.

## 11.2 Endeavour Energy's revised proposal

Endeavour Energy did not accept our draft decisions on its performance targets in its revised proposal. It further submitted that unless we accept its revised capital and operating programs, the STPIS should not apply.<sup>9</sup> It considers that we have not adequately taken into account the impact of the proposed reductions to capex and opex programs on reliability performance.<sup>10</sup>

Endeavour Energy forecasted \$65.3 million of reliability expenditure for the 2014-19 period in the initial proposal. In its revised proposal, Endeavour Energy submitted that this expenditure was designed to ensure compliance with reliability performance targets set out in jurisdictional licence conditions and in particular ensure that customers connected to the worst performing parts of the network receive at least the minimum specified levels of reliability.<sup>11</sup> Jacobs' modelling suggested Endeavour Energy would experience a significant deterioration in SAIFI and SAIDI over the regulatory period with a 23 per cent cut to its forecast opex.<sup>12</sup>

Endeavour Energy proposed to set the performance targets for reliability of supply component based on the average of the last five years.<sup>13</sup> It submitted that our proposed adjustment, based on Ausgrid's trend, in the draft decision fails to recognise:<sup>14</sup>

- Endeavour's recent performance trend, which is significantly different to Ausgrid's recent performance trend
- the difference in network type and exposure between Endeavour Energy and Ausgrid – Endeavour's ratio of overhead to underground distribution network is significantly higher at 72.6 per cent compared to Ausgrid's 56 per cent. Endeavour has a greater exposure to drivers of reliability and performance volatility.

<sup>9</sup> Endeavour Energy, Revised regulatory proposal to the Australian Energy Regulator 1 July 2014 – 30 June 2019, p. 67

<sup>10</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 5.

<sup>11</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, pp. 2–3.

<sup>12</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 10.

<sup>13</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 7.

<sup>14</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 8.

- the capital investment difference in the previous period – Ausgrid invested in Distribution Monitoring and Control rollout which provides reliability benefits, Endeavour Energy made no such equivalent investment.
- the significant proportion of the reliability gains from the early years of the previous regulatory period would have already been reflected in subsequent reliability results and therefore accounted for in the five year average performance.

It noted that 11kV and 22kV distribution network contribute to 80 per cent of overall network SAIDI and SAIFI – Endeavour Energy's capex over the previous period related to addressing Schedule 1 (N-1) capacity constraints at the sub-transmission level and reliability was not a specific focus of its previous capex.<sup>15</sup>

Endeavour Energy calculated slightly different MED thresholds to those set out in our draft determination. Endeavour Energy also updated the incentive rate calculation for reliability of supply component using energy consumption data based on four years of data and the September 2014 AEMO NSW VCR indexed by CPI.<sup>16</sup>

In relation to the telephone answering target, it suggested its originally proposed 75 per cent target should be reduced in a similar portion to any reduction made to opex forecast. It proposed to adopt the benchmark target of 68.53 per cent based on the average performance of Victorian distributors.<sup>17</sup>

### 11.3 AER's assessment approach

We have outlined our assessment approach to the application of the STPIS in the draft decision:<sup>18</sup>

- rule 6.6.2 of the NER describes the consultative process that we must apply in developing and publishing the STPIS
- rule 6.12.1(9) of the NER requires us to make a decision on how the STPIS is to apply to the relevant distributor in the Distribution Determination, and
- the STPIS Guideline outlines the process to be applied in determining performance targets under the STPIS, incentive rates and the MED thresholds.<sup>19</sup>

We have assessed Endeavour Energy's STPIS proposal according to the NER and the guideline outlined above. When alternatives are presented, which warrant a reconsideration of this approach, we have considered the relative merits of the alternative against the objectives of the STPIS.

---

<sup>15</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 8.

<sup>16</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, pp. 5–7.

<sup>17</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 11.

<sup>18</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014.

<sup>19</sup> AER, *Electricity distribution STPIS*, Nov 2009.

