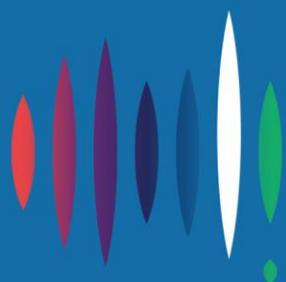
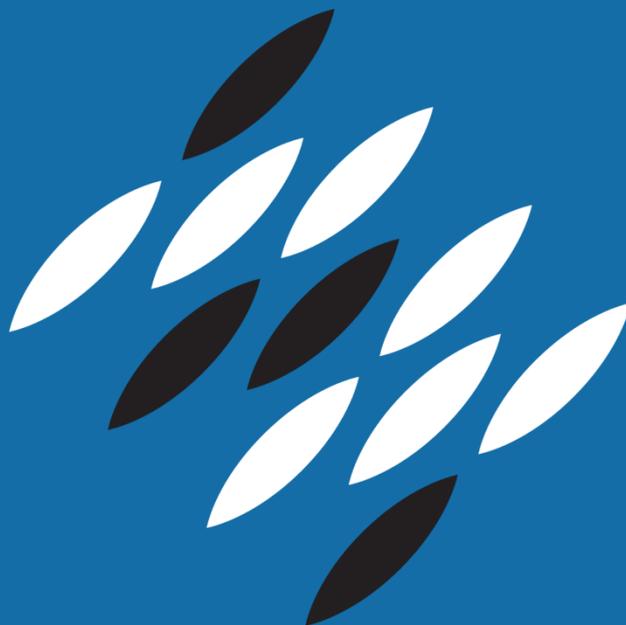


Wholesale demand response mechanism – ERC0247

Submission to the Australian Energy Market Commission's consultation paper

February 2019



**ENERGY
CONSUMERS
AUSTRALIA**

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Introduction

“A competitive market is not determined merely by the numbers of players selling the same product the same way with little price or service differentiation. For consumers to have a role in making, breaking and shaping a market, they need choice – competing products, tailored service propositions – reflecting their myriad needs – no longer one size fits all.”¹

Energy Consumers Australia is the national voice for residential and small business energy consumers. Established by the Council of Australian Governments Energy Council in 2015, our objective is to promote the long-term interests of consumers with respect to price, quality, reliability, safety and security of supply.

Energy Consumers Australia appreciates the opportunity to comment on the Australian Energy Market Commission’s (AEMC) *Wholesale demand response mechanisms: consultation paper*², which is seeking views on three rule change requests submitted by:

1. Public Interest Advocacy Centre (PIAC), Total Environment Centre (TEC) and the Australia Institute (AI), seeking to introduce a mechanism for wholesale demand response
2. Australian Energy Council, seeking to introduce a register for wholesale demand response.
3. South Australian Government, seeking to introduce a mechanism for wholesale demand response; as well as a separate, transitory market for wholesale demand response.

¹ Sandys, L., Hardy, J., Green, R. & Rhodes, A. (2018). *ReDesigning Regulation: powering from the future*, Grantham Institute, Imperial College London. Retrieved from <https://www.imperial.ac.uk/grantham/publications/redesigning-regulation-powering-from-the-future.php>.

² <https://www.aemc.gov.au/rule-changes/wholesale-demand-response-mechanism>

Energy Consumers Australia broadly supports the objectives of changing the rules to introduce Wholesale Demand Response (WDR) which we see as contributing to an energy system and market where:

- *Affordability* is a constraint on investment and decisions about energy – an explicit criterion in decision making up and down the supply chain.
- Energy services are built around *individuals* to reflect their own unique circumstances, enabling people to easily manage their own use and costs – whether that is consumers who are innovating and engaged; or the majority of consumers who are focused on affordability and costs; or consumers with vulnerabilities.
- Investment in the power system – networks, generation, retail and consumer – is *optimised* and based on consumers demands that not a dollar more is spent than is necessary and not one day earlier than needed.

The traditional energy supply chain model and the overarching regulatory framework is changing in response to consumer expectations and technological advancements. It is more important than ever to ensure that the regulatory framework is fit-for-purpose over time by being adaptable.

A demand response mechanism can build a more competitive wholesale market by introducing new players offering new services. This should lead to more affordable electricity prices and greater optimisation of consumers' investment in both the distribution networks and their own distributed energy resources. Further whether consumers participate is their choice, the service is individualised as it allows consumers to engage on their terms.

