AUSTRALIAN ENERGY REGULATOR

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13 August 2012

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr Pierce

Review of Distribution Reliability Outcomes and Standards – National Workstream

Thank you for the opportunity to provide a response to the national workstream issues paper issued by the Australian Energy Market Commission (AEMC) as part of its review of distribution reliability outcomes and standards. Please find the AER's submission attached.

As foreshadowed in our submission on the NSW workstream draft report, the AER supports a consistent national framework for distribution reliability standards and considers that the form of such a standard is an important issue for consideration in the national workstream.

The AER has focused this submission on the effect that a consistent national framework for distribution reliability standards could be expected to have on the economic regulation process.

If you or your staff would like to discuss the issues raised in this submission, please contact either myself on 03 9290 1422 or Adrian Russell on 02 6243 1032.

Yours sincerely

Andrew Reeves

Chairman

Review of distribution reliability outcomes and standards — national workstream issues paper

AER submission

August 2012

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1 Introduction

The AER considers that there are significant benefits to be achieved as a result of moving towards a consistent national framework for distribution reliability standards. These benefits arise from developing reliability standards that are economically based and appropriately reflect the communities' willingness to pay.

In preparing this submission the AER has focussed on the issues on which it is best qualified to comment – in particular, the effect that a consistent national framework for distribution reliability standards could be expected to have on the economic regulation process.

The AEMC's focus, at this stage, is to assess the merits of a nationally consistent approach to setting distribution reliability standards. The form of any such standard will be the focus of a later stage in the review process. The AER agrees that there are many important issues to be considered prior to forming a view on a best practice model for setting distribution reliability standards.

Accordingly, this submission does not include detailed comments on the form of any nationally consistent standards. However, it sets out the AER's preliminary views on the distribution planning framework (and in particular the importance of involving consumers), the implications for DNSP incentive schemes and the meaning of the term "consistent national framework".

2 Benefits arising from a consistent national framework

The AER considers that there are significant benefits to be achieved as a result of moving towards a consistent national framework for distribution reliability standards. These benefits arise from:

- having a consistent reporting framework, and
- developing reliability standards that are economically based and appropriately reflect the communities' willingness to pay.

2.1 Having a consistent framework

The AEMC's issues paper correctly identifies a range of benefits that are likely to arise as a result of a shift to a consistent national framework for distribution reliability standards. This submission focuses on the issues that are directly related to the activities of the AER.

2.1.1 Improvements to economic regulation of revenues and prices

The AER considers that there are significant benefits associated with having a consistent framework that allows the AER to make comparisons between DNSPs. Consistency in reliability standards — to the extent appropriate, given differing user requirements — provides benefits in terms of economic regulation.

If DNSPs are working towards reliability targets that are assessed on a consistent basis for consideration of costs and benefits, the AER is better able to make comparisons between cost forecasts and identify discrepancies. For instance, if one DNSP's view of the level of investment required in order to meet a given reliability target is significantly higher, taking account of the network circumstances, than the level of investment required by other DNSPs, the AER would examine the apparent discrepancy in more detail.

Benchmarking inevitably needs to account for the differing characteristics of each network, however, removing unnecessary differences will improve the AER's ability to make comparisons between DNSPs. In turn, better benchmarking improves the AER's ability to determine an efficient estimate of forecast costs.

2.1.2 Improvements to DNSP incentives

Separate from the economic regulation process, a consistent national framework for reporting against reliability standards has the potential to create incentives for DNSPs to improve their performance. These benefits arise when it is possible to measure and report on the extent to which each DNSP is meeting its reliability targets, taking into account the differences between networks.

Regulated businesses are typically sensitive about public reporting of their performance and often point to differences in underlying characteristics to argue that comparative reporting is not very meaningful. In this context, differences in reliability approaches can be a further source of concern for such reporting. The AER is now publishing the performance of DNSPs

relative to their peers as part of a NEM-wide electricity distribution performance report. This is intended, amongst other things to create incentives for DNSPs to improve their performance, particularly for under-performing DNSPs. Similarly, comparative information is also valuable for consumer groups wishing to assess the performance of their local DNSP. By using a consistent reliability framework, such comparisons will be enhanced.

