



11 August 2017

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

Dear Mr Pattas

Draft Distribution Reliability Measures Guidelines

Ergon Energy Corporation Limited (Ergon Energy) and Energex Limited (Energex) welcome the opportunity to provide comment to the Australian Energy Regulator (AER) regarding its Draft Distribution Reliability Measures Guidelines.

This submission, which is available for publication, is provided by Energex and Ergon Energy as distribution network service providers (DNSPs) operating in Queensland.

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

Yours Sincerely

A handwritten signature in black ink, appearing to read 'Jenny Doyle'.

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Encl: Ergon Energy and Energex submission

Draft Distribution Reliability Measures Guidelines

Joint response to the AER's
Draft Guidelines

11 August 2017



Part of the Energy Queensland Group

Draft Distribution Reliability Measures Guidelines



ABOUT ERGON ENERGY

Ergon Energy Corporation Limited (Ergon Energy) is part of the Energy Queensland Group and manages an electricity distribution network which supplies electricity to more than 740,000 customers. Our vast operating area covers over one million square kilometres – around 97% of the state of Queensland – from the expanding coastal and rural population centres to the remote communities of outback Queensland and the Torres Strait.

Our electricity network consists of approximately 160,000 kilometres of powerlines and one million power poles, along with associated infrastructure such as major substations and power transformers.

We also own and operate 33 stand-alone power stations that provide supply to isolated communities across Queensland which are not connected to the main electricity grid.

ABOUT ENERGEX

Energex Limited (Energex) is part of the Energy Queensland Group and manages an electricity distribution network delivering world-class energy products and services to one of Australia's fastest growing communities – the South-East Queensland region.

We have been supplying electricity to Queenslanders for more than 100 years and today provide distribution services to almost 1.4 million domestic and business connections, delivering electricity to a population base of around 3.4 million people via 52,000km of overhead and underground network.

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1 INTRODUCTION

Ergon Energy and Energex welcome the opportunity to provide comment to the Australian Energy Regulator (AER) on its Draft Distribution Reliability Measures Guidelines (Draft Guidelines).

This submission, which is available for publication, is provided by Ergon Energy and Energex as distribution network service providers (DNSPs) operating in Queensland.

Ergon Energy and Energex are committed to providing:

- safe, reliable and affordable electricity supply;
- a great customer service experience;
- customers greater control over their energy consumption;
- efficient and sustainable energy solutions; and
- access to the next wave of energy linked innovative technologies and renewables.

Ergon Energy and Energex are members of the Energy Networks Australia (ENA), the peak national body for Australia's energy networks. The ENA has prepared a comprehensive submission addressing the AER's Draft Guidelines. We are fully supportive of the arguments contained in their submission.

Comments on the key performance measures contained in the Draft Guidelines are provided in the next section.

2 KEY MESSAGES

Ergon Energy and Energex offer the following comments on the key performance measures.

2.1 Changing the definition of momentary interruption

Ergon Energy and Energex maintain our support for a change to the definition of Momentary Interruption. We support the AER's assessment that does not support the S&C Electric Company's view that "additional costs may be incurred by industrial and commercial customers in moving to 3 minutes and that these costs should become a hidden cost"¹. The change in definition will not encourage DNSPs to extend the duration of sustained interruptions and supply interruption events will continue to be restored in the minimal time. However, the change in definition will encourage DNSPs to invest in enhanced system automation that will reduce the frequency of sustained interruption events by partially or fully restoring interrupted network sections within the 3 minute momentary interruption window. Where simple automated switching routines can operate to restore supply, restoration will occur within a shorter timeframe. However, where complex switching is required the restoration timeframe will be extended where it is not currently considered achievable within 1 minute.

2.1.1 The use of MAIFI and MAIFle

Ergon Energy and Energex support the proposal to report against MAIFle where the DNSP has the capability to do so. We are progressively establishing the capability to record and report Momentary Interruption events and expect to be able to report accurately against this metric in the future.

We note that the definition for MAIFle appears to have a typo and should be amended to clarify the time period of 3 minutes which is consistent with the MAIFI definition.

2.2 Broadening exclusion conditions

We support the inclusion of the following additional exclusion criteria:

- Load interruptions caused by the exercise of any obligation, right or discretion imposed upon or provided for under jurisdictional electricity legislation and national electricity legislation applying to a DNSP; and
- Load interruptions caused or extended by a direction from state or federal emergency services, provided that a fault in, or the operation of, the network did not cause, in whole or part, the event giving rise to the direction.

2.2.1 Treatment of major event days and consideration of catastrophic events

We note the AER's position on the application of a catastrophic event day, particularly given there is currently no agreed approach to normalise and smooth the daily SAIDI before determining the

¹ AER, Explanatory Statement – Draft Distribution Reliability Measures Guidelines, p12

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major event day threshold (tMED) using the IEEE standard 1366 2.5 beta method.

Notwithstanding, we believe that extremely rare, yet very significant events such as Tropical Cyclones Larry and Yasi, have a material and long lasting impact on the tMED when retained in the daily SAIDI. As such, we support a threshold of 4.15 beta (section 3.5 of the Institute of Electrical and Electronic Engineers Standard 'IEEE Guide for Electric Power Distribution Reliability Indices') to identify catastrophic days, as noted in Energex's previous submission. We believe this is a reasonable method to identify more extreme outliers and can be applied consistently across all distributors.