This submission does not intend to comment on each of the rule change proposals in detail. However, Energy Consumers Australia considers that a WDR mechanism should deliver:

- Downward pressure on wholesale prices by reducing demand when wholesale prices are high
- Place additional downward pressure by limiting the ability of generators to exercise market power in times of high demand
- More efficient network build and operation to ensure all consumers can benefit from lower network prices
- Choice of supplier, without introducing unnecessary complexity for the consumer
- A framework that is resilient and fit-for-purpose

To ensure that WDR is efficient, suppliers of these services should be able to compete on a level playing field. Incumbent market participants, including retailers, should not be able to restrict the supply of these services. The development of a WDR mechanism through opening the market to greater competition provides the greatest opportunity for consumers to participate. All consumers, ranging from information-poor households and farms to small

and large businesses, should have the option to participate in demand response, whether or not their retailer offers it to them.

Consumers have waited patiently for innovative avenues for participation in the energy market.³ Innovation has not been a strong focus for the sector, with some consumers still waiting on the traditional market players to provide the basic tools such as smart meters. Consumer participation will continue to be stifled unless we pursue different ways of doing things that provide benefits to consumers.

Meeting consumer expectations

Observations from the Energy Consumer Sentiment Survey

Most consumers do not consider that the market is working in their interests. In our [December 2018 Energy Consumer Sentiment Survey](#), consumers told us that their trust remains low, at just 33 per cent (up 10 per cent) nationally. Increasing competition in the wholesale market and reducing the (possibly perceived) ability for gen-tailers to exercise market power to increase prices would likely lead to an increase in consumer levels of trust over time.

Across all markets, a strong majority of consumers (between 40 and 53 per cent) say that they would be willing to reduce their energy usage in period of high demand. These results are supported by the experience in NSW and the ACT in February 2017, where a call by governments for people to adjust their use yielded a significant reduction in demand that helped avoid the need for load shedding⁴. However, across the national energy market, other consumers (between 21 and 30 per cent) indicated they would reduce their energy usage if there was an incentive to do so. Introducing a WDR mechanism may help to unlock some of this potential.

The survey also showed that most consumers are lowering their energy use through behavioral change, predominantly through simple behaviours such as switching off lighting and appliances when they're not in use and using appliances less frequently or more efficiently. Fewer consumers are reducing their energy use through new technologies.

However, as technology costs decrease over time, the number of consumers who actively manage their energy is likely to increase. Consumers who do not already have specific technologies are considering them as a future purchase. In most markets, there was significant interest from consumers who had not already taken up rooftop solar, battery storage, smart thermostats, electric vehicles or home energy management systems, in these technologies.

³ The documentation from the start of the development of the national market contains multiple references to the value to be gained from demand side participation. An early example is the National Grid Management Council's 1994 paper *Empowering the Market*.

⁴

- Between 24% and 39% of consumers in each market are considering purchasing a battery storage system.
- Between 14% and 27% are considering rooftop solar panels.
- Between 13% and 22% are considering a home energy management system.
- Between 12% and 20% are considering a smart thermostat.
- Between nine per cent and 21% are considering an electric vehicle.

Across all household markets, of those who already have solar panels, 53 per cent are considering purchasing a battery storage system. Six per cent are intending to do so in the next 12 months and 47 per cent are considering doing so in the longer term.

Consumers have also told us that their confidence in their abilities, availability of easily understood information and tools have all improved, compared with the same period a year ago. Overall they remain flat across the six Energy Consumer Sentiment Surveys. While more than half of consumers are confident in their abilities to make choices, less than half of consumers say they have the information or tools they need. Development of a consumer-friendly WDR mechanism should take this into consideration.

Optimising existing costs and benefits for all consumers

While this rule change is about the wholesale market, its impact is on the ability of a new class of provider to offer additional services to consumers. If properly *optimised*, the tools consumers invest in for their homes and businesses will have the capability to benefit the wholesale market, the distribution network, other consumers, and themselves. Ensuring that distributed resources benefit the whole system, means they will also benefit consumers who are unlikely to invest in solar, batteries or other technologies, either because they don't have the financial means, or they occupy buildings which are not suitable for these technologies.

Through our participation in distribution network regulatory processes, we have observed that network businesses are looking at actions they can take to ensure that the network and consumers' distributed energy resources work together to achieve common goals.

In its *2020-2025 Draft Plan*, SA Power Networks has proposed investment of \$37 million to continue adapting the network to support increasing uptake of consumers' distributed energy resources⁵. Similarly, Energy Queensland is proposing a portion of its augmentation capital expenditure (augex) for Energex (\$279 million total augex) and Ergon (\$257 million total augex) for innovative technology investment to enable an intelligent grid and to

⁵ SA Power Networks, *2020-2025 Draft Plan*, 2018, page 6. Retrieved from <https://www.talkingpower.com.au/38336/documents/84356>

accommodate consumers’ future needs through choice of distributed energy resources⁶.

