

Ref: JL:C2087412

24 February 2017

Mr Chris Pattas
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Dear Mr Pattas

Essential Energy submission on the issues paper for Reviewing the Service Target Performance Incentive Scheme and Establishing New Distribution Reliability Measures Guidelines

Essential Energy welcomes the opportunity to provide feedback on the review of the Service Target Performance Incentive Scheme (STPIS) and establishing New Distribution Reliability Measures (the Guidelines).

Essential Energy believes the current STPIS is largely achieving its intended aim of maintaining current service levels as well as incentivising improvements to service levels where customers are willing to pay for them. As such, many of our responses to the questions posed in the issues paper support maintaining the status quo.

We do believe that some minor adjustments and clarifications are required to align with other regulatory frameworks, improve the application of the scheme and/or to ensure the STPIS operates as intended. Our main suggestions are:

- > We believe that flexibility should be included to allow the mechanism for determining catastrophic event days to be submitted and approved as part of each DNSP's regulatory determination.
- > The current STPIS Guideline is unclear as to whether phone calls received on the day following a Major Event Day (MED) should be included or excluded from the customer service measure. Given the impact on telephony from a MED is often more onerous on subsequent days, monthly customer service levels can be negatively impacted by just one day of MED related phone calls. We believe the Guideline intends such phone calls to be excluded from the customer service measure, but clarification is required.
- > The VCR should be updated and improved to better represent regional customer types, specifically agriculture customers, ensuring any investment in reliability accurately reflects the preferences of these customers.

We have provided answers to most of the questions raised in the issues paper as an attachment to this letter.

If you have any questions regarding our submission, please don't hesitate to contact Natalie Lindsay, Manager Network Regulation, on (02) 6589 8419.

Yours sincerely

A handwritten signature in black ink, appearing to read "Gary", written over a white background.

Gary Humphreys
Deputy Chief Executive Officer

Attachment – Answers to questions raised in the issues paper

- 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.**

Essential Energy is of the view that the current approach forms a reasonable method of setting the ratio of the relative reward/penalty rates between SAIDI and SAIFI. Given the CAIDI ratio represents what is currently experienced by customers, any change to the ratio would require significant customer engagement to ensure the result adequately reflects the value that different customer types place on the frequency versus the duration of outages. We do not expect that the ratio would vary greatly between different distribution network service provider (DNSP) customer types, as such Essential Energy suggests that if a change is considered warranted, then the engagement is best included as part of the regular review of the national Value of Customer Reliability (VCR).

- 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?**

We do not believe that allocating a higher incentive rate to the SAIDI measure will lead to a more balanced approach. It would reduce the incentive for investment in smart network restoration technology and other SAIFI incentives, without adding any further equality for customers. It is also unlikely to address the long term incentives for SAIDI initiatives. Currently, DNSP's are incentivised based on actual reliability improvements that are realised by customers over a regulatory period. This incentive weakens over the period as the DNSP approaches the regulatory reset, when STPIS targets are reset. Following this, and depending on the year of completion, the incentive is further weakened as the targets are again reset for the next regulatory period at which point all improvements realised are included within future STPIS targets.

By its nature, this incentive structure limits investment in SAIDI initiatives, which tend to be directly attributable to operating expenditure, as the ongoing costs to maintain any realised reliability improvements remain fixed in the business long after they are incorporated within the STPIS targets. This effectively removes the funding for the improvements, whilst also locking in place a penalty if the DNSP then attempts to remove these additional operating costs from the business.

Essential Energy notes that, typically, the foremost SAIDI improvements that are incentivised by STPIS are process changes. There is an incentive to change and improve processes, with a penalty if processes are not maintained under future revised STPIS targets. However, once the outage management process has been optimised significantly it is expected that STPIS will not continue to incentivise further widespread SAIDI improvements.

- 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?**

No. Essential Energy believes any weighting change would need to be driven by customers, through engagement on how network outages impact them. As mentioned in question 1 above, any change is best informed through the level of detailed work required to update the national VCR value, something the AER is intending to update. In the absence of this, Essential Energy is of the view there should not be a change.

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

Essential Energy agrees with the AEMC that MAIFle is the preferred measure of the impact of momentary interruptions on customers, and as such represents a better regulatory signal than MAIFI. However Essential Energy would like to note that significant investment would be required to our Outage Management System (OMS) to enable monitoring and measurement of MAIFI and MAIFle.

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?

Essential Energy supports the revised three minute or less threshold proposed by the AEMC, as it better aligns with the current five minute international standard definition (Institute of Electrical and Electronics Engineers Standard 1366-2012) and allows for cost effective distribution automation to be implemented.