2.2 Developing reliability standards

The AER supports reforms that move the Australian regulatory environment towards a more outputs-based regime.[1] The current regulatory framework remunerates NSPs on the basis of inputs. Ultimately, a regulatory regime that rewards NSPs for delivering services valued by consumers is clearly preferable to a regime that rewards NSPs for building assets.

An outputs based regime gives DNSPs the opportunity to make the necessary decisions to deliver required reliability outputs in the most efficient manner, without needing to conform to prescriptive (and potentially inefficient) rules about how those targets should be met. In contrast, deterministic standards are a clear example of the current asset oriented approach.

The effect of deterministic standards (particularly as applied in NSW) can be to force the AER to accept an investment proposal, even if the economic merit of doing so is not readily demonstrated. Deterministic standards also make it necessary for DNSPs to augment their network at an earlier date than that which an outputs based approach would produce. This has direct consequences for the level of augmentation capex approved by the AER during the regulatory determination process.

Advocates of deterministic reliability standards argue that a deterministic approach is preferable because it is straightforward and transparent. The AER acknowledges that deterministic standards are relatively straightforward to apply, however, there is a high risk this simplicity is achieved via systematic over-building. In this instance, the benefits of simplicity do not outweigh the costs.

Box 1 (next page) explains how reliability standards influence the augmentation capex allowances approved by the AER as part of the regulatory determination process. In practice, the AER has found that output based standards lead to smaller augmentation capex programs without adversely affecting reliability outcomes.

[1] See for instance, AER submission to the Transmission Frameworks Review Issues Paper, September 2010, section 2.3.

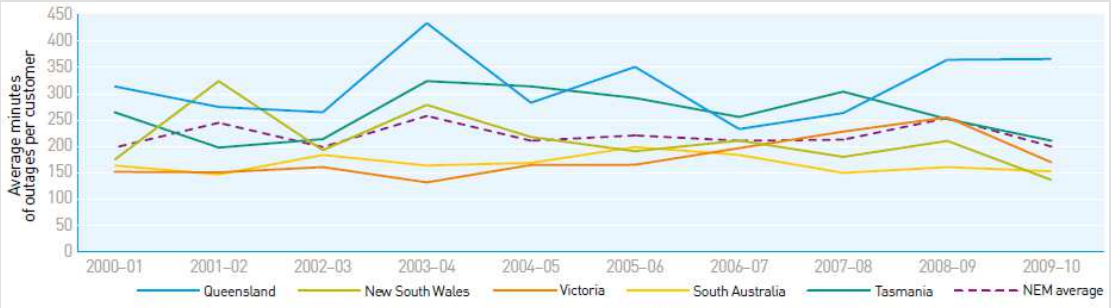
Box 1: Example of the benefits of output based standards

The AER has developed an augmentation capex tool (augex model) for use in future regulatory assessments. The tool is undergoing final refinement and calibration before it is adopted in future assessments. This process will involve the NSW distribution businesses and other interested parties (such as other DNSPs) as the AER will be looking to progressively implement this tool over time. The tool evaluates whether a proposed network investment is economically justified by assessing the expected asset utilisation. The key to the augex model is establishing the threshold above which the augmentation of major assets is justified (the 'bright line' threshold). This threshold varies depending on the reliability standard that applies to the DNSP. Under the augex model, the AER applies the bright line threshold to DNSPs' augmentation capex forecasts and then undertakes further analysis to assess whether there are underlying factors to explain any discrepancy.

Under an N-1 deterministic standard, the 'bright line' threshold above which augmentation is justified is where expected asset utilisation is notionally 50 per cent. Under an N-2 deterministic standard, the threshold is notionally 33 per cent. In Victoria, based on their economic test framework, the corresponding number for N-1 is expected to be closer to 60-70 per cent or more depending on the degree of preparation of each distribution business for managing outage events.