### 11.3.1 Interrelationships

In applying the STPIS we must consider any other incentives available to the distributor under the NER or relevant distribution determination.<sup>20</sup> One of the objectives of the STPIS is to ensure that the incentives under the scheme are sufficient to offset any other incentives the distributor may have to reduce costs at the expense of service levels.<sup>21</sup> For the 2015–19 regulatory control period, the STPIS will interact with the Capital Expenditure Sharing Scheme (CESS) and the efficiency benefit sharing scheme (EBSS).

The CESS and the EBSS rewards distributors who pursue efficiency improvements in expenditure to the benefit of both distributors and network users. In setting the STPIS performance targets, we will consider both completed and planned reliability improvements expected to materially affect network reliability performance.<sup>22</sup> By setting the performance targets in such a way, any incentive a distributor may have to reduce expenditure at the expense of target service levels should be curtailed by the STPIS financial penalties.

Contrary to Endeavour Energy's submissions, we have determined that our approved capex and opex forecasts in the final decision are sufficient to allow prudent and efficient Endeavour Energy facing a realistic expectation of the demand forecast and cost inputs to maintain reliability at current level (see sections 6.4 and appendix A of attachment 7). This is discussed in more detail in section 11.4.1.

## 11.4 Reasons for final decision

The following section sets out our reasons for our final decision.

### 11.4.1 Application of STPIS

We do not accept Endeavour Energy's proposal that the application of the STPIS should be dependent on whether we accept its revised opex and capex proposals. Our approved capex and opex forecasts in the final decision are sufficient to allow Endeavour Energy to maintain its current levels of reliability (see sections 6.4 and appendix A of attachment 7). We note that Endeavour Energy has been delivering performance levels higher than the minimum standards it is required to achieve under its licence obligations.

In arriving at our capex forecast, we have considered the interaction between the removal of the N-1 deterministic planning standards imposed by the NSW Government in the previous regulatory control period, the minimum reliability standards and the historical reliability that Endeavour Energy has been achieving. We have provided sufficient revenue to allow Endeavour Energy acting prudently and efficiently to

---

<sup>20</sup> NER, cl. 6.6.2(b)(3)(iv).

<sup>21</sup> AER, STPIS, cl. 1.5(b)(5).

<sup>22</sup> Included in the distributor's approved forecast capex for the subsequent period.

maintain its current reliability level with our approved capex forecast. In addition, as the current reliability level is higher than the minimum reliability standards, Endeavour Energy will also be able to meet, and indeed exceed, the jurisdictional minimum standards. (see section 6.4).

We have adopted a revealed cost approach to determine Endeavour Energy's approved opex forecast in this final decision. We consider our approved opex for Endeavour Energy is consistent with the targets that we have set for the STPIS in this period and is also sufficient to allow prudent and efficient Endeavour Energy facing a realistic expectation of demand forecasts and cost inputs to maintain reliability at the current level (see section attachment 7).

In addition, we consider that a distributor's reliability performance is influenced by the configuration and condition of its network assets. This is a result of the distributor's historical investment and operating practices. Most network assets have an expected life in excess of 50 years, therefore, by discounting for uncontrollable external impacts such as weather variations, the distributor's reliability level should not change abruptly.

### **11.4.2 Applicable components and parameters**

In both the Stage two F&A and the draft decision, we noted that:<sup>23</sup>

- performance targets would be set for both SAIDI and SAIFI under the reliability of supply component of the STPIS, with financial incentives attached to each.
- Endeavour Energy's network would be divided into urban and short rural feeder types.
- we would apply the telephone answering parameter under the customer service component to Endeavour Energy in the 2015–19 regulatory control period.
- we would not apply the GSL component of the STPIS to Endeavour Energy while the jurisdictional GSL scheme remains in place.

We did not receive any submissions objecting our draft decision or our F&A positions in relation to these issue and we will not depart from the above position in this final decision.

### **11.4.3 Revenue at risk**

Revenue at risk caps the potential rewards and penalties that Endeavour Energy can receive under the scheme. The STPIS allows us to vary the revenue at risk where this would satisfy the objectives of the scheme. In setting the revenue at risk, we must take into account the benefits to consumers that are likely to result from the scheme, and in

---

<sup>23</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, pp. 18-19; AER, *Stage 2 framework and approach Ausgrid, Endeavour Energy and Essential Energy*, January 2014, pp.14–15.

particular, that the benefits are sufficient to warrant any reward or penalty under the scheme for the distributors.

