



ATTACHMENT 5.04

Response to AER decision on reliability and STPIS

Prepared by: Endeavour Energy

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1.0 Overview

1.1 Assessment approach

In attachment 0.03 of our substantive proposal we noted that the 2012 Rule change on Economic Regulation of Network Service Providers provided further clarity of the process that the AER should follow when making its decision on expenditure forecasts. The AEMC emphasised the following key principles underlying the assessment process:¹:

- the AER's assessment process must start with a DNSP proposal²;
- the AER must accept a proposal that is 'reasonable'. The test of 'reasonable' must equally apply to the substitute amount; and
- while the AER's assessment techniques in making its analysis are not limited, the AER must consider the probative value of materials before it.

The AEMC's considerations demonstrate that the regime requires the AER to reflectively contemplate the material put before it by the NSP, and assess the probative value of this information relative to other material such as submissions and analysis undertaken by or for the AER.

Based on this assessment of materials, the AER must accept the proposal if it is reasonable and based on sound reasoning. The AER's substitute value, if it is not satisfied, must also be based on the same principles, once again with reference to the material before it.

STPIS approach

For the STPIS specifically, the AER confirmed in its Stage 2 Framework and Approach (F&A) paper that it would apply the nationally consistent STPIS published November 2009. The proposed approach for the 2015-19 period was to:

- set revenue at risk within the range of +/- 5%;
- segment the network according to their interpretation of the Standing Committee on National Regulatory Reporting Requirements feeder categories in the NSW jurisdictional licence conditions;
- set applicable parameters to be SAIDI, SAIFI and telephone answering;
- set performance targets based on the distributor's average performance over the past 5 regulatory years;
- apply the methodology indicated in the STPIS for excluding specific events from the calculation of annual performance and performance targets; and
- apply the methodology and value of customer reliability (VCR) values as indicated in the STPIS to the calculation of incentive rates.

Reliability expenditure

For reliability expenditure, an approach is not specified in the AER's expenditure forecast assessment guideline. The guideline only provides for the detailed approach for the capex drivers; replacement, augmentation, connection and customer driven works and non-network capex.

It may be the case that the AER expect this expenditure to be mappable to the capex drivers outlined above. Endeavour Energy did not allocate this expenditure in completing the RIN as we did not consider it met the definitions provided for each capex drivers.

The AER has separated out this expenditure from the 'balancing item' to separately assess it. Whilst a specific approach is not provided for in the guideline, we consider the AER's approach should align to the overall approach detailed in the guideline. That is:

*"Our focus will be on determining the prudent and efficient level of forecast capex.
We will generally assess forecast capex through assessing: the need for the*

¹ In attachment 0.03 of our substantive proposal, we provide further information on the AEMC's considerations, and provide a reference to the decision.

² This has also been established by the Australian Competition Tribunal's decision. "(EnergyAustralia) is correct to submit that it is not the AER's role to simply make a decision it considers best. It is also correct for it to say that the AER should be very slow to reject a DNSP's proposal backed by detailed, relevant independent expert advice because the AER, on an uninformed basis, takes a different view."

expenditure; and the efficiency of the proposed projects and related expenditure to meet any justified expenditure need. This is likely to include consideration of the timing, scope, scale and level of expenditure associated with proposed projects. Where businesses do not provide sufficient economic justification for their proposed expenditure, we will determine what we consider to be the efficient and prudent level of forecast capex.³

2.0 Our proposal

2.1 STPIS

In our substantive regulatory proposal we largely adopted the approach specified by the AER in the Stage 2 F&A. Where we proposed to depart from this approach, we sought to provide detailed justification for the AER to consider. Broadly, our proposal for the STPIS was as follows:

- in terms of reliability parameters, we proposed a revenue at risk of $\pm 2.25\%$. Our proposal was to apply the SAIDI and SAIFI parameters which relate to duration and frequency of outages. We considered that measures of momentary outages should not apply due to data quality issues;
- for customer service parameters, we considered that only telephone response times should be included in the scheme. We proposed a revenue at risk of $\pm 0.25\%$. Endeavour Energy also proposed that when an event is excluded from the calculation of reliability performance, the event should also be consistently excluded from the calculation of our telephone service performance;
- for SAIDI and SAIFI we proposed targets based on a five year historical average;
- for telephone answering we suggested the AER adjust its approach to setting targets. This was to account for the retail sale and the conclusion of the transitional services. An averaging period post retail separation would better reflect our operating model and ensure we do not need to increase our expenditure to support inflated targets; and
- we suggested that the definition of major event days (MED) and segmentation definitions be varied for Endeavour Energy. Our data supported a move from the exclusion methodology defined in the AER's scheme as the normal distribution assumption does not hold for Endeavour Energy.

Attachment 0.14 to our substantive regulatory proposal contained our detailed STPIS proposal.

2.2 Reliability expenditure

In our substantive regulatory proposal we forecast \$65.3million (\$2013-14) of reliability expenditure for the 2014-19 period. 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.

The main driver of investment in this capital expenditure category is our performance against Reliability and Performance Licence Condition reliability targets. This forecast was developed in the context of the STPIS with the objective to stabilise and maintain reliability performance at levels that will avoid incurring penalties under the STPIS. This objective was consistent with our customer feedback which indicated that customers were not willing to fund improvements to reliability and were satisfied with current levels of performance.

³ AER, Better Regulation: Expenditure Forecast Assessment Guideline for Electricity Distribution, November 2013, pg 24.

3.0 AER decision

3.1 STPIS

In its draft determination the AER has accepted and rejected various elements of Endeavour Energy's STPIS proposal. The AER has accepted the following:

- Revenue at risk;

"We accept Endeavour Energy's proposal that the revenue at risk for each regulatory year of the 2015–19 regulatory control period will be capped at ± 2.5 per cent. Within this there will be a cap of ± 2.25 per cent for the reliability of supply component and ± 0.25 per cent for the customer service component."⁴

- Box-Cox transformation to derive the major event day thresholds;
- not applying the GSL component to Endeavour Energy as existing NSW GSL arrangements will continue to apply; and
- a telephone answering target of 75%.

