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Mr Neville Henderson
Chairman
Reliability Panel
Australian Energy Market Commission (AEMC)
PO Box A2449
Sydney South NSW 1235

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Dear Mr Henderson,

AEMC – Reliability Panel – Draft Report on the Reliability Standard & Settings Review (23 December 2009)

In December 2009, the Reliability Panel released its draft report on the Reliability Standard and Settings Report. The Reliability Panel draft report canvasses a number of options to amend the reliability standard and settings from the 2012/13 financial year. In summary, the Reliability Panel is seeking participant comments on:

- leaving the current reliability standard of achieving the un-served energy (USE) of 0.002%
- leaving the current method and process for maintaining and monitoring of the USE as per the current process, that is achievement of the USE on a year by year basis by NEM region
- the merits of increasing the Maximum Price Cap (MPC), and Cumulative Price Threshold (CPT) to more accurately reflect the revenue required from a peak generator built to address the USE of:
    - an increase to $16,000/MWh for MPC from 2012/13
    - an increase to the $240,000 for the CPT from 2012/13
- the keeping of the current scope of "acts of god"
- retention of the Market Price Floor (MPF) of negative $1,000/MWh.

It is acknowledged that the Reliability Panel (RP) has not made any recommendations, and expects to take into account the ROAM Consulting study and market opinions as part of its deliberations.

Alinta Energy Limited (AEL) welcomes the RP's draft report, and generally, supports the RP making a recommendation to the AEMC to increase the MPC to $16,000/MWh, while retaining the USE at 0.002% from 2012/13. AEL considers that the RP's primary responsibility is to determine whether the USE, and MPC is set to ensure reliable capacity or reliable Demand Side Participation (DSP) arrives in time to meet the USE.

This is best achieved by the least cost of a reliable generation technology. In the NEM, this is an Open Cycle Gas Turbine (OCGT) screaming into production to service the marginal MW at a price, which allows the owner of the OCGT to recover its efficient costs of operation, including an appropriate risk adjusted return on invested capital. Given that these events are rare, and at the margin, the MW must be valued at a significant value.

Market scenarios are important to estimate the likely risk of the USE gap, which determines the OCGT's capacity factor and how much time the OCGT would be expected to operate to recover its costs. Critically, while there are other market factors, such as transmission congestion, "strategic bidding", and the impact of the reliability of other power stations, which may increase an OCGT's capacity factor, however, for the purposes of valuing the marginal MW for the purposes of achieving the USE they are 'irrelevant'. And more importantly, the impact of these 'market' or market design risks can be managed at a price (it is debatable whether transmission congestion can be managed – AEL considers that this is an important issue but unfortunately beyond the RP's scope).

The other factors outlined above, are relevant to a market participant making a "commercial investment decisions". However, the RP's role is to examine investment incentives to supply the marginal MW to meet the USE which is a key policy parameter for the energy only NEM. Taking commercial factors into account increases the likelihood that the MPC is set below a level that ensures that the USE is met.

Importantly, as the NEM faces its first asset replacement cycle for generation, along with substantive regulatory change in the form of the expanded RET and potentially a price on carbon emissions[1], it is critical that the marginal MW is set a level that incentivises OCGT investment.

There has been substantive discussion around the ROAM Consulting study, particularly, the study's assumptions and the method of 'taking out' existing generators to 'force' a USE constraint to bind in order to solve for the right MPC. Modelling studies are complex, and in hindsight, almost always found to be incorrect – in time the ROAM Consulting study will share the same fate.

Despite these limitations, and those noted by other participants, the ROAM Consulting study is a sound basis to consider the USE and the MPC as it focuses on observable variables to value MPC:

