

15 August 2012

Mr Steven Graham  
PO Box A2449  
Australian Energy Market Commission  
Sydney South NSW 1235

Dear Steven

**AMEC Review - Review of distribution reliability outcomes and standards – Issues Paper.**

Please find below ETSA Utilities' submission to the AEMC's Issues Paper – National Workstream "Review of distribution reliability outcomes and standards".

ETSA Utilities is the principal electricity distribution network services provider (DNSP) in South Australia and is responsible for the delivery of electricity from the transmission connection points to its residential and business customers throughout the State via its distribution network of powerlines, substations and transformers. We deliver electricity to more than 829,000 South Australian customers.

**Key messages**

ETSA Utilities considers that:

- *reliability performance is a key outcome that DNSPs provide to customers;*
- *the outcome measures employed within the national framework must reflect the customer experience and represent the aspects of the service that customers consider are important;*
- *the outcomes/standards (ie targets) should be based on the customer's willingness to pay;*
- *the measures employed in the reliability framework need to enable national and international "apples for apples" comparisons. It must be noted that meaningful comparisons require that the measures are based on the same (or very similar) definitions<sup>1</sup>; and*
- *the measures should recognise the need to provide DNSPs with the flexibility to innovate in how they deliver the outcomes or improvements. This should enable DNSP to deliver the required customer outcomes at the minimum long term cost.*

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<sup>1</sup> For example definitions of 'reportable interruption' (or long interruptions) in both the USA and Europe require the duration of an interruption to be three minutes or more (five minutes in the USA) compared to Australia's one minute.

**Question 1 Analysis of NEM jurisdictional approaches to reliability**

**Should the AEMC consider any other aspects of existing NEM jurisdictional approaches to distribution reliability?**

The AEMC should consider as part of the review the definitions of the reliability measures. The definition should specify what interruptions should and should not be included. The reliability measure definitions should, as far as possible, be aligned to international definitions. The measure definitions should consider how DNSPs could improve reliability outcomes for customers.

For example, OFGEM amended the definition of a short duration interruption from one minute to three minutes to better encourage DNSPs to employ distribution automation, which should improve reliability outcomes for customers. This amendment was based on a proposal from a PB Power Report<sup>2</sup> commissioned by OFGEM which stated:

- “E. Reportable Incidents (*added ie for reporting SAIDI and SAIFI*) are redefined as all those Incidents which lead to interruptions to supply (or certain other circuit disconnections) of three minutes or longer, compared with the present threshold of one minute. This will better align reporting with European standard EN50160 and provide an incentive for system automation schemes that will speed up restoration of supply for some customers.”

**Question 2 Approach to the national workstream**

**Should the AEMC consider any other aspects in its approach to the national workstream?**

The AEMC should explore how the framework could facilitate improved customer involvement in the debate on cost versus reliability outcomes. In addition, the AEMC should consider how the reporting framework could assist customers' understanding of reliability outcomes that DSNPs are able to deliver.

**Question 3 Reliability planning**

- a) **What are the most appropriate administration arrangements for distribution reliability planning?**
- b) **What are the different approaches that could be adopted for distribution reliability planning and how could these approaches employ a proper analysis that incorporates an estimate of the value of customer reliability or willingness to pay?**

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<sup>2</sup> PB Power Report to OFGEM dated October 2000 titled “**OFGEM, INFORMATION AND INCENTIVES PROJECT, DEFINITION OF INPUT**” Doc No.: 60702A/0020 V1.0 File: Report B 021000

The Issues Paper does not describe our design planning criteria accurately. Specifically we do not employ a deterministic N-1 design planning criteria for substations with a capacity over 6.25 MVA as stated in the paper. Neither, do we employ a Victorian Probabilistic design planning criteria. We employ a risk based approach which is designed to deliver acceptable customer outcomes cost effectively.

Our risk based approach, utilises a design planning criteria using a deterministic N based criteria, whilst ensuring that a recovery solution is available to restore customers' electricity supply within an acceptable period if a creditable contingency event occurs (ie N-1 type event). As part of our risk based approach we rely on the likelihood (probability) of events to minimise the required network augmentation, we ensure by our Planning criteria that we have a recovery solution that can be implemented for all credible single contingency events within 12 hours.