In accepting the Box-Cox normalisation methodology proposed by Endeavour Energy, the AER has utilised this method to re-calculate major event days and forward targets for Endeavour Energy. The AER has also utilised the most recently published 2014 AEMO NSW VCR figure of \$38.35/MWh to calculate Endeavour Energy's incentive rates for our urban and short rural feeder types.

The AER has rejected the proposed SAIDI and SAIFI targets as it considers a significant improvement in performance is warranted given the 2009-14 period investment. The AER has utilised the performance trend from Ausgrid over the 2009-14 period to develop the substitute forecast:

"As we have not observed any overall reliability improvement trend from Endeavour Energy's performance over the last five regulatory years, we have adjusted Endeavour Energy's performance targets based on the apportioned adjustments for Ausgrid. This is because Endeavour Energy has reported it has spent \$660 million of reliability related expenditure in the last five regulatory years. We expect Endeavour Energy would broadly achieve similar levels of Ausgrid's SAIDI and SAIFI improvement, after taking into account their relative past investments and sizes."⁵

... We acknowledge the above adjustment may be imprecise. However, we consider these adjustments reasonably balance the risks of:

- *consumers paying twice for the previously funded reliability improvements if we did not take Endeavour Energy's historical reliability and security investment into account when setting the performance targets; and*
- *Endeavour Energy receiving unreasonable penalties under the adjusted performance targets."⁶*

We have revised our proposal in part to address the matters raised by the AER. We fundamentally disagree with the AER's calculation of alternate SAIDI and SAIFI targets that rely on Ausgrid data and a misconception of our 2009-14 reliability performance. Our response is set out in further detail in the next section of this attachment.

⁴ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 11: STPIS, November 2014, pgs 7-8

⁵ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 11: STPIS, November 2014, pg 8

⁶ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 11: STPIS, November 2014, pg 24

3.2 Reliability expenditure

In its draft decision the AER has rejected the entire reliability program for the following reasons:

- *“a review of Endeavour Energy’s supporting information does not indicate the amount and the basis for this amount that has been proposed to address any compliance issues related to the Schedule 3 licence conditions (i.e. individual feeders performance obligations);*
- *it appears that the proposed amount includes expenditure to avoid penalties under the STPIS; and*
- *the amount proposed has not been allocated in such a way that enables us to identify whether this amount already forms part of our analysis of other capex driver categories (e.g. we may have taken into account compliance related repex as part of our consideration of repex)⁷”*

Endeavour Energy disagrees with both the AER’s assessment approach and findings in relation to our reliability expenditure. We have reviewed the proposed program in respond to the AER’s decision and outline our revised position in the next section.

4.0 Response and revisions

4.1 STPIS

In light of the AER’s adjustment to STPIS reliability targets and the proposed reduction to future capital and operating expenditure programs, Endeavour Energy does not consider that it would be in a position to meet the current reliability targets. The AER has not adequately considered the impact of the proposed reductions to capital and operating expenditure programs on reliability performance. A STPIS incentive framework in the 2014-19 period is expected to be heavily asymmetric, particularly with the reduced VCR and will result in a high risk of penalties. Its implementation is therefore not supported, based on the AER’s draft proposal.

The responses and revisions that follow address the relevant specific components of the AER’s draft decision around STPIS for Endeavour Energy on the basis that the AER will revise its proposed capital and operating expenditure for Endeavour Energy to a level which facilitates the practical, fair and equitable introduction of the scheme, biased neither to penalties nor rewards.

We have not revised our regulatory proposal to align with the substitute targets calculated by the AER. This is due to minor calculation differences in regards to the major event days and primarily related to the AER’s utilisation of Ausgrid 2009-14 performance trends in setting 2014-19 targets for Endeavour Energy.

4.1.1 Normalisation methodology and historic performance

Endeavour Energy accepts that the alternative power transformation (Box-Cox) normalisation methodology proposed, now formally accepted by the AER, should be applied to the five previous year’s reliability data to re-calculate excluded major event days and forward targets. The re-calculated major event days for 2009-10 to 2013-14 are given in Table 1.

Table 1: Major Event Day Thresholds

	Lambda		AER Calculated
2008-09	0.010	5.383	Not provided
2009-10	0.022	4.909	4.763
2010-11	0.047	4.033	3.856
2011-12	0.052	3.856	3.687
2012-13	0.061	3.561	3.375
2013-14	0.065	3.280	3.117

⁷ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 6: Capital Expenditure, November 2014, pg 66

Endeavour Energy has calculated different major event day thresholds to those provided in the AER's draft determination STPIS Attachment 11.

Table 2: Major Event Days

Endeavour Calculated Excluded Major Event Days		AER Calculated Excluded Major Event Days	
Day	SAIDI	DAY	SAIDI
01-Aug-08	14.2499	01-Aug-08	14.2018
05-Sep-10	63.7367	05-Sep-10	63.4365
16-Dec-10	4.9235	16-Dec-10	4.9160
05-Jul-11	73.2326	05-Jul-11	73.0888
25-May-12	4.2578	25-May-12	4.2655
05-Jun-12	4.2848	05-Jun-12	4.2931
23-Aug-12	4.1520	23-Aug-12	4.1194
12-Oct-12	3.9438	12-Oct-12	3.9292
23-Feb-13	4.7614	23-Feb-13	4.7965
24-Feb-13	11.3570	24-Feb-13	11.4418
01-Mar-13	3.6357	01-Mar-13	3.6643
12-Aug-13	6.1032		
17-Oct-13	9.4293		
24-Jun-14	5.9834		

The resulting excluded major event days for the period 2008-09 to 2012-13 were found to be the same as those calculated by the AER, with slight differences in the value of calculated SAIDI for these days. This may be due to minor differences in the dataset (possibly due to rounding or different assumptions). Endeavour Energy has also calculated that there were three excluded major event days in 2013-14 year.

The resulting revised normalised SAIDI and SAIFI performance for 2009-10 to 2013-14 is summarised in Tables 3 and 4.

