

24 February 2017

Mr Chris Pattas
General Manager
Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Dear Mr Pattas

RE: AER Issues Paper - *Reviewing the Service Target Performance Incentive Scheme and Establishing a new Distribution Reliability Measures Guidelines January 2017*

Endeavour Energy welcomes the opportunity to provide feedback on the AER's Issues Paper - *Reviewing the Service Target Performance Incentive Scheme (STPIS) and Establishing a new Distribution Reliability Measures Guidelines January 2017*. Endeavour Energy is supportive of continually improving the reliability framework to ensure Distribution Network Service Providers (DNSPs) deliver customers an efficient level of reliability that they value.

Endeavour Energy considers the current STPIS is functioning effectively as it provides an appropriate incentive for DNSPs to maintain or improve levels of reliability in an efficient manner. The improvement in Endeavour Energy's reported System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) measures since the introduction of STPIS reflects this. However, we support reviewing STPIS to ensure it is delivering outcomes that customers value and in doing so determine whether any adjustments are necessary to improve its operation.

The current approach for setting the ratio of the relative reward/penalty rates between SAIDI and SAIFI for STPIS is much like the calculation of the Customer Interruption Duration Index (CAIDI). The AER highlighted changes in this ratio between regulatory periods and the decline of supply restoration times for Victorian DNSP's. The AER suggests this may be attributable to an imbalance in incentive rates between SAIDI and SAIFI, which is, over time, skewing a DNSP's incentive towards SAIFI. While we accept that the ratio may change over time, further investigation is required before the observed performance of a subset of DNSPs can be attributed to this particular factor.

Overall, Endeavour Energy considers the current incentive rates are appropriate. There is a lack of empirical evidence to suggest an arbitrary re-balancing would improve overall reliability outcomes for customers. The focus should therefore be on implementing measures which maintain a balanced ratio between average SAIDI and SAIFI targets over time. This could be achieved by implementing an historical constant or a negative feedback mechanism based on the SAIDI/SAIFI (CAIDI) ratio.

In addition to the matters raised in the issues paper, we suggest the AER reviews the suitability of the customer service component of STPIS; telephone calls answered within 30 seconds. During our engagement activities with stakeholders and customers to date, concerns have been raised that telephone answering is an antiquated measure that does not accurately capture customer service levels. This position has merit given DNSPs communicate with customers through a variety of modes. Alternate measures such as customer satisfaction surveys are worth consideration. However, we note the need for metrics that are readily and objectively measurable.

Endeavour Energy's responses to the issue paper questions are attached to this letter. If you have any queries or wish to discuss this matter further please contact Jon Hocking, Manager of Network Regulation on (02) 9583 4386 or alternatively via email at jon.hocking@endeavourenergy.com.au

Yours sincerely



Rod Howard
Acting Chief Executive Officer

Attachment A: Response to the issues paper questions

Ratio of SAIFI and SAIDI incentive rates

1. The AER would like views on the appropriateness of the current approach for setting the ratio of the relative reward/penalty rates between SAIDI and SAIFI, which is very close to the duration of a typical outage time, or CAIDI.

No, one ratio is likely to strike a perfect balance between SAIDI and SAIFI when customer types and expectations can be vastly different (e.g. a residential customer vs. farmer vs. hospital vs. manufacturing plant). The positive feedback effect caused by using SAIDI/SAIFI (CAIDI) in its current form is inappropriate. This should be changed to be either a historical average constant ratio or a negative feedback mechanism using SAIDI/SAIFI (CAIDI).

2. Would allocating a higher incentive rate to the SAIDI measure—by allocating a higher proportion of the energy value to this measure—provide a more balanced approach between incentives to improve reliability through capex and opex, and provide a more even improvement to all customers? If yes, what should be the relative weights between SAIDI and SAIFI incentives?

There is a lack of objective evidence to confidently determine what weighting is appropriate. The network type and historical performance of that network type for the particular organisation will vary significantly and therefore weightings should be specific to each organisation. A possible approach is utilising the average of the lowest 5-10 CAIDI yearly results as a static benchmark weighting to be used into the future.

