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Review of distribution reliability outcomes and standards – AEMC Issues Paper, 28 June 2012

Jemena Electricity Networks (Vic) (**Jemena**) welcomes the opportunity to respond to the Australian Energy Market Commission's (**AEMC**) Issues Paper on the review of distribution reliability outcomes and standards.

The Issues Paper is seeking views on the scope and approach of the review. The review proposes to analyse the current jurisdictional approaches to distribution reliability and produce a draft report to the Standing Council on Energy Resources (**SCER**) in order for SCER to decide if there is merit in moving to a nationally consistent framework.

Jemena's detailed responses to the questions posed in the Issues Paper are set out in Annexure 1.

Jemena has noted a few errors in the Tables and Figures in the Issues Paper. They are set out in Annexure 2.

If there are any questions in relation to this submission, please contact me on (03) 8544 9442 or by email <u>siva.moorthy@jemena.com.au</u>.

Yours sincerely

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Siva Moorthy Manager Network Regulation and Strategy

Annexure – 1

Review of distribution reliability outcomes and standards – AEMC Issues Paper, 28 June 2012

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 has outlined in section 2.2.1 of the Issues Papers the aspects of the existing jurisdictional approaches to distribution reliability it proposes to analyse. Jemena considers they are comprehensive.

Question 2 – Approach to the national workstream Should the AEMC consider any other aspects in its approach to the national workstream?

The Issues Paper notes that the focus of this review "*is to assess the merits of having a common overarching framework for expressing, delivering, and reporting on distribution reliability outcomes, which would allow for local differences, for example to reflect local network or geographic conditions*" and that there is no intention "*to assess as part of this workstream what "level" of reliability outcomes or standards should be adopted in each jurisdiction.*"¹

Jemena considers the scope of this review is consistent with the SCER's terms of reference.

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?

As noted in the Issues Paper, enforcement of input planning standards for reliability requires the involvement of the regulator to determine the bounds within which the DNSPs are allowed to plan to meet the reliability standards. By doing so, the regulator takes responsibility for determining the level of network security or redundancy. Such an arrangement does not encourage the DNSPs to be innovative in delivering the most efficient reliability outcomes. In our view, this is not an optimal arrangement. For an optimal arrangement, Jemena believes the most appropriate administration arrangements for distribution reliability planning is to allow the DNSPs to determine the reliability planning criteria.

¹ AEMC Issues Paper – Review of distribution reliability outcomes and standards, 28 June 2012, p. 9

Jemena adopts a probabilistic approach to distribution network planning, where its reliability improvement investment decisions are based on the value of customer reliability. Jemena's approach is consistent with the probabilistic planning analysis is set out in appendix A.5.2 of the Issues Paper. In addition to the analysis described in the appendix, Jemena incorporates risk analysis and contingency planning.

It is worth noting that prior to the privatisation of the electricity distribution industry in Victoria, the deterministic (N -1) network planning policy was widespread. With increased focus on improving economic efficiency of the network, the DNSPs approach to network planning evolved from deterministic (N -1) to probabilistic. For example, instead of building zone substation redundancy to deal with network emergencies, the DNSPs found less expensive options of strengthening the network ties between zone substations to enable load transfer; undertake risk analysis of likely network outages during times of peak demand and developed contingency plans for emergency scenarios.

Jemena considers the adoption of probabilistic planning for our network has improved reliability and cost outcomes and in our case has provided a superior alternative approach to deterministic planning. That said, we believe the DNSPs should be allowed to decide the most suitable approach to network reliability planning having regard to the local network characteristics or geographic conditions. We believe such an arrangement is likely to contribute to efficient investment with respect to price and reliability of supply.

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 DNSPs generally record the causes of network outages. The DNSPs use this information to prioritise and focus their network improvements to improve their reliability performance. In our view, if the records are available on network outages, the cost to produce one or more reliability performance reports based on different exclusion criteria should not be an issue. Minor costs would be incurred through the requirement to enhance information recording system(s) for expressing the reliability standard that differs from current jurisdiction requirements; auditing the new system outcomes and providing training to key stakeholders.