Other things being equal, the outputs-based Victorian approach gives rise to smaller augex programmes (and hence lower costs) than the approach adopted in NSW. Yet the evidence to date suggests that the outputs-based economic approach has not led to worse reliability outcomes for Victorian consumers. Historical data indicates that Victorian DNSPs, operating under financial incentives for network performance, have generally achieved good reliability outcomes relative to the NEM as a whole. For example, Figure 1 below highlights that average minutes of supply interruptions per customer in Victoria has been less than the NEM average in most years over the past decade.

Figure 1: System Average Interruption Duration Index (SAIDI) Performance



Note: The data reflect total outages experienced by distribution customers, including outages resulting from issues in the generation and transmission sectors.

Source: AER, State of the Energy Market 2011, p10.

Further information on relative distribution reliability performance is available in the AER's State of the Energy Market 2011 report[2].

[2] AER, *State of the Energy Market 2011*, p67-69.

3 Form of the national framework for distribution reliability standards

The AER notes that the development of a best practice approach to determining distribution reliability standards is a matter to be considered during a subsequent stage of the AEMC's review process. It will only be necessary to conduct this stage if the merit of a nationally consistent approach is established.

Accordingly, the AER offers only limited comments on the most appropriate form of the national framework for distribution reliability standards. We intend to set out more detailed views once we have had an opportunity to reflect on views expressed as part of the AEMC's consultation process.

This section submits comments in relation to the arrangements for distribution reliability planning, the national incentive scheme arrangements and the meaning of a "consistent national framework".

3.1 Arrangements for distribution reliability planning

Distribution reliability standards should reflect consumer willingness to pay for reliability. Ultimately, it is important that consumers make the decision on the level of reliability that they are prepared to fund through electricity prices.

3.1.1 Empowering consumers to express their preferences

Value of customer reliability or willingness to pay (VCR/WTP) studies illuminate the value of an investment from a customer perspective. These studies have the potential to make an extremely useful contribution to the regulatory determination process.

The AER endorses the following high level principles in relation to VCR/WTP:

- the studies ought to be conducted in accordance with a consistent national framework
- the studies ought to be conducted either independently of the DNSPs (including the owners of DNSPs) or in accordance with guidelines which are developed independently of DNSPs.

The AER also supports administrative arrangements that allow VCR/WTP studies to be undertaken using a timetable that complements the regulatory determination process.

VCR/WTP is a concept which cannot be readily tested by reference to objective evidence. If applied as part of an economic planning methodology, the level of VCR/WTP also has significant financial implications for DNSPs and consumers. Accordingly, it is important that the arrangements for determining the level of VCR/WTP are robust and inspire confidence in both DNSPs and consumers, whilst limiting the potential for opportunistic challenge.

The AER also notes that a model which involves greater use of VCR/WTP would provide benefits in terms of the Service Target Performance Incentive Scheme, since it would help the AER to refine scheme parameters to reflect consumer preferences.

3.1.2 Incorporating reliability into the economic evaluation framework

The AEMC is in the process of consulting on a draft Rule that would introduce a regulatory investment test for distribution (RIT-D) to replace the current regulatory test. The draft Rule, as currently proposed, provides that new network investments with negative net economic benefits may satisfy the test if the investment is required to meet relevant reliability standards.[3]

The AEMC should consider amending these arrangements such that only investments with positive net economic benefits are justified, taking into account the cost of the investment in the context of the value of customer reliability (VCR) and the probability of unserved load. If this approach is adopted, the VCR would be critical to the process for justifying new network expenditure. Accordingly, it would be necessary to ensure that objective criteria and an impartial process is used to determine the VCR (see previous section).

As part of this assessment, it is also important to identify the level of subsidy implicit in setting standards for those regions with high costs to serve, and the communities' willingness to pay.

