

28 July 2017

Australian Energy Market Commission
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Submitted by email to aemc@aemc.gov.au

Project number: ERC0203

**National Electricity Amendment (Non-scheduled generation and load in central dispatch)
Rule 2017**

Snowy Hydro Limited welcomes the opportunity to comment on matters raised in the Draft Rule Determination from the Australian Energy Market Commission (the Commission) on the National Electricity Amendment (Non-scheduled generation and load in central dispatch) Rule 2017.

Snowy Hydro Limited is a producer, supplier, trader and retailer of energy in the National Electricity Market ('NEM') and a leading provider of risk management financial hedge contracts.

Snowy Hydro does not support the Commission's decision to not make a draft rule. With the dynamic of the NEM environment changing through increasing distributed generation, battery/energy storage, technological and innovation change the effectiveness of the price discovery process will become more difficult. Requiring loads to inform the market of their intent and honouring this intent would reduce some uncertainty from the price discovery process.

The Commission concluded that it would not make the draft rule change reporting that the Australian Energy Market Operator (AEMO) forecasts are generally accurate, that AEMO can already require market participants to participate in central dispatch for system security reasons and that costs to implement would be a burden on Non-Scheduled Generator (NSG) and loads. Snowy Hydro however is concerned that the Commission has not provided a clear integration in the assessment of the non-scheduled load and generation rule change with the five minute settlement rule change and clearly highlighted AEMO's lack of visibility of distributed energy resources (DER) and the implication on AEMO's ability to manage power and system security.

Snowy Hydro is also concerned that the Draft Determination has considered enabling AEMO to undertake selective identification and participation requirements with no detail regarding the implementation and definitions. In addition the Commission's considered option to create an incentive for non-scheduled generators to become scheduled through the change

in financial settlements process has similar characteristics to the controversial Optional Firm Access (OFA).

The Commission's decision coincides with AEMO's review on arrangements for utility scale battery technology which has been justified by AEMO on the basis of the potential adverse impact on central dispatch and the security of supply. Snowy Hydro notes AEMO concerns are a subset of Snowy Hydro's outlined problems imposed by the action of non-scheduled load and generation.

AEMO's proposed policy is that proponents of battery systems with an aggregate nameplate rating greater than or equal to 5 MW, whether directly connected to the network or integrated behind the meter with new or existing generation to be registered as both Generators and Market Customers. The proposal will mean generating units are classified as scheduled and market, and the load classified as scheduled load¹. Snowy Hydro is unclear why the draft rule has not been considered as the impact of other non-scheduled load and generation would have the similar adverse impacts to central dispatch that have been identified by the AEMO proposal for utility scale batteries.

No Integration in Assessment Across Different Rule Changes

Snowy Hydro is concerned by the lack of integration in the assessment of the non-schedule load and generation rule change with the five minute rule change. Support for the five minute rule change is basically premised on providing pricing signals that would stimulate efficient levels of flexible generation and supply response. There is an acknowledgment from the Commission that the Rule change if implemented would have significant risks and costs especially with respect to the reduction in Service Providers selling risk management products such as Caps.

The Commission in the Draft Determination highlight that *"requiring non-scheduled generators to be scheduled would impose costs, change investment incentives, and change business models for these participants"*² and *"to the extent that benefits are uncertain and the costs may be inefficient and flow through to consumer pricing, the proposed changes will not, or are not likely to, contribute to the achievement of the NEO."*³ Snowy Hydro is unclear how the benefits and material costs are any different to the five minute settlement change. In the Five Minute Settlement Directions Paper the Commission noted that *"as the existing 30 minute settlement framework has been in place for nearly two decades, there are likely to be large costs and practical challenges associated with implementing five minute settlement. Contracts, metering systems and IT systems have all been designed with reference to 30 minute settlement. For the introduction of five minute settlement to be in the long term*

¹ AEMO, 2017, "Interim arrangements for utility scale battery technology"

² Draft Rule Determination, National Electricity Amendment (Non-scheduled generation and load in central dispatch) Rule 2017, page VI

³ Draft Rule Determination, National Electricity Amendment (Non-scheduled generation and load in central dispatch) Rule 2017, page VI



interest of consumers, the Commission must expect the benefits of the proposed change to exceed the costs.”⁴

The Snowy/ENGIE rule changes required non-schedule load and generation to bid into central dispatch was premised on improving the price discovery process for all classes of Participants. Without an efficient price discovery process there would be market and operational inefficiencies, from reduced confidence in pre-dispatch prices, inaccurate reserve forecasting and procurement by AEMO, reduced ability for AEMO to manage the central dispatch process and inefficiencies in pricing of financial contracts.

In the transition period there will be significant increases in spot market volatility from the inability of conventional peaking generators to sell cap contracts and the likely bidding behaviour of non-scheduled generators and loads. If the five minute settlement rule is to be made, the uptake of non-schedule generation and load is likely to significantly increase. Therefore the problems associated with the impact on non-schedule response is likely to increase as there would be a further erosion in the efficient price discovery process.

The Commission highlights that it does not support the non-schedule load and generation rule change as the *“compliance costs may be significant”⁵* which means *“additional costs could be incurred in AEMO or AER compliance process.”⁶* Snowy Hydro however questions how this does not appear to be a significant issue for not proceeding with the five minute settlement rule change in which the *“the Commission acknowledges that moving to a standard of five minute resolution data will require system changes for AEMO, MDPs and market participants”⁷* and acknowledges that *“the 30 minute settlement arrangements have been in place for nearly two decades. All existing IT systems, metering infrastructure, and financial contracts have tended to be designed with reference to 30 minute settlement.”⁸*

Snowy Hydro notes that the Commission has considered a rule change request to make improvements to the Natural Gas Bulletin Board to enhance the accuracy of information provided to the market. According to the Draft Rule Determination the Bulletin Board will *“result in the burden of information provision being increasingly shared by market participants along the supply chain and providing information would become a 'cost of doing business' in the east coast gas market.”⁹* The Commission note that the extra burden is necessary and acceptable for the Natural Gas Bulletin Board rule change which involves arguably more sweeping changes than the non-scheduled generation and load in central dispatch rule change.