More broadly, the relative reductions made to capex and opex allowances in an AER determination will have a greater impact on incentives than allocating a higher proportion of the energy value to SAIDI. The capex/opex trade-off between replacement capex and opex categories like maintenance, emergency response and vegetation management is critical. Where relatively large reductions are made to these opex categories (or overall) this may skew a DNSPs incentives (or capabilities) perversely. It is therefore important that the AER considers capex/opex trade-offs with respect to reliability impacts when setting expenditure allowances.

3. Currently there is a slight difference between the ratios for SAIDI and SAIFI incentive weights across the CBD, urban and rural networks (the Wn factor of equations (1) and (2) of STPIS, see appendix C). Should a uniform ratio be applied to all network types?

The current ratios do not appear to be based on an objective method or set of criteria. In the absence of such we consider it would be reasonable to apply a uniform ratio across all categories.

However we note that it could be argued that at a community impact level, CBD and dense urban areas are more sensitive to the duration of the outage (i.e. public and road transport chaos and extended impacts to businesses without backup generation). The AER may therefore wish to consider this issue further to understand whether different ratios can be set in an objective manner.

Distribution reliability measures

4. Should MAIFle be implemented as the standardised measure for momentary interruptions?

Yes. MAIFle is a more sensible measure for momentary interruptions than MAIFI.

5. Even if the definition for performance comparisons was set at 3 minutes, should the STPIS provide flexibility to change the MAIFI threshold to a value other than 3 minutes to balance the cost of the technologies available to the distributors, the forgone unmeasured unserved energy and customers' preferences?

Moving to a 3-minute definition better aligns with UK, European standards and IEEE definitions. The STPIS should also align with this and not have the flexibility to change the MAIFI threshold, which could result in distortions to the value of prior investments. The difference between a 1-minute outage and a 3-minute outage is likely to be immaterial to customer experience and ultimately deliver far greater customer benefit through encouraging lower cost and decreasing the complexity of automation schemes.

6. What method should be applied to identify catastrophic days so that it is able to consistently, reasonably and universally operate across all distributors?

Statistical approaches are useful when trying to remove outliers based on a reasonable frequency of such events in the past, such as for major event days which most DNSPs have a few each year on average. A catastrophic event may only occur once every 5 - 15 years if at all for some networks. We consider such events will be self-evident and easily identifiable as outliers without having to apply any complex statistical techniques or standards.

A simple approach could be any day that contributes $\geq 1/3$ of the total annual un-normalised organisational SAIDI for that particular year. For example, Endeavour Energy's un-normalised organisational SAIDI for 2011/12 for Endeavour Energy was 168.1 minutes. In this year there was a single day contributing 73 minutes. It is obvious in our dataset going back 10 years or more that this is an extreme outlier. Applying the simple one third rule above gives $73/168 = 43\%$ and would be excluded from future MED day calculation datasets.

Using this simple threshold, for Endeavour Energy only one day in the last 10 years would be excluded from MED day calculation datasets. Datasets across all DNSPs could be tested to see if such a simple threshold is reasonable or whether an alternative should be used.

7. Given catastrophic days are already excluded under the MED framework, should such events be treated differently from the "major event days" concept under STPIS?

Catastrophic days should be removed from the dataset for future MED day threshold calculations. We assume any truly catastrophic day will naturally far exceed the MED day threshold.

8. Should distributors be permitted to exclude a transmission outage event if the event is caused by the action, or inaction, of that distributor?

No. Similar checks apply to NSW state based licence conditions.

9. The AER would like views on the current definitions of the feeder classifications.

The 0.3MVA per/km was derived from a 22kV Victorian distribution network perspective. As such it does not apply well to 11kV networks which can typically only supply half the load density. Furthermore, lightly loaded new Urban feeders can often be classified incorrectly as Rural Short. For the above reasons, Endeavour Energy manually reviews all classifications after applying the above rules and makes a judgement as to the sensibility of the classification. For most cases this results in Rural Short feeders being re-classified as Urban feeders, better reflecting the customer expectations in the network area.

