



Semi-scheduled generator rule changes

AER – Issues paper

SHELL ENERGY AUSTRALIA RESPONSE

July 2020

Shell has been active in Australia since 1901 and Australia continues to be a priority market for investment as Shell aims to become a global leader in cleaner power generation in line with customer demand.

In 2017, Shell Energy Australia (SEAu) was established as Shell's trading arm to bring increased diversity of supply and integrated energy solutions to the Australian market. In 2019, SEAu acquired ERM Power, a leading commercial and industrial electricity retailer, as a wholly-owned subsidiary. The acquisition further unlocks opportunities for Shell to support the National Electricity Market (NEM) as it transitions to more renewable flexible generation and storage and to provide innovative solutions for customers.

Shell has also expanded into new energies. We have acquired 100% of sonnen- a leader in smart energy storage systems and innovative household solutions and a 49% stake in ESCO, a utility scale solar developer. Further, we are building our first commercial-scale solar project in Queensland. Gangarri is a 120MW solar energy project which will generate enough electricity to power around 50,000 homes.

SEAu welcomes the opportunity to provide comment to the Australian Energy Regulator's (AER) issues paper on proposed rule change(s) for semi-scheduled generators to support system security in the NEM.

GENERAL COMMENTS

The AER has been tasked by the COAG Energy Council to develop two rule change proposals related to the operation of semi-scheduled generation:

- semi-scheduled generators being obligated to follow their dispatch targets, in a similar manner to scheduled generators (rule change 1); and
- semi-scheduled generators being required to continually inform AEMO of any restrictions on their available capacity due to physical factors, ambient weather conditions and their market intentions (rule change 2).

The AER has stated that the key issue to be addressed is the potential for semi-scheduled generators to move from their dispatched level of output based on their current bids during negative price dispatch intervals, and a failure to rebid as intended by the National Electricity Rules (NER), and awaiting receipt of a revised dispatch target. As such, the accuracy of pre-dispatch price forecasts is reduced, there is a greater risk to the secure operation of the power system due to frequency fluctuations and increased costs to customers due to the requirement for increased regulation FCAS procurement. The AER notes this behaviour could become more systemic as semi-scheduled generators increasingly make up a larger proportion of the NEM's capacity.

SEAU considers that semi-scheduled generators should meet their bids in good faith as per Clause 3.8.22A of the NER, subject to resource availability and as long as following a dispatch instruction is not a hazard to public safety or materially risks damaging plant equipment. We believe this was the clear intent of the 2008 rule change which required semi-scheduled generators to submit rebids when moving capacity between price bands. The final determination noted that *“the Commission believes the re-bidding provisions should apply equally to all Generators as these provisions provide an important safeguard to protect the integrity of the central dispatch process.”*¹

We note that there is some ambiguity around the intention of the NER for semi-scheduled generation dispatch which has likely contributed to this observed behaviour. This has subsequent impacts on the dynamic efficiency of the dispatch engine and could result in the price not being set correctly based on actual supply side bids. Any mispricing of the market is not in the long-term interests of customers, and with semi-scheduled generators increasingly operating to maximise commercial incentives rather than just full resource availability, economic efficiencies need to be fully considered.

As such, SEAU supports the intention behind the AER’s rule change 1 proposal to require semi-scheduled generators to follow their dispatch targets in a similar manner to scheduled generators.

We do not consider that rule change 2 is necessary at this stage as the NER already require semi-scheduled generators to provide this information to AEMO.² This was the intent of the original 2008 rule change; *“The Rule to be made requires Semi-Scheduled Generators to submit plant availability to the Market Operator, currently NEMMCO, for the purposes of the UIGF.”*³ If required, to provide additional clarity and support to the obligations set out in Clause 3.7B(b), Clause 4.9.9 could also be amended to also apply to semi-scheduled generating units. We also note that AEMO’s requirements for better information flows could be addressed through improvements to AEMO systems to allow semi-scheduled generators to meet the information requirements more easily than is currently the case.

We do not support the AER’s proposal for rule change 1 to be considered by the AEMC under the fast-tracked option. We are encouraged that the AER is undertaking stakeholder consultation prior to submitting the rule change proposal as this will result in a more informed proposal. However, as the AER has noted that the materiality of the issue is currently relatively low, the AEMC should consider the proposal under standard timeframes. This will ensure that full consideration is given to the application so that there are no unintended consequences to commercial incentives for semi-scheduled generators. The AEMC is also best placed to consider the proposal in conjunction with the wider NEM reform work and system services rule change proposals.

¹ Page 40 AEMC Final Determination – Central Dispatch and Integration of Wind and other Intermittent Generation May 2008

² NER Clause 3.7B(b)

³ Page 38 AEMC Final Determination – Central Dispatch and Integration of Wind and other Intermittent Generation May 2008

AER PROPOSED OPTIONS

The AER has considered four options which could deliver the requirement for semi-scheduled generators to follow their dispatch instructions:

1. Amend causer pays factors for ancillary services.
2. Remove the semi-scheduled classification.
3. Amend existing arrangements for semi-scheduled generation:
 - a. A megawatt target for the end of the dispatch interval and a ramp rate.
 - b. An energy target.
 - c. Operate as an inflexible generator.
4. Amend registration requirements and approvals for semi-scheduled generators to prevent the installation or use of either systems or procedures that allow for, or automate, a reaction to price that does not match their target.

SEAU does not support Option 2 and 4. The removal of the semi-scheduled classification would be extremely complex to implement and would have broader market consequences given that semi-scheduled generators rely on intermittent resources. Amending the registration requirements presents complexity for legacy assets and will not address the fundamental issues the AER has identified.

We also do not support Option 1 as significant improvements would be needed to the causer pay scheme to make it serviceable in this scenario. It also would not provide the economic signal required for generators to respond in advance.

Given the above, SEAU supports Option 3A (Option 1 as set out in Appendix D of the issues paper) as the preferred approach. We consider that requiring dispatch instructions to semi-scheduled generators to be a megawatt target for the end of the 5-minute interval, and a ramp rate, is the best approach to improve the accuracy of pre-dispatch price forecasts. This will also enable AEMO to better manage system security. There have been significant advances in technology and forecast models since the 2008 rule change, as such, semi-scheduled generators are now better placed to meet more stringent dispatch targets.

We also consider that as semi-scheduled generators are reliable on intermittent energy input resources, and dispatch instructions are based on AEMO's UIGF, it is imperative that any changes around requirements to meet dispatch targets allows for this limitation. We support the AER's proposal to include in the NER the following clause:

4.9.8(a2) A semi-scheduled generator does not fail to comply with a dispatch instruction for a dispatch interval because of a limitation in the availability of the resource (including energy storage).

We believe that the AER has considered a detailed range of options to address the issues raised and were unable to identify any additional options outside those proposed in the issues paper to achieve the required outcomes.

In addition, we recommend that the AER should consider the role of non-scheduled generators with a capacity greater than 30MW as part of the rule change proposal. There are 14 wind farms (total capacity of 1,195MW) that are registered as non-scheduled due to the semi-scheduled classification not being available at time of registration. This could have adverse impacts on the AEMO's ability to manage the power system.

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