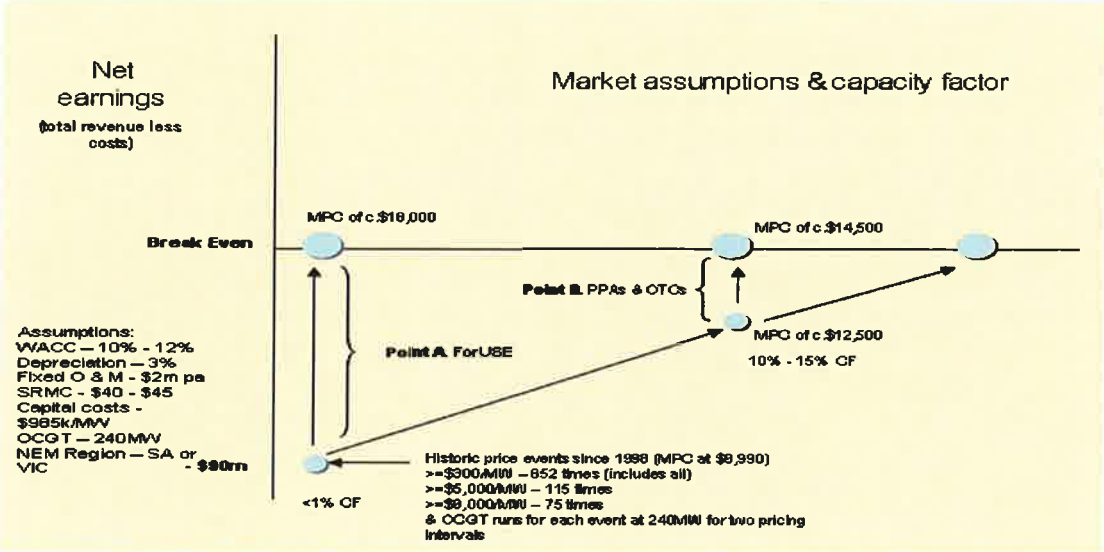
- the capital costs of an OCGT – which have increased by 22%
- the time value of money – which have increased, and AEL suggests the use of WACC between 10% to 12% compared to the 6.5% adopted by ROAM Consulting
- interconnector operations
- historic capacity factors
- historic generator bidding patterns.

It is difficult to envision a modelling study for the purposes of determining the USE and MPC that also took into account: forecast strategic bidding patterns; the impact of transmission congestion events; and financial outcomes from over the counter trading arrangements.

AEL's own analysis of the 'right' level of MPC found that a range from $14,000/MWh and above (oscillates between $14,000/MWh and $20,000/MWh) would provide sufficient revenue to support an investment in an OCGT. Figure 1 illustrates the findings from our analysis.

[1] All things being the same – the expanded RET is subsidising the capital costs to facilitate the entry of a generation technology that contributes c.3% of its capacity to meeting peak demand, while the threat of a price on carbon – erodes the value of current heavy emitting plants (around 84% of NEM generation stock), and creates sufficient regulatory uncertainty to 'chill' investment.

Figure 1 – AEL Estimate of MPC for Marginal OCGT with USE of 0.002% - NEM Regions of SA and VIC



Point A represents the earnings gap for an OCGT based on historic price events as identified by capturing those instances where prices in SA and VIC were greater than MPC or Voll (not at MPC or Voll but percentage below to capture events). Taking these assumptions the current MPC of $10,000/MWh would have left the owners of the peaking OCGT around $90 million worse off. To achieve break-even by just supplying energy during these events the required MPC needed to be around $18,000/MWh.

Point B shows, that at a higher capacity factor reflecting a higher level of operations to physically support a PPA or OTC (used by peak generator owner as security with debt investors) with a customer load or retailer for a period coinciding with debt investors investment horizons.[2] Even with an increased capacity factor the peak generator's earnings are insufficient at an MPC of $12,500/MWh – estimating a required MPC of $14,500/MWh.

The setting of the CPT represents a more challenging proposition as ROAM Consultings' analysis to support the increase is driven by the policy objective of retaining the existing ratio of CPT being set at 15 times the level of the MPC. AEL notes that at market implementation the setting of CPT on the basis of a ratio of MPC to CPT reflected an outcome associated with expediency rather than the original intention of having CPT set sufficiently high to ensure the peak generator's survival, while at the same time having the CPT being set sufficiently low to avoid a prudential meltdown.