Endeavour Energy proposed to apply a revenue at risk of  $\pm 2.5$  per cent. Within this there will be a cap of  $\pm 2.25$  per cent for the reliability of supply component and  $\pm 0.25$  per cent for the customer service component.<sup>24</sup> We accepted Endeavour Energy's proposal in the draft decision. We considered this lower powered incentive would balance the risk to both consumers and Endeavour Energy and thus better meet the objectives of the STPIS.<sup>25</sup> Endeavour Energy did not propose an alternative revenue at risk in the revised proposal, therefore we maintain this view in this final decision.<sup>26</sup>

The Energy Users Association of Australia (EUAA) recommended that we should apply an asymmetrical incentive of +1 per cent to -3 per cent. It considered such asymmetrical incentive is needed to take account of the networks' excess capacity and would more appropriately balance the risks to both consumers and the distributors.<sup>27</sup> We note the s-factor component in the STPIS scheme specifies a symmetrical incentive framework.<sup>28</sup> Hence, we cannot apply an asymmetrical incentive under the current scheme. When we next review the design of STPIS, we shall also review this aspect of the scheme design.

#### 11.4.4 Reliability of supply component

We will apply unplanned SAIDI and unplanned SAIFI parameters under the reliability of supply component to Endeavour Energy for the 2015–19 regulatory control period. Unplanned SAIDI measures the sum of the duration of each unplanned sustained customer interruption (in minutes) divided by the total number of distribution customers. Unplanned SAIFI measures the total number of unplanned sustained customer interruptions divided by the total number of distribution customers.

---

<sup>24</sup> Endeavour Energy, *Endeavour Energy regulatory proposal – 1 July 2015 to 30 June 2019*, May 2014, p.28. Endeavour Energy, *STPIS Proposal 2014–2019 regulatory control period*, May 2014, pp.5-8.

<sup>25</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, pp.19–20.

<sup>26</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015.

<sup>27</sup> EUAA, *Submission AER 2015-19 draft revenue decision and NSW DNSPs' revenue proposals*, 13 February 2015, p. 50.

<sup>28</sup> Our *final decision electricity distribution network service providers service target performance incentive scheme, June 2008*, explained that a symmetrical scheme provides the incentive for distributors to maintain and improve service performance [p.9]; and, in practice this means that where a distributor's actual cost of undertaking works to improve service performance is less than the reward provided through the scheme the distributor has an incentive to carry out the works and achieve the desired performance level. In this way the scheme can act as an additional cost-recovery mechanism for service performance improvements, where these improvements are over and above those being funded through the revenue allowed in a distribution determination. As the scheme is symmetrical, that is penalties are accrued at the same rate as rewards, there is also an incentive under the scheme for a distributor to maintain its service performance [p.6].

## Major Event Day exclusions

The STPIS allows certain events to be excluded from the calculation of the s-factor revenue adjustment. These exclusions include the events that are beyond the control of Endeavour Energy, such as the effects of transmission network outages and other upstream events. They also exclude the effects of extreme weather events that have the potential to significantly affect Endeavour Energy's STPIS performance.

We accepted Endeavour Energy's proposal to calculate MED thresholds using Box-Cox transformation in the draft decision as it provides a more normally distributed data set for Endeavour Energy compared to the logarithm transformation under the 2.5 beta method.<sup>29</sup> Endeavour Energy did not propose an alternative method in the revised proposal, therefore we maintain this view in this final decision.<sup>30</sup> Table 11-3 sets out our calculated MED thresholds using Box-Cox transformation. These numbers are consistent with the numbers presented by Endeavour Energy in its revised proposal.<sup>31</sup>

**Table 11-3 MED thresholds ( $T_{MED}$ ) for Endeavour Energy**

Regulatory year	$T_{MED}$
2009/10	4.909
2010/11	4.033
2011/12	3.856
2012/13	3.561
2013/14	3.280

Source: AER analysis.

