

9th February 2015

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Submission lodged online at: www.aemc.gov.au

Project Number: ERC0166

Dear Mr Pierce

Bidding in good faith Rule 2014 – Options Paper

Snowy Hydro has the largest peaking generation portfolio in the NEM. This portfolio consists of hydro, open cycle gas turbines, diesel generators and price sensitive demand response. We believe from experience operating in the NEM that the current Rules do not hinder the ability of Participants to operate their plant in the most efficient manner which is consistent with each generator owners overall strategy and risk management policies. Any changes that limit rebidding would undermine the dispatch mechanism which continues to operate effectively even in an environment of many external policy changes. We are therefore very concern that the AEMC is contemplating amending the good faith bidding provisions and/or introducing a gate closure to the current central dispatch mechanism.

The main points made in our attached submission are:

1. We support the competitive neutrality principle where there is a level playing field for all competing technologies. This would enable the most efficient utilisation of resources to meet demand. In keeping with this principle non-scheduled load and non-scheduled generation have a major advantage over scheduled generation and load. This is because non-scheduled load and non-scheduled generation has no Rules obligation to inform the market of their intentions to consume or generate. This consequentially distorts competitive outcomes and reduces the efficiency of the price discovery process by adversely impacting forecasting accuracy. In an evolving NEM with more intermittent and distributed generation this situation would increasingly get worst and further reduce market efficiency. We advocate amending the Rules to require non-scheduled loads and generation to inform the market of its intentions to consume or generate.
2. We have a functioning market which all Stakeholders have acknowledged is robust and delivered expected system security and reliability. It would be inconsistent then to limit the flexibility of supply side Participants to respond to dynamic market conditions so the demand side response can receive more certainty. Either we have a market or we fix both the supply and demand side from dynamically responding.
3. We don't see a material problem with the current arrangements. The focus on one NEM region ignores the central issue of structure in that region. The AEMC

has been careful to make Rules that are applicable across the NEM regardless of ownership. The AEMC's "Negative offers from scheduled network service providers" Rule Determination recognised the limitation of amending the Rules for what is essentially a structural/ownership issue.

4. If late strategic bidding is as prevalent as what AER makes it out to be then surely there is already sufficient historical information to allow all Participants to pre-empt this behaviour and either get more generation on-line or reduce flexible load ahead of what may be an anticipated price spike due to late rebidding.
5. Any enhanced disclosure requirements must apply equally to both the supply side and demand side Participants. The current information asymmetry between scheduled and non-scheduled Participants is already undoubtedly reducing market efficiency ie. the unannounced price spikes in South Australia caused by unscheduled hot water switching. Unilateral enhanced disclosure requirements applied only to scheduled generators and loads will only exasperate these issues.
6. The Options Paper blurs equity with efficiency issues as to which technologies can and cannot respond within certain windows of time. These arguments seem inconsistent for an economic Regulator to pursue. Any gate closure is unworkable as it just locks in inefficiency ahead of time and removes flexibility to respond to dynamic market conditions. The dispatch mechanism has worked fine even with numerous policy interventions since NEM start.

Snowy Hydro appreciates the opportunity to respond to this consultation. Our submission is attached to this covering letter. Should you have any enquires to this submission contact Kevin Ly on kevin.ly@snowyhydro.com.au or on (02) 9278 1862.

Yours sincerely,



Roger Whitby
Executive Officer, Trading

Rebidding – Options Paper

The NEM is a workable competitive market

The NEM is not perfect but it is a workably competitive market given the competing trade-offs in the market design. AEMC's analysis to the MEU rule change confirmed that the NEM has workable competition and no sustainable market power issue.

The NEM can be volatile by design but this volatility is not necessarily a bad thing as it forces businesses to have prudent risk management policies and processes. The following quote is pertinent to this observation:

Yarrow notes that, while a late rebid may lead to an inefficient price outcome, the efficient price is not necessarily the price that would have prevailed in the absence of the late rebid. The efficient price may in fact be significantly higher than what would have been set by the market operator but for the rebid. This is further complicated by the fact that the market is never fully efficient and overshoots and undershoots are a normal feature of the iterative discovery process (page 16).

As the AEMC acknowledges on page 16 of its Options Paper, “the market need not provide an efficient price outcome in each and every dispatch interval. The iterative process of price discovery involves a dynamic process of Participants learning and reacting to their competitors' actions. As such, overshoots and undershoots should be expected but over time the market should trend towards a longer-term equilibrium.” However, the AEMC is inconsistent by following up this observation with the sentence, “However, technical limitations on the output of generators may prevent this learning process from reaching an efficient equilibrium outcome if generators are unable to provide an efficient physical response.” “It is the inability of certain generators to physically respond in time that drives most of the impacts of late rebidding. (page 17)”

The NEM design is not set up such that each and every technology has no competitive advantage in any time frame. For instance, Baseload generators competitive advantage is low SRMC but with high capital cost and high start-up cost, compared to peaking gas generators that have low capital and start-up costs but high SRMC cost. These investment choices are made at the time of new entry and the Rules should not contemplate putting all investments to compete on a common basis as this would negate the need to have different plant types and a market in the first place. Extending this to demand side participation, favouring this class of Participant at the expense of generators would skew and distort the investment decision for new entrants.

