

SUBMISSION TO

Demand Response Mechanism and Ancillary Services Unbundling

Draft Rule Determination



October 2016

The Alternative Technology Association (ATA) welcomes the opportunity to respond to the Australian Energy Market Commission's draft determination on the *National Electricity Amendment (Demand Response Mechanism and Ancillary Services Unbundling) Rule 2016*.

Founded 36 years ago, the ATA is a national, not-for-profit organisation whose 6,000 members are (mostly residential) energy consumers. About 2,500 of our members are Victorian.

Our extensive experience in energy policy and markets informs our advocacy and research which, amplified by our close collaboration with fellow members of the National Consumer Roundtable on Energy, makes the ATA an important voice for energy consumers Australia-wide.

ATA has a uniquely twofold perspective as a consumer advocate. With the continuing support of the Energy Consumers Australia (and formerly the Consumer Advocacy Panel) we represent all small energy consumers in advocacy that seeks to improve energy affordability and the structure and operation of the National Energy Market (NEM). Additionally, we speak with authority on behalf of the growing portion of the consumer base that has an interest in demand-side participation.

Overview

In the ATA's view, the Demand Respond Mechanism (DRM) is equal only to improvements in network pricing as the highest priority of the *Power of Choice* reforms. Hence the ATA is profoundly disappointed at the overly-cautious approach the Commission has taken – a failure of the imagination that baulks at guiding the NEM through its necessary evolution and rationalises it by comparing the transitional costs (many of them unsubstantiated) of a fundamental change with benefits calculated as if that change does not occur.

The original vision for the DRM was to enable demand to compete directly with supply in responding to the market's needs – a fundamental reconception of the NEM from a system for selling generated electricity to one for most efficiently meeting the energy needs of its end-users. This change increases technology-neutrality (by putting demand and supply on a level playing field), and helps better position the market for both the immediate need of adapting to a more diversified and distributed generation base, and the longer-term need to decarbonise. The revised DRM proposed in this rule change was less ambitious, but still represented a solid step toward that bigger vision. The Commission's analysis did identify some of its deficiencies (such as the implications of all demand responses being unscheduled), but missed the opportunity to make a more preferable decision for a modified DRM that addresses them.

The ATA urges the Commission to revisit the draft decision, undertake more rigorous analysis of costs and benefits, and propose a new more preferable rule for a demand response mechanism that allows demand response to compete on a level playing field with generation in the wholesale market.

Barriers to demand side participation

The draft determination concludes that “current market developments already enable demand side participation arrangements to deliver demand response (DR) in the NEM without the need for imposing a market wide mechanism such as the DRM.”¹ However, the existence of ‘workaround’ measures is not in itself evidence that a market mechanism is not necessary – only that there is market demand for DR products that are not otherwise available.

Even when counting end-user exposure to spot prices as demand side participation (a confusion of means with ends), the amount of demand response available as a proportion of total generation capacity is considerably lower in the NEM than in Western Australia (2 per cent compared to almost 10 per cent²). As a proportion of reserve capacity it is in the lower range of the international markets surveyed by Brattle Group (8 per cent, compared to 16 per cent in Texas and 32 per cent in the PJM market covering several states in the eastern USA).³ Together, this strongly suggests that the current opportunities for demand response in the NEM are limited.

The draft determination also claims that:

There is no evidence to support the barriers to demand side participation that have been identified in the rule change request. Large customers as well as retailers and networks already access a competitive demand side management services market to enjoy the economic benefits of their demand response or to offer a range of different products and services, respectively.⁴

But we disagree that there is no evidence of barriers to demand side participation (DSP). The survey conducted by Oakley Greenwood shows that energy retailers have a stranglehold on the DSP market, with even three quarters of third party DSP simply facilitating access to standard or bespoke retailer programs.⁵ Furthermore, most of the retailer programs are simply direct pass-through of spot prices – importantly, not actually a demand response (though in some cases it may elicit one). As a straightforward handover of risk to end-users, spot price exposure is unsuitable for most customers and, especially after the South Australian price spikes of July 2016, increasingly unpalatable for most of the rest.

The survey also does not identify how many customers are participating in DSP; how much of the available DR capacity is actually dispatched; or how often DR is dispatched. Overall, the Commission’s interpretation of the Oakley Greenwood survey findings as demonstrating a competitive DSP market is difficult to understand.