⁴ AEMC Five Minute Settlement Directions Paper, 11 April 2017, page 98

⁵ Draft Rule Determination, National Electricity Amendment (Non-scheduled generation and load in central dispatch) Rule 2017, page VI

⁶ Draft Rule Determination, National Electricity Amendment (Non-scheduled generation and load in central dispatch) Rule 2017, page VI

⁷ AEMC, “Five Minute Settlement Directions Paper”, 11 April 2017, page 96

⁸ AEMC, “Five Minute Settlement Directions Paper”, 11 April 2017, page 98

⁹ AEMC, “Draft Rule Determination Natural Gas Amendment (Improvements to Natural Gas Bulletin Board) Rule 2017”, page 39



More accurate forecasts

The price discovery process will become more challenging with macro factors in a dynamic National Electricity Market (NEM) environment with increasing distributed generation, battery storage, technological and innovation change, and penetration of interval metering.

AEMO recently highlighted the lack of visibility of DER and the implication on AEMO's ability to manage power and system security in the short-term and longer-term in their submission to the consultation paper on energy storage registration to the COAG Energy Council Secretariat highlighted.

In the submission AEMO identified areas of concern in the collection and accessibility of information about small, individual facilities that can have a material impact on the dynamic operation of the power system in the following areas:

- *“Forecasting in various future timeframes of the:*
 - 1) *Demand for electricity to be supplied from the grid in real-time and in the short-term, which has implications on managing power system security, wholesale market operations and investment outcomes.*
 - 2) *Demand for electricity to be supplied over the longer term, which has implications for the efficient planning and construction of infrastructure.*
- *Determination of the technical operating limits of the power system (called the technical envelope), where they depend on the existence, location, characteristics or performance of DER. This can result in AEMO needing to apply conservative safety margins to maintain the power system in a secure operating state.*
- *Impacting under-frequency load shedding schemes that are implemented to arrest frequency deviations following non-credible contingency events, particularly those involving the unforeseen major loss of generation or separation of the NEM into electrical islands.* ¹⁰

Following AEMO's concerns it is unclear how the Snowy/Engie Rule change has been given little assessment and consideration. AEMO's points above highlight all the inefficiencies in asset utilisation, market operation, or investment decision-making, which ultimately lead to additional costs borne by consumers. These concerns are very similar to the problems that we have outlined in the non-schedule load and generation to bid into central dispatch rule change. There appears to be inconsistency in the application of regulation between AEMO and the AEMC. Snowy Hydro continues to believe Rules obligation requiring operators and agents of price sensitive non-scheduled load to inform the market of their intentions would improve price discovery and ensure an overall more efficient utilisation of resources for the NEM.

¹⁰ AEMO, 2016, “Energy Storage Registration – Consultation paper”



Selective identification and participation requirements

The Commission has considered broadening the scope of the clause to enable AEMO to require participation in the central dispatch process if a market participant operates in such a way as to cause forecasting inaccuracy.

AEMO has the power under clause 3.8.2 (e) of the NER to require market participants to participate in the central dispatch process if it considers such participation is reasonable for adequate system operation and the maintenance of power system security. Snowy Hydro is concerned that although AEMO has been suggested that they could require participants to participate in the central dispatch process there is no detail provided on how they will achieve this. The Draft Rule determination provides no detail on the types of non-scheduled load and generation where AEMO could use its power under clause 3.8.2(e).

Create an incentive for generators to become scheduled

Snowy Hydro is concerned that the Commission's considered option to create an incentive for non-scheduled generators to become scheduled through the change in financial settlements process is similar to the controversial Optional Firm Access (OFA) approach.

Under the Commission's proposed option, in the event scheduled generators were constrained off due to non-scheduled generation in that location, then the scheduled generator would be paid for the generation it committed to ahead of transmission constraints being applied due to non-scheduled generation. This is not dissimilar to the OFA proposal which was expected to make generators drive and pay for some of the transmission investment required by the market in return for more certainty of access to networks.

Both proposals transform the way generators access the market during times of congestion and the way transmission investment decisions are made. The implementation of the OFA at the time was found to be sub-optimal compared to the current market design. Hence the regular monitoring of conditions in the NEM which would trigger the re-consideration of the OFA model was not required. Snowy Hydro submits that as the OFA model was assessed by the vast majority of stakeholders to be sub-optimal, the Commission's proposed incentive for non-scheduled generation and load in the draft determination should also not be considered. The NEM already facilitates efficient co-ordination of transmission and generation.

Moving forward

We believe that it is important for the integrity of the price setting process that there are symmetrical Rules obligations for non-scheduled generation and loads which currently apply to scheduled generation and load. That is, all need to inform the market of their intentions and to honour these bid/offer intentions.



In summary, it is self-evident that any generation and/or load which is responsive to price has an impact on the price discovery process. A Rules obligation requiring operators and agents of non-scheduled generation and price sensitive non-scheduled load to inform the market of their intentions would improve price discovery and ensure an overall more efficient utilisation of resources for the NEM.

Snowy Hydro appreciates the opportunity to respond to the Draft Rule Determination. Any questions about this submission should be addressed to Panos Priftakis, Regulation Manager, by e-mail to panos.priftakis@snowyhydro.com.au.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'K Ly', with a stylized flourish at the end.

Kevin Ly
Head of Wholesale Regulation
Snowy Hydro