The MEU market power rule change showed no sustained market power issue so it's inconsistent to focus on the 5 minute dispatch period

The AEMC concluded in the MEU market power Rule change that there are no generators in the NEM with sustained market power. There was detailed and robust analysis undertaken by the AEMC to derive this conclusion. It is inconsistent with this recent ruling that the AER is highlighting a market power issue in the dispatch period (5 minute) timeframe.

Both hydro and diesel generators can synchronise to the system and generate in less than 5 minutes. The NEM has demonstrated that investment decisions are made to suit the prevailing and expected market conditions. If the economics support the need for more fast start generation then the market will ensure increase supply in this segment of the market.

Demand side response

The Yarrow paper showed that price discovery is an essential feature for a functioning market so it is incongruous that on the demand side, non-scheduled load gets a free option by not having similar obligations to scheduled generation to reveal its intentions to the market to aid price discovery.

Snowy Hydro believes the unexpected offloading of unscheduled demand side response causes significant inefficiencies in dispatch and in some instances contracting (such as short and near term outage cover). Some examples of the inefficient outcomes stated above include:

- a. Reduce confidence in Pre-dispatch prices which only reflect the supply and consumption intentions of scheduled market Participants.
- b. The unnecessary dispatch of fast start units to cover high spot prices (only to watch the price fall due to an unforecast demand response).
- c. Incorrect pricing of contracts (particularly day ahead outage cover) caused by high predispatch forecasts yet the outcome is lower spot prices due to demand side response that is not factored into the predispatch forecasts.

In Appendix 1 we highlight the inconsistency between the information requirements for non-scheduled and scheduled market Participants.

To remove these inefficiencies caused from asymmetric information requirements and improve the efficiency of price discovery the esaa is considering a Rule change to increase transparency for all non-scheduled Participants in the market. This Rule change will compel non-scheduled Participants to make transparent their operational intentions.

We disagree with the Oakey Greenwood analysis on demand side response that concludes there may be significantly more demand response available that is not being realised. This analysis is not robust because:

- a. It consults on a market segment which has clear vested interests on creating regulatory arrangements which favour the demand side at the expense of other classes of Participants.
- b. It references ClimateWorks analysis which lacked rigour. ClimateWorks essentially surveyed large customers and asked them, "if I could save you thousands by reducing/switching off your consumption with a long lead time – would your business participate in this demand response program? You would expect the uptake to be huge since the survey conveys an expectation of absolute certainty that the large consumer would save significant money from reducing consumption. However there is no valid economic reason to offer the demand side preferential treatment because both the demand and supply side varies all the time and both need the flexibility to respond and adapt to dynamic market conditions.
- c. It ignores the utility electricity consumers get from the consumption of electricity in most instances far outweighs the savings from the avoided cost of electricity. Large electricity users with interval metering already have an opportunity to engage in demand response. They can do this by seeking supply contracts that

expose them to spot market prices, or with sufficiently shaped time of use pricing structures where demand can be shifted away from higher priced periods, or through demand response contracts with generators or third party aggregators. Some of these customers are choosing not to do so. It is a mistake to assume this is a market failure. For most customers, price certainty is what they want from their retailer. For other customers that are engaged in demand response, the efficient level of demand response is already being delivered – these consumers are making a rational decision to cease using electricity when its cost exceeds that required for them to maintain profitable production in their business. The benefit of them choosing not to take electricity is its avoided cost. We therefore suggest that efficient market outcomes are currently being achieved in this segment of the market where customers already have a choice whether to engage in demand response.

Late strategic bidding is not an issue

AEMOs 5/30 analysis is interesting but of limited practical relevance as it assumes all other bids remain static in a world where late rebids are removed. This would not be the case in the real world where behaviour is dynamic. Hence it is not an accurate counterfactual for a market without late strategic bidding.

Having said that, AEMO's own 5/30 analysis shows that the price impacts have not been material and for the VIC and NSW regions late strategic bidding decreased the annual average price. That is, consumers benefitted from late strategic bidding in these regions.