A further problem with basing the load density on actual peak load is fluctuations in peak load year on year. Weather normalisation is highly complex and intensive. A better approach (if a load density metric must be retained) would be installed distribution transformer capacity per km. This is less susceptible to back and forth fluctuations unless the nature of the feeder fundamentally changes (e.g. sub-divisions of once rural land etc.). This would also be simpler to apply as determining true feeder maximum demand is very resource intensive (accounting for abnormal switching states etc.).

10. Historically, only feeders supplying the central business districts of the capital cities of each jurisdiction have been classified as CBD feeders for STPIS purpose. Should this practice be maintained?

Yes. As mentioned in the issues paper, the concept of CBD can be ambiguous. Only those areas which are unequivocally considered CBD (i.e. the central business district of each state capital city) should be regarded as such.

11. Should planned outages be included in the STPIS? What is the value/cost of a planned outage?

No. We do not consider there is any widespread deficiency in DNSPs planned outage management practices that require correction. If so, we do consider the STPIS would be the appropriate mechanism to address any potential issue.

Currently live line work is performed where it is safe, practical and economic to do so. The value/cost of a planned outage is not well understood and depends on the time of the outage and customer type.

Customers are notified of planned outages which allow them to make alternate arrangements. The impact of planned outages is therefore not akin to an unplanned outage. It would therefore be inappropriate to bundle these two types of outages together. The incentive scheme should strictly focus on incentivising DNSPs to properly maintain and manage their network to provide an efficient service level. Including planned outages would unnecessarily interfere in DNSPs' operational decisions and incentivise DNSPs to game the scheduling of planned outages rather than optimise the timing.

We consider the notifications required by NECF, which is resource intensive, has already introduced a significant incentive to avoid outages as far as is practical.

12. What considerations should we take to address the potential safety related issues in order to enable the introduction of incentives to reduce planned outages?

As above. In addition, it could have the perverse incentive to delay important planned works particularly related to asset condition or defects until an unplanned outage provides a window of opportunity to rectify the issue.

The ex-ante regulatory framework, EBSS and AER building block determination already provide an adequate incentive for DNSPs to operate at least cost. If a DNSP is conducting more planned outages than what is efficiently required to manage and operate its network these mechanisms will penalise the DNSP (i.e. poor benchmark performance, lower opex allowances, EBSS penalties etc.)

13. The AER would like views on what level of supply interruptions is considered worst served?

On the basis that STPIS incentive rates reflect the value of impacts to customers, then ranking customers by total STPIS \$ should be an adequate mechanism to identify worst served customers with an effective STPIS incentive to trigger improvement initiatives.

14. Do you consider that improved standardisation would increase the effectiveness of STPIS?

Endeavour Energy considers improved standardisation could potentially improve the accuracy of the data required to make STPIS function effectively. We currently apply the following:

Standardising the reporting of unmetered supplies

Unmetered supplies are currently included where we are aware of them.

National Metering Identifiers - clarifying which NMI status codes should be reported? (e.g. active, not energised, extinct, greenfield)

NMI status is currently considered.

Single premises outages – Standardising on the reporting of single premises interruptions as a network interruption unless customer fault is actively identified.

We currently include single premise outages where a network fault is identified as the cause.

Where more accurate (i.e. smart meter) information is absent:

There is tremendous potential benefit in utilising smart meter data to accurately determine reliability measures, however in NSW there will be a cost associated in obtaining such data from the metering businesses and integrating into outage management systems.

HV single phase outage – Standardising on the reporting of 67% of all downstream customers for a single-phase HV outage on a three phase network. Reporting of 100% of customers for all other HV outages, for example; when there is a single HV phase outage on a two phase or single phase HV system.

Currently we apply a similar rule and minor changes may be required to our outage management system to align to any new rule.

LV single phase outage – Standardising on the reporting of 33% of all downstream customers for a single phase outage.

As above note for HV.

15. Should unmetered supplies be included in the performance measure?

Yes. Endeavour Energy currently includes unmetered supplies where they have an associated NMI.

STPIS specific issues

16. What is the appropriate method to adjust the target when the performance improvement or deterioration results in the financial reward/penalty that exceeds that cap level?

The methodology proposed in the issues paper is considered reasonable.

