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EnergyAustralia

LIGHT THE WAY

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Dear Commissioners,

AEMC 2019, Investigation into Intervention Mechanisms and System Strength in the NEM

We welcome the opportunity to comment on the AEMC's consultation paper on Investigation into Intervention Mechanisms and System Strength in the National Electricity Market (NEM). EnergyAustralia is one of Australia's largest energy companies with around 2.6 million electricity and gas accounts in NSW, Victoria, Queensland, South Australia, and the Australian Capital Territory. We also own, operate and contract an energy generation portfolio across Australia, including coal, gas, battery storage, demand response, solar and wind assets with control of over 4,500MW of generation capacity in the NEM.

EnergyAustralia recognises that the NEM generation mix is rapidly changing as older traditional generation is retired and replaced more commonly by variable renewable generation. The consultation paper outlines some of the challenges that this transition is creating for AEMO in managing the secure operation of the NEM, particularly in South Australia. Changes to the generation mix and an increasing penetration of rooftop solar in South Australia have resulted in higher Short Run Marginal Cost (SRMC) synchronous generation de-committing due to forecast low spot prices. This requires AEMO to frequently intervene in the market and direct synchronous units to remain online (or start up) to ensure the power system remains in a secure state.

While the increase in directions raises a number of challenges and questions around the operation of the NEM intervention framework it is important that AEMO has the necessary tools to intervene as a last resort (for example to direct generators or loads) to ensure the power system remains in a secure operating state. There have recently been a number of rule changes that seek to address the emerging system security concerns for example the changes to generator technical performance standards (GTPS)¹ and changes to managing fault levels². This may mean the need for AEMO to intervene in the future may diminish. Further, ElectraNet is also installing synchronous condensers

¹ <https://www.aemc.gov.au/rule-changes/generator-technical-performance-standards>

² <https://www.aemc.gov.au/rule-changes/managing-power-system-fault-levels>

by the end of 2020³ in South Australia, it is our understanding that this should remove the need for AEMO to direct units for system strength.

Notwithstanding the above EnergyAustralia recognises that further issues may develop in other regions of the NEM and that there may be parts of the interventions framework that could be improved.

Current Intervention

The current operation of the intervention mechanism in the NEM aims to preserve the energy market price and associated investment signals had the intervention not occurred⁴. Both ElectraNet and the AEMC have indicated that intervention pricing impacts on the market have exceeded \$270m as at late last year and that in 2018 spot prices in South Australia were on average 10% higher than they would have been had intervention pricing not been applied for system security directions⁵. EnergyAustralia agrees with the AEMC that this cost is an absolute upper limit of the impact of intervention pricing as the market would self-correct to some degree. We would urge the AEMC to complete further work on reporting a more accurate impact of these directions considering the complicated inter-relationship between negative SRMC⁶ renewable generation and current system security constraints in South Australia⁷.

We understand that the AEMC is considering if intervention pricing should continue to be applied if AEMO intervenes in the market to maintain system security as opposed to intervening for reliability reasons. We urge the AEMC to give consideration to some of the flow on impacts that this could create due to the dynamics of the market. Under the current intervention framework (intervention pricing invoked for system security directions) the resultant what-if price (which the market settles) while low often means that a number of synchronous generators remain commercially online during these periods thus limiting the number of generators AEMO needs to direct⁸. If intervention pricing is not invoked for these periods, then a cascading effect could occur where AEMO has to direct additional generators to either remain online or synchronise to maintain system security. While it is likely that the market price would be lower if this change was to occur, consumers (through market recovery of direction costs) would still be required to fund compensation for possibly an increasing number of directed and effected participants and for a longer period of time. Potentially resulting in additional costs to consumers.

Regional Reference Node Test

AEMO has proposed broadening the Region Reference Node (RRN) test (as well as clarifying wording) to remove the need for AEMO to invoke intervention pricing when the

³ <https://www.electranet.com.au/what-we-do/projects/power-system-strength/>

⁴ AEMO does this by producing two runs in their dispatch engine. One run with the intervention constraints included (the physical unit targets are used from this run) and a 'what-if' run which produces the price that the market settles on had the interventions not occurred.

⁵ AEMC consultation paper, <https://www.aemc.gov.au/sites/default/files/2019-04/Investigation%20into%20intervention%20mechanisms%20and%20system%20strength%20in%20the%20NEM%20-%20FINAL%20for%20publication%20040419.pdf>. Noting this includes ~\$100m stemming from RERT activations.

⁶ Due to LGC creation.

⁷ For example, the S_NIL_STRENGTH_1 constraint has significant non-synchronous generation on the LHS all with the same constraint factor (1), this generation therefore is incentivised to bid to -\$1,000/MWh to ensure they remain dispatched.

⁸ EnergyAustralia understand that up until earlier this year there has been at least 1 commercial synchronous unit online in South Australia at all times during an intervention period.

Reliability and Emergency Reserve Trader (RERT) is used to manage a localised shortfall. EnergyAustralia is supportive of this change.

Changes to Compensation Threshold

EnergyAustralia supports AEMO's rule change proposal which seeks to amend the \$5,000 threshold per trading interval to the threshold applying per intervention event. The more frequent occurrence of intervention events means that compensation not payable under the current threshold can now easily become material to effected participants.

Direction Compensation Framework

Currently directed participants receive the 90th percentile energy price from the previous 12 months. While at the moment this would make most directed participants whole, there is potentially that the 90th percentile price could fall well below the required compensation to reflect a directed participant costs of running and maintaining their plant leaving them reliant on the administrative intense pathway of claiming for additional compensation. While we understand that the AEMC may look to adjust the compensation framework to a more stable price signal (for example, an approximate SRMC) we would highlight that it is challenging for directed participants to ensure their plant can be made available for directions as well as sourcing sufficient transport and commodity, often at additional costs. Directions most commonly occur during low demand periods, particularly over the shoulder months meaning that generators are further juggling both short and long notice planned outages to ensure these generators are available for high demand periods. Compensation needs to reflect a reasonable level of return for these reasons and not just simply an approximate SRMC.

Transparency

We support changes to improve the transparency and information available to participants around intervention events but also appreciate the significant amount of work required from AEMO to report on these, especially when they occur often. Instead of a full report on common system security intervention events (for example directions in South Australia for system strength) AEMO could produce a simple table (published on their website) detailing the high-level reasons for the event (for common events only), AEMO's timeline of actions, directed units and intervention intervals, among other things.

If you would like to discuss this submission, please contact Andrew Godfrey on 03 8628 1630 or Andrew.Godfrey@energyaustralia.com.au.

Regards

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