## Performance targets

Clause 3.2.1(a) of the STPIS states that performance targets for the reliability of supply parameters must be established with reference to average historical performance modified to account for completed or planned reliability improvements and any other factor expected to materially affect network reliability performance.

Endeavour Energy is required to meet the minimum reliability standards prescribed in schedule 2 of the NSW licence conditions for electricity distributors.<sup>32</sup> We noted Endeavour Energy's current performance level is better than these prescribed minimum requirements. The NSW licence conditions indicate that the distributor has

<sup>29</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, pp. 21–23.

<sup>30</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015.

<sup>31</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p.5.

<sup>32</sup> *Reliability and performance licence conditions for electricity distributors – the Hon Anthony Roberts MP Minister for Resources & Energy*, 1 July 2014.

discretion to plan its investment for compliance with these licence conditions to suit its individual circumstances if it is economically efficient to do so.<sup>33</sup>

In the draft decision, we proposed to forecast service performance using historical data from the 2009–14 regulatory control period and adjust the results for completed and planned reliability improvements. We noted a key driver of the Endeavour Energy's expenditure in the 2009–14 regulatory control period was to augment its networks to meet the previous N-1 deterministic planning standard. Endeavour Energy reported it has spent a total of \$660 million to improve security and reliability of its network during the 2009–14 regulatory control period (the N-1 investment).<sup>34</sup>

The application of our STPIS from 2015–16 onwards will ensure that reliability improvements resulting from past capital expenditure are retained. This is important because customers are continuing to pay for this historical investment. In the absence of reliable expenditure data associated with reliability improvement and a robust method that can precisely quantify the impacts of such investment, we considered it is reasonable to examine Endeavour Energy's observed historical reliability performance and modify the performance targets based on the observed trends. As we did not observe any obvious overall reliability improvement trend from Endeavour Energy's past performance, we applied Ausgrid's trend as the benchmark for estimating the potential reliability improvement for Endeavour Energy in the draft decision. We expected a similar level of SAIDI and SAIFI improvement by Endeavour Energy, after taking into account their relative past investments and sizes.<sup>35</sup>

The Consumer Challenge Panel (CCP) and the EUAA agreed with our approach of setting the improved performance targets. They consider these adjustments are reasonable and will enable the benefits of the reliability improvement resulting from past capital expenditures to be retained.<sup>36</sup>

As detailed in section 11.2, Endeavour Energy rejected our draft decision to set its performance targets on trend data observed from Ausgrid's historical performance in its revised proposal. It noted our proposed adjustment based on Ausgrid's trend in the draft decision fails to recognise.<sup>37</sup>

- the difference in network type and exposure between Endeavour Energy and Ausgrid
- the capital investment difference in the previous period

---

<sup>33</sup> *Reliability and performance licence conditions for electricity distributors, explanatory note*, Commencement date 1 July 2014, p. 3.

<sup>34</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, pp. 27–35.

<sup>35</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, pp. 24–35.

<sup>36</sup> CCP, *Submission to AER responding to NSW draft determinations and revised proposals from electricity distribution networks*, 2 January 2015, p. 54; EUAA, *Submission AER 2015-19 draft revenue decision and NSW DNSPs' revenue proposals*, 13 February 2015, p. 49.

<sup>37</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 8.



