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Australian Energy Market Commission
PO Box A2449
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Dear Sir/Madam

Reliability Standard and Settings Review
AEMC Reference: REL0034

The National Generators Forum (NGF) welcomes the opportunity to comment on the Reliability Standard and Settings Draft Report - "Draft Report" and accompanying consulting report by ROAM Consulting, released by the AEMC Reliability Panel (Panel) on 23 December 2009.

The Panel explores the reliability standard and settings needed to achieve the reliability standard of 0.002% at 1 July 2012 in its Draft Report. The Panel's consultants recommend that the settings for the reliability standard of 0.002% need to be set at the following levels:

- Market Price Cap (MPC) $16,000 per MWh
- Cumulative Price Threshold (CPT) $240,000
- Market Floor Price (MFP) -$1,000 per MWh

NGF members have a range of views on the appropriate level of the MPC and CPT, ranging from full support for the revised reliability settings to no support on the basis that the case for an increase has not been made taking into account the modelling and other factors. It is important to note that these diverse views are being expressed during a period of substantial regulatory uncertainty for the power generation industry.

In this submission, we outline the reasons that some members support the reliability settings proposed in the Draft Report and why others do not.

We hope this can inform the Panel in its deliberations.

Why the MPC should increase

Some NGF members support an increase to the MPC.

The principal justifications for this view are consistent with those expressed by ROAM, and include the following:

1. Generation costs

The capital costs of an open cycle gas turbine (OCGT) have gone up by around 22% in real terms over the past two years. This increase in real costs suggests that peaking generators need higher revenues to recover their required return on investment. They support an increase of 22% in the real value of the MPC in order to offset the increase in OCGT capital costs.

However, the NGF notes that the ROAM Report uses a low weighted average cost of capital (WACC) to discount its revenue stream in its modelling. This may be unrealistic and the NGF draws the attention of ROAM to this point. The NGF suggests ROAM undertake some sensitivity testing to identify how a change in WACC could affect modelled outcomes.

The capital costs of the required gas infrastructure to ensure firm gas supply availability is expected to be very substantial but was omitted from the assumptions.

2. Time value of money

The MPC reflects a nominal value whose real value decreases over time. However, if the reliability settings remain unchanged over time, it is possible that the standard might be breached in the near future. Part of the justification of an increase to the nominal value of MPC is to ensure its real value is maintained or increased in an environment of increasing input costs.

3. The ROAM Report does not deal with the effects of breaching the CPT and decreasing the marginal generator's ability to recover its costs

The ROAM Report does not consider the impact of a breach in the CPT and subsequent application of the APC (Administered Price Cap), which limits a marginal OCGT's ability to recover its costs.

Pool revenue modelling suggests that the MPC needs to increase to at least $16,000 per MWh to ensure the reliability standard continues to be met at 1 July 2012.

However, ROAM predicts that approximately 50% of all MPC periods are forecast to occur during an administered price period where the APC of $300 per MWh would apply. As a result of this, OCGT revenues reduce significantly.

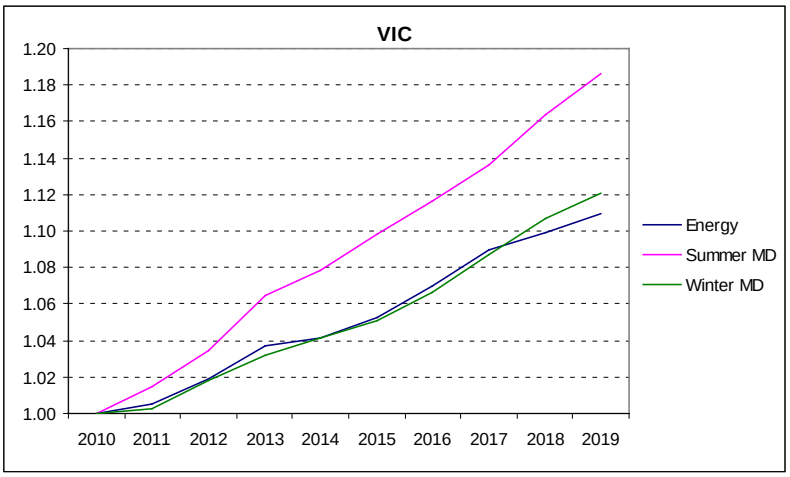
The development of a mechanism to deal with the interaction between the MPC, CPT and compensation under an APC was beyond ROAM'S terms of reference. However, it is imperative that the Panel address this issue ahead of a final decision on the MPC and CPT.

