

Assessment of rebidding in the national electricity market

Publication of report investigating Grattan claims of gaming

The Australian Energy Market Commission (AEMC) has published a report investigating claims by the Grattan Institute that generators are gaming the wholesale electricity market

Request from the Minister

On 4 July 2018 the Honourable Josh Frydenberg MP provided the Australian Energy Market Commission (AEMC) with terms of reference for the Commission to assess claims made in the Grattan Institute's recent report – *Mostly Working: Australia's wholesale electricity market* – of gaming in the wholesale electricity market. The terms of reference asked that the Commission work with the Australian Energy Regulator (AER) to verify Grattan's findings and to make recommendations on appropriate solutions to address the issue, including whether rule changes are required.

The Grattan report

The Grattan report sought to explain recent increases in the wholesale cost of electricity in the national electricity market (NEM). It highlighted a \$10 billion increase in costs between 2015 and 2017 with three key drivers:

- a tighter supply demand balance, due largely to the recent retirement of generating plant including Hazelwood and Northern, accounting for \$6 billion of the increase in costs
- increases in the cost of key inputs to generators, especially gas and black coal, accounting for \$4 billion of the increase in costs
- generator practices that it referred to as gaming, accounting for \$250 million of the increase in costs.

The Grattan report made a number of recommendations addressing increases in wholesale prices including measures to address market concentration and to ease input cost pressures. To address the problem of gaming, the report recommended the Commission reconsider the introduction of a gate closure mechanism.

Grattan's assessment of gaming costs

The Grattan report recorded \$825 million in gaming costs in 2017, a \$250 million increase over 2015. The report defines gaming as behaviour that is within the rules but contrary to the intent of the system. A gaming incident, according to Grattan, involves a generator rebidding close to dispatch, creating artificial scarcity that other participants cannot respond to in time.

To quantify the impact, Grattan identified trading intervals between 2011 and 2018 where the difference between the highest and second highest five minute dispatch intervals is more than the half hour average. It excluded intervals where the half hour average is greater than \$5,000 per MWh. Grattan maintained that intervals showing these characteristics are indicative of artificial scarcity created by generators rebidding late with a view to spiking the wholesale price.

The Commission working with the AER, and using AER data around the primary causes of wholesale price spike events recorded in their events register, looked to assess Grattan's findings.

Rebidding serves a critical function in helping participants to respond to changing market conditions and providing for the lowest cost mix of generation to meet demand

Lowering barriers to entry and promoting efficient new investment in generation will help to improve competition and put downward pressure on wholesale prices over time

Key findings

Using the data provided by the AER, and with analysis of existing rule changes made by the Commission that address issues of gaming (in particular *Bidding in good faith* and *Five minute settlement*), the Commission finds:

- The definition of gaming used by Grattan is too broad, labelling price volatility and rebidding as gaming.
- The value of wholesale price spikes due to rebidding (not gaming) was \$243 million in 2017, not \$825 million. This cost has declined, not increased, since 2015.
- The majority of this cost, \$214 million, occurred in Queensland, of which \$213 million occurred between January and February 2017. Since the Queensland government directed Stanwell to moderate its bidding behaviour, the number of price spikes relating to rebidding practices were negligible over the period analysed.
- Excluding the impact of rebidding in Queensland (which has now been addressed), the impact of rebidding in the NEM was around \$30 million in 2017.
- Even if all rebidding is considered gaming, the cost is unlikely to be borne by consumers. Retailers typically enter into wholesale contracts that prevent such volatility being passed onto consumers.
- The report ignores that rebidding results in lower wholesale prices in almost as many instances as it results in higher prices.

The importance of rebidding

Rebidding is an integral part of the NEM, providing for the most efficient mix of generation to be dispatched to meet consumer demand. Rebidding allows participants to adjust bids to respond to new information as it becomes available including changes in weather, demand, generator performance, network constraints or the bids of other participants. This allows for the efficient operation of generating plant and effective risk management.

Rebidding results in lower wholesale prices in almost as many instances as it results in higher prices.

Rebidding will become more important to the operation of the market as the generation mix changes to include more fast and flexible generation and demand technologies. This is highlighted in the recent operation of the Hornsdale battery, where the ability to continuously respond to changing market conditions is integral to its operation in the market.

Conclusion

To the limited extent that bidding and rebidding behaviour in the market are seen to be a problem, the analysis shows that they are driven by high levels of market concentration and barriers to entry. This finding is similar to the ACCC in its report *Restoring electricity affordability and Australia's competitive advantage* published in July 2018. The ACCC made a number of recommendations targeting reductions in market concentration and barriers to entry and promoting efficient new investment in generation. These recommendations are currently under consideration by governments.

Changes to the market rules, in particular the introduction of a gate closure mechanism, would not address issues of industry structure in the wholesale market. It would also have a negative impact on the efficiency with which supply and demand are matched in real time, and the incentives for investment in new generation.

The AEMC's *Bidding in good faith* rule, implemented in 2016, addresses misleading bidding by participants. The *Five minute settlement* rule, to be implemented in 2021, will eliminate the mismatch between the settlement period and the trading interval, and in the process provide for more efficient pricing and investment signals.

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