For example: For a typical large, zone substation, we will ensure the peak forecasted load does not exceed the substations N rating. In addition, the peak load forecast must not exceed its emergency short term rating under contingency conditions after all possible load transfers to adjacent substations and the installation of our mobile 10MVA substations. These actions can typically be implemented within 12 hours. In practice this normally means the N rating is often the determining factor for when a substation is scheduled for augmentation.

ETSA Utilities considers that the most appropriate administrative arrangements for distribution reliability planning are to specify outcome based measures. These types of measures allow DNSPs to innovate in order to deliver the required outcomes, at the least long term cost.

#### **Question 4 Reliability standards**

- a) What are the expected costs and benefits associated with consistency in expressing reliability standards and how can locational differences between jurisdictions be accommodated?**
- b) Is there merit in having one entity regulating both reliability standards and investments and what are the possible alternatives to this approach?**
- c) What are the important elements of distribution reliability reporting and is there value in a nationally consistent approach?**

The majority of the costs associated with adopting a nationally consistent framework would be in the establishment phase. Depending on the national framework, a DNSP may initially be required to establish new processes and install new equipment to enable reporting against the reliability measures. We consider that the ongoing costs would not be material. However, depending on the measures employed in the framework the initial establishment costs may be material.

ETSA Utilities considers that within such a framework, location differences and jurisdictional differences could be accommodated by establishing DNSP-specific reliability performance levels within the framework which reflects that DNSP's historic

performance and any applicable limits that relate to differences in characteristics between jurisdictional networks.

The major benefit in one entity regulating reliability standards and investments is that the single entity should be in an improved position to evaluate and balance the cost versus benefit equation on behalf of customers.

The most important elements of distribution reliability reporting are that the measures reflect the customer experience and that they are valued by customers.

In addition, the framework should report on overall reliability performance as well as normalised performance (ie excluding certain interruptions). Targets within the framework should be established for the normalised performance.

The exclusion methodology that excludes certain interruptions, from the normalised performance must be robust, simple to understand, and not penalise or reward DNSPs for factors outside their control. In addition the exclusion methodology needs to be flexible to ensure that it works for each DNSP (eg ETSA Utilities' was permitted under the AER's STPIS to use a different transformation method to convert daily SAIDI data to determined the Major Event Day (MED) SAIDI threshold. Under the STPIS MED are excluded from the normalised reliability performance)

#### **Question 5 Incentives**

- a) What are the expected costs and benefits associated with existing jurisdictional incentive schemes for distribution reliability performance and the movement towards a more consistent approach across the NEM?**
- b) How could a nationally consistent incentive scheme for distribution reliability performance accommodate worst served customers?**
- c) What are the important considerations for GSL schemes and is there value in a nationally consistent approach?**
- d) What are the expected costs and benefits associated with customer communications?**

The NER currently requires the AER to develop a service standards incentive regime (including reliability) that provides incentives to DNSPs to improve or maintain customer service outcomes. This regime will be applied to all licensed DNSPs connected to the national grid. ETSA Utilities does not consider that the current incentive arrangements need amendment, other than if a national consistent service standard framework is developed and adopted, it should be designed to be consistent with the current AER STPIS regime.

We consider that the current regimes, as adopted by some jurisdictions, in requiring DNSPs to report on the reliability performance experienced by worst served customers are appropriate. Further, we consider that the current EScOSA regime is superior, in that it reports on the performance of high voltage feeders which exceed a specific SAIDI threshold each year for two consecutive years. The SAIDI thresholds were

established on a regional/location basis using five years of historic performance data, so that on average 5% of customers would be included in the scheme.

The scheme should only report on feeders that experience poor performance over the long term. The ESCoSA scheme highlights the DNSP's performance by reporting the percentage of customers included in the scheme with a relatively lower or higher percentage of customers indicative of an improvement or decline in performance, respectively. A DNSP's performance should be measured by the trend over many years in the percentage of customers included in the scheme, with the SAIDI thresholds being held constant.