4. Peakier demand

Energy demand is likely to become 'peakier' in the next 10 years as illustrated by the sample charts of Electricity Statement of Opportunities (ESOO) 2009 data, and result in more large magnitude, short duration USE events. This will reduce the number of hours a marginal OCGT can run to recover its capital costs for a given level of USE reliability standard. As a result, the MPC will need to increase to meet the reliability standard.

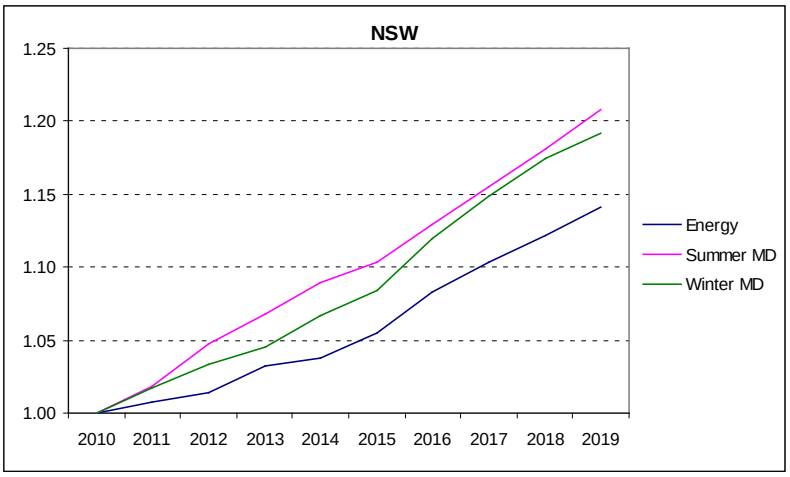
In addition, the increased penetration of wind generation, as a consequence of the expanded Renewable Energy Target (RET), is likely to exasperate the peakiness of the load. The graphs below show this increased peakiness over time in Victoria and NSW.

Figure 1: Ratio of Victorian energy and demand levels, indexed to 2010



Data source: AEMO ESOO 2009, medium growth scenario

Figure 1: Ratio of NSW energy and demand levels, indexed to 2010



Data source: AEMO ESOO 2009, medium growth scenario

5. Historic performance of the NEM market design suggests that investment is not currently occurring at the right rate and mix at an MPC of $10,000 per MWh

Some generators recommend that the Panel needs to carefully consider the historic performance of the NEM market design in delivering on time investment in generation (with the MPC [VoLL] being at $5,000 per MWh and $10,000 per MWh) given:

- The significant reserve margin in generation at NEM commencement (capacity 35% above peak demand) reflecting the historic pattern of investment associated with government ownership and control of the electricity supply chain; and
- Some market analysis suggests that in terms of efficient outcomes, as measured by least cost of supply to consumers, a more efficient mix of generation modes suggests a decrease in current base load capacity by around 2,000 MW and an increase in peaking generation by around 1,700MW (the type of generation mode that the USE is designed to incentivise).

Importantly, these generators consider the setting of the USE represents a forward looking exercise. It must take into account various sources of data, including historic performance, to set the baseline for forecasts, but more critically, future expectations of many variables, such as: peak demand; timing for new generation; and levels of demand side participation (DSP).

6. Interconnector capacity assumptions

Some generators consider that improved modelling of the interconnector constraints will help to determine the correct MPC in the Draft Report. ROAM assumes that the transmission network model has been applied as per the National Transmission Statement (NTS) constraints "workbook" provided by AEMO, which includes all intra regional and inter regional constraints.

Why the MPC should not be increased

Some NGF members did not support an increase in the MPC, on the basis of the following key reasons:

1. Investment currently occurring at an MPC of $10,000 per MWh/$12,500 per MWh

When both committed investment and investment intentions are considered (as per ESOO) the reliability standard will be met beyond 2018-19. A higher MPC does not therefore appear to be necessary as a further incentive to investment. Furthermore, adopting a set of revised reliability settings, particularly such a large increase to the MPC, should not be done purely on the basis of modelling alone, which is highly sensitive to its assumptions. A broader market analysis should be performed, using a range of modelling tools, sensitivities, qualitative analysis, and real market evidence to determine whether an increase is warranted.