Table 3: Normalised SAIDI Performance

	SAIDI Normalised Actual					
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Urban	65.3	59.3	52.5	61.4	65.2	63.3
Short rural	205.5	157.3	149.3	198.9	200.5	173.3
Long rural	184.4	1,330.5	922.7	322.3	730.7	988.5
Organisation	97.0	79.4	72.0	84.8	88.0	82.6

Table 4: Normalised SAIFI Performance

	SAIFI Normalised Actual					
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Urban	0.838	0.791	0.693	0.774	0.881	0.830
Short rural	2.004	1.683	1.382	1.983	2.230	1.710
Long rural	1.612	8.330	2.106	3.120	13.505	3.400
Organisation	1.102	0.973	0.831	0.979	1.111	0.980

It is noted that the AER has accepted Endeavour Energy's proposal of not having a Rural Long target and has therefore not provided a specific Rural Long target.

4.1.2 Incentive rates

The incentive rates calculated by Endeavour Energy are slightly different to those proposed by the AER for the given draft determination revenue allowance, as shown in Table 5.

Table 5: Incentive Rates

STPIS Incentive Rates	Endeavour Calculated		AER Calculated	
	Urban	Short Rural	Urban	Short Rural
Unplanned SAIDI	0.06299	0.00998	0.06188	0.00981
Unplanned SAIFI	5.14597	1.15244	5.05537	1.13215

The differences are due to:

- an identified inconsistency with the AER’s calculation of the incentive rates. The AER calculated the average energy consumption using five years data (2014-15 to 2018-19) but the average smoothed revenue using four years data (2015-16 to 2018-19). According to the AER’s STPIS document (2009), it defines that the incentive rates are calculated using averages of the regulatory control period, which in this case should be the four years 2015-16 to 2018-19; and
- increasing the Sept 2014 AEMO VCR of \$38,350/MWh values by CPI till 1 July 2015. This results in a VCR of \$39,069/MWh for the other category assuming a CPI of 2.5% x 0.75 years.

4.1.3 STPIS targets

Endeavour Energy’s SAIDI and SAIFI trends over the last regulatory period revised based on the accepted normalisation methodology are shown in Figures 1 and 2. These charts include Endeavour’s proposed target, which is the average of the last five years performance, as well as the AER’s further proposed reduction to this of 3.54% SAIDI and 7.97% SAIFI.

Figure 1: Organisational SAIDI trend and targets

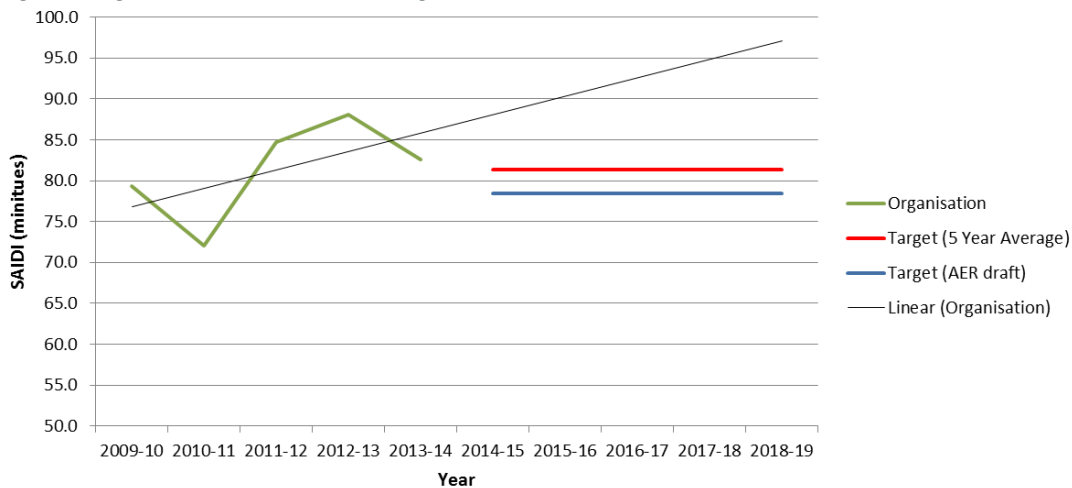
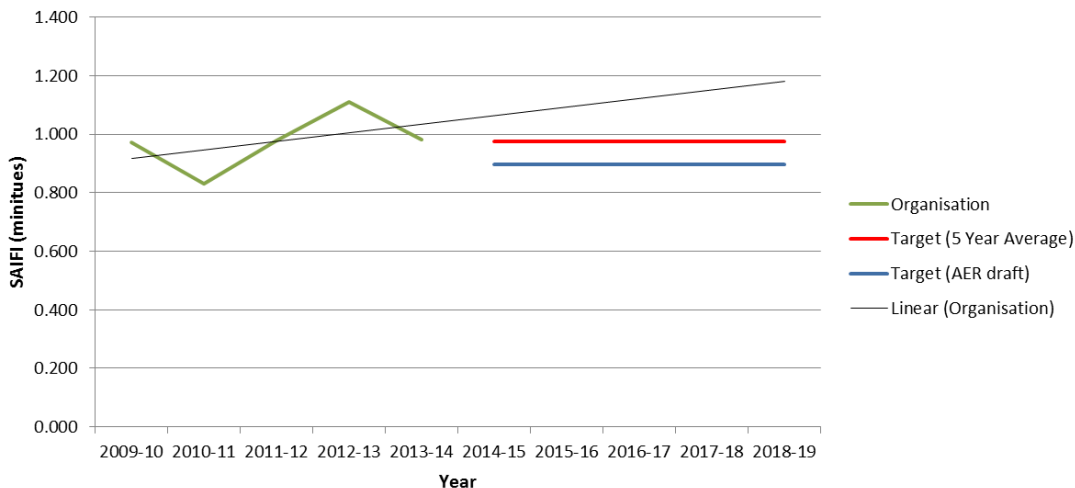


Figure 2: Organisational SAIFI trend and targets



The AER have noted that:

“...we do not have a robust method that can precisely quantify the impacts of such investment and the data available to date to show any discernable reliability improvement as a result of such investment. Due to these limitations, we propose to use Ausgrid’s performance improvement as a proxy to quantify the potential reliability improvement from Endeavour Energy’s past expenditure⁸.”