In the SA and QLD regions the observed Spot outcomes highlight potentially a structural issue. This does not mean that the Spot outcomes in these Regions are inefficient as incumbent generators always face the risk of new entry eroding scarcity rents. We also highlight both these Regions do not have under supply of generation. Hence the Spot outcomes could be attributed to other issues such as Retailers and Generators in those regions being unable to negotiate forward contract prices and terms mutually acceptable to both parties. Consistent with the "Negative offers from Scheduled Network Service Providers) Rule 2013" the Rules should not be changed to deal with what is a structural issue. We quote a pertinent paragraph from this Final Determination¹.

In the Commission's view, it is the combination of the market structure in Tasmania, Hydro Tasmania's agreement with Basslink, bidding behaviour during times of network constraint and the treatment of losses that combine to create the issue raised by the Rule Proponents, not negative bidding by SNSPs per se. In assessing the rule change request, the Commission has noted the issues specific to Basslink as the only current SNSP in the market, but considered the proposed rule in the broader context of the current role of SNSPs in the NEM.

The Commission noted in its Options Paper that it has not attempted to quantify the impacts of late rebidding on the market price of hedge contracts and that information from stakeholders evaluating this aspect of the market would be welcome (page 38). Snowy Hydro does not believe that late rebidding has a material impact on hedge prices as there will never be a precise estimate of price spikes. Modelling would determine a price volatility range and payouts under various contract scenarios which are unlikely to move based on late rebids or moving generation quantities to other price bands. In essence, a few

¹ AEMC, Negative offers from Scheduled Network Service Providers) Rule 2013 – Final Determination, page ii.

significant late rebids a month are insufficient to move the forward curve as this curve is determined by fundamental supply and demand analysis.

Gate closure would be unworkable

Any gate closure would be unworkable and just lock in inefficiency ahead of time by restricting flexibility to respond to dynamic market conditions. The dispatch engine has worked fine even with the myriad of policy interventions.

The concern with late strategic bidding and the hypothesis that an alternative deadline for bidding would be more favourable is premised on the basis that if generators acted immediately on material changes in information this bid wouldn't be late and would therefore allow other market participants to respond accordingly. We don't support this view for a number of reasons:

- In a market with 288 5-minute dispatch intervals per day there is never a time in which a rebid will be made that is not close to the occurrence of the next dispatch interval.
- Even if a rebid was made in relation to a dispatch interval sufficiently away from the next dispatch period, the response from other Participants to this rebid would in fact create the conditions for further rebidding closer to the relevant dispatch interval. That is, during the lead up to the next dispatch period multiple rebids from multiple participants may be required to reveal their true preferences. It is only through this iterative process that the market will clear at the most efficient price.
- Someone has to be the last participant to respond to evolving market conditions at that last available point in time. With a gate closure, say half-hour in advance of the dispatch interval, efficiency would be impeded as all information would not be taken into account up until the time of the transaction. Nonetheless, with a gate closure arrangement someone still has to be the last participant to bid and other participants cannot respond to this. Thus, if an arbitrary hard deadline was implemented there would be no value from an efficiency perspective since the latest information from a dynamic market can no longer be utilised for the purposes of justifying a rebid.
- Each dispatch interval feeds into a dynamic market. Any limits on the ability to respond in real time are likely to impede this dynamic price discovery process and hence impede overall market efficiency.

The 90 minute rule in Queensland is a precedent in the Australian context where scheduled generators could not change bids for commercial reasons with a gate closing time of 90 minutes before dispatch. The 90 minute Rule was abandoned as it was inefficient by preventing efficient dispatch, increasing outage risks, and ultimately distorting competition.

In summary

The MEU market power rule change showed no sustained market power problem so it is inconsistent for the focus of market power to shift to the 5 minute timeframe.

Late strategic bidding is not a material issue. AEMO's own 5/30 analysis shows VIC and NSW benefit from late rebidding. In the SA and QLD regions it's potentially a structural issue. Rules should not be changed to deal with what is a structural issue.

The Yarrow paper showed price discovery is important for a functioning market so it is incongruous that non-scheduled market Participants gets a free option with no obligation to inform the market of its intentions.

