



Wholesale demand response – Technical working group Meeting 2 15 April 2019

The second working group meeting was held in Sydney on 15 April 2019. The attendees of the meeting are listed below.

Member	Organisation
Mark Byrne	Total Environment Centre
Bridgette Carter	Bluescope
Dan Cass	The Australia Institute
Nabil Chemali	Flow Power
Chris Cormack	AEMO
Alex Cruickshank	Oakley Greenwood (representing Lance Hoch, Oakley Greenwood)
Emma Fagan	Tesla
Joel Gilmore	Australian Energy Council
Rebecca Knights	South Australia Government
Matt Lady	AER
Craig Memery	Public Interest Advocacy Centre
Ben Pryor	ERM Power
Jenessa Rabone	AGL
Claire Richards	Enel X
Jon Sibley	ARENA
Georgina Snelling	EnergyAustralia
Ben Verdon	Energy Queensland

The AEMC's project team attended and is listed below.

Name	Position
Victoria Mollard	Director – Security & Reliability
Declan Kelly	Adviser – Security & Reliability
Mitchell Shannon	Adviser – Security & Reliability
Tom Walker	Senior Economist
Lily Mitchell	Senior Lawyer

All enquiries on this project should be addressed to Declan Kelly on (02) 8296 7861.

The AEMC has formed the working group to provide advice and input into the progression of the three rule change requests relating to wholesale demand response:

- *Wholesale demand response mechanism* (ERC0247)
- *Wholesale demand response register mechanism* (ERC0248)
- *Mechanisms for wholesale demand response* (ERC0250).

At the start of the meeting the relevant paragraphs from the AEMC's competition protocol for the working group was read out, and copies of the protocol (attached) were given to each member of the working group.

The meeting focussed on three policy areas: 1) the regulation of standardised demand response products; 2) the use of baselines in a demand response mechanism; and 3) whether demand response can be treated equally to generation.

The following points were discussed at the meeting:

Principles applying to consideration of rule change requests

- The project team provided a recap of the discussion at the first technical working group meeting and set out the principles for considering the rule change requests that were outlined in the consultation paper published in November 2018. These include consideration of:
 - promoting competition and consumer choice
 - resilience of the framework
 - not distorting efficient market outcomes
 - transparency
 - appropriate risk allocation
 - administrative and implementation costs.
- There was also discussion of the project objective developed by the project team: *Facilitating wholesale demand response to achieve net benefits, without undermining the wholesale market.*
- Questions were raised about what “undermining the wholesale market” means. It was explained by the project team that undermining the wholesale market refers to distorting the price signal conveyed by the wholesale market. It does not refer to undermining the existing business models in the wholesale market. Some participants considered that the reference to “net benefits” in the project objective would capture all relevant considerations and that the phrase “undermining the wholesale market” was not needed.
- In addition, participants discussed the lack of a clear problem definition that everyone can agree on. The project team noted that various issues were raised by the three rule change requests in relation to wholesale demand response in the NEM, and the problem objective is designed to set out the proposed approach to addressing these issues.
- The project team committed to considering these issues and that noted that it would set up discussions in the next few weeks with proponents on the problem definition, as well as the principles and objectives.
- Attendees noted that it is important that rule changes made in response to these rule change requests do not restrict the future development of the wholesale market, including in relation to moving towards a two-sided market.

Regulation of standardised demand response products

- The project team gave an overview of the potential approaches to implementing standardised demand response products in the NEM, which the project team has considered as potential additional options for meeting the project objective. These included:
 - mandating that retailers offer a demand response tariff
 - mandating that retailers offer spot price pass through contracts.
- Participants considered that it would be difficult to standardise such products in practice, given that demand response arrangements are typically bespoke and may only be appropriate for certain customers.
- Some participants considered that requiring retailers to offer a particular product is unlikely to result in efficient market outcomes, and queried the need to mandate products that some retailers are already offering.

- It was also noted that mandating the offering of such products may create a barrier to entry for new companies seeking to enter the retail market.
- Participants agreed that, for these reasons, this approach is not the preferred method of addressing the issues raised in the rule change requests.

Oakley Greenwood presentation on baselines

- Oakley Greenwood gave a presentation on the learnings arising from the use of baselines in ARENA and AEMO's trial of demand response in the Reliability and Emergency Reserve Trader (RERT). ARENA noted that a synthesis report summarising the findings that were presented will be released next month.

