



EnergyAustralia

LIGHT THE WAY

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Dear Commissioners,

ERC0203: Non-scheduled generation and load in central dispatch – Draft Rule Determination

EnergyAustralia is one of Australia's largest energy companies with over 2.6 million electricity and gas accounts in New South Wales, Victoria, Queensland, South Australia, and the Australian Capital Territory. We also own and operate a multi-billion dollar energy generation portfolio across Australia, including coal, gas, and wind assets with control of over 4,500MW of generation in the National Electricity Market (NEM).

We welcome the opportunity to provide comments to the Australian Energy Market Commission (Commission) in relation to its Draft Determination on the participation of non-scheduled generation and load in the central dispatch process. We understand the Commission do not intend to make the Draft Rule, having deemed the materiality of the issues raised by proponents to be insufficient at this time.¹

We generally support the Commission's broader recommendations² namely for the Australian Energy Market Operator (AEMO) to:

- take account of the Commission's demand forecast analysis and adopt a precautionary approach to system reserve requirements;
- continue to improve forecasting models and methodologies including addressing issues with the neural network model and incorporating information from unconstrained intermittent generators, large non-scheduled generation and demand side participation information guidelines into forecasts; and
- consider if it has requirements beyond its existing information gathering and system security powers and, to the extent it considers it does, work with the Commission in respect of any specific requirements.

However, we consider that the overarching decision by the Commission to not include non-scheduled generators and load into the central dispatch process in any form does not

¹ Australian Energy Market Commission. Draft Rule Determination. National Electricity Amendment (Non-scheduled generation and load in central dispatch) Rule 2017. 20 June 2017.

² Ibid.

adequately take into account the impacts that these participants have on the power system and pricing outcomes for consumers.

Price-sensitive market loads and non-scheduled generation

EnergyAustralia has provided two separate submissions during the Commission's consultation on the proposed Rule changes.^{3,4} These submissions outlined our general support for non-scheduled generators and large loads to be required to participate in some manner in the central dispatch process. In outlining our support we recognised the difficulties and additional costs this may impose on certain market participants. As a result, consideration would need to be given to the mechanisms required to facilitate any future interaction with the market by these participants, if not through the current bidding process. We still consider such a mechanism, or mechanisms, needs to be developed.

The lack of participation by certain price-sensitive market loads in AEMO's central dispatch, together with an ever-increasing pool of non-scheduled generation, are contributors to pre-dispatch forecast inaccuracy. This was confirmed by the Commission and their consultants (EY), despite noted data limitations, as part of their assessment of the Rule change proposal.

Specifically, the Commission in summarising EY's study recognised that:

*"for some loads (and generators) changes in consumption and generation aligned with forecast inaccuracy and were linked to spot price responsiveness. Other loads varied their consumption significantly in accordance with industrial and commercial requirements rather than in response to electricity market pricing"*⁵

While EY concluded:

*"Price responsive behaviour from large loads and non-scheduled generation could contribute to regional dispatch demand inaccuracies. They are currently entitled to respond to price signals without regard for dispatch orders. Hence, the inaccuracies caused by this price responsive behaviour could be improved by requiring these facilities to bid in the central dispatch process. Decreasing consumption or increasing generation in response to high prices would not require facilities to be able to accurately forecast their consumption/generation. Consequently, improvement in demand inaccuracy through bidding in response to price could presumably be achieved more easily than improvement through managing general variability which is not related to wholesale market prices."*⁶

"Our analysis indicates that a number of the larger loads exhibit some form of price responsive behaviour. This is particularly true of loads that are relatively

³ EnergyAustralia. Submission: Demand side obligations to bid into central dispatch. 3 December 2015. <<http://www.aemc.gov.au/getattachment/75fc6213-5424-471d-8458-8680b5b8b8a5/EnergyAustralia.aspx>>

⁴ EnergyAustralia. Submission: AEMC 2016 Non-scheduled generation and load in central dispatch. 20 May 2016 <<http://www.aemc.gov.au/getattachment/052b03e6-bd75-4391-b210-ce810ea5c0f3/Energy-Australia-received-20-May-2016.aspx>>

⁵ Australian Energy Market Commission. Draft Rule Determination. National Electricity Amendment (Non-scheduled generation and load in central dispatch) Rule 2017. 20 June 2017.

⁶ EY, Non-scheduled generation and load in central dispatch Rule change request. 5 September 2016. Page 22

*stable. For these facilities, many of the changes in consumption are linked with a price signal in some way.*⁷

It would be unreasonable to assume the actions of non-scheduled generators and loads are the sole cause of price/demand forecast error or inaccuracy for any one dispatch or trading interval. To imply otherwise would be incorrect and we therefore agree with the Commission in recognising the presence of other factors in this process. However, this does not deny these participants are a factor, and at times a key factor, in pre-dispatch inaccuracies.