To achieve this AER have:

“..apportioned the calculated system SAIDI and SAIFI adjustment percentages for Ausgrid to Endeavour Energy based on their reported relative N-1 and reliability improvement expenditure in the 2009–14 regulatory control period (E) and their relative total customer numbers (N).⁹”

Figure 3: AER SAIDI and SAIFI adjustment formula

$$A_{\text{Endeavour}} = A_{\text{Ausgrid}} \times \frac{N_{\text{Ausgrid}}}{E_{\text{Ausgrid}}} \times \frac{E_{\text{Endeavour}}}{N_{\text{Endeavour}}}$$

Endeavour Energy does not consider that this simplistic, scaled application of Ausgrid’s trended reduction is valid as it fails to recognise:

- Endeavour Energy’s recent performance trend which is significantly different to Ausgrid’s recent performance trend;
- differences in network type and exposure between Endeavour Energy and Ausgrid – Endeavour Energy’s ratio of overhead (OH) to underground (UG) distribution network is significantly higher at 72.6% (OH) and 27.4% (UG) than Ausgrid at 56% (OH) and 44% (UG) and therefore Endeavour Energy’s network has a greater exposure to drivers of unreliability and performance volatility;
- capital investment differences in the previous regulatory period, for example, Ausgrid’s significant Distribution Monitoring and Control rollout which provides reliability benefits in terms of faster 11kV and LV restoration times. Endeavour Energy has made no such equivalent investment;
- while there is a lag between capital investment and realisation of reliability benefits, a significant proportion of the reliability gains from the early years of the previous regulatory period would have already been reflected in the subsequent reliability results and therefore accounted for in the five year average performance.

It is also noted that a consideration of the volume of capex as an indicator of expected reliability improvement is overly simplistic. The 11kV and 22kV distribution network contributes some 80% of overall network SAIDI and SAIFI while much of the capital expenditure in the previous regulatory period related to addressing Schedule 1 (N-1) capacity constraints at the sub-transmission level. Expenditure on subtransmission supply security is intended to mitigate against the risk of high impact, low probability events and may have no discernible impact on reliability in the short term. Reliability performance will be most impacted by replacement expenditure on the 11/22kV distribution network however this was not a specific focus of our capital expenditure program during the last regulatory period.

It should be noted, as shown in Figures 1 and 2 that setting a target as the average of the previous five years will require Endeavour Energy to arrest the trended decline in SAIDI performance by 19.4% and SAIFI performance 21.1% by the end of the next regulatory period. The AER have not outlined how this can be achieved in light of the substantial reductions to our proposed capex and opex. It appears the AER have adopted an overly conservative approach without justification to avoid Endeavour Energy receiving a reward under the STPIS. As per our proposal, we are seeking to maintain rather than improve performance and suggest the AER reconsider the application of the STPIS.

Furthermore, the AER have proposed their reduced targets as a step change. Any further reductions on

⁸ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 11: STPIS, November 2014, pg 23

⁹ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 11: STPIS, November 2014, pg 23

the basis of prior capital investment should be implemented as a glide path recognising that there is a time lag between reliability investment and the realisation of reliability benefits.

The AER's approach appears internally inconsistent as it is predicated on the assumption that there is a lagged reliability improvement associated with capex. However, their substitute target fails to recognise any lagged impact in the latter part of the 2014-19 period associated with a 38.7% reduction to our proposed capex, 23% reduction to our proposed opex and a 100% reduction to reliability capex.

Reliability performance trend

A key reason the AER selected Ausgrid as a suitable basis to estimate the forward trend is that the AER did not understand our trend. Specifically:

"We note that Endeavour Energy's reliability performance trends are either stable or deteriorating. We consider that there are two possible explanations for this:

- (1) the impact of weather and other external events,*
- (2) Endeavour Energy's action that resulted in deteriorating reliability performance of the network.¹⁰"*

Whilst the AER did not seek to understand this trend in discussions with Endeavour Energy we do not consider it a valid reason for ignoring the trend. The AER have relied on an assumption to dismiss Endeavour Energy's historical performance as an input. Additionally, it is not clear what the second assumption raised by the AER in the above quote means. It appears to ambiguously suggest that Endeavour Energy is directly responsible (knowingly or unknowingly) for the deteriorating performance of the network.

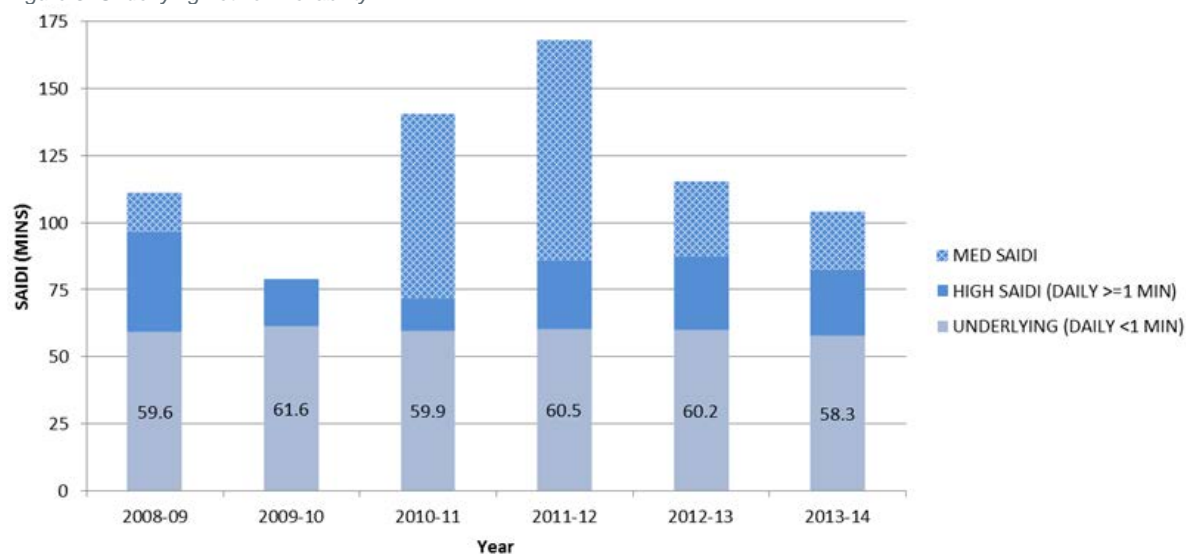
We contend that a factual and evidence based reason(s) should underpin such a significant decision. As noted in the section above, the N-1 Schedule 1 requirements primarily addressed capacity constraints at the sub-transmission level whereas around 80% of the overall network SAIDI and SAIFI is driven by the performance of the 11kV and 22kV distribution network. The consequence of setting an inappropriate target based on two unverified assumptions and a simplistic expectation of the 2009-14 investment has not been considered.

