Major Energy Users Inc.

1 May 2013

The Commissioners
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Sirs

National framework for transmission reliability – issues paper

Major Energy Users (MEU) comprises more than 20 large energy users operating in all states and territories, with affiliated representative groups based in Victoria, NSW, SA, WA and the NT.

In previous responses to the AEMC regarding its reviews on NSW distribution reliability and national distribution reliability, the MEU pointed out that those reviews (as is this one) are being undertaken in an environment where electricity prices are rising significantly through, amongst other things, regulated network charges and government sponsored renewable energy costs. The massive increases in network charges have not been accompanied by a similar rise in reliability of the networks.

The MEU considers that one of the contributors to the large rise in network costs has been the imposition of unnecessary input reliability standards that have been mandated by jurisdictions without having the full understanding of the cost implications of the decisions they have made.

Additionally, despite the rises in network costs, there has been little understanding of what consumers are willing to pay for the increased reliability (if any) they see as a result of the imposition of these mandated input standards. What has been seen is a "blame game" as to why costs have increased by so much. Consumers blame the TNSPs, TNSPs blame the AER and the jurisdictions, the AER blames the rules and the mandated standards, jurisdictions blame the AER, and so on. The rules have now been changed but jurisdictions are still mandating input standards, yet little has been done to assess the willingness (or even the ability of consumers) to pay for increased or even the current level of reliability.

These points is needs to be kept "top of mind" as the AEMC carries out this review

We have reviewed the AEMC issues paper in regard to the request from SCER to the AEMC to review the national framework for transmission reliability. In relation to this request for input, the MEU would comment as follows.

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1. The need for a national approach

The MEU considers that having three different approaches to establish the transmission network reliability is not in keeping with the drive for a national electricity market. Having different approaches in different regions of the NEM is simply not efficient.

The National Electricity Objective (NEO) requires the market to operate in the long term interests of consumers. As the NEO is written to be assessed in economic terms, then the efficiency of each approach must be assessed. Unless all three approaches are identical, then one of the approaches will be more efficient than the others, implying that the others do not fully comply with the NEO.

The AEMC has to carry out an efficiency assessment of each approach to identify which one is the most efficient.

The MEU does not have the data or the resources to provide a view on which is the most efficient but does observe that in Victoria it appears that the least amount of augmentation has been identified as being required. Whether this is a result of excess capacity being available from previous years or due to the approach used by AEMO, the MEU is unable to comment, but we consider that this outcome provides a guide to the necessary assessment discussed above.

2. Input measures or output measures

The MEU notes that each approach discussed uses an N-x approach to redundancy being applied to transmission reliability as an input measure. On the other hand, the AER which sets output measures as part of the regulatory bargain against which performance of the TNSP is rewarded or penalized using output measures that cover a range of indicators, from network availability to minimizing congestion.

In its review of distribution reliability, the AEMC identified (rightly in the view of the MEU) that consumers are exposed to the outputs of the network performance and that this is what is important to them, as it allows them to assess the value of reliability against the costs they incur. The value to consumers of using input measures is difficult to interpret yet there are significant costs when implementing these input measures. The value for money against input measures is difficult to assess, whereas assessing the value for money against output measures is much more direct.

Mandating input measures is intrusive and suffers from not necessarily identifying the most efficient approach to providing the service performance consumers want for the money they pay. Further, setting input measures does not utilize the expertise of TNSPs in delivering value to consumers for the reliability they provide. In contrast, setting output measures allows a TNSP to use its capabilities to the full to optimize the cost versus reliability sought.

As all three approaches use input reliability measures, the MEU does not consider any of them provides a demonstration the most efficient outcome for consumers will be delivered.

3. The regulatory approach for energy is an incentive regime

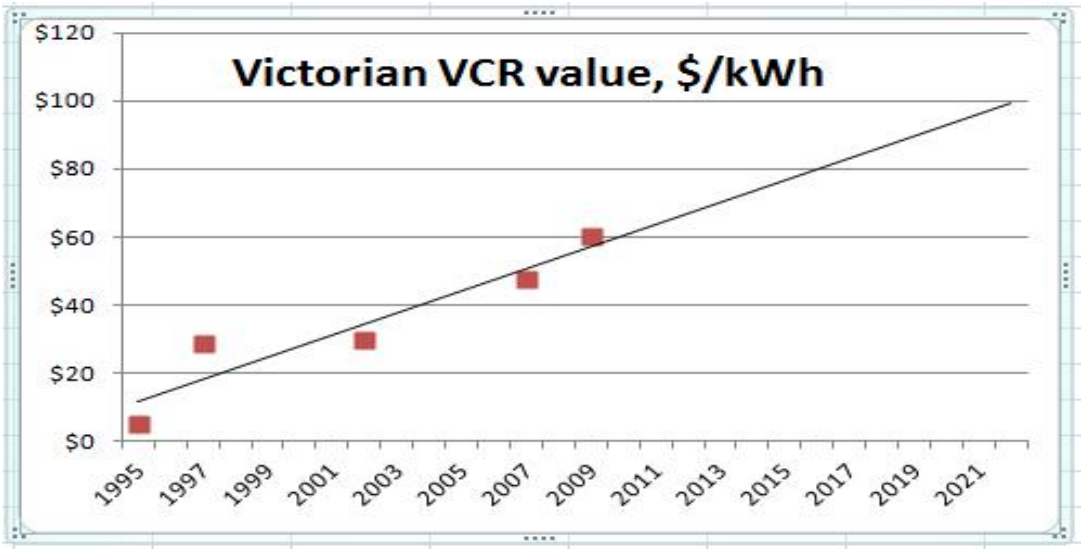
The AER has established an incentive regime – the Service Target Incentive Scheme (STPIS) – to provide a financial incentive to TNSPs to achieve improving service performance for transmission networks. Mandating input standards impacts on the STPIS outcomes can thereby detract from its effectiveness as an incentive scheme.