Jemena supports a consistent approach to reliability performance reporting and application of common exclusion criteria as integral to achieving this goal. Jemena believes differences between jurisdictions can be accommodated by having distribution categories such as CBD, urban, short and long rural feeders. Within each category, the report may include the feeder(s) with the worst-served customers.

For meaningful comparisons of distribution reliability performances across DNSPs, in addition to aggregated performance, there needs to be disaggregated performance

reporting at jurisdictional level. In Victoria, the AER publishes annual comparative service performance reports of Victorian DNSPs. These reports include reliability performances at feeder level.

Consistent reliability standards rely on a clear definition and exclusion criteria. Local characteristics are reflected in historical performance behaviour. Setting reliability targets based on an average of 5 to 6 years of historical performance would incorporate cyclic weather behaviour and DNSP network investment changes.

Jemena considers there may be benefits in having one entity regulating both reliability standards and investments because it could enable closer coordination of reliability improvements plans and investment plans. The AER should be the entity and there needs to be a clear memorandum of understanding between each of the jurisdictional energy ministers and the AER on the level of reliability standards. Alternatively, the AER should be required to consult the jurisdictional energy minister and industry stakeholders on the level of reliability standards.

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?

Jemena considers a nationally consistent incentive scheme for distribution reliability performance for worst served customers would be a GSL payment scheme where the DNSPs are required to automatically make payments to customers.

In our view, the AER's Service Target Performance Incentive Scheme (STPIS) for DNSPs provides a nationally consistent approach and the details of the GSL scheme should be settled through the distribution price determination process.

Worst served customers should be determined by considering only unplanned and momentary outages. Planned outages relate to network augmentation, asset replacement and maintenance in order to maintain or improve network reliability.

Customer communication costs are dependent on the extent and the communication media used. For example, Jemena places information of unplanned outages (affected area and approximate time of restoration) on its website. Customers have the opportunity to subscribe to be notified via SMS of an unplanned outage and the expected supply restoration time.

This provides customers with the choice to receive outage information and to plan their activities around the outage. There is also the potential to reduce customer complaints and to reduce the load on customer call centres. In our view, different customers value communications differently. An extensive survey and study would be required to determine the cost and benefits.

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?

A nationally consistent framework should be about implementing a consistent framework for reliability standards and outcomes. It does not mean that the same level of reliability standard should be applied to all parts of a DNSP's network or that there should be harmonisations of existing jurisdictional reliability standards.

To achieve a nationally consistent framework, Jemena suggests reliance on the AER's STPIS, which provides for a consistent framework for improving and maintaining reliability performance.

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Question 7 – Costs and benefits of a nationally consistent framework What are the expected costs and benefits of moving to a nationally consistent framework?

Jemena supports further work aimed at ensuring reliability standards in separate jurisdictions are expressed transparently, predictability and consistently. For meaningful comparison of performance, it is important to understand how network characteristics are assessed and reflected in standards and outcomes. We note complete harmonisation in the expression of standards or outcomes may not be realistic, but we believe it would be useful to have greater consistency in how network characteristics are assessed and reflected in standards and outcomes.

Jemena considers distributors should be free to decide the most efficient approach to delivering higher reliability. This is because we believe delivery of reliability outcomes is likely to be efficient where investment decisions are based on the value of customer reliability or a customer willingness to pay—whereby investments are made when the cost of unserved energy is greater than the annualised cost of network improvements to deliver the reliability outcomes.

If a distributor decides to change its network planning criteria from deterministic to probabilistic, we believe the distributor will encounter additional costs. In our view, probabilistic planning requires greater analysis and should incorporate risk analysis and contingency planning—hence the additional costs.

The STPIS provides a uniform incentive structure for the development of reliability targets through the distribution price determination process—having regard to a distributor's historical performance, national benchmarks, geographical differences,

customer willingness to pay and approved capital expenditures and any other factors. After the targets are set, reporting against the reliability targets should be straightforward, where the SCADA² and Outage Management Systems (OMS) are in place to support monitoring and reporting against the targets. Those DNSPs that do not have the necessary SCADA and OMS may not be able to report against a national reporting framework.