Reliability performance is affected by a large range of variables including asset condition and configuration, asset management processes and environmental conditions. The long term organisational SAIDI trend shown in Figure 6 includes a statistically supportable upper and lower range of expected reliability performance based on historic outcomes and demonstrates that recent performance is within the expected range.

The graph in Figure 6 demonstrates that reliability performance can be volatile, notwithstanding the exclusion of performance on major event days. Figure 3 below shows total reliability experienced on the Endeavour Energy network for the past six years including excluded events, and showing the impact of significant weather related events which do not qualify for exclusion. It will be noted that while underlying reliability is relatively stable, the impact of weather, both excluded and included, introduces a significant degree of volatility into the performance.

¹⁰ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 11: STPIS, November 2014, pg 22

Figure 3: Underlying network reliability



As such, in addition to Ausgrid not being an appropriate proxy, we do not consider our historical performance is unreasonable or inadmissible simply because the outcome is not as expected by the AER.

Impact of OPEX cuts on reliability performance

The AER have proposed a reduction to opex of 23% for the next regulatory period. This is a significant reduction which is expected to have a significant negative impact on reliability performance. The impact is expected to be exacerbated by the need to maintain vegetation management activities largely unchanged in order to ensure public safety and fire risk does not deteriorate.

The magnitude of the impact of the proposed opex cuts on reliability performance has not been adequately assessed by the AER or been accounted for in setting STPIS targets. Unmanageable reductions to opex and the corresponding impacts to staffing levels will result in a worsening of reliability performance. The expected impacts are:

- reduced capacity to respond to network faults leading to longer restoration times, particularly on busy high fault event days. This is as a result of direct staffing level reductions as well as secondary effects such as potential depot rationalisation;
- higher frequency of equipment failure based outages due to extensions of maintenance inspection cycles away from optimal RCM/FMECA identified maintenance intervals;
- reduced overall business efficiency through greater unplanned/emergency work taking resources away from more efficient planned maintenance activities; and
- reduced capability to perform detailed engineering analysis at the planning stages.

High level analysis and modelling of the impact of the AER draft determination opex cuts on reliability performance has been conducted for NSW by consultants Jacobs (refer to Attachment 1.14 to our revised regulatory proposal). The analysis focused primarily on increased failure rates due to extended maintenance cycles of 11kV and 22kV overhead distribution assets (poles, crossarms and wires) and response times. The Jacobs modelling suggested that Endeavour would experience a significant deterioration in SAIFI and SAIDI over the regulatory period and therefore be exposed to large STPIS penalties over the regulatory period and beyond. This modelling was time constrained, considering only a subset of possible impacts and therefore represents a conservative estimate of reliability deterioration. The actual deterioration due to the proposed opex cuts is expected to be worse if the full range of impacts is considered.

Telephone Answering

We have not revised our proposed target of 75% for telephone answering which was accepted by the AER:

“We consider a reasonable benchmark is the average telephone answering performance of all the Victorian DNSPs as no individual Victorian DNSP represents similar network composition to that of Endeavour Energy. Table 11-9 indicates the average telephone answering performance target of the Victorian DNSPs is 68.53 per cent. As Endeavour Energy’s proposed performance target is better than the comparable benchmark, we accept Endeavour Energy’s proposed telephone answering target of 75 per cent.”¹¹”

This is because our expenditure forecasts have not been significantly reduced in the revised proposal. However, the AER made substantive reductions to our capex and opex in its draft decision and as such we contend the AER should have also revised this target in the draft decision.

The target proposed by Endeavour Energy was predicated on the capital and operating expenditure plans submitted to the AER. The AER has not recognised the inter-relationship that exists between the STPIS and expenditure.

We consider that our proposed target of 75% should be reduced in a similar portion to any reduction made to opex in particular. However, as opex was reduced 23% this would result in a substantive reduction to our target. In the interests of maintaining an acceptable level of customer service we consider the benchmark target of 68.53% would represent an appropriate floor if any reductions are required if our revised expenditure forecasts are reduced.

Summary

Overall, it appears the AER have adopted an overly conservative approach without justification to avoid Endeavour Energy receiving a reward under the STPIS. As per our proposal, we are seeking to maintain rather than improve performance and suggest the AER reconsider the application of the STPIS rather than set unattainable targets.

The AER’s current approach fails to consider the inter-relationship with capex and maintenance opex or the impact of reduced opex on reliability performance in a robust manner (or at all for 2014-19 capex and opex) and would lead to punitive STPIS penalties, deteriorating reliability performance and no reasonable course of action or allowance to arrest this decline.

4.2 Reliability Expenditure

As noted in the above sections, the AER have rejected our proposed reliability expenditure in its entirety. The basis for this decision was that it was not clear what portion of the program was directly related to Schedule 3 licence conditions; it may relate to avoiding STPIS penalties; and the amount proposed was not allocated in a way to enable assessment.

We do not consider a reduction of 100% is appropriate or reasonable in the circumstances. As per the expenditure forecast assessment guideline, where the AER considers sufficient detail and justification is not provided it should seek to develop a reasonable substitute forecast. The AER has not raised this matter with Endeavour Energy; this information was readily provided and has been submitted with this revised regulatory proposal. In the absence of this information the AER has not sought to understand our obligations or what an appropriate substitute allowance would be.