In comparison, for other jurisdictional schemes the worst served customers are defined as a certain percentage of customers (eg 5%). Consequently, the reliability threshold changes annually so that a constant percentage (eg 5%) of customers are included in the scheme. We consider that this regime is less informative on how the DNSP is performing.

The framework could specify how the service standard targets would be developed for each DNSP and/or jurisdiction. The framework could specify a minimum standard of performance that is considered as acceptable. The minimum standard should not be measured over one year only but rather over multiple years to cater for the annual variations due to weather and other factors.

**Question 6 The meaning of a nationally consistent framework**

- a) **What should a nationally consistent framework mean, and what should it not mean?**
- b) **How should a "nationally consistent framework" be interpreted and what degree of consistency/harmonisation is appropriate?**
- c) **In the context of setting and enforcing regulatory requirements, is it appropriate for the same body (eg the AER, a jurisdictional regulator, or a jurisdictional minister) to be responsible for both setting and enforcing reliability standards and outcomes?**

As explained above the nationally consistent framework should specify the measures (and how they are defined/calculated) that will be employed for reporting in accordance with the framework. Individual DNSP targets should then be developed based on average historic performance.

ETSA Utilities considers that the most appropriate body to establish the minimum standards would be the local jurisdiction, but the jurisdictional regulator needs to be cognisant of the costs of achieving the standards, the willingness of customers to pay and the price impacts. The AER could then be charged to monitor/enforce these standards.

**Question 7 Costs and benefits of a nationally consistent framework**

**What are the expected costs and benefits of moving to a nationally consistent framework?**

It is difficult to determine the potential costs of implementing a nationally consistent framework without having detailed options of what the framework would entail that can then be costed. For example the costs to move from our SA jurisdictional Service Incentive Scheme regime (reliability standards set on regions) to the AER STPIS feeder based regime were not material. However, if for example we moved to a regime that included MAIFle<sup>3</sup> targets then the costs would be material.

**Question 8 The National Electricity Objective**

- a) How would a nationally consistent framework be likely to contribute to the achievement of the NEO?**
- b) How material are the current jurisdictional differences in reliability standards and outcomes to consumers? What impact do those differences have on consumers' locational decisions?**

In principle, we consider that provided the nationally consistent framework utilises measures that customers value, and are based on customers' willingness to pay, then it would assist in achievement of the NEO. The framework would thus ensure that DNSPs focus on the measures most valued by customers, and targets would be set on customer willingness to pay, with incentives provided to DNSPs to maintain or improve on those customer outcomes.

In addition, a nationally-consistent framework it would allow for improved performance benchmarking and tracking of customer outcomes. This should encourage DNSPs to determine methods to achieve the reliability outcomes at the least cost.

In our jurisdiction, we are unaware of customers' locational decisions being significantly influenced by reliability standards.

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<sup>3</sup> MAIFle measures a MAIFI event as one event in cases where there may be several reclose events within a specified timeframe (eg OFGEM use 3 minutes).

**Question 9 Implementation of a nationally consistent framework**

- a) **What are the important considerations in moving away from existing jurisdictional frameworks to an approach that is nationally consistent?**
- b) **What issues are likely to arise in the process of moving from existing jurisdictional frameworks to an approach that is nationally consistent and how could these best be managed or overcome?**
- c) **What implementation costs would likely to be incurred in moving to a nationally consistent framework?**

The implementation of a national framework should to be progressive to minimise the implementation costs.

Some of the issues that may arise if the framework is considerably different from the existing jurisdictional framework are:

1. The extent to which the national framework differs from the DNSP's current regime. If significantly different, the DNSP will be required at a minimum to alter its processes for recording and reporting. In addition, it may require the installation of additional equipment to enable the accurate reporting of new measures; and
2. Whether it requires creation of new historical data (ie some data will only be useable from the date of implementation) or if existing data can be accurately transformed into the new framework.

As highlighted above without some more detail on the possible frameworks or approaches it is difficult to estimate the potential costs.

If you have any queries or wish to discuss this submission please contact Mr Grant Cox on 08 8404 5012.

Yours sincerely



Sean Kelly  
GENERAL MANAGER CORPORATE SERVICES