However, Essential Energy believes the momentary interruption threshold should be fixed to provide certainty to DNSPs. Any changes to the threshold impacts the rollout of distribution automation schemes, as well as existing schemes and their underlying business case evaluations. Uncertainty may impact the realisation of project benefits and act to reduce the effective incentive for change.

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

We believe that flexibility should be included to allow the mechanism for determining catastrophic event days to be submitted and approved as part of each regulatory determination. In the absence of an alternative method, the IEEE experience based technique used to develop a 4.15 β threshold appears to best capture what is a reasonable exclusion threshold for catastrophic event days.

For reference, when the 4.15 β method is applied to Essential Energy's previous five year dataset, a network minute threshold of 26 minutes is established. This is more than five times greater than the major event day (MED) threshold and when applied excludes four days over the last five years.

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 excluded from the calculation of future T_{MED} thresholds, as it has been identified as part of the work undertaken to support the IEEE review of Power Distribution Reliability Indices that catastrophic event days distort the Gaussian (normal) distribution of the natural logarithm (ln) of daily SAIDI used to determine T_{MED} .

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

Essential Energy does not believe it is reasonable for DNSPs to exclude transmission outage events caused by the DNSP, noting that historically Essential Energy has not excluded transmission outages that have been caused by its own assets.

In relation to the issue of reliability accountability between transmission network service providers (TNSPs) and DNSPs, TNSPs have no incentive under the current design of the scheme to maintain existing levels of service or to sufficiently prioritise the restoration of DNSP owned lines. This is a significant issue for Essential Energy as the common network configuration is for the TNSP to own the outgoing feeder Circuit Breaker (CB) while the DNSP owns the sub transmission

feeder. Under this configuration the TNSP has no financial incentive to maintain its current response levels as the DNSP's sub transmission feeder outage is not covered under the TNSP STPIS.

As such, Essential Energy believes it would be in the best interest of customers to eliminate situations where network service providers operate without a financial incentive to respond in line with the Value of Customer Reliability (VCR). This would ensure that Essential Energy is not penalised through the STPIS for a lack of TNSP staff availability. For example, TNSP staff are often required to create an isolation area to enable restoration works to begin, as well as also being required to restore incidents where a DNSP owned feeder has been patrolled and made safe. Historically, there can be significant delays in getting TNSP staff on site to complete such works.

On a similar note, Essential Energy has concerns where planned works notifications for TNSP works arrive too late to allow Essential Energy to meet its customer notification obligations under the National Energy Customer Framework (NECF). Such outages should be excluded from STPIS calculations.

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

Essential Energy supports the proposed AEMC feeder classifications that essentially maintain the current definitions.

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, this practice should be maintained as it is well understood by market participants.

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

No, planned outages should not be included in STPIS as they are already monitored via the National Electricity Retail Rules (NERR) and the NECF and its associated penalties. Customer input is also considered as part of the stakeholder consultation process undertaken by distributors in forming their regulatory submissions.

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 in our answer to question 11 above, Essential Energy does not believe that planned outages should be included in the STPIS as they are already monitored via other existing regulatory mechanisms.

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

Essential Energy currently uses two metrics that identify the worst served customers on the network, these include;

- The use of fixed feeder category SAIFI thresholds applied at the feeder segment level, designed to capture the customers experiencing the worst 1% of network reliability.
- Poor performing feeders which are identified using jurisdictionally determined thresholds for both SAIDI and SAIFI. This metric is reported and used on a quarterly basis by Essential Energy's jurisdictional technical regulator. For further information, the NSW Reliability and Performance Licence Condition for Electricity Distributors for reporting arrangements.

Essential Energy suggests either of these metrics could be considered by the AER, given there is obvious efficiency in making use of existing metrics. Essential Energy believes any metric considered to represent the worst served customers should focus on the frequency of interruptions as best representing the impact on customers.

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

Essential Energy does not object to improving consistency between DNSPs, however, we do not believe that the proposed improved standardisation would lead to a material increase in the effectiveness of the STPIS. At this stage, Essential Energy's OMS can only track electrical connectivity down to the distribution substation level.

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

We do not see any benefit in including unmetered supplies in the STPIS performance measures. Unmetered sites include street lights, bus stops and phone booths where an outage would be difficult to identify and the actual customer impact is not clearly apparent.

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?

Essential Energy sees merit in making an adjustment to the target based on the same proportion as actual performance exceeds the cap.

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?

