

Wholesale demand response mechanism final rule

Final rule and determination for *Wholesale demand response mechanism* rule change request published.

The Australian Energy Market Commission (AEMC) has released a final determination setting out a series of changes to the National Electricity Rules (NER) to facilitate wholesale demand response in the national electricity market (NEM), principally through implementing a wholesale demand response mechanism.

Providing consumers with more opportunities to provide demand response

This final determination sets out a series of changes to the NER to facilitate wholesale demand response in the NEM, principally through implementing a wholesale demand response mechanism. This represents a significant reform for the NEM. Under this rule, consumers will be able to sell demand response in the wholesale market either directly or through specialist aggregators for the first time.

This rule introduces a low-cost mechanism for transparently engaging the demand side in central dispatch. Since the NEM commenced, the demand side has rarely participated in central dispatch. However, under this mechanism, consumers will be able to actively participate in central dispatch and be rewarded for the value they provide to the system. In addition, this mechanism will capture the benefits of greater demand side participation and share these benefits with all consumers. This final rule allows for new technologies, particularly those brought about by increased digitalisation to be valued within the market framework. This is an important step on a path toward a two-sided market.

This mechanism also represents a design that seeks to minimise the costs and complexity of implementation. It has been designed so that retailers do not need to change their billing systems, which is complex and costly. It has also been designed to minimise the costs incurred by AEMO. This has resulted in a mechanism that enables greater demand side participation at low cost.

The opportunity to introduce a wholesale demand response mechanism arises because there is growing interest across industry in participating in wholesale demand response, as highlighted by the three rule change requests received by the Commission. This rule provides those consumers with greater opportunities to participate in the wholesale market in a manner that values their response while also improving reliability. Wholesale demand response will also contribute to improving reliability and security in the NEM.

Overview of final determination

The Commission has determined to make a more preferable electricity rule. The final rule allows large customers to provide demand response to DRSPs who, in turn, can offer this into the wholesale market.

Large customer(s)

- Enters into a contract with a DRSP or becomes a DRSP itself
- Provides demand response by reducing load or exporting with behind the meter generation
 Paid by DRSP for providing
- Paid by DRSP for providing demand response

DRSP

- Registers with AEMO
 Enters into contracts with large
- Enters into contracts with large customers
- Classifies loads as wholesale demand response units
- Offers wholesale demand response into the wholesale market and receives dispatch instructions
- Paid at spot price for demand response, and in turn pays customers for demand response

AEMO

- Issues dispatch instructions to scheduled wholesale market participants
- Dispatches the least cost combination of demand response and generation
- Runs settlement, which includes paying DRSPs for providing wholesale demand response

The final rule:

- introduces a new market participant category, a demand response service provider (DRSP)
- places obligations on DRSPs that, as much as practicable, replicate those applied to other scheduled participants, for example, similar information provision and scheduling obligations
- sets out a process for having baseline methodologies determined and applied to wholesale demand response units
- provides for DRSPs to be settled in the wholesale market for the wholesale demand response they have provided at the prevailing spot price
- sets out implementation timeframes for the mechanism, with the mechanism commencing on 24 October 2021.

Changes between second draft and final rule

A limited number of changes have been made between the second draft rule and the final rule. The key changes are:

- changing the reimbursement rate to reflect peak-period demand weighted wholesale prices.
 This reimbursement rate is likely to more closely reflect the wholesale component of the retail tariff for loads that are able to provide demand response during periods of high wholesale prices.
- changes to the dispatch model. Under the final rule, AEMO will issue a dispatch instruction that specifies the level of demand response that the DRSP should provide (that is, the deviation from its baseline level of consumption).
- a cap in settlement such that a single load cannot be settled for demand response exceeding its maximum responsive component. This would limit the DRSP being settled for demand response arising from changes in the underlying load that were not predicted by the baseline.

Two-sided market is the enduring solution

The Commission notes there is significant stakeholder interest in promoting demand response opportunities for residential customers, and facilitating small customer demand side participation would benefit consumers and the NEM. In seeking to engage small customer demand side participation and share the benefits with all consumers, care needs to be taken in selecting the right framework. The Commission considers that the best approach is to develop a two-sided market, which is more suited to small customer involvement.

The Commission considers that moving to a two-sided market will assist the NEM in effectively evolving and transitioning to the future power sector, and that will provide enduring consumer benefits. A two-sided market is characterised by the active participation of the supply and demand side in dispatch and price setting. Moving to a two-sided market should enable the transition to a reliable and secure future NEM that is characterised by increasingly variable supply and more flexible, price responsive demand.

With these expanded opportunities, a move to a two-sided market will be essential. The growing number of consumers equipped to actively participate in the market will eventually lead to the market outgrowing this particular wholesale demand response mechanism. In the meantime, the mechanism will be important for enabling a greater level of demand side participation in the wholesale market. This will provide valuable insights into the best approach for incorporating greater demand side participation through a two-sided market,

particularly for forecasting and scheduling.

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