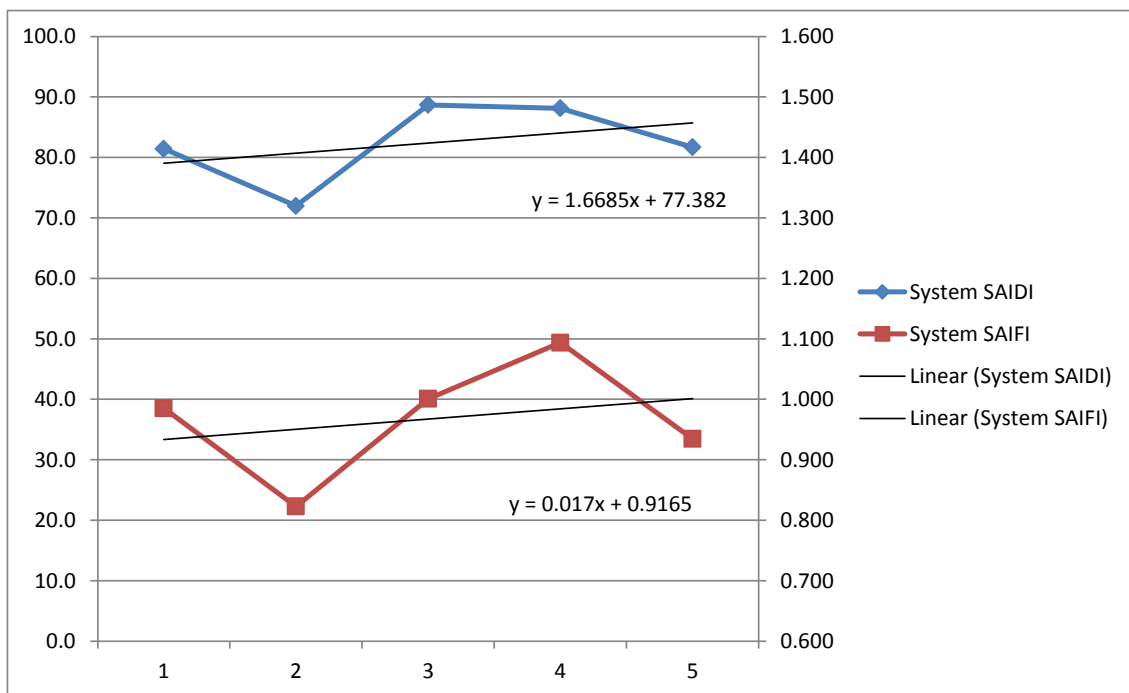
- the difference in investment approach—that 11kV and 22kV distribution network contribute to 80 per cent of overall network SAIDI and SAIFI. Its previous period capex related to addressing Schedule 1 (N-1) capacity constraints at the sub-transmission level and reliability was not a specific focus of its previous capex.<sup>38</sup>

It proposed to set the performance targets for reliability of supply component based on the average of last five years.<sup>39</sup>

We accept that there are differences between the Ausgrid's and Endeavour Energy's network. Hence, we agree that setting Endeavour Energy's performance targets based on Ausgrid's result may not be appropriate.

In our final decisions, we have set the performance targets for Ausgrid and Essential Energy based on their actual improvement trends. We consider that we should apply a consistent approach for all NSW distributors. However, we have not observed any improvement trend with Endeavour Energy's historical data, despite its historical N-1 investment to increasing supply security and network capacity (see Figure 11-1).

**Figure 11-1 Historical network overall SAIDI and SAIFI trend of Endeavour Energy**



Source: AER analysis

There are many factors that contribute to the reliability of supply performance outcomes. The fact that Endeavour Energy's performance indicators did not show an

<sup>38</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 8.

<sup>39</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 7.

improvement trend in recent years suggest that—in combination with other factors—its historical N-1 investments in supply security had no or minimal direct impact that resulted in observable reliability improvement. This observation supports Endeavour Energy’s revised submission that its historical N-1 investment did not have the same focus as that of Ausgrid. In this sense, we are unable to determine an adjustment to reliability performance as a result of this previous N-1 spending with any level of accuracy.

In absence of a robust method to more precisely quantify the impact of the previous N-1 expenditure on reliability improvements, we accept Endeavour Energy’s revised proposal to set the performance targets based on the average of the past 5 years without further adjustments. We have revised our analysis and Table 11-4 sets out our proposed unplanned SAIDI and SAIFI targets for Endeavour Energy.

**Table 11-4 Performance targets for Endeavour Energy's reliability of supply component**

	Performance target based on five year average	Our proposed performance target	Difference (%)
<b>Unplanned SAIDI</b>			
Urban	60.33	60.33	0
Short rural	175.86	175.86	0
<b>Unplanned SAIFI</b>			
Urban	0.800	0.800	0
Short rural	1.765	1.765	0

Source: AER analysis.