Instead, the AER considers that an allowance should not be provided for expenditure designed to avoid penalties under the STPIS. It appears the AER have misconstrued the intent of the STPIS and applied an overly cautious approach to avoid Endeavour Energy receiving reward payments under the scheme.

Irrespective of this, we contend that this position is inconsistent with the capex objectives, criteria and factors. As per 6.5.7(a) of the NER a capex forecast should, amongst other objectives, seek to:

- (iii) *maintain the quality, reliability and security of supply of standard control services; and*

¹¹ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 11: STPIS, November 2014, pgs 26-27

- (iv) *maintain the reliability and security of the distribution system through the supply of standard control services; and*

The AER’s approach does not allow Endeavour Energy to maintain reliability at current levels as we cannot fund investment through avoided cost. We agree that the STPIS should fund overall reliability improvements which are separate to regulatory obligations. However, our proposal sought to maintain the current service levels which will deteriorate in the absence of the proposed investment. This is discussed further in the following sections.

In regards to the AER’s final point we contend that sufficient detail was provided to the AER to enable this assessment. Our regulatory proposal provided our capex forecast by driver (which included reliability) and by PTRM asset class. As outlined in earlier sections, the AER has not engaged with our regulatory proposal but rather, relied on RIN data.

In the following sections we reiterate our reliability strategy and our revised forecast.

4.2.1 Endeavour Energy’s reliability strategy and drivers

Endeavour Energy aims to maintain stable network reliability at existing average levels consistent with the needs of its customers. Reliability driven capital expenditure reflects this strategy, representing a prudently small fraction of overall capital expenditure on the network.

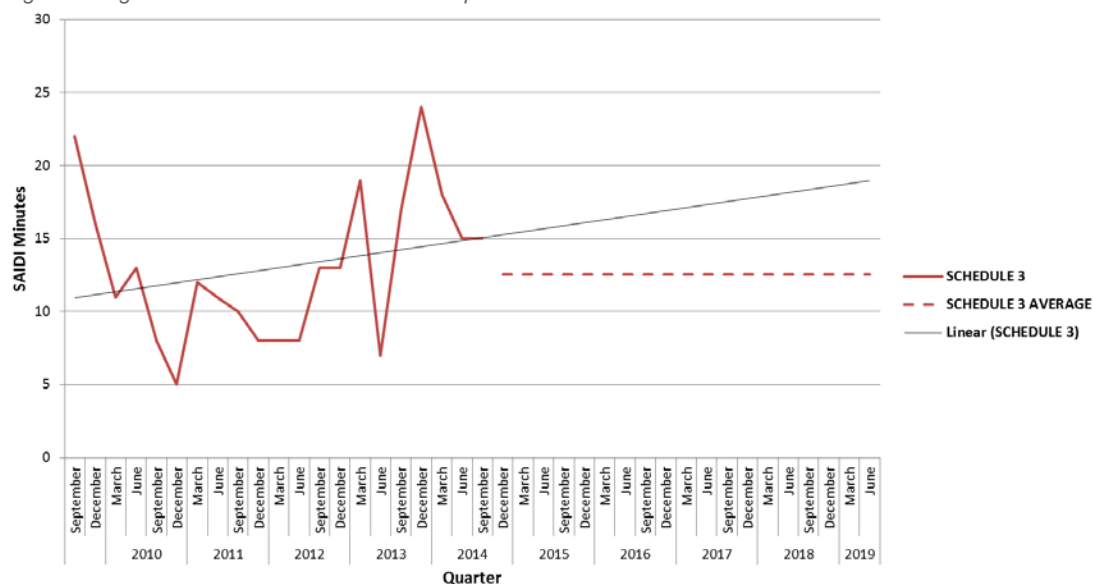
Currently, reliability investigations may be triggered by three main drivers.

Schedule 3 Licence Compliance

As a distributor in NSW, Endeavour Energy has obligations under the NSW Reliability and Performance Licence Conditions Schedule 3 to maintain individual feeder performance within the minimum standards. Endeavour is required to provide quarterly reporting of feeders which are non-compliant to Schedule 3 of the licence conditions to the Minister.

As required by the licence conditions, each quarter these feeders are investigated as and an appropriate response initiated. This may include continuing to monitor performance (if the poor performance was deemed uncharacteristic), initiating an operational or other low cost fault response solution, or where reasonably justified developing a capital project. As shown in Figure 5 there is an increasing trend in non-compliant Schedule 3 feeders.

Figure 4: Organisational SAIFI trends – non-compliant feeders

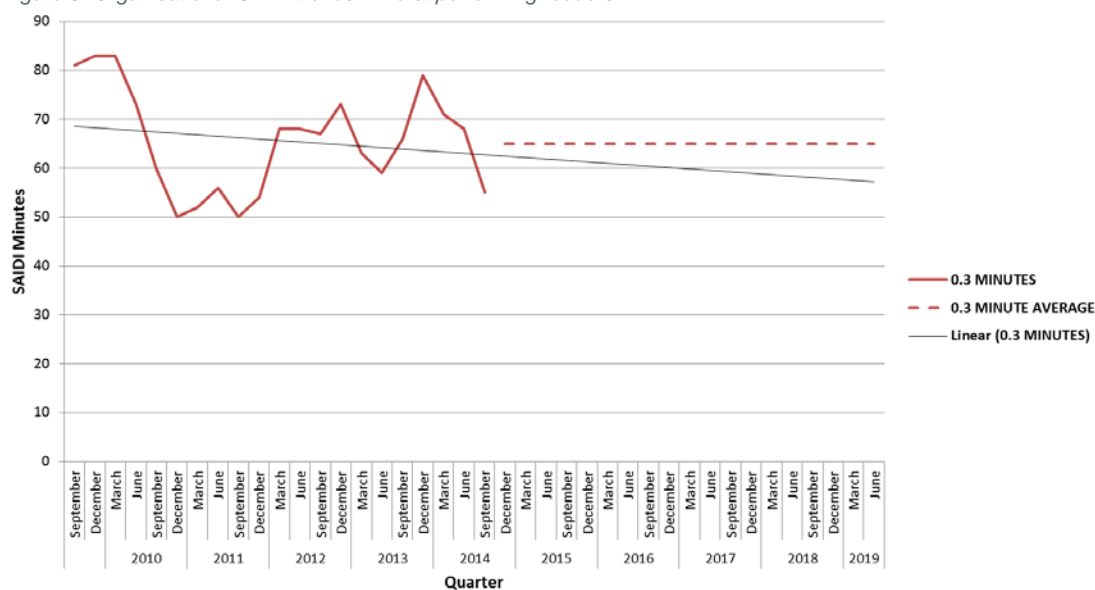


Three example Schedule 3 driven reliability investigation reports are included as Attachment 5.05 to our revised regulatory proposal.