2.2.2 Outage of transmission connection assets due to the actions of a distributor

We maintain our previous concerns with the consistent application of this exclusion as raised in Ergon Energy's submission to the AER's consultation on reviewing the STPIS and establishing a new distribution reliability measures guideline, and in particular, we believe that additional clarity and guidance on the application through a prescriptive definition is required. Understanding the background and history that contribute to interruptions at the transmission network interface will not always be as well-known and clear as the example provided in clause 3.2 of the Draft Guidelines. We maintain that these events have the potential to result in lengthy dispute resolution when the DNSP and TNSP disagree on the circumstances that have contributed to a significant supply interruption event.

2.3 Broadening the definition of CBD and Urban feeders

We support the AER's view that jurisdictional regulators have the authority to nominate the area or areas considered to be CBD and of economic importance requiring a higher level of security. Further, we support the proposed amendments to the definition of Urban feeder to base the MVA demand on a 3 year average as opposed to the demand observed in the past 12 months. This change should reduce the frequency that a feeder changes performance category and softens the linkage between feeder category and annual weather patterns.

2.4 Whether unmetered supply should be included for measuring reliability indicators

Ergon Energy and Energex support the AER's position to not include unmetered supplies in the definition of distribution customer.

2.5 Improving consistency of measurement methods

We support the AER's proposal for additional reporting specifications to improve clarity on the capture and reporting of specific events. In particular:

- National Metering Identifiers (NMI) – We note the Explanatory Statement suggests clarifying which NMI status should be reported (e.g. active, not energised, extinct, greenfield). However, the Draft Guidelines do not offer such clarity. Ergon Energy and Energex currently report on 'active' NMIs. We suggest that further clarity is provided in the Guidelines as suggested in the Explanatory Statement.

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- Single premise outages – Ergon Energy and Energex currently report on single premises interruptions as network interruptions unless the customer installation fault can be positively identified. As such, we support the reporting suggested in the Draft Guidelines.
- For partial network failure, where more accurate information is absent – We support the proposed standardising on reporting of 67 per cent of all downstream customers for a single-phase HV outage on a three phase network and 33 per cent of all downstream customers for a single phase LV outage. However, both Ergon Energy and Energex note that implementation of this will require a change to our reporting systems, which could be material and take some time to implement.

2.6 Supply outages due to malfunction of energy meters

Ergon Energy and Energex currently report supply interruption events associated with faults and failure of the energy meter. However, we support the AER proposal to exclude interruptions associated with meter malfunctions in the future.

Further, we note that the definitions provided for Interruption or Outage within the Guidelines do not specifically consider the treatment of metering installation failures and they have not been added to the exclusions offered in section 3.2. As such, we suggest faults and failures of energy meters are included in section 3.2 of the Guidelines.

2.7 Adding a reliability measure to identify customers with unsatisfactory reliability level outcomes

Ergon Energy and Energex note that there is a variation in the consideration of worst served customers between our respective Distribution Authorities (DA) and the proposed definition in the Draft Guidelines. We support the AER's proposed definition and will seek to align our DAs with this definition. However, we suggest the definition in the Guidelines removes reference to the 'disproportionate number of faults' as this infers that SAIFI would also be used as a threshold criterion. We believe that a combination of SAIDI and SAIFI thresholds would increase the complexity of the calculation and we would support a feeder category level average for unplanned SAIDI as the basis for the threshold. It is unclear if the current drafting of the proposed definition is intended to provide flexibility amongst DNSPs to choose either threshold criterion given the differences in network characteristics. If so, we suggest this is clarified in the final Guidelines.

Moreover, we seek further clarification on the basis for comparison. For example, is it expected that the individual customer experience and the 'network' average are both calculated on the 3 year rolling average? Furthermore, we suggest the Guideline provide clarity that worst served customers are assessed on normalised data. That is, with the removal of major event days and other exclusions.

Currently Ergon Energy and Energex have capability to report to the distribution feeder level and are in the process of establishing reporting capabilities down to the distribution substation level. Further enhancements will be required to improve the degree of reporting accuracy to individual customer experience rather than considering that the distribution substation level performance provided an acceptable representation of the individual downstream customer level experience.

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2.8 Further clarity on definitions

Ergon Energy and Energex suggest that some of the definitions would benefit from greater clarity and these are outlined below.

2.8.1 Feeder

We note that the definition of a *Long Rural Feeder* is a feeder with a total feeder route length greater than 200km, and a *Short Rural Feeder* is a feeder with a total feeder length less than 200km, but it is not clear which category a feeder with a total feeder length of exactly 200km would fall into. While the occurrence of feeder length being exactly 200km may be rare, it would seem appropriate for completeness, to amend the definition of a long rural feeder to include a total feeder route length of equal to or greater than 200km.

Furthermore, we note that there is no clearly defined term for 'feeder' and suggest that for clarity and consistency, this would be best placed in the National Electricity Rules.

2.8.2 Major Event Day Threshold

We note that the Explanatory Statement provides detail for the calculation of the tMED. However it does not provide an explanation of the treatment of planned interruptions in the calculation. For example, if a DSNP is reporting indices for all interruptions (planned and unplanned), then the tMED should be calculated using daily SAIDI inclusive of planned interruptions. Then both planned and unplanned interruptions should be excluded on days which exceed the major event day boundary. However, when only unplanned indices are being reported, then the tMED should be calculated using only unplanned interruptions, and only unplanned interruptions excluded on days which exceed tMED. Further, the tMED calculation is not included in the Draft Guidelines. As such, we suggest that tMED is included in the definition section of the Guidelines.