The MEU questions why there is a need for both mandated input measures as well as an incentive scheme to improve output measures. At the fundamental level, the two are not complementary and detract from the core responsibility TNSPs should have for end users under the NEO – of providing an efficient service that balances service with cost.

The MEU considers that TNSPs should be incentivised to improve their reliability of service rather than have standards imposed on them. This then allows the TNSPs to identify and implement the most efficient approach to ensuring reliability.

4. The value of customer reliability and willingness to pay

AEMO has introduced the concept of the value of customer reliability (VCR) and has calculated a number of these values over time. This is shown in the following chart.



Source: VENCorp and AEMO data

A major concern the MEU has with the AEMO assessment of VCR is that it has changed dramatically over a relative short period of time, well above inflation, which implies that the calculation has significant errors embedded in its development.

In contrast international assessed measures for VCR generally show that much lower values are used as the following chart developed by AEMO[1] indicates.

Table 3 Comparative estimates of the VCR (2009 AUD/kWh)

Region	Sectors	Source	Original Value	Year	AUD/kWh
Sweden	Residential	Carlsson and Martinsson (2008)	kr 61.16	2004	13.00
Chile	Industrial	Serra and Fierro (1997)	$US 0.22	1989	0.49
Indian States	Industrial	TERI (2001)	Rs 24.71	2001	1.35
Thailand	All	ERI (2001)	60 Baht	2000	3.22
France	All	Gouni and Torrion (1988)	$US 3.60	1988	7.96
NE USA	All	ICF Consulting (2004)	$US 4.11	1977	15.84
Netherlands	All	de Nooji et al. (2007)	€ 8.56	2001	17.98
Great Britain	All	Redpoint Energy and Energy Strategies (2007)	£ 10.00	2006	26.09
Ontario	All	Bhavaraju (2004)	$US 10.00	1980	33.00
NW USA	All	Bhavaraju (2004)	$US 16.93	1990	36.57
Ontario	All	Wacker and Billington (1989)	$US 17.00	1989	37.58
USA	All	Sullivan (2009)	$US 33.01[7]	2008	37.63
Ireland	All	Tol (2007)	€ 40.00	2005	76.39

Notwithstanding the apparent inconsistencies for the actual values used for customer reliability, the concept of assessing VCR as an assessment tool for augmenting a network for improved reliability is sound.

Despite this “in principle” support for using VCR, the MEU notes that VCR is not a surrogate for willingness to pay (WTP). In this regard, if the cost for a network service is already seen as unnecessarily inflated (as most consumers consider at the moment) even if a VCR indicated a need for augmentation to improve reliability, there is no certainty that consumers would be willing to pay for the augmentation because costs are already too high.

The MEU considers that the VCR approach, in principle, provides a sound basis for assessing reliability but that the current approaches use for calculating the measure would appear to be flawed.

5. MEU observations

The MEU notes the AEMC is seeking input about:

- Flexibility to approach. The MEU considers that a national market should have consistent rules and that there should not be variation between regions of the NEM, recognizing there are exogenous differences between regions (eg storm, flood, climate and topographical factors)
- Consistent reliability standards. Whilst consistency of the actual standards is a laudable goal, the MEU recognises that each TNSP has unique features and is at different levels of development. This means that there will, perforce, be different levels of reliability in each region. The AER recognises this by setting different service standards in the STPIS applying to each TNSP

[1] AEMO, Value of customer reliability, issues paper, version 1.3, 20 June 2011

- Determining standards. Consumers assess the service they receive in terms of output standards and do not see a direct outcome from the input standards currently mandated. This means that reliability should be established in terms of output standards so that consumers can assess the reliability they receive in terms of the costs they pay. This means that input standards should be eliminated in favour of output standards.
- Efficiency of standards. Mandating input standards must be carried out in the absence of all the costs that that will be incurred **in relation to the output achieved**. Only the TNSP can properly identify the most efficient method to achieve an output standard. Imposing an incentive scheme to achieve output standards will deliver, over the long term, the most efficient outcome for consumers.
- Governance. Jurisdictions should not be involved in setting input standards[2]. At most they should have, like any other stakeholder, an ability to influence the level of reliability standards considered necessary for their region just as they do for all other aspects of the regulatory bargain struck under the auspices of the AER.
- Accountability. TNSPs are accountable for the achievement of the output measures and are rewarded/penalized in relation to their performance against the standards. If there is a harmonization of the various incentives provided to TNSPs so that they are indifferent to the source of their reward/penalty comes from (eg the penalty for overspend on capex for improved reliability is the same for the reward for overachievement of that reliability) then the AER incentives will provide adequate controls of output reliability. Effectively this means that the AER has the responsibility to ensure that appropriate levels of reliability are achieved for the cost of the service provided.
- Reporting. The AER already measures reliability outputs. It is more difficult to measure the reliability inputs, and this raises a number of issues (eg what penalty should be applied if an input measure is not implemented but there is no harm to consumers? what penalty should be incurred if consumers are harmed? how long could a TNSP be allowed to be non-compliant?).

We trust the foregoing is useful to the AEMC but should there be queries about the issues raised, please address these to the undersigned at (03) 5962 3225 or preferably to davidheadberry@bigpond.com

Yours faithfully

David Headberry
A/g Public Officer

[2] The MEU notes that there is a poor history in this regard where unnecessary costs have been incurred as a result of setting input standards too high