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24 February 2017

Mr Chris Pattas
General Manager
Australian Energy Regulator
GPO Box 520
MELBOURNE VIC 3001

Dear Mr Pattas

REVIEWING THE SERVICE TARGET PERFORMANCE INCENTIVE SCHEME AND ESTABLISHING A NEW DISTRIBUTION RELIABILITY MEASURES GUIDELINES – ISSUES PAPER

Ergon Energy Corporation Limited (Ergon Energy) welcomes the opportunity to provide a submission to the Australian Energy Regulator (AER) on its *Reviewing the Service Target Performance Incentive Scheme and Establishing a New Distribution Reliability Measures Guidelines – Issues Paper* (Issues Paper). The attached submission is provided by Ergon Energy in its capacity as a Distribution Network Service Provider in Queensland.

Should you require additional information or wish to discuss any aspect of this submission, please do not hesitate to contact either myself on (07) 3851 6416 or Trudy Fraser on (07) 3851 6787.

Yours sincerely

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General Manager Regulation and Pricing

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Enc: Ergon Energy submission

Submission on the *Reviewing the Service Target Performance Incentive Scheme and Establishing a new Distribution Reliability Measures Guideline – Issues Paper*

24 February 2017

Submission on the *Reviewing the Service Target Performance Incentive Scheme and Establishing a new Distribution Reliability Measures Guidelines – Issues Paper*

Australian Energy Regulator

24 February 2017

This submission, which is available for publication, is made by:

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Introduction

Ergon Energy Corporation Limited (Ergon Energy), in its capacity as a Distribution Network Service Provider (DNSP) in Queensland, welcomes the opportunity to provide comment to the Australian Energy Regulator (AER) on its *Reviewing the Service Target Performance Incentive Scheme and Establishing a new Distribution Reliability Measures Guidelines – Issues Paper* (Issues Paper).

Ergon Energy is a member of the Energy Networks Australia (ENA), the peak national body for Australia's energy networks. The ENA, in collaboration with Ergon Energy and other distribution businesses, has prepared a comprehensive submission addressing the AER's Issues Paper. Ergon Energy is generally supportive of the responses contained in their submission.

In response to the AER's invitation to provide comments on the Issues Paper, Ergon Energy has focused on questions raised in the Issues Paper, and these are addressed in the following section. Ergon Energy is available to discuss this submission or provide further detail regarding the issues raised, should the AER require.

Table of detailed comments

Consultation Paper Feedback Question	Ergon Energy Comment
Issue 1: 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.	A customer's perception of what is acceptable can be directly dependent on their experiences. For example, a customer that receives a high level of reliability may state that they would accept a lower level in exchange for lower prices. However, a customer that receives a lower level of reliability is not likely to accept the same concept. Ergon Energy undertakes continual customer research on their value of reliability, and has found that our residential customers generally prefer shorter and more frequent outages over longer and infrequent outages.
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?	Ergon Energy agrees that a greater economic incentive for SAIDI aligns with our customer survey results and value distribution our residential customers have. However, it is not clear that this will provide a more balanced approach between incentives to improve reliability between capex and opex, or that there will be an even improvement to all customers. The relationship between capex and SAIFI and opex and SAIDI is not 1:1. Rather, increased investment in capex is likely to result in improved SAIFI *and* SAIDI, while increased investment in opex is likely to favour improvement in SAIDI over SAIFI. Moreover, a one-off investment in capex will return a perpetual benefit, whereas to return a benefit from an opex investment will require a continual investment in order to maintain the improvement. As such, Ergon Energy does not agree that allocating a higher incentive rate to SAIDI will have a proportional impact on capex and opex investment. Furthermore, while Ergon Energy agrees that a greater incentive for SAIDI aligns with our residential customer value proposition, there will always exist more cost beneficial opportunities where customer densities are higher and network infrastructure development costs are lower. There exists a gap in the regulatory framework to address those outliers and improvement opportunities