From AEL's perspective, we would support a bottom up assessment of CPT, including the operational aspects of CPT – notably trading week arrangements. AEL considers that the correct level of CPT would be achieved by balancing:

- the revenue requirement of the peaking generator – sufficient duration of MPC event for revenue adequacy

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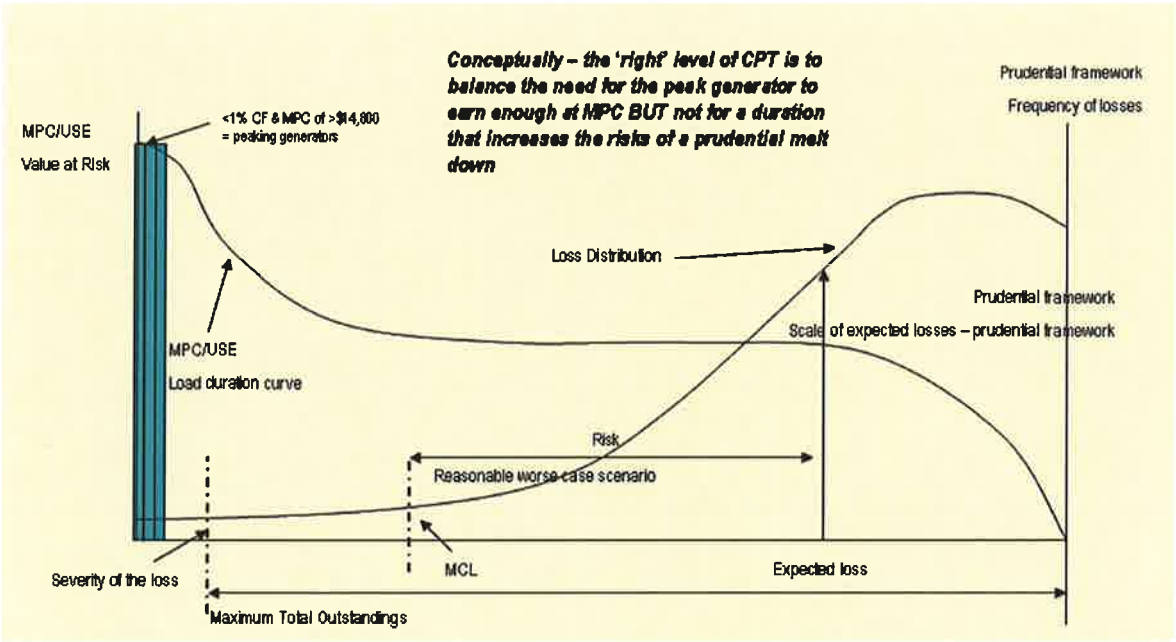
2 Post GFC, debt investors have moved away from offering investment horizons of 10 to 15 years, which were common ie Redbank Power Station. The reduced debt terms places upward pressure on power station's as the project effectively faces greater risks and costs of debt re-financing, which has to be borne by equity investors – who are going to and able to demand a higher rate of return given the increased risks.

- avoidance of NEM prudential failure – as longer MPC duration causes prudential failure of retailers.

Figure 2 conceptually illustrates a potential decision-making framework for setting the CPT.

Figure 2 – AEL Conceptual Framework for assessing the right level of CPT



The left hand axis explores, conceptually, the frequency of MPC events that are required to support the economics of an OCGT investment, while the right hand axis conceptually sets out the market's prudential requirements. AEL suggests that the RP should consider the right level of CPT by having regard to ensuring that the risks of breaching the markets maximum total outstanding is minimised.

AEL supports the retention of the current USE at 0.002%. The basis of this support includes:

- Since 1998, the NEM has experienced a single breach of the USE when on 29 and 31 January 2009 in Victoria and South Australia a lack of electricity supply resulted in widespread load shedding. Prior to this event there has been occasions when AEMO (NEMMCO) have forecast the risks of USE in its forward projection, however, these have not actually emerged to an actual breach. And importantly, many market commentators would suggest that the 29 and 31 January 2009 events represented an extreme case attributable to failure in availability of reliable networks rather than availability of generation[3].

- As a standard the USE is a transparent 'policy' signal to market participants. It says that the policy for reliable electricity provision is that users should expect that electricity demand or load should be able to be supplied 99.98% of the time. AEL considers that there is nothing within the political[4] and

[3] AEMC, (29 May 2009), Interim Report - Review of the Effectiveness of NEM Security and Reliability Arrangements in light of Extreme Weather Events, page 1.