Arguably it would be prudent to wait and see what the impact on investment is of changing the MPC to $12,500 per MWh before deciding upon any further substantial increases.

2. The level of MPC does not drive investment

Investment in generation is driven by a number of factors, including but not limited to: forecast demand growth, forecast contract prices, cost and availability of project finance, etc. The MPC is not the prime driver for investment by either existing participants or new merchant investors. Investment decisions require a degree of revenue certainty, which spot revenue alone is unlikely to deliver. Given the ROAM Report bases its recommended MPC increase solely on spot revenue, some generators question the validity of its conclusions and recommendations.

Some generators posit that the factors outlined above are relevant to a market participant making a "commercial investment decision". However, they do not consider that the Panel's role is to simulate an individual economic agent's investment decision making framework as the basis for instructing the incentive to supply the marginal megawatt to meet the USE.

3. Concerns related to the ROAM Modelling assumptions

We provide the following comments on the assumptions underpinning the modelling in the ROAM Report. While some members were satisfied with the modelling outcomes, others raised doubts regarding the assumptions that underpin the modelling.

They include:

3.1 New entry based on spot market projections

Doubts about the value of the ROAM Report's methodology that assumes that the new entry OCGT derive all their income from the spot market. They suggested new entry in the NEM occurs for a wide variety of reasons, which depend on the circumstances of the proponent. Many argue the approach of considering spot market revenues as a valid proxy for the new entrant peaking plant was unreasonable. This group suggested the contract market was a more important driver of investment than the spot price.

3.2 Generator bidding assumptions

Concerns regarding the use of a bid analyser process as a proxy for real life bidding in the NEM. These members suggest the use of Cournot modelling of generator bidding would provide much more credibility to the report's outcome.

3.3 Demand is met simultaneously in each region

Discomfort that the USE standard is determined by using an average value that is approximately 0.002% across the NEM. In contrast, AEMO models the USE standard ensuring that it is met in every region.

3.4 Static network model

Unease the network model is not assumed to change when committed, advanced and announced projects are added to meet the reliability standard.

Market risks associated with increasing the MPC

1. Transmission congestion risk

Generators face increased market risk from transmission congestion from an increased MPC.

Some members see this as a material issue while others believe these risks can be managed within the current market framework. However, an increase in the MPC will just increase this risk. As a result, they may be less willing to contract their capacity.

Currently, generators feel that they can not properly mitigate against the risk of transmission failure and potentially increasing level of congestion in the NEM. They face serious risks that include:

- Being constrained-off due to "unplanned" outages on the transmission system that occur randomly on the transmission system.
- An asymmetric level of market risk for transmission failure compared with transmission network service providers (TNSPs) that operate under their service target performance incentive scheme (STPIS). TNSPs are currently exposed to only 1% of their maximum average revenue (MAR) under their STPIS if they fail to achieve their reliability targets. Unfortunately, generators face the full risk of the market exposures (both real and opportunity cost in dimension) should they be constrained off in a market event.
- A regulatory regime in transmission whose key focus is to build transmission when it is "economic" under the Regulatory Investment Test for Transmission (RIT-T). Generators have no guarantees that they will get their energy from their connection point to the node under this regime. In Victoria, where AEMO plans the transmission system under a probabilistic planning regime, this problem is exacerbated as transmissions augmentations are even more difficult to justify.
- Congestion risks exponentially increase value at risk during MPC events.

These generators argue that the combined risk of higher MPC with transmission congestion could potentially increase the systematic or basis risk within the NEM. Any increase in basis risk flows through to an increase in expected rates of return on invested capital. Accordingly, a higher MPC is unacceptable. Hence, they do not support the reliability settings proposed in the Draft Report.

2. Generation risk – physical generation failures

Some generators consider that a higher MPC increases the market risk resulting from physical plant failure.

Generators face a market risk if a plant failure leaves their available capacity below their contracted capacity. To manage this risk, generators traditionally contract up to "N-1" units of their installed capacity.

A generator's exposure to this risk increases under a higher MPC (e.g. the plant failure occurs, price reaches the MPC and the generator must purchase energy from the spot). To manage this risk, generators may reduce their contract cover. This increases their exposure to the spot market, potentially increasing the incentives and payoffs from strategic bidding. A higher incidence of strategic bidding may lead to greater price volatility, which can increase the basis risks in the NEM.