	that are beyond the STPIS incentives to fund. To understand what the relative weights should be requires a detailed understanding of the value difference between short duration interruptions and the cumulative value of longer duration interruptions. In 2014, Ergon Energy engaged Colmar Brunton to undertake customer surveys to better understand customers' expectations and preferences as part of the development of our Regulatory Proposal. Insight 6 from this research provided a sliding scale of values that customers attribute to varied interruption durations. The duration assessment starts at 1 hour; with residential customer interruption values ranging from $23 for 1 hour to $234 for 24 hours and business customer interruption values ranging from $954 for 1 hour to $9543 for 24 hours. Ergon Energy welcomes further consultation to determine the relative weights between SAIDI and SAIFI incentives.
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 the STPIS, see appendix C). Should a uniform ratio be applied to all network types?	As noted above, Ergon Energy's residential customers generally place higher value on the duration of the interruption rather than the frequency. However, the preference for shorter duration or fewer outages varies across regions. Ergon Energy would welcome further consultation on changes to the incentive weights across feeder categories.
Issue 2: Distribution reliability measures	
4. Should MAIFe be implemented as the standard measure for momentary interruptions?	Ergon Energy agrees MAIFIe provides an index which more closely aligns with the customer impact of an event than MAIFI. Ergon Energy notes that SA Power Networks have surveyed their customer base and found that customers see no difference in inconvenience between multiple momentary interruptions in relatively quick succession and a single momentary interruption. Both events will often initiate resetting of electronic clocks and pumps but will have minimal real lifestyle and commercial impacts. Ergon Energy suggests that MAIFI may discourage or limit the incentive for DNSPs to apply more than a single automatic restoration attempt. The success for supply restoration on transient fault is increased with additional attempts to restore. As such, Ergon Energy supports the implementation of MAIFIe as the standard measure for momentary interruptions.

Issue 3: Application of 3-minute 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 foregone unmeasured unserved energy and customers' preferences?	Ergon Energy supports the use of 3 minutes for MAIFI as it represents a realistic restoration timeframe for current technologies in the area of Distribution Management Systems (DMS). However, Ergon Energy seeks clarity on the rationale for having flexibility to change this threshold to a value other than 3 minutes. Ergon Energy would support this flexibility where the threshold was reduced to a value less than 3 minutes to balance technology investments which have already been committed. Nonetheless, Ergon Energy suggests that a consistent application should be applicable to all DNSPs.
Issue 4: Exclusions	
6. What method should be applied to identify catastrophic days so that it is able to consistently, reasonably and universally operate across all distributors?	Ergon Energy is particularly prone to the adverse effects of catastrophic events. In the past years the MED threshold calculations have been severely skewed away from a statistically normal value by the inclusion of events resulting from Tropical Cyclone Larry in 2006 and Tropical Cyclone Yasi in 2011. Ergon Energy notes the vast differences in network characteristics across Australia and that removal of catastrophic events may not be applicable to all DNSPs and as such, should not be applied as a blanket rule. However, Ergon Energy supports a consistent approach to the methodology which can be applied where applicable. Ergon Energy suggests the determination of a catastrophic day should be applied on the same basis as the existing major event day method. To this extent, Ergon Energy suggests that DNSPs have the ability to remove 1-2 days per regulatory control period.
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?	The application of the catastrophic day is intended to provide a first pass statistical smoothing of the raw daily performance data before the major event day threshold is determined. This will reduce variability in the MED threshold and avoid the skewing of that threshold as a result of the influence of a statistical anomaly, such as has occurred for Ergon Energy as a result of Tropical Cyclones Larry and Yasi.