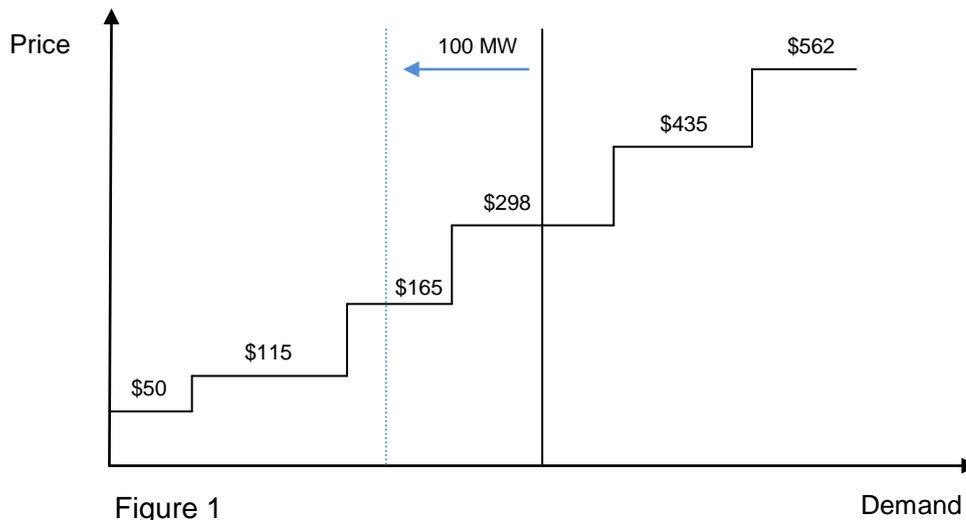
Any proposed gate closure "solution" to late strategic bidding would result in a worst outcome than the status quo. The QLD 90 minute Rule is an example of a fail experiment in gate closure which ultimately distorted competition in the market.

Appendix 1

Appendix 1 highlights the inconsistency between the information requirements for scheduled and non-scheduled market Participants.

Context: In Pre-dispatch there is a forecast high price period. All Market Participants assess their position and risks in relation to this forecast high price period.

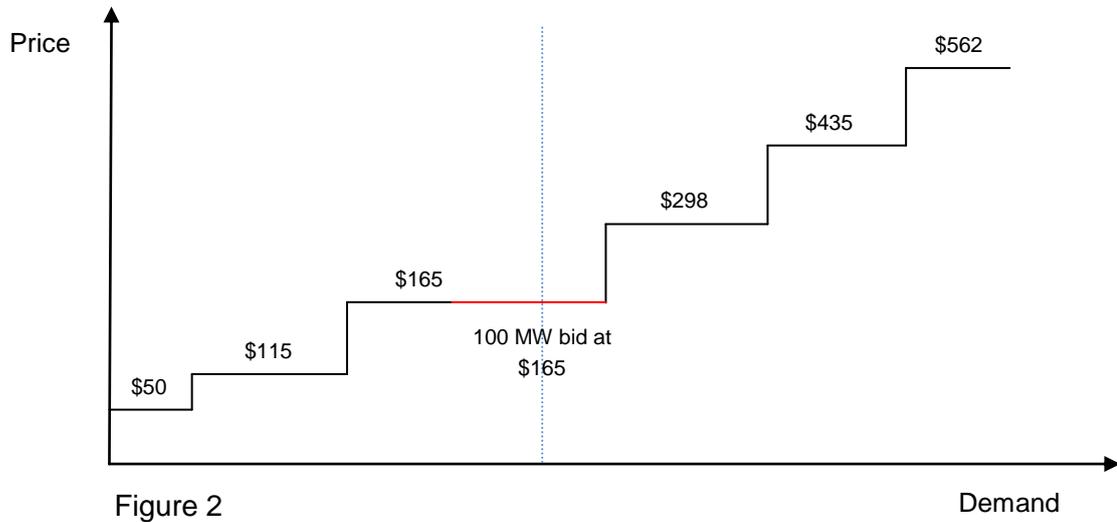
A 100MW unscheduled load has no obligation to inform the market of its intention to avoid load consumption. If and when it does come off it impacts the market clearing price (see Figure 1)



In Figure 1, 100MW of unscheduled load response shifts the clearing price from \$298/MWh to \$165/MWh.

Alternatively, a 100MW fast start diesel generator could have offered to supply an additional 100MW at an Offer price of \$165/MWh and increase the overall supply curve (see Figure 2). The resultant pool price would have been the same as the non-scheduled load response (in Figure 1) of \$165/Wh. However, the scheduled diesel generation incurs additional risks and obligations due to the fact:

- It has explicit Rules obligations to inform the market of its intentions;
- It incurs high start-up costs;
- It may not recover sufficient Spot revenues to cover its costs;
- It faces additional revenue risk if non-scheduled loads decide to further curtail demand.



Non-scheduled load has a free option to curtail load with no obligation to inform the market.

If non-scheduled load had similar obligations to inform the market of its intentions, the market could be improved by:

- The PASA and pre-dispatch processes taking into account responsive load;
- Better price forecasting for all Participants;
- Better reserves forecasting for AEMO; and
- Scheduled generation also knows about the load and can set the Spot price with full acknowledge of the load's intentions thereby lowering overall volatility.

In summary, Rules obligation requiring non-scheduled market Participants to inform the market of its intentions would improve price discovery and ensure more efficient utilisation of resources. Any load that is responsive to price has an impact on the price discovery process and hence must have obligations to inform the market of their intentions. Non-scheduled load must also comply with their intentions.