



Using demand management to take pressure off the power system

Wholesale demand response mechanism draft determination published for consultation

The Australian Energy Market Commission (AEMC) has released proposals to open up the wholesale electricity market so large consumers can be more easily paid for reducing their demand on the power system.

The wholesale demand response mechanism draft rule, released today for consultation, would allow non-retailers to offer demand response directly into the wholesale market for the first time.

AEMC Chairman John Pierce said changes would be put in place as quickly as possible to help take the pressure off the power system by meeting our electricity needs through the lowest cost mix of demand response and supply.

The draft rule is in response to different requests received from the Total Environment Centre, The Australia Institute and the Public Interest Advocacy Centre; the Australian Energy Council and the South Australian Government. Last year the AEMC's *Reliability frameworks review* recommended the facilitation of more demand response in the wholesale market and called on stakeholders to request new rules to make this happen. These requests followed that call for action.

"This draft rule is all about large commercial and industrial consumers in the wholesale market who can now participate directly in the wholesale market by offering in demand reductions. These are times in which those consumers have agreed not to consume electricity or consume less or later," Mr Pierce said.

"Taking demand pressure off the power system is a substitute for generation and helps tackle rising wholesale prices at peak times reducing electricity costs for everyone.

"Most simply, demand response is a consumer choice to turn down or turn off their electricity use in response to a signal to do so.

"So if wholesale prices are higher, there is more incentive for demand response. It makes sense to manage demand for electricity if we are going to deliver reliable energy at the least possible cost," he said.

Draft rule at a glance

This change would enable new businesses to work with consumers to sell their demand reductions into the wholesale market in a similar way to scheduled generation, and be settled in the market at the price available at that time.

"Right now, only retailers can offer this service. New businesses wanting to enter the market, and some consumers, say retailers haven't done enough to encourage demand response. On the other hand, retailers say change is underway and that adding new players will end up costing consumers more," Mr Pierce said.

Demand response service providers would have largely same obligations as scheduled generators in terms of providing information to the wholesale electricity market. AEMO would set a baseline against which the value of demand would be calculated and paid.

This puts demand response on equal footing to generation for the first time.

“We are addressing both of these concerns while promoting innovation and protecting small consumers from being put at risk.

“If adopted, this new approach to wholesale demand response would mean:

- commercial and industrial electricity customers can decide to reduce their consumption at peak times and sell this demand reduction into the grid via a new third party demand resource service provider
- as prices peak, they will be told to turn off and the aggregator will bid their demand reduction into the market
- if generation available to meet our needs is more expensive than the demand reduction available, the demand reduction would be ‘used’ first in place of generation, saving everyone money.

“This puts demand response on equal footing to generation for the first time.

“Because we are allowing demand response to set prices in the wholesale market more expensive generation may be likely to be pushed to the back of the queue,” he said.

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Mr Pierce said that if this change was made, it would be an important part of allowing the energy market to establish the lowest cost and most efficient way of meeting supply when the next major coal-fired power station, Liddell, is due to close in 2022.

“Technology is developing fast and changing the economics of the market. It won’t be long before digitalisation gets to the point where a truly two-sided market is possible. That’s a market where consumers actively manage their decisions to consume or not consume.

“The mechanism we have designed takes advantage of these technological advances. We want to start opening up the system so when technology is mature enough there is a clear runway for widespread demand side participation to take off.”

Mr Pierce said the proposed mechanism was likely to increase the value of demand response and make it more attractive to large customers.

“Demand response benefits consumers in two ways. It means they can be paid directly for energy they don’t use at peak times, which also lowers costs for everyone by reducing the need for new generation and more expensive network augmentation.

“The ability to save money through demand response already exists and we have made a number of changes over the past five years to make it easier, but we want to make it more attractive and eventually open it up to be a truly two-sided market where generators and consumers face the same price signals and incentives to either supply or use electricity,” Mr Pierce said.

The AEMC draft determination excludes households and small customers from participating in the wholesale market because they would not necessarily be covered by the appropriate energy specific consumer protections. The AEMC has committed to reviewing the need for energy-specific consumer protections over the next 12 months to address what protections maybe necessary, and recommends that the ability for households and small businesses to access the mechanism be reconsidered after that review is done.

The AEMC has modified the proposals in the original rule requests to reduce costs to consumers such as those associated with changes to retailer billing systems and the extent of the systems changes AEMO are required to make.

“The greatest savings are likely to be realised from commercial and industrial customers. But if small consumers have smart meters and opt to have time of use pricing, or sign up for direct load control, they can already participate in demand response and reduce their bills by foregoing energy they might otherwise have used at peak times,” Mr Pierce said.

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Background

There are different types of demand response: wholesale; emergency (for example, participating in the RERT); network (for example, using demand response to offset the need for network build); and ancillary services (for example, load offering in to manage frequency). While the equipment that provides these different types of demand response is often the same, the services provided are distinct.

How demand response works in the wholesale electricity market

There are three main types of wholesale demand response.

1. Customers can provide direct load control of their appliances to a third party (like a network business or retailer);
2. consumers can choose a time of use retail contract or a contract with direct exposure to wholesale prices and cut their electricity use at high price times; or
3. third parties can be allowed to bid demand reductions into the wholesale market as a substitute for generation under a wholesale demand response mechanism.

The first two types of demand response are already happening in the NEM. The third type would be established by the draft rule released today.

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