8. Should distributors be permitted to exclude a transmission outage event if the event is caused by the action, or inaction, of that distributor?	Ergon Energy suggests that in principal DNSPs should not be permitted to exclude a transmission outage event if the event is caused by the action, or inaction of that DNSP. However, Ergon Energy notes that assigning responsibility between DNSPs and transmission network service providers is not always clear cut and doing so and including such an exemption is likely to result in lengthy dispute resolution processes. This will ultimately result in inefficient processes and will not achieve improved performance for the benefit of the customer. As such, Ergon Energy cautions that without clear criteria for assigning responsibilities, this approach will essentially create more problems than it seeks to resolve.
Issue 5: Definition of feeders	
9. The AER would like views on the current definitions of the feeder classifications.	Ergon Energy suggests that merely tweaking the existing feeder definitions will achieve very minimal improvement. As such, Ergon Energy suggests that revolutionary changes, aimed at providing the best outcome for customers, are required. Ergon Energy notes that this will require a comprehensive review. Furthermore, Ergon Energy notes there is no clearly defined term for 'feeder' and suggests that for clarity and consistency, this would be best placed in the National Electricity Rules.
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?	Ergon Energy does not currently have any customers on a CBD feeder.

Issue 6: Planned interruptions	
11. Should planned outages be included in the STPIS? What is the value/cost of a planned outage?	Ergon Energy does not agree that planned interruptions should be included in the STPIS. Providing an incentive to reduce planned interruption event duration and frequency will place pressure on and encourage utilities to reduce maintenance activities or alternatively to undertake less efficient, higher risk alternate practices and work methods such as live-line work or generation support. Planned interruptions are generally considered to be of relatively low economic and lifestyle impact to the majority of customers. Larger commercial and industrial customers are provided with adequate notice to ensure the economic and production impact is managed and coordinated to align with other onsite planned maintenance activities such as plant shutdowns and generator run schedules. Residential customer inconvenience is also minimised through the provision of a reasonable notification period and the scheduling of interruptions during periods of low demand/utilisation. Customers are currently provided with adequate protections to minimise inconvenience under the National Energy Customer Framework (NECF), whereby DNSPs are required to provide notification of the planned interruption, including the expected date, time and duration of the outage, at least 4 business days before the interruption. Furthermore, DNSPs are required to use best endeavours to restore supply as soon as possible, which carries a civil penalty provision for failing to do so. In addition, Ergon Energy is required to meet jurisdictional requirements of Minimum Service Standards (MSS) which are inclusive of planned interruption events. The intention of the MSS is to ensure that reliability of supply performance doesn't deteriorate beyond a tolerable band and adversely impact the economy and lifestyles of our customers. As such, Ergon Energy believes adequate protections for customers surrounding planned interruptions exists and these should not be included in the STPIS.
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 noted above, Ergon Energy does not support the inclusion of planned interruptions in the STPIS.

Issue 7: Monitoring service to worst served customers and GSL payments	
13. The AER would like views on what level of supply interruptions is considered worst served.	Ergon Energy currently considers worst served customers in accordance with the definitions provided in our Distribution Authority. However, this definition is one-dimensional, considering only the interruption duration at the distribution feeder level. The definition and application of it doesn't provide consideration for a high frequency of interruptions and doesn't consider the individual customer experience, but rather the average experience across the population supplied by a distribution feeder. Ergon Energy notes the ENA is currently consulting with its members, including Ergon Energy, on alternative approaches to worst served customers. Ergon Energy welcomes the opportunity to work with the AER to further develop this concept.
Issue 8: Consistent approach to measure outages	
14. Do you consider that improved standardisation would increase the effectiveness of STPIS?	Ergon Energy agrees that improved standardisation will increase the effectiveness of the STPIS, with the greatest benefit coming from improved accuracy in benchmarking between utilities. In addition to those areas addressed in the above responses, Ergon Energy recommends extending standardisation to the definition of interruptions (including planned and unplanned interruptions) and the definition of feeder for the purposes of feeder categorisation (as noted in our response to question 9 above). Ergon Energy notes there is a difference in the definition of unplanned interruptions between that contained in the NECF legislation and that in the STPIS, which has caused some confusion and system work-arounds for Ergon Energy to accurately capture the outage minutes for STPIS reporting without generating a breach of our NECF obligations. Standardisation of this definition would provide greater clarity and efficiencies for DNSPs. It is noted that changes to standardise feeder categories will require DNSPs to back cast performance when proposing targets set under STPIS and will require changes to the reporting applications and associated software.