Yes. Essential Energy supports symmetrical incentive schemes and allowances that do not create bias between incentive schemes. This balanced approach should be maintained.

In addition, Essential Energy would like to note that the sliding strength of the incentive across the regulatory period does still present an impediment to the straightforward application of the scheme's business cases in considering reliability improvements.

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.

The scheme should continue to operate in a symmetrical way. Essential Energy agrees with the AER that a symmetrical scheme more closely approximates the operation of a competitive market.

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?

Consumer preferences are best reflected through capital and operating expenditure funding levels. Stakeholder feedback is used to inform capital and operating expenditure plans during the regulatory proposal process.

Stakeholder engagement is critical to any movement (increase or decrease) in network reliability. As such customer preferences for the level of overall network reliability and worst served customer reliability are best reflected through capital and operating expenditure levels. This engagement takes place in both the development and assessment of capital and operating expenditure plans on an ongoing basis, as well as part of the regulatory determination process.

This provides a more transparent approach to show how consumer preferences shape expenditure plans.

STPIS incentives, on the other hand, are best suited to the maintenance of existing overall network reliability levels.

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).

As outlined in question 19, consumer preferences are best reflected through the operating and capital expenditure funding levels. However Essential Energy believes the following two issues should be addressed to best reflect customers preferences on both reliability levels and service levels:

- Essential Energy believes more work needs to be undertaken around the development of VCR. The sample size and scope used to develop AEMO's NSW VCR is not representative of the reliability preferences of a significant portion of Essential Energy's customer base. A specific example of this is the lack of representation of agricultural customers within the survey data.

It has been recommended that the AER maintain a national VCR going forward and Essential Energy believes the AER is well placed to manage this piece of work. As such, we recommend that the AER discuss future improvements to the current AEMO VCR with IPART in NSW. A specific outcome of IPART's recent review of Transmission Reliability was "further work should be done on the value customers place on reliability (VCR) and that work should be done in time to inform the next review of reliability standards. We consider that IPART is well placed to do this work for NSW, if no national study has been completed in time to be used as an input to the next review"¹.

- The telephony measure requires clarification in the Guideline for where calls are received in relation to a major event, but in the days following the said MED. For example, customers accept that a storm occurred and are happy to go to bed without power. It is when they wake in the morning and the power is still not on that they make a phone call. Essential Energy does not currently exclude these calls from its telephony measure. As a result, achieving say a 40% service level on just one day following a MED means service levels are not able to be recovered for that month. We do not think the intention of the Guideline is to include such calls, but the wording does not make it clear that this is the case. Clarification would be appreciated.

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

Essential Energy understands the complication with step changes in revenues however does not think the calculation requires simplifying. We find the application of formula (6) of Appendix C straight forward to apply.

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

As Essential Energy's GSLs are currently set at a jurisdictional level, Essential Energy has no required clarifications on the GSL section of the current STPIS scheme.

¹ Independent Pricing and Regulatory Tribunal, *Electricity transmission reliability standards – an economic assessment*, IPART NSW, August 2016, p. 3

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

Essential Energy agrees that this is an emerging issue. Our view is that, over the long term, work should be undertaken within the maintenance of the national VCR to capture the value different emerging customer groups place on 'grid' reliability. As the STPIS is designed to operate at the network level, maintaining overall reliability, it is important that the scheme be designed to provide certainty to customers on the level of reliability they can expect from the 'grid'. This is critical to allow customers to make correct investment decisions around the availability and capacity of any storage that they may consider installing.

24. The existing STPIS is not based directly on the energy-not-supplied. Do you think it would be preferable to base the financial reward or penalty directly on the energy not supplied? How shall we measure the social harm associated with network outages?

Essential Energy believes the AER has the balance right in the STPIS in terms of valuing energy not supplied via energy delivered annually, against the administrative and system burden of STPIS directly valuing energy not supplied. Any move to directly valuing energy not supplied would only marginally improve the accuracy of the scheme, but at a significant cost, due to the investment and changes required to information systems.

25. The existing STPIS is estimated as the product of the outage duration (and frequency) of an average customer and the incentive rates for the SAIDI (and SAIFI). Do you think it would be preferable to base the average outage duration and frequency on energy not supplied (KWH) or load (KVA)?

As discussed in question 24 above, a move towards directly expressing outages in energy would provide limited, if any, benefit and come with a significant system's investment cost.

26. Should the AER move away from service quality measures mainly based on SAIDI and SAIFI measures? If not, how do we know when we have reached that point? What other measures should be considered?

Essential Energy believes the current metrics work well and there is no immediate need to move away from these.