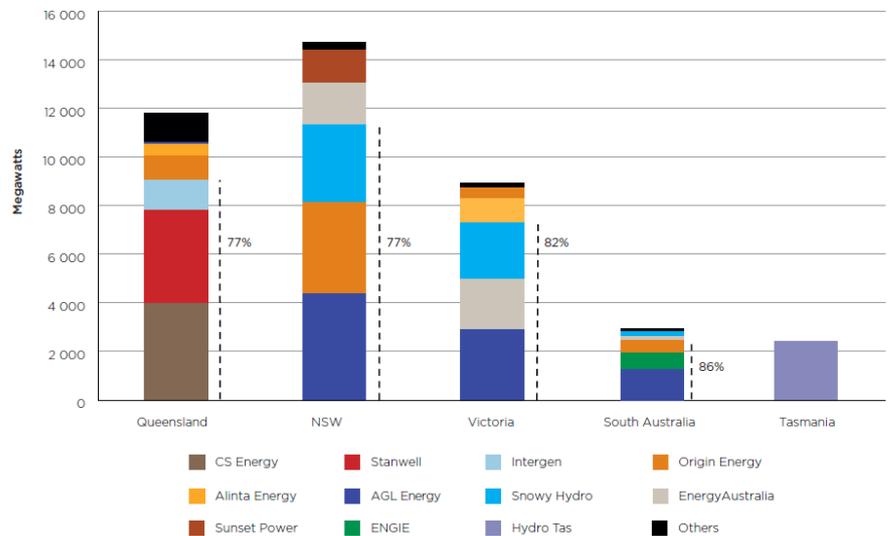
We appreciate that transformation of the energy market will incur costs. Consumers are very much aware of this given that they ultimately bear all the cost of distribution, transmission, retail and generation. It is critical therefore that the development of a WDR also considers the impact on distribution networks. Properly designed, the same aggregated resources should be available to the distribution network operator in times of localised needs.

A need for greater diversification in the wholesale market

Concentration in the wholesale market

The Australian Energy Regulator’s (AER) 2018 *Wholesale electricity market performance report* shows the wholesale market is highly concentrated, as illustrated in Figure 1.⁷

Figure1: Market share by capacity, January 2018



Notes: Capacity figures refer to summer capacity at 31 January 2018. Capacity for intermittent generators is adjusted for an average contribution factor. Interconnector capacity is not included. Trading rights for each generator are attributed to the organisation that has control over the generation output. In the case of generators with power purchasing agreements (PPA), the trading rights are attributed to the organisation that receives the energy under the PPA.
 Source: AEMO data, AER analysis.

Source: AER Wholesale electricity market performance report 2018

⁶ Energy Queensland, *Our Draft Plans 2020-25*, 2018, pages 46 and 47 (Energex) and pages 75 and 76 (Ergon). Retrieved from <https://www.talkingenergy.com.au/39176/documents/86661>

⁷ AER *Wholesale electricity market performance report December 2018*, Section 3.11 – Ownership in each region is concentrated, page 20. Retrieved from <https://www.aer.gov.au/wholesale-markets/market-performance/aer-wholesale-electricity-market-performance-report-2018>

The AER's *Wholesale electricity market performance report* also tells us that vertical integration has increased over the past five years. The 'Big 3' retailers – Origin Energy, AGL Energy and EnergyAustralia – supply about 70 per cent of the retail electricity market. From 2013-14 to 2017-18, the 'Big 3' expanded their share of total generation output from 37% to 50%.⁸

The Australian Competition and Consumer Commission's (ACCC) *Electricity Pricing Inquiry – Final Report* provides an insight into the behaviours of energy businesses that are enabled by the current design of the wholesale market. The report describes the bidding behaviour of different types of generators in the wake of the closure of Hazelwood. Some vertically integrated retailers and generators ("gen-tailers") shifted capacity to higher price bands; and significantly increased output in the lower price bands to capitalise on higher wholesale prices⁹.

Clearly, incumbent businesses (such as gen-tailers) seek to maximise the profit for the business, which is a natural activity of this kind of entity.

However, if the market is not effectively competitive, this profit maximising behaviour results in above cost pricing born by consumers and a reduction in social welfare. Market rules, design and regulatory frameworks should provide a field of play for these entities that results in outcomes consistent with a competitive market.

Challenging the status quo

The new type of participant described in the rule change proposal – the Demand Response Service Provider (DRSP) – will also be looking to maximise profits however, the aggregator model achieves this through a partnership with consumers. By utilising the flexibility of consumers' DER, it is expected that the DRSP would meet its business needs, while at the same time rewarding consumers for their involvement.

