INFORMATION

NEM settlement under low, zero and negative demand conditions

Final determination and rule published

The Australian Energy Market Commission (AEMC) has made a rule that amends rule 3.15 of the NER to ensure the national electricity market can continue to settle transactions in low, zero or negative demand conditions.

Overview of the final rule

The Commission has made a final rule that allows the national electricity market (NEM) to settle transactions during low, zero and negative net demand conditions. Key features of the rule are:

- AEMO will substitute adjusted gross energy (AGE) values for a market customer's average AGE from the previous four billing periods, when net regional demand is less than 150 MWh in a trading interval. Four billing periods was chosen over other periods as a longer averaging period can be affected by customer churn, while a shorter period could be distorted by one-off events.
- The substitution period must be reviewed if there has been substitution on at least five occasions and a market customer or AEMO reasonably considers the current substitution reference period is no longer suitable for determining a representative value of AGE.
- The threshold for substitution will be adjusted to 25 MWh when trading intervals move from 30 minutes to five minutes with the introduction of five minute settlement, from 1 October 2021.

The rule provides a temporary low cost solution to address the urgent settlement risks and the inequitable payment risks that can take place when net demand is low. In the longer term, these issues are being addressed in the *Integrating energy storage systems into the NEM* rule change, relying on gross metering flows to calculate non-energy costs, rather than net metering.

Benefits of the rule

The final rule:

- substantially removes the settlement risks that exists in low, zero or negative demand conditions
- addresses the related risks to AEMO's prudential systems, which rely on settlement data to perform allocations
- reduces the risk that market customers may receive payments for having a negative net demand
- reduces the risk that market customers with positive net loads may pay a disproportionate share of non-energy when net regional demand is low.

Context and the rule change request

Net regional demand has fallen across the NEM over the last 10 years because of the increased penetration of rooftop solar. This is particularly the case in South Australia and Victoria. Recent forecasts from AEMO indicate that rooftop solar growth is around 30 MW per month in South Australia.

There is now a real risk that there could be at least one trading interval of negative net regional demand in South Australia by September 2021. If net regional demand falls below

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1 MWh, AEMO's automated systems are not able to calculate and allocate non-energy costs and because its settlement systems are integrated, this failure to settle non-energy costs will impact AEMO's broader settlement systems, including energy settlements.

On 8 February 2021, AEMO submitted at rule change request to the AEMC. The Commission adopted an expedited process in considering this rule change request due to its urgency. No objections to using this process were received.

Commencement of the rule

The rule will commence with a 150 MWh threshold on 1 September 2021. The 25 MWh threshold for triggering substitution during a trading interval will come into effect from 1 October 2021, to align with the introduction of Five minute settlement rule.

Infigen's related rule change

On 15 February 2021, Infigen submitted a related rule change request focused on the potential for low operational demand conditions to distort non-energy cost allocation calculations. According to Infigen, this distortion occurs when regional net demand approaches zero MWh, as at this point:

- more market customers are likely to be net generators and will receive payments for this,
- the remaining market customers with net loads will pay a higher share of non-energy costs, despite native demand remaining constant.

To address these risks, Infigen proposed flooring each market customer's AGE at zero MWh, which would reduce the risk of aggregate AGE falling to a low amount.

On 17 June 2021, the AEMC published a draft determination to not make a rule in response to Infigen's rule change request, for a number of reasons, particularly:

- The AEMC has made the more preferable rule in response to AEMO's rule change proposal with a higher threshold for triggering substitution of 150 MWh, which largely addresses the inequitable payment and costs risks that occur when net regional demand is low.
- Infigen's proposed solution did not remove the settlement risks noted by AEMO.
- Infigen's rule change did not address competitive neutrality concerns between market customers, particularly commercial and industrial customers and large retailers with a large volume of rooftop solar customers.
- Making a second rule change risked unnecessary additional burden for market customers.
- The 1 September 2021 commencement data could lead to implementation and compliance issues for market customer and AEMO.

The AEMC's draft determination on the Infigen rule change is open for consultation until 29 July 2021, with a final determination to be published on 26 August 2021.

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