¹ AEMC (2016), (Demand Response Mechanism and Ancillary Services Unbundling), Draft Rule Determination, 1 September 2016, Sydney: p. 23

² Calculated from data in WA Major Energy Users (2016) *Electricity Market Review: Response to Position Paper on Reforms to the Reserve Capacity Mechanism dated 3 December 2015*, WAMEU, 29 January 2016; <<https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM>>; and OGW (2014) *Cost-benefit analysis of a possible Demand Response Mechanism*, Department of Industry, 2014

³ Brown, Newell, Oates & Spees, *International Review of Demand Response Mechanisms*, AEMC, 2015.

⁴ AEMC (2016) *op. cit.* p. 23

⁵ OGW (2016) *Current Status of DR in the NEM: Interviews with Electricity Retailers and DR Specialist Service Providers*, AEMC, 2016

The submission by Major Energy Users to the consultation paper documents in some detail the difficulties their members face in engaging in the DSP market. In particular, major energy users do not want to have to 'engage' with the energy market any more than is necessary – and certainly do not want to be managing the risks of the spot market, even if through a mediator. The Commission's response to MEU – that major energy users are free to participate in the spot market – misses this point.

Relying on retailers and distributors to gatekeep DSP will never be enough to fully realise its potential. The retail business model is predicated on managing the risk inherent in volatile pricing – it will never be worthwhile for retailers to give this up at any material scale. Retailer ownership of generators – that compete directly with DSP – adds to their interest in not encouraging large-scale demand response. Networks have some more rationale for facilitating strategic demand response, especially as other regulatory changes roll out. But network-driven demand response by nature tends to be locationally specific and infrequent. Third party arbitrated DSP can encompass both network- and spot price-driven opportunities, making it more worthwhile for customers and side-stepping retailers holding the keys.

Costs and benefits of a demand response mechanism

The Commission states that benefits of the DRM are limited because demand response cannot influence the spot price because it is unscheduled.⁶ We agree that scheduled demand response would more directly influence the spot price. However unscheduled demand and peaking generators already influence the spot price. Indeed, the Commission fears that end-users gaming the DRM by (unscheduled) over-consumption when the spot price is high (which seems like a high-risk strategy unlikely to reliably yield a return) will push the spot price up.⁷ Why unscheduled under-consumption can't similarly push the spot price down is not explained. It seems that more thorough analysis of the impact of demand response on spot prices is needed.

Scheduled vs. non-scheduled demand response

We agree that scheduled demand response will be more effective at driving efficient pricing in the spot market. The move away from scheduling DR is a deficiency of the revised DRM proposal. To truly put DR on an equal footing with generation – necessary for efficient pricing and technology neutrality – consistency with generation is entirely appropriate. Generators over 30 MW must be scheduled, so DR above 30 MW (whether a single or an aggregated load) should be too. Generators below 30 MW need not be scheduled, and neither should DR below 30 MW.

Demand response aggregators (DRAs) can offer a firm response if they have a sufficiently large portfolio without requiring individual customers to have a firm response. DRAs would need to manage that risk, just like retailers manage volume and pricing risks in the existing market.

In the ATA's view, a more preferable rule for a DRM with scheduling of DR consistent with scheduling of generation would be an entirely appropriate way to improve the DRM's ability to compete with generation and drive more efficient pricing in the spot market.

⁶ AEMC (2016) *op. cit.* p. 20

⁷ AEMC (2016) *op. cit.* p.63

The costs of change

Any transition has costs incurred during implementation. A more thorough analysis of market-wide benefits would put these into perspective, and give a clear picture of the net value of benefits.

Irrespective of whether the Commission's analysis of benefits is thorough, we have questions about the veracity of some of the expected costs. The assertion that retailers' costs will amount to \$112 million over ten years comes with so many qualifiers as to be almost worthless, being:

- not substantiated in any way
- not disaggregated by responder – so any outliers are obscured
- not distinguishing between upfront and ongoing, or fixed and variable costs
- not accounting for likely implementation pathways such as staged implementation or coordination with system changes required due to other market changes.⁸

On the lack of disaggregation of survey results, Oakley Greenwood notes:

"We also understand that there may have been a high degree of variability in the cost estimates across the responding retailers. A high level of variability in such estimates would seem to be beyond what would be expected due to the differing system and processing capabilities across a group of retailers, and also leads to questions regarding (a) how the brief was interpreted by the various retailers that responded, and (b) whether, as a result, their responses were undertaken under sufficiently consistent interpretations to allow direct use of the aggregated results."⁹

Even if costs were better substantiated, they would need to be regarded with a degree of scepticism because retailers' opposition to the DRM (competing as it does with both their retail business and their generation portfolios) gives them a strong incentive to overstate their costs. As it is, even the assertion that retailer costs as given can only be considered accurate to within $\pm 50\%$ cannot reasonably be regarded as anything other than a shot in the dark.