[4] The majority of electricity consumers are passive decision makers in the electricity market – we have electricity retailers acting as commercial agents (for a fee) for the majority of consumers, and we then have politicians who are elected by

community preferences which would suggest any clear desire to change this level of reliability. In fact, recent political focus would suggest that political and community preferences are looking for more reliability.

- Finally, ROAM Consulting's analysis of balancing the trade-off between a higher (lower) USE compared to the value of increased lost load illustrated a gain in saved capital costs from less generation of $75 million to an increase in lost load of $100 million. From AEL's perspective this would suggest that the USE as a reliability standard is approximating best policy practice.

Each year, AEMO forecasts USE for each NEM region looking at forecast load growth, on a non-peak and peak basis, and existing, committed, and expected generation projects. Immediate risks to the USE are generally caused by expected projects being delayed or deferred or by unforeseen generation closures (these are rare – but historically driven by a young generation fleet). To date, AEMO has been able to manage short term risks to USE, and lack of supply due to other limitations in electricity supply by the RERT, and at the extreme by intervening in the market and directing.

AEL suggests that a potential improvement to the operation of the USE would be to examine linkages between USE and jurisdictional reliability planning standards that affect the manner in which the transmission network is developed. As observed by the AEMC and the Australian Energy Regulator (AER)[5] around 90% of the duration of supply interruptions to consumers can be attributed to network performance. Despite the jurisdictional demarcation, AEL considers that there is substantial information value to the market by an independent body, such as the RP, AEMC or the AER, in exploring plausible inter-relationships between USE and state based transmission and distribution planning standards.

Another suggested improvement to the operation of the USE is to provide AEMO with the flexibility to 'assess' the risks that proponents will achieve proposed timings, particularly, to consider risks to USE in the medium term (ie 3-4 years away). To illustrate, consider the proposed new generation capacity in the NEM to 2016:

- around 14,000MW
- around 5,200MW is expected to be wind generation, which does not contribute to meet peak load
- around 2,000MW as base load
- around 3,720MW as intermediate
- around 2,500MW as peaking generation.[6]

Of the new projects expected to 2016, 18% are peaking generation of the OCGT technology with proponents ranging from VI gentailers, stand alone generators, and government owned corporations. AEL suggests a further enhancement of the AEMO consideration of USE would be the assignment of likelihood of on-time installation for each project, particularly for those in the assessment timeframe (next few years to 2012/13).

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consumers (not necessarily the same group) to set the investment, and institutional settings. Currently, the consensus opinion is that the costs of the potential market failures generated by these principle-agent relationships are less than the cost of technology to remove the need for commercial agents or more critically that the inelastic price demand of consumers precludes the need to even consider the costs that these principle-agent relationships may generate. While this may reflect a current understanding the ongoing operation of this assumption should always be the subject of extensive review.

5 Cited AEMC, (29 May 2009), Interim Report - Review of the Effectiveness of NEM Security and Reliability Arrangements in light of Extreme Weather Events, page 1 from the Australian Energy Regulator's (AER) *State of the Energy Market 2008*, Melbourne, 2008, p. 156.

6 Please see AEMO website http://www.aemo.com.au/data/gendata_prop.shtml.

For instance, given the emerging uncertainty around carbon policy[7] any proposed generator investment in a heavy emitting technology, such as coal, should not be considered likely given the uncertainty around the cost of carbon. An alternative risk to proposed generation can result from potential changes to government policy regarding ownership of assets for instance of the 2,500MW of OCGT or gas generation to 2016 (predominately in 2012/13 and 2013/14), around 1,500MW is being built by government owned generators currently included within a broader sale process. The on-time installation of this capacity carries risks which should be reflected when determining forward USE requirements.

For further inquiries regarding this submission, please feel free to contact James Reynolds National Manager, Regulation & Market Development on (07) 3011 7646.

Regards,

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7 The emerging consensus is a delay or postponement of a carbon price in the short to medium term (2-3 years) – yet a possible outcome is a 2011 introduction, which will require existing heavily impacted generators to undertake an auditable accounting process of asset impairment.