3.1.3 Should a single entity set standards and determine investments?

The AER agrees that there are significant advantages associated with having a single independent entity able to assess the benefits of a given investment in terms of reliability and its cost. The alternative entails that reliability standards are determined using a separate process which might not fully take into account the consequences of the decision. In addition, there is scope for perverse incentives if standards are set by DNSPs or their owners.

However, an approach which relies on a single entity to set standards and determine investments has the potential to give rise to questions of accountability, particularly if the entity making the decision is an unelected regulatory or technical organisation. To address this, we support measures which, so far as possible, empower consumers to express their preferences with regard to cost vs reliability, allow the community to express its views on social and economic objectives, and enables DNSPs to respond flexibly to these requirements.

3.2 National incentive scheme arrangements

The AER notes that it is progressively applying the national Service Target Performance Incentive Scheme (STPIS) to DNSPs in each jurisdiction. The STPIS now applies in all jurisdictions in the NEM except in NSW/ACT. It is expected to be applied in the next NSW/ACT regulatory determination from 2014. The application of a national incentive scheme for distribution reliability would provide greater scope for comparisons between DNSPs. It should be noted that the STPIS is designed to only reward sustained reliability improvements. DNSPs are required to return their rewards under the scheme should their performance deteriorate in subsequent periods.

[3] AEMC, *Draft National Electricity Amendment (Distribution Network Planning and Expansion Framework) Rule 2012*, June 2012, Section 5.17.1(b)

The STPIS uses the historical Victorian VCR value to determine the incentive rates. The AER notes that AEMO has recently refined the VCR value for Victoria as well as assessing the VCR for other jurisdictions; and AEMC has also undertaken a separate study for the VCR for NSW.

The issues paper notes that incentive schemes, including the STPIS, may not deal with all issues concerning reliability given that, at least in their current form, they focus on an average measure of reliability. It therefore asks how such schemes can accommodate worst served customers. First, it should be noted that incentive schemes of this type may not be the most effective way to address concerns with worst served customers. Another option is to also have separately designed schemes which are tailored to improve reliability of worst served customers, where this is justified under the relevant NER criteria for service incentive schemes. At the present time, it is more commonly the role of guaranteed service level (GSL) schemes which operate as a complementary component of the STPIS, to address the circumstances of such customers, as well as performance reporting on individual network feeders, which allows some level of transparency on how networks are serving these customers. Further, while the GSL payments of the AER's STPIS and the corresponding jurisdictional schemes provide some level of compensation to the worst served customers, the level of GSL payments may not necessarily reflect on the needs and willingness to pay of all such customers. A suitable willingness to pay study regarding the worst served customers would inform on future adjustment of the GSL payment elements as well as the networks' planning approach.

The AER has not attempted to duplicate the reporting of jurisdictional regulators on reliability outcomes. At this stage in the consultation process, we do not hold views on which reliability measures ought to be included in a nationally consistent reliability reporting regime.

3.3 What should "consistent national framework" mean?

The AER supports the development of a national framework which is capable of accommodating each network's unique characteristics, for instance, by differentiating between rural, urban and CBD networks. DNSPs within the NEM do not differ so radically as to preclude classification using a consistent set of definitions. However, the composition of the networks (for instance, the proportion of a DNSP's network which should be treated as rural) differs significantly.

Similarly, output standards should utilise a single consistent set of definitions, even though the targets that apply are likely to vary between different parts of the network.

The local reliability targets should reflect the local value of customer reliability and costs to serve. It seems unlikely that consumer preferences vary on the basis of which jurisdiction the consumer happens to be located in. Rather, preferences are likely to depend on the type of consumer (for instance, whether they are a domestic consumer or an industrial business) and costs are influenced by their location on the network (remote customers should not expect the same reliability standards as CBD customers). However, given that there have been few VCR/WTP studies in the NEM to date and few studies of costs taking account of network operating conditions, these issues require further research. Further evidence of this kind will inform the AER on whether a given network class should be subject to the same reliability target, regardless of jurisdiction.