Market distortions

The Commission's analysis of potential market distortions should also be revisited. Some of the problems raised could equally be hypothesised in the current market; others would only arise if the DRM at the same time has a significant effect on the market but no effect on market behaviour. In fact the lack of efficient DR on a level playing field with generation is itself a distortion of the current market – one that can only be remedied with a well-designed DRM.

Spot market distortions

The Commission is concerned that less reliable unscheduled DR will unjustifiably be rewarded equivalently to more reliable scheduled generation in the spot market. But this is no different to how unscheduled peaking generators – an integral part of the existing market – are rewarded in the spot market. If DR is treated equally to generation, how can it be considered a distortion? Especially if (as we have suggested) DRM over 30 MW is required to be scheduled (in alignment with requirements for generators).

⁸ OGW (2014) *Cost-benefit analysis of a possible Demand Response Mechanism*, Department of Industry.

⁹ *Ibid.* p. 61

Retail market distortions

In claiming that “the benefits of the demand response are not accrued to the retailer but rather to the demand response aggregator,”¹⁰ the Commission seems to have forgotten the customer. Yes, customers will be billed for their baseline energy usage (which includes hedging costs) by their retailer; but they will also be paid for their demand response by the DRA. The Commission is correct to note that “the net outcome for customers is difficult to estimate”¹¹; but the implication that customers may lose out financially is surprising. Presumably, customers will only respond if it is worth their while – not only to offset their obligations to their retailer, but also their other costs of onsite generation or diminished production due to their demand response. The Commission’s assertion in several places that the retailer is somehow entitled to be the full beneficiary of the value of their customers’ demand response¹² has not and cannot be substantiated.

Financial market distortions

If the DRM is effective, there will probably be an impact on the market for hedge contracts. The same could be said for many market changes. The change is likely to be complex and go a bit both ways, because DRAs may participate in the hedge market the way generators do. An effective DRM is also likely to put downward pressure on prices – also impacting the hedge market. Whichever way it goes, the market will adjust. When functioning well, market forces drive efficient prices. Putting demand response on a more equal footing with generation improves efficiency in the market.

If the DRM is ineffective, the hedge market won’t be impacted.

Gaming the DRM

The proposed scenarios in which DRAs or end-users can game the DRM are difficult to make sense of. The risk that end-users will game the system by over-consuming to inflate their baseline seems extraordinarily low, as it is unlikely that the financial benefit of the additional demand response thus measured will outweigh the cost of the additional consumption over months beforehand, as well as the obligation to pay the retailer for the baseline usage during the demand response.

The risk that DRAs will develop baseline calculation methodologies to game the DRM still exposes the customer to the higher cost of paying for baseline consumption during a demand response; but it is also obviated by the requirement for AEMO to assess and accredit baseline methodologies. The concern that this will then “limit the flexibility in incorporating new, more accurate and more robust estimation techniques”¹³ seems strange, if DRAs are actually incentivised (as noted above) to develop more inaccurate and less robust baseline methodologies to game the system.

Again, customers are not going to sign up with DRAs unless they can benefit financially. DRAs that are gaming the system for their own profit at the expense of their customers will not keep their customers for long.

¹⁰ AEMC (2016) *op. cit.* p. 60

¹¹ *Ibid.* p. 60

¹² For example, on p. 60: “it is the retailer and not the demand response aggregator that should benefit from the customer’s demand response and make the decision on whether to engage in demand response with their customers to manage its own exposure to the spot price.”

¹³ AEMC (2016) p. 62

Unbundling the provision of ancillary services

The ATA supports the proposal to unbundle the provision of ancillary services to offer demand response into Frequency Control Ancillary Services markets.

Conclusion

The ATA urges the Commission to revisit the draft decision, undertake more rigorous analysis of costs and benefits, and propose a new more preferable rule for a demand response mechanism that allows demand response to compete on a level playing field with generation in the wholesale market.

Thank you for the opportunity to respond to the Australian Energy Market Commission's draft determination on the *National Electricity Amendment (Demand Response Mechanism and Ancillary Services Unbundling) Rule 2016*.

We also acknowledge the support of Energy Consumers Australia, which enabled us to participate in this process.

If you wish to discuss anything raised in this submission further, please contact Dean Lombard, Senior Energy Analyst, at dean@ata.org.au or on (03) 9631 5418.