17. Do you consider that allowing distributors to retain the same proportion of the value of reliability improvements as they do capital and operating expenditure reductions will promote economic efficiency?

It is important that DNSPs have balanced incentives between inputs (capex and opex) and outputs (service standards). Any imbalance could result in higher cost options being implemented and/or inefficient service levels being targeted.

It is unclear whether the approximate 30 per cent sharing ratio that is common to the EBSS, CESS and STPIS provides a balanced incentive to DNSPs. At a high level we consider it is adequate but this is an area of the regulatory framework that perhaps warrants more detailed consideration outside of this specific review. We consider an ex-ante framework with output based incentive schemes would be preferable to the existing focus capex and opex as separate inputs.

18. We would like views on whether the scheme should continue to operate in a symmetrical way, i.e. penalties are incurred at the same rate as rewards.

Endeavour Energy considers the STPIS should operate in a symmetrical way. It is not obvious to us that applying an asymmetrical split of rewards and penalties would enhance the scheme and result in improved customer outcomes.

A symmetrical approach allows the strength of the incentive to remain constant and allows the efficient level of reliability to be revealed. The value that customers place on reliability is reflected in the VCR used to determine the STPIS payments. The VCR value and revenue at risk percentage will determine the strength of the scheme. These components should be modified if the scheme is delivering inefficient outcomes. Creating an asymmetric scheme would simply distort a DNSPs incentives and increase the risk of inefficient investment occurring. This is because a disproportionate scheme relies on an assumption (counter to the VCR) that customers (by type) have a specific and capped reliability expectation that can be determined and used to set a STPIS target. This would of course be highly susceptible to error. A symmetric scheme is more likely to lead to efficient outcomes and provide DNSPs an incentive to target reliability levels that are valued by customers.

19. Should consumers' preferences be reflected through the capital and operating expenditure funding level, or through the STPIS incentives, or a combination of both measures?

A combination of both measures is essential.

20. Which input factors of the STPIS should be, or could be, made flexible to reflect consumers' preference on reliability level, for example the VCR rate, level of revenue at risk and the major event day exclusion criterion (which determines the coverage of the reliability measures).

The major event day exclusion should not be a flexible parameter for reflecting consumer preferences as it represents events for which consumers typically understand as being outside of our control. The VCR rate should be a true reflection of what consumers determine to be the balance between affordability and reliability. Therefore, of the three input factors suggested, the revenue at risk is the most appropriate flexible parameter.

21. We would like views on the current approach for s-factor calculations. Specifically, should and how the calculation of s-factor be simplified?

We consider the existing calculation is appropriate and no changes are required.

22. We would like views from stakeholders on what other clarification is needed for the GSL section of the current STPIS scheme.

Endeavour Energy is subject to jurisdictional GSL arrangements. We consider the current arrangement functions effectively and do not support a STPIS GSL.

Future of STPIS

23. In what way could the STPIS be changed to reflect the needs of consumers with storage or other similar technologies?

Endeavour Energy suggests an introduction of a framework by which DNSP's can offer locational ride-through incentives for customers with such capability to self-supply during an outage. In return the DNSP is allowed to discount the customer outage from performance metrics upon demonstration of the customer achieving outage ride-through and providing subsequent payment. This is a price signal mechanism to a competitive market, allowing potential for additional value to be attributed to such technologies by customers, retailers or aggregators whilst providing DNSPs with additional non-network reliability enhancement options to consider.

In addition to this suggestion, we note the AER consider excluding the of network service reliability events caused by demand management initiatives in the Demand Management Incentive Scheme (DMIS) consultation paper. Non-network solutions can lack firmness and reliability relative to established network investments as they often involve in customer or third party actions. A broad based STPIS exclusion for non-network solutions will remove potential disincentives and result in the increased uptake of these solutions. However, a broad exclusion may also result in inefficient investment in non-network solutions where DNSPs and third parties are not required to reasonably consider the costs associated with poor reliability outcomes for customers.

It may therefore be appropriate for non-network STPIS exclusions to be confined to instances of third-party inaction where a DNSP can demonstrate it has followed proper process and entered into prudent agreements with customers or third parties.