15. Should unmetered supplies be included in the performance measure?	Ergon Energy suggests that it would not be appropriate to include all unmetered supplies in the performance measure. For example, there is no value in reporting outages to unmetered streetlights as customers are unlikely to experience any inconvenience from a supply interruption to these.
Issue 9: Adjusting the targets where the reward or penalty exceed the revenue cap under STPIS	
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?	Ergon Energy supports the approach proposed in the Issues Paper.
Issue 10: Balancing the incentive to maintain and improve reliability with the incentive to reduce expenditure	
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?	Ergon Energy agrees that allowing DNSPs to retain the same proportion of the value of reliability improvements as they do capital and operating expenditure reductions will promote economic efficiency. DNSPs need a fixed period that they can anticipate a return on their investments to achieve the STPIS revenue outcomes. A methodology that is consistent with other benefits schemes in operation under the AER's control appears reasonable.
Issue 11: A symmetrical financial incentive scheme	
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.	Ergon Energy agrees that a symmetrical reward/penalty scheme is a better representation of a free market and supports the continued application of this approach. Ergon Energy does not support the view of the Energy Users Association of Australia that DNSPs have excess capacity as justification for an asymmetrical scheme weighted towards the penalty range. The scheme already accounts for available capacity and excess that exists through the historical averaging process that is applied in setting targets for a control period.

Issue 12: How to link with distributor customer engagement findings seeking changes to reliability level	
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?	The current STPIS is not flexible enough to respond to and vary the incentive / value of a customer type or locality, as a consequence of the simplification of the scheme across 3-4 feeder categories representing a broad range and diverse customer base. Improvements to achieve this refinement would come at the expense of that simple feeder categorisation. If STPIS were customer class specific and regional or locality specific it would improve the flexibility and responsiveness of the scheme, but it would limit the ability to benchmark performance between distributors. As such, the preferred option would be adjustments within the specified capital and operating expenditure funding programs. Notwithstanding, any regulatory funding would need to be accounted for in future STPIS targets to avoid regulatory funding and revenue adjustments in the single investment.
20. What 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).	Ergon Energy suggests that the VCR is the flexible input factor as it is the variable that represents the customer attitudes and appetite for investment in reliability of supply performance improvements.
Issue 13: Other minor refinements to the scheme	
21. We would like views on the current approach for s-factor calculations. Specifically, should and how the calculations of s-factor be simplified?	The exact way the s-factor is incorporated into the control mechanism is set out in the DNSP's distribution determination. That said, Ergon Energy would support the proposal to simplify the s-factor calculation by including the calculated financial reward/penalty as a dollar value in the control mechanism formula (i.e. $Ar_{t+1} = AR_t(1+\Delta CPI_t)\ (1-X_{t+1})$, with the maximum allowable revenue (MAR) instead including an additive St for STPIS performance using a final s-factor at equation (6)). This would allow the STPIS reward/penalty to be more explicit than if using a fixed revenue cap equation per (1A) (i.e. $Ar_{t+1} = AR_t(1+\Delta CPI_t)\ (1-X_{t+1})\ (1+S_t)$) and a multiplicative approach to the final s-factor at equation (2). However, whilst this would avoid any need to remove the effect of prior regulatory year performance in the