Worst Performing Feeders

Endeavour Energy utilises a threshold of 0.3 minutes organisational SAIDI as a threshold to focus attention on the worst performing feeders in the network. The feeders in this category are monitored quarterly. Where it is identified that one of these feeders has exceeded this threshold an appropriate response may be initiated, which may include continuing to monitor performance, initiating an operational or other low cost fault response solution or developing a capital project where justified by a prudent cost benefit analysis. Cost benefit analysis usually results in capital projects being justifiable only on a very small subset of these feeders. As shown in Figure 6, there is a slight decreasing trend in 0.3 minute feeders. It should be noted however that capital projects are developed on a far smaller percentage of these poor performing feeders compared to non-compliant Schedule 3 licence condition feeders.

Figure 5: Organisational SAIFI trends – worst performing feeders



Works as a response to justifiable complaints of poor reliability addressing worst served customers

This category includes works arising from Ministerial complaints and also addresses areas of the network where historic network design or arrangements are identified as negatively impacting on customer experience.

The focus of these drivers of reliability investigations and corrective actions they initiate is primarily on customer experience rather than managing network targets. Capital based corrective actions occur on a very small subset of Endeavour Energy’s 11kV and 22kV feeders each year, typically on average between 3-4%.

Naturally there is some benefit provided to stabilising overall network average performance by managing localised poor performance. However, it is very important to note that this is offset against a background of a large network increasing in size, worsening age profile and exposure to drivers of unreliability.

4.2.2 Reliability Focussed Expenditure

In its submission, Endeavour Energy proposed a reliability focussed capex of \$54.8million (\$2013-14) or \$65.3million including overheads. The AER have stated that:

“it is not clear the extent to which this expenditure is allocated to capex associated with each capex driver.”¹²

We address this matter in the following sections.

¹² AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 6: Capital Expenditure, November 2014, pg 10

Previous regulatory period expenditure

Endeavour's actual capital expenditure for the previous regulatory period, split by reliability driver, was as per Table 5 below.

Table 6: Previous regulatory period actual reliability focussed investment (excluding overheads)

Category	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Schedule 3 Compliance	\$3,504,251	\$3,670,681	\$2,776,501	\$3,112,979	\$2,586,988	\$15,651,399
Worst Feeders	\$4,380,313	\$3,589,110	\$6,580,668	\$5,052,951	\$4,052,681	\$23,655,723
Justifiable Complaints	\$1,752,125	\$2,365,550	\$1,875,040	\$2,806,192	\$2,955,413	\$11,754,321
Total	\$9,636,689	\$9,625,341	\$11,232,209	\$10,972,122	\$9,595,082	\$51,061,443

Proposed 2014-15 to 2018-19 Expenditure

Previous expenditure in the worst feeder category has been necessary to help stabilise reliability performance (from a longer term trend). However, Endeavour Energy recognises that that this contribution to stabilising and maintaining performance will continue to occur for the parts of the network which were addressed during the last regulatory period.

Furthermore, Endeavour Energy has developed a reliability strategy which focusses more attention on process improvement and low cost operational actions to help maintain performance at existing average levels, rather than capital intensive actions. Recognising this, Endeavour Energy has cut its proposed expenditure in the worst feeder category to nil.

In developing an appropriate revised level of expenditure, Endeavour Energy has taken into consideration the following:

- an increasing trend in the number of Schedule 3 licence compliance feeders. Endeavour Energy has accounted for this by scaling the average yearly expenditure in this category from the previous regulatory period (reflected in 13-14 dollars) by the slope of the trend line in Figure 4 for that year (i.e. 5% increase from the trend line mid-point in 2015-16, 10% in 2016-17 through to 20% in 2018-19); and
- There will always be individual customers or small clusters of customers who experience reliability far outside of the average and whom for which STPIS would not justify any investment. Expenditure in this category has been halved, reflective of previous investment in this area.

The revised expenditure proposal is shown in Table 7 (excluding overheads).

Table 7: Proposed Reliability Focussed Investment (excluding overheads)

Category	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Schedule 3 Compliance	\$3,312,532	\$3,478,158	\$3,643,785	\$3,809,411	\$3,975,038	\$18,218,925
Worst Served Customers	\$1,241,286	\$1,241,286	\$1,241,286	\$1,241,286	\$1,241,286	\$6,206,430
Total	\$4,553,818	\$4,719,444	\$4,885,071	\$5,050,698	\$5,216,324	\$24,425,355

This proposed expenditure represents the minimum level of expenditure required to meet Schedule 3 licence compliance obligations and address worst served customers. It does not allow for overall network average reliability performance improvement and STPIS rewards.

5.0 The STPIS and maintaining network reliability

Overall, for both STPIS and reliability expenditure the AER's position is fundamentally based on the following high level expectations:

- the substantial 2009-14 investment reduces future investment needs (in the short-medium term) and should deliver lagged reliability performance improvements;
- the removal of the Schedule 1 licence conditions further reduces network investment needs; and
- the STPIS should fund any improvements or maintenance of reliability performance.

As outlined above and in previous information provided to the AER, we consider these assumptions have been addressed by Endeavour Energy. Irrespective of the accuracy of these assumptions we also contend they are contrary to the intent of the STPIS and its inter-relationship with reliability expenditure.

Specifically, the AER in their draft determination have made reference to a 2013 AEMC rule change as well as the removal of the Schedule 1 licence conditions.

