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Dr John Tamblyn
Chairman
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Dear Dr Tamblyn

EMO0010 – Review of the Effectiveness of NEM Security and Reliability Arrangements in light of Extreme Weather Events

Alinta Energy Limited (AEL) recognises the political imperative of the Ministerial Council on Energy's (MCE) reference to the Australian Energy Market Commission (AEMC) to examine the robustness of the NEM's security and reliability arrangements in light of extreme weather events. Extreme weather events are by definition, often unforeseeable, and in the majority of instances have significant consequences often across all facets of life.

The MCE's reference to the AEMC looks to examine the likely impact of droughts, heat waves, storms, floods and bushfires on current arrangements for maintaining the security and reliability of supply, and where possible examine cost effective options to improve the effectiveness of existing arrangements. AEL notes that in December 2009, the AEMC's Reliability Panel Draft Report Reviewing the Reliability Settings in the NEM made the following key observations relevant to this AEMC review:

- events of the 29 and 31 January 2009 in Victoria and South Australia where a lack of electricity supply resulted in widespread load shedding was attributable to the reliability of transmission networks – that is there was sufficient generation capacity but not enough physical routes to market or as depicted by the AEMC 'security events'
- left the operation of 'acts of god' within the reliability standard unchanged or excluded for the purposes of setting the reliability standard on the basis that its inclusion would require an increase in the MPC and the USE to accommodate.

From AEL's perspective these 'findings' have clear policy implications for the MCE and the AEMC, and we consider that the AEMC's and the MCE's focus on changing the current setting of the reliability standard as a response to the likelihood of increased extreme weather events is mis-directed[1] and likely to represent the least effective mechanism – in terms of cost, and more importantly in actually achieving a more reliable and secure electricity supply chain.

[1] We are particularly concerned that based on the AEMC's first report finding that 90% of customer interruptions being caused by network matters, the MCE's second direction to the AEMC required the further examination of improving the reliability of generation, which based on the AEMC's analysis for the first report are found to be the cause of 10% of customer interruptions.

In the first instance, AEL suggests that the AEMC examine the likely merits, based on expected incremental gains to market efficiency, by improving the performance of transmission and distribution networks with regard to system security and reliability. The AEMC's own analysis of the causes of interruptions to consumers continually identifies 'security events' as being the dominant cause, where security event is defined to be:

> "*...due to the unplanned service interruption of power system equipment (such as fires or storms tripping a transmission (or distribution) line from service).*"

Despite this finding the AEMC concludes that there is insufficient time to consider the required technical standard response to address system security events occurring in electricity networks indicating that these matters will be considered as part of the Reliability Panel's Comprehensive Technical Standards Review. AEL does not support this approach. Instead it is suggested that the first crucial step for the AEMC would be ascertain the links between each jurisdictions planning standard[2] and actual performance in terms of network security and reliability events interrupting electricity supply.

It is important to note that in simple terms that the transmission reliability standards across jurisdictions can be broadly categorised into:

- a deterministic planning standard – technically set at the N – 1 or N – 2 level which practically operates on the basis where forecast demand grows beyond a technical capacity rating it 'signals' to the TNSP to 'invest'
- a probabilistic planning standard – technical assessment of capacity need but balanced by examining costs and benefits including valuing probability adjusted customer interruptions.

Conceptually, the AEMC review of technical standards could test the hypothesis – that probabilistic based planning standards perform better than deterministic planning standards when measured on frequency, duration and estimated loss value of customer interruptions from breaches of system security or reliability. AEL suggests that the findings from this analysis would provide the necessary information for the MCE to consider the merits of harmonising network planning standards[3], which would seem a reasonable next step in the development of the NEM, particularly, given the establishment of AEMO and its new role in developing the National Transmission Development Plan.

AEL does not support any amendments to the existing reliability settings to accommodate what are 'acts of god'. From AEL's perspective adjusting the USE or the MPC to take account of an increase in the frequency of extreme events is likely to distort the energy only NEM, and based on the Reliability Panel and the AEMC's findings may not have any impact on system security events – given the finding that the cause of the events are dominated by network related performance and the not whether there has been sufficient generation capacity to supply electricity demand. Moreover, to adjust USE and MPC to address

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2 Australian Energy Market Operator (AEMO) 2009 *National Transmission Statement*, pages 5-32, 5-33 provides an excellent overview of each jurisdictions transmission planning standards.

3 Network planning standards when set in legislation and explicit represent a 'reason' to make a network investment. If the obligation to invest is legal then providing it is prudent and efficient then it passes the RIT-T (on meeting reliability or security standards) and be approved by the AER to be rolled into the asset base and recovered through network charges.

more frequent 'acts of god' would increase systematic risk associated with forecast error, both in terms of probability and impact.

AEL suggests that over-time market participant's internal analysis, associated with maximising profits, and minimising risks to earnings, would take account of the impacts of changing patterns of extreme weather events on performance. AEL maintains that as a gradual process dependent on individual participants' decision making it would represent a less costly alternative to the suggested approach of amending the reliability settings to take account of extreme weather events.

The AEL considers that the current institutional arrangements for setting the reliability standard are adequate and robust. The incentives and policy tension between the Reliability Panel, and the AEMC, provides for a robust process to consider what are technically complex issues. To overlay a further degree of regulatory prescription, in the form of an MCE Statement of Policy Principles, represents a form of regulatory creep, particularly in light of the AEMC and Reliability Panel's finding that the dominant cause of supply interruptions are security events largely located in electricity networks.

Should you wish to discuss the contents of this submission further please contact James Reynolds, National Manager Regulation and Market Development on 07 3011 7646.

Yours sincerely

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