3. Credit worthiness of the NEM

Maintaining the credit worthiness of the NEM is imperative to ensuring the financial viability of existing and new generation businesses. Prudential requirements needed by market customers are likely to increase in response to a higher MPC. Retailers and exposed market customers would face increased costs associated with their prudential obligations in the NEM. All things remaining the same, such additional financial costs could increase the probability of retailer (or customer) failure. If a market customer default resulted in non-payment to AEMO, this could adversely affect the credit worthiness of the NEM.

4. Market competition

The higher price volatility likely under an increased MPC can increase risks in the market, for both contracted generators and retailers. It is likely to affect disproportionately merchant plant investors and smaller independent retailers who are will be less able to secure financing and manage high prudential costs. An excessive MPC may therefore reduce market competition with higher costs passed through to consumers.

Common views by NGF on other issues

We submit the following comments on the other key areas of the Draft Report.

1. Cumulative Price Threshold

The ROAM Report notes that the CPT is presently set to be a multiple of 15 times greater than the MPC. ROAM assesses the effect of maintaining that ratio, with the MPC set at $16,000 per MWh and the CPT set at $240,000. After doing this, it reaffirms a CPT of fifteen times the MPC.

The original purpose of the CPT was to replicate a force majeure event to limit the exposure of participants in the event of a major event. The very high market price cap is a strong signal for action and the rationale was that if this cap had not been successful after a certain number of hours, it was not likely to remedy the issue. Since this purpose is not embodied in the National Electricity Rules (NER), NGF would like to see it re-affirmed by the Panel.

With this purpose, the level of pain which the market can sustain should be assessed first and be used to set the CPT. Any subsequent assessment of the MPC would then need to recognise the impact that this CPT would have. It would be useful for the Panel to develop a more robust and transparent methodology for setting the CPT.

2. Regional MPC

The concept of setting a different MPC for each region has been mentioned in discussions. The rationale appears to be the different characteristics of each region could lead to different values. NGF is strongly supports a single MPC for the NEM. Having separate MPC's for each region would introduce significant complexities operationally and undermines the concept of a single market. In particular differing MPC's could create perverse arbitrage incentives between regions in times of system stress. A similar problem has already been raised by AEMO in regard to differing Price caps in interconnected South East Australian Gas Markets.

3. Market Floor Price

The ROAM Report considers that there is no justification for recommending any change to the MFP. The introduction of the Carbon Pollution Reduction Scheme (CPRS) will reduce the frequency at which the MFP is set at the floor price, as generators add additional costs of carbon emissions into their bidding strategies.

We request that the Panel provides some analysis and reasoning to support this conclusion in its Final Report.

4. Market ancillary services

Pursuant to clause 3.8.7A, the NER establishes requirements that apply to all market ancillary service offers for each type of market ancillary service. Those requirements provide that enabling prices offered must be equal to or greater than $0 per MW per hour and may not exceed the MPC. Therefore, any increase in the MPC for spot prices, including the increase from $10,000-to-$12,500 per MWh scheduled for 1 July 2010, flows into the ancillary services markets. As it relates to the CPT, NER rule 3.14 provides for a threshold of $150,000 (increasing to $187,500 from 1 July 2010) and this relates to both spot prices and market ancillary services.

Neither the NGF, ROAM nor the Panel have given any consideration to whether a raise in reliability settings for the spot market should automatically flow through to ancillary services markets. As such, we think that further consideration of this issue may be warranted. We understand this issue is outside the scope of the current review; however, we suggest the Panel is best placed to comment on the implications of these changes.

Conclusion

The NGF supports the recommendations on maintaining the existing reliability standard and its definition.

The NGF has a range of views, however, on whether there is a case supporting the reliability setting levels proposed by ROAM and set out in the AEMC Reliability Panel's Draft Report. As such, this submission provides an overview of the various member views.

NGF members will outline further their own positions in individual submissions.

We appreciate the opportunity to make a joint NGF submission on this issue.

For further inquiries regarding this submission, please feel free to contact Mr. Con Noutso – Manager Regulation (Access) at TRUenergy on Tel: 03 8628-1240.

Yours sincerely

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