The practice of deliberately responding to price or demand forecasts without providing prior notification can decrease confidence in the forward information about the market, including confidence in AEMO's pre-dispatch forecast. The Commission in handing down its Final Determination in relation to amendments made to the good faith bidding provisions in December 2015, made the following comments which could also be made in relation to the actions of non-scheduled generators and loads in this scenario:

*"A loss of confidence in the reliability of information – including AEMO's pre-dispatch forecast – can have significant consequences over time."*⁸

*"The current rules make it possible for participants to influence price outcomes to the detriment of other participants, in a way that does not reflect an efficient market."*⁹

Further, arguments made by the Commission in support of the five minute settlement Rule change proposal may equally be applicable in regards to greater transparency provided in relation to the actions of non-scheduled generators and large price-sensitive loads. The following comments made by the Commission may also be similarly argued in favour of the proposed Rule change:

*"A more efficiently functioning wholesale market will in turn provide the benefits of lower supply costs and lower retail prices for consumers."*¹⁰

*"[Five minute settlement] provides an improved price signal for the efficient use of and investment in generation and demand-side technologies... it rewards more accurately those who can deliver that [supply or demand] response."*¹¹

*"It would promote productive, allocative and dynamically efficient outcomes by encouraging efficient operation in generation, use of energy services and innovation and investment..."*¹²

*"[Five minute settlement] is particularly important in the context of the current changes in generation technologies and the evolving NEM."*¹³

⁷ Ibid. Page 36

⁸ Australian Energy Market Commission. Final Rule Determination. National Electricity Amendment (Bidding in Good Faith) Rule 2015. Page ii

⁹ Australian Energy Market Commission. Final Rule Determination. National Electricity Amendment (Bidding in Good Faith) Rule 2015. Information Sheet.

¹⁰ Australian Energy Market Commission. Directions Paper. Five Minute Settlement. 11 April 2017. Page ii

¹¹ Ibid. Page ii

¹² Ibid Page ii

¹³ Ibid. Page ii

Transitional issues

Similarities may also be drawn between the impost resulting from the additional costs incurred by participants following a change to five minute settlement, as those that would be incurred were non-scheduled generators or (large) load required to participate in the central dispatch process. Under the five minute settlement directions paper, the Commission recognised that once-off metering and IT system upgrade costs will be incurred, in addition to disruptions in the contracting market.¹⁴ These costs were considered as likely to be outweighed by the predicted economic benefits, unless a suitable transition period is provided for market participants to make necessary changes to systems and contract positions.

Despite the potential costs to smaller generators or loads, a similar argument could be made in support of the economic benefits that may be derived by the market through having additional information in relation to a participant's response to forecasts and outcomes for price or demand. In particular, an appropriate transition period could be determined that would provide sufficient time for AEMO to determine the circumstance in which a participant would be required to become scheduled. This transition would also provide time for participants to make the necessary investments in systems and staff in order to be compliant with any new obligations. For those loads active in the market and responding to price signals, much of this investment may have already been made.

As increased penetration of smaller scale generation sources and energy storage systems of various sizes enter the market there will be a level of change required in processes, information and data requirements of AEMO. This was agreed by the Commission who noted such changes may result in new system security challenges. These changes may in many cases drive similar outcomes to those sought by the Rule change proposals. For example, we note that AEMO is currently proposing transitional arrangements for utility-scale battery registrations that will require batteries over the size of 5MW to be registered as a scheduled generator.

Therefore, we consider that interim (or alternative) steps prior to mandating the requirement for small generators and loads to participate in the central dispatch process may be more appropriate. For example, providing AEMO with greater discretion and authority over who is required to participate in these processes or the information to be gathered or reported by individuals. This would differ from the current requirements which are linked to a fixed size (30MW) or leave the decision up to the individual load.

For example, AEMO having assessed an individual generator or loads ability to (negatively) impact the market, accounting for both their size (including percentage of regional demand in the case of load) and the price sensitivity of their operations, could instruct a non-scheduled generator or load to actively participate in the central dispatch process. Alternatively, AEMO may request more granular information in relation to the individuals forecast operation and/or capacity to respond to price or demand outcomes, with a firm commitment to meeting this forecast. This information may then be incorporated into AEMO's various price and demand forecasts.

¹⁴ Australian Energy Market Commission. Directions Paper. Five Minute Settlement. 11 April 2017.

As with the Commission's approach to amending the Generator System Model Guidelines, AEMO's discretion and authority could be limited by requiring its various guidelines to outline:

- a) the specific circumstances in which a non-scheduled generator or load would be required to signal its intentions to the market; and
- b) how that generator or load would be required to participate (e.g. central dispatch vs provision of additional information/data).

EnergyAustralia are keen to continue engaging with the Commission on this issue to ensure the best outcome for the market and our customers. If you would like to discuss this submission please contact Chris Streets on 03 8628 1393 or, alternatively, via email at chris.streets@energyaustralia.com.au.

Regards

Melinda Green
Industry Regulation Leader