## Incentive rates

Clause 6.6.2(b)(3) of the NER stipulates that we must take into account the willingness of the customer to pay for improved service performance when developing and implementing a STPIS. The incentive rates in the STPIS are based on measures of customers' willingness to pay for performance, specifically, the value that customers place on supply reliability, referred to as the VCR.

In the draft decision, we noted the AEMO has carried out a review of the VCR and published the final results in September 2014. We proposed to apply the 2014 AEMO NSW VCR to calculate the incentive rates for Endeavour Energy.<sup>40</sup> The EUAA agreed with us that the incentive rates under the scheme should be based on the AEMO

<sup>40</sup> Note the AEMO NSW VCR represents customers' willingness to pay in both NSW and the ACT.

September 2014 VCR values as they were determined through a robust method and represent the best available information for this purpose.<sup>41</sup>

Endeavour Energy accepted the use of this new AEMO VCR in the revised proposal. However, it noted the September 2014 VCR should be indexed to July 2015 as it is consistent with the approach set out in the STPIS.<sup>42</sup> We accept that the AEMO VCR should be indexed to the start of the regulatory control period by applying the appropriate CPI adjustment. We consider the reasonable adjustment is nine months (or 75 per cent) of the annual RBA inflation target of 2.5 per cent, which is 1.875 per cent. This adjustment is also consistent with the value proposed by Endeavour Energy.<sup>43</sup>

In addition, Endeavour Energy noted that we have used five years of data in estimating average annual energy consumption for different network types ( $C_n$ ), but the regulatory control period in relation to the STPIS is actually four years.<sup>44</sup> We agree that a consistent period should be used when estimating  $C_n$  and revised our calculation accordingly. Table 11-2 above sets out the incentive rates that will apply to Endeavour Energy's SAIDI and SAIFI targets calculated based on these revised VCR values.

#### 11.4.5 Customer service component

The telephone answering parameter measures the proportion of calls forwarded to an operator that are answered in 30 seconds. In the initial proposal, Endeavour Energy proposed to set the telephone answering target at 75 per cent based on the historical performance from February 2013. It considered that its telephone answering performance might decline with the expiry of its Transitional Service Agreement (TSA).<sup>45</sup> We accepted Endeavour Energy's proposed target in the draft decision as Endeavour Energy's proposed performance target is better than the comparable benchmark.<sup>46</sup>

In the revised proposal, Endeavour Energy submitted that its originally proposed 75 per cent target should be reduced in a similar portion to any reduction made to opex forecast. It proposed to adopt the benchmark target of 68.53 per cent based on the average performance of Victorian distributors.<sup>47</sup> As discussed in section 11.4.1, we have adopted a revealed cost approach to determine Endeavour Energy's opex forecast in this final decision. Therefore, as we are not reducing Endeavour Energy's opex to a benchmark, we maintain the view that Endeavour Energy's telephone answering target should be set at 75 per cent.

---

<sup>41</sup> EUAA, *Submission AER 2015-19 draft revenue decision and NSW DNSPs' revenue proposals*, 13 February 2015, p. 50.

<sup>42</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, pp. 6–7.

<sup>43</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, pp. 6–7.

<sup>44</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, pp. 6–7.

<sup>45</sup> Endeavour Energy, *STPIS Proposal 2014–2019 regulatory control period*, May 2014, pp. 7–9.

<sup>46</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, p. 38.

<sup>47</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 11.

In the draft decision, we accepted Endeavour Energy's proposed incentive rate for the telephone answering parameter of  $-0.04$  per cent per unit.<sup>48</sup> Endeavour Energy did not propose alternative values in the revised proposal, therefore we maintain this finding in this final decision.<sup>49</sup>

---

<sup>48</sup> AER, *Draft decision attachment 11: Service target performance incentive scheme*, November 2014, p. 39.

<sup>49</sup> Endeavour Energy, *Attachment 5.04 response to AER decision on reliability and STPIS*, January 2015, p. 11.