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?

The information in the appendices of the Issues Paper indicates Victorian customers have been well served by the probabilistic planning approach and the level of government and regulatory involvement with respect to reliability standards. Jemena believes the key to efficient reliability outcomes is have a supply reliability incentive scheme (such as the STPIS) with appropriate level of incentives and allow the DNSPs to decide on the appropriate planning approach.

We believe that governments should not mandate planning approaches (e.g. probabilistic with risk based approach or deterministic) but rather they should promote reliability outcomes by setting benchmarks for CBD, urban and rural areas. If governments or regulators define reliability standards (eg, N-1, N-2 etc) then distributors are likely to propose capex programs that align to the defined standards.

Jemena believes a nationally consistent framework is likely to contribute to efficient investment with respect to price and reliability of supply – thus achieve a key objective of the NEO. The framework should be outcomes based with strong incentives to achieve reliability targets. Distributors should be encouraged to propose reliability standards that are backed up by customer's willingness to pay studies.

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?

Jemena considers the important consideration in moving to nationally consistent approach is how effect is given to the new approach. The Issues Paper notes the

² Supervisory Control And Data Acquisition

move could be achieved through "either a change to existing jurisdictional codes, referral in existing jurisdictional codes to the new standards, or abolition of the jurisdictional codes and replacement with a common instrument in which the new distribution standards are specified."³

Other variants that Jemena considers worthy of further exploration include abolition of the jurisdictional codes, and in its place provide for a memorandum of understanding between each of the jurisdictional energy ministers and the AER on the level of reliability standards; or the AER be required to consult the jurisdictional energy minister and industry stakeholders on the level of reliability standards during the distribution price determination process.

The key issues that are likely to arise by moving to a nationally consistent framework from the existing jurisdictional frameworks are associated with the impacts on committed investment plans and future capital and operational programs. If there is to be a change, it should be transitioned at the commencement of a new regulatory period. That way, all stakeholders will be consulted through the distribution price determination process on the reliability standards, targets, incentive mechanism design, timeframes and other necessary details required to achieve the targets.

³ AEMC Review of Distribution Reliability Outcomes and Standards, p. 46

Annexure 2

Errors in the Issues Paper

Page 25, Victoria: The 'AER STPIS revenue at risk' column should also include a +/- 0.5% cap for a telephone answering customer service parameter.

Page 25, Victoria: The 'Qualifying services for guaranteed service level (GSL) payments' column should note payments are based on exceeding thresholds of annual number of interruptions experienced by a customer (sustained or momentary) and annual aggregate duration of interruptions experienced by a customer. Payments have never been based on SAIDI and SAIFI targets.

Page 27, Figure 3.1 & Page 87, Table A.24: Figure 3.1, SAIDI chart for Victorian DNSP's and Table A.24 – 'Average duration of unplanned interruptions' column have been populated with CAIDI data instead of SAIDI data. SAIDI is the average duration of unplanned interruptions per customer. Jemena's 2010 reported result for SAIDI was 62.0 against the 2010 target of 75.2 which was 18% better than target.

Page 27, 3rd bullet point notes 'Victoria are outperforming on SAIFI but underperforming on SAIDI', which we believe is incorrect.

Page 85, Table A.22 heading: Victorian GSL payments for SAIDI targets duration of interruptions per year.

Page 85, Table A.23 heading: Victorian GSL payments for SAIFI targets frequency of interruptions per year.

Page 85, Listed exclusions should also include "MED⁴ where daily SAIFI exceeds the threshold (1.2 for Jemena)".

Page 86, 1st paragraph "The maximum revenue at risk for all Victorian DNSPs..." should also have noted "within this revenue at risk, there will be a cap of +/-0.5 per cent for a telephone answer customer service parameter."

⁴ Major Event Days