*“Relevantly, the recent rule change to the expenditure objectives in the NER means that Endeavour Energy does not need to maintain, and does not need the expenditure to maintain, the previous level of performance that was required prior to 1 July 2014. Where regulatory obligations or requirements associated with the provision of services apply, as they do here in relation to reliability standards, it is sufficient that a DNSP comply with those standards; there is **no requirement that they maintain the higher historical levels of performance** [emphasis added] such that they would exceed the levels required to meet those standards.”¹³*

“Consequently, where standards have been lowered for reliability or security and supply, the expenditure objectives now clarify that Endeavour Energy does not need to maintain, and does not need the expenditure to maintain, the previous level of performance.”¹⁴

This implies that the AER need not provide expenditure allowance sufficient to maintain current levels of performance, and that merely complying with service standards is sufficient. Furthermore it implies a decision to cut costs at the detriment of the customers' performance (essentially allowing it to slip back to the “book end” service standard levels of Schedule 2 and Schedule 3). The result of this would be for overall network performance to deteriorate, which is contrary to what our customers have told us through our customer engagement activities and in contrast to the AER's own view on the STPIS:

“This scheme provides a financial incentive for DNSPs to maintain and improve their performance. The STPIS balances the incentive in the regulatory framework for DNSPs to reduce costs at the expense of service performance. Cost reductions are beneficial to both DNSPs and their customers when service performance is maintained or improved.”¹⁵

The very nature by which the STPIS targets are set imply that the objective is for networks to maintain reliability performance. If the decision by the AER is to reduce expenditure and allow performance to degrade to the limits of the service supply standards of Schedule 2 and Schedule 3 then the STPIS targets imposed should reflect this change in expectations so as Endeavour is not unfairly penalised through the STPIS.

The AER have also stated that:

¹³ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 6: Capital Expenditure, November 2014, pg 28

¹⁴ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 6: Capital Expenditure, November 2014, pg 14

¹⁵ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 11: STPIS, November 2014, pg 7

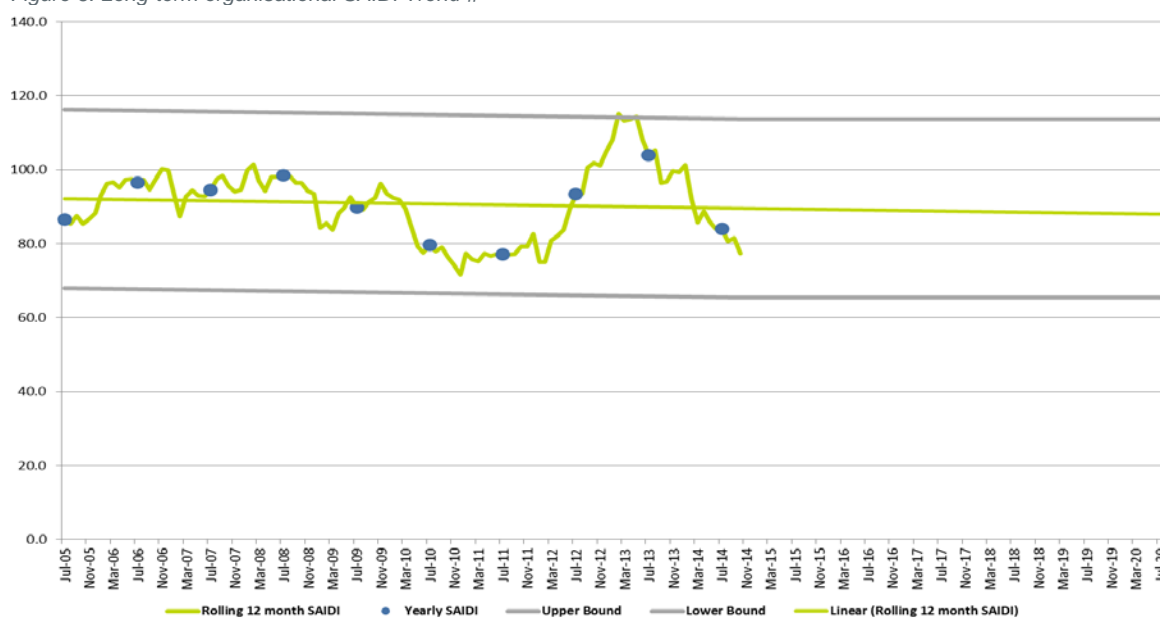
“We also do not consider it to be appropriate for the amount of reliability improvement capex to include expenditure to avoid penalties that may arise under the STPIS.”¹⁶”

Endeavour Energy believes this represents a fundamental misunderstanding the role of the STPIS. The AER should consider the following:

- the STPIS does not self-fund to maintain reliability but it requires it through the nature that targets are set. The STPIS provides no mechanism to provide capital for maintaining network reliability;
- a certain level of reliability focussed capital investment is necessary to simply maintain network reliability at existing average levels which is in line with Endeavour’s reliability strategy;
- not investing in maintaining network reliability would result in declining performance and is therefore not a cost neutral decision under the STPIS as the AER infers. By rejecting any reliability focussed capital expenditure outside of that required to maintain licence compliance, the AER is expecting a distributor to self-fund maintaining network level reliability out of capital expenditure provided for other drivers (augex or repex).

From a longer term view, Endeavour has achieved a relatively stable reliability trend, as shown in Figure 6, and therefore this demonstrates that the historic reliability focussed investment has been appropriate to maintain overall network reliability performance.

Figure 6: Long-term organisational SAIDI Trend #



Note that this trend utilises log normalised SAIDI results as Endeavour Energy does not have Box-Cox normalised SAIDI results going back before the last regulatory period.

There is no evidence to suggest that Endeavour Energy’s historic reliability focussed investment has allowed for significant improvements in network average reliability performance or that Endeavour Energy’s proposed reliability focussed capital expenditure for the next regulatory period will lead to STPIS bonuses.

¹⁶ AER Draft Decision Endeavour Energy distribution determination 2015-16 to 2018-19, Attachment 6: Capital Expenditure, November 2014, pg 10