	control mechanism, use of a final s-factor at equation (6) does not avoid adjustments for the overlap between regulatory control periods. Further discussions would be welcomed in moving toward a more simplified approach, though any transition to a new approach must avoid any opportunity for DNSPs to be disadvantaged or risk not being able to recover revenues that had previously been determined in justifying STPIS improvement investments.
22. We would like views from stakeholders on what other clarification is needed for the GSL scheme of the current STPIS scheme.	Ergon Energy does not currently operate under the AER GSL scheme. Under Queensland's jurisdictional scheme, Ergon Energy is subject to a duration GSL for each single event exceeding the prescribed outage time and a frequency GSL if the number of outages in a given financial year exceeds the prescribed amount. The Queensland jurisdictional scheme does not include an additional duration GSL for the total duration in aggregate. Furthermore, the Queensland jurisdictional scheme caps the total amount of GSL payments a small customer can receive in each financial year per electricity account (excluding any GSL payments made for wrongful disconnections).
Issue 14: Interaction with new technologies	
23. In what way could the STPIS be changed to reflect the needs of consumers with storage or other similar technologies?	Ergon Energy notes that any changes to accommodate the needs of customers with storage or similar technologies will influence the VCR. However, given that the current scheme design represents an aggregated view of residential, commercial, industrial and agricultural customers across the coarse feeder level categories, it would be difficult to amend the STPIS incentives to reflect changes amongst a small sub-category of customers. Ultimately, this would require information to be supplied at each customer's connection point to understand the customer's storage capacity at a specific point in time and subsequent demand profile and the level of reliability they will accept. While individual customers could agree to accept lower reliability levels to compensate for their own investment decisions, the current technological environment is yet to advance to a stage where it is possible to implement at an aggregated level. Ergon Energy recognises there could be value from behind the meter energy storage and generation for maintaining reliability in long rural and single wire earth return (SWER) systems which could be unlocked if DNSPs were appropriately incentivised. However, Ergon Energy notes that to maintain a reduced level of reliability on a SWER line, there would need to be an appropriate incentive for all customers on this SWER to invest in a behind the meter storage system that compensated for this.

	As noted earlier, to implement such changes will require a much more granular scheme operating at a customer class level with subclasses to account for those customer's that have storage capability and those that don't. Further, a third class may also be those customers who have export arrangements and as such continuity of supply represents greater value than it does to a 'normal', non-export, non-storage customer. Ergon Energy notes that to fully implement such wide-sweeping changes will require a complete change to the planning framework. However, Ergon Energy agrees that such changes may be possible in the future when technological advances permit.
Issue 15: Should the service quality incentive only focus on measuring SAIDI and SAIFI?	
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 harm associated with network outages?	To determine energy-not-supplied would require robust and accurate load profile data taking into account behind the meter generation at the point of interruption or if possible at the consumer level that could be aggregated to the interrupted network segment. Ergon Energy believes that to base the financial reward or penalty directly on the energy-not-supplied would add a level of complexity that is unlikely to be justified from a consumer perspective. The incentive rate applied is a derivative of the energy consumed by a feeder category. This approach assumes an equal distribution of events above and below the average demand in determining the actual incentive rate for the class of feeder and customers that it supplies. DNSPs already apply a best endeavours approach to ensure timely restoration of supply regardless of the time of day that the interruption occurs. Making the incentives time of day or energy lost dependent will not materially impact this approach and as such, will not achieve any beneficial outcome for the customer. As such, Ergon Energy does not support changes to the STPIS to base the financial reward/penalty on the energy-not-supplied.
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 duration and frequency on energy not supplied (KWH) or load (KVA)?	As noted above, to base the incentive rates on energy-not-supplied would require robust and accurate load profile data which would add a level of complexity without realising any real benefit to the consumer. Ergon Energy does not support a change to base the average duration and frequency on energy-not-supplied.

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?	Ergon Energy does not support a move away from service quality measures based on SAIDI and SAIFI at this point in time. As noted in our earlier responses, Ergon Energy recognises and supports opportunities to refine the current scheme and improve standardisation across elements of the scheme. In particular, Ergon Energy supports reforms to the feeder category classification and welcomes the opportunity to provide input into a full review of the characterisation of these classifications to better represent customer centric measures. Setting up a scheme that has performance expectations at a customer type level would bring greater flexibility, allow for greater alignments to the VCR and provide for benchmarking performance at a customer level rather than an arbitrary network arrangement and configuration level. Ergon Energy recognises that the current scheme is likely to have an expiry date at some point in the future. As noted in our response to Q23 above, further technological advances are required to enable better recognition of changes to customer's preferences through their own investments in behind the meter energy storage and generation systems and allow DNSPs the opportunity to better leverage off these demand side benefits.