Further, incumbent energy businesses and the proposed new DRSPs have different incentives. The incumbent retailers' incentives are at all times to encourage the consumer to buy more energy, whereas the DRSPs incentive is to curtail demand at times of high prices. Adding the new DRSP into the wholesale market mix instead of relying on existing players whose incentives seems to be working against consumers' interests will help boost competition in the wholesale market. It will also provide consumers with additional choice and real reductions in their annual cost of energy.

In its *Wholesale electricity market performance report*, the AER discusses the role of demand response as a way to potentially limit the potential for generators to exercise market power. The AER found that demand response currently provided little competitive pressure in the wholesale market and

⁸ Ibid, section 3.1.3 – Vertical integration is a key feature of the NEM, page 23.

⁹ ACCC, *Restoring electricity affordability and Australia's competitive advantage. Retail Electricity Pricing Inquiry – Final Report*. Section 3.3.2 – Participant behaviour following changes in market structure, page 77. 2018. Retrieved from <https://www.accc.gov.au/publications/restoring-electricity-affordability-australias-competitive-advantage>

inquired with existing market participants about the role of demand response¹⁰.

Interestingly, the AER found that the market participants they spoke to "...noted a limited uptake of demand side products, which if anything had reduced recently"¹¹.

Three questions spring to mind:

1. What was the value of the demand response offering to the consumer provided by the retailer/gen-tailer?
2. What was the value of the demand response offering to the retailer/gen-tailer?
3. Were these products offered to residential and small business consumers with sufficient tools to support this type of participation?

These questions highlight the different incentives that motivate incumbent energy businesses and the proposed DRSP. That is: reward for the energy business, reward for the consumer, or reward for both?

These findings reflect the views of current market participants. This highlights a key benefit of the rule change; to affect change in the wholesale market, there needs to be the creation of new type of market participant – the DRSP - that need not be a retailer. That is not to say that a DRSP couldn't be a retailer, just that it should not automatically be assigned to retailers.

Implementing a WDR mechanism

Energy Consumers Australia understands that some stakeholders are concerned about some of the implementation details, including the process for measuring the base line and the implementation costs to existing market participants.

This submission does not intend to consider address these detailed concerns. However, we consider that these implementation challenges are not insurmountable. We support the observation of the Australian Energy Market Operator in its submission that demand response is common in other energy markets. AEMO noted that while there may have been implementation challenges, in each market, regulators and rule makers determined that the benefits of including demand response in the market outweighed the costs.¹²

On the issue of implementation costs for existing market participants, we note that policy makers and regulators are often faced with cases of

¹⁰ AER *Wholesale electricity market performance report December 2018*, section 3.6 – There is limited market based demand response in the NEM, but its influence in the market may grow, page 35.

¹¹ Ibid.

¹² Australian Energy Market Operator, Submission to the AEMC Wholesale Demand Response Mechanisms – Consultation Paper, p.5. Retrieved from <https://www.aemc.gov.au/sites/default/files/2019-01/AEMO.pdf>

information asymmetry where the industry participant is the only one who holds the relevant information.

We are aware that retailers have previously argued that implementation costs of a demand response mechanism would be substantial and that, in 2014, Oakley Greenwood estimated costs of \$112 million over ten years. However, as PIAC, TEC and AI note, these costs may be mitigated by system changes that are already underway by retailers.

Only the existing market participants can advise on their costs, though what they assert to be their costs should be critically assessed. If one party has information about the costs of making change but won't provide that information, it is reasonable to assume the information works against the alternative they are trying to have accepted. Consequently, we recommend that:

- If parties do not provide the information that the AEMC requests, our position would be that the claim of expenditure is unjustified.
- If we cannot see evidence of consumer preference supporting the claimed expenditure, our position is that the expenditure (or claimed expenditure) is unjustified.

It will be important in the development of the Demand Response Services Market that Monitoring is in place to identify early and address promptly any evidence of anti-competitive conduct.

Conclusion

Demand response has been an expected benefit of market reform for a quarter of a century. The benefit to consumers is lower prices for the consumers participating directly and lower overall system costs for all consumers as the need to build infrastructure for high peaks is removed.

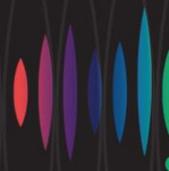
Consumers cannot rely on existing participants and market structures to deliver these benefits. While we acknowledge the implementation challenges, Energy Consumers Australia has come to the view that change can only be achieved by the creation of a new type of wholesale market participant, a Demand Response Service Provider.

If you have any questions about our comments in this submission, please contact Jacqueline Crawshaw, Associate Director Advocacy and Communications on 02 9220 5520 or by email at jacqueline.crawshaw@energyconsumersaustralia.com.au.

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