Baselines for wholesale demand response

- The project team provided an overview of its analysis of the design objectives for baselines and the different ways in which they may be developed and implemented in a wholesale demand response mechanism.
- Some attendees queried whether employing baselines in the wholesale market would remain appropriate as increasingly large portions of the demand side participate in the market, and do so more frequently.
- It was noted by some attendees that it may not be practical to have a large range of baseline methodologies as retailers' systems would need to be able to accommodate all methodologies, which may impose undue costs.
- Certain requirements imposed by the National Measurement Act may need to be considered when designing a demand response mechanism, depending on whether and how the mechanism changes the way in which retailers are required to bill customers.
- Some participants noted that the development of accurate baselines may become increasingly difficult as new technologies develop and consumer loads become more disaggregated and flexible. However, it was also noted that the ability for accurate baselines to be determined using better methods, including machine learning and sub-metering, will improve over time.
- Some attendees considered that demand response encompasses a broader range of demand side actions than specific demand reductions during high prices. These attendees noted that, while a demand response mechanism of the kind proposed in the rule change requests may assist in managing peak demand, it would not be the only long-term solution to facilitating wholesale demand response in the NEM.
- Participants agreed that in designing a wholesale demand response mechanism, the Commission does not need to choose between centrally determined baselines and decentralised baselines. It was suggested that one or more centrally determined baseline methodologies could be developed by AEMO and retailers or demand response aggregators could propose the use of different self-determined baseline methodologies. This could be permitted if AEMO (or another party) determines that the self-submitted baseline satisfies certain predetermined criteria. It was noted that this would facilitate innovative approaches to baselines, but minimise upfront costs associated with establishing baselines.
- Participants considered that detailed requirements relating to the development of baselines should be set out in guidelines, rather than in the NER, to allow greater flexibility in changing these requirements as needed.
- It was noted that in some circumstances it may be difficult to distinguish between actions which are undertaken to artificially inflate a baseline and actions which are required for a particular customer to undertake demand response (e.g. pre-cooling of a premises prior to a demand response event). This would lead to inefficient outcomes where some consumers or demand response providers are credited for demand response that would have not occurred, or penalised for actions which were not intended to artificially inflate baselines.

- Some participants considered that the incentive for parties to inflate their baseline could be managed through regulatory enforcement tools and monitoring requirements. It was also suggested that the reputational risks of being caught artificially inflating a baseline would disincentivise this behaviour.
- Some participants noted that they were less concerned with the use of baselines in general, but more specifically with any requirement to use baselines in retail customer billing.

AEMO presentation on scheduling

- AEMO gave a presentation on the current process for scheduling loads in NEMDE and how this may be accommodated under a demand response mechanism.
- Some participants requested further consideration of how demand response could be scheduled as “negawatts” rather than load. It was agreed that benefits and challenges of these two approaches warrants further analysis and discussion with the technical working group.

How can demand response be treated as equivalent to generation?

- The project team provided an overview of its analysis of whether demand response can be treated equivalently to generation, particularly in relation to scheduling.
- Some participants noted that different types of generators are not treated equally, and adjustments could similarly be made for demand response to account for differences between demand response and traditional scheduled generation.
- It was noted that while the AEMC’s *Reliability frameworks review* final report recommended that demand response be treated on equal footing with generation, the rule change process requires detailed consideration of how this would be achieved in practice and the potential outcomes of different approaches to doing so, including impacts on consumers.
- It was also noted that a mechanism should be flexible in accommodating non-scheduled demand response. Participants generally agreed that there should be appropriate thresholds above which scheduling is required. This may require a spectrum of scheduling obligations depending on the size of a demand response portfolio. Forecasting obligations could also play a role in increasing the visibility of demand response, where scheduling was not appropriate.
- Participants identified challenges associated with ramp rates for wholesale demand response, as participating loads are typically switched on or off near instantaneously and are therefore unable to meet linear ramp rate requirements.
- AEMO noted that as power system security and reliability issues become more localised, it will be important for them to have operational visibility of where wholesale demand response is able to be provided.

Next steps

- The project team thanked participants for their time and noted that the group will be convened again in approximately 4 weeks.
- It was also noted that a variety of other issues were raised throughout the day, which were noted down for discussion at future technical working group meetings.

Australian Energy Market Commission

Demand response technical working group protocol

Context and purpose

The AEMC is establishing a technical working group with energy industry members to discuss issues arising from the 2018 demand response rule change requests (available on the AEMC website under ERC0247, ERC0248, ERC0250).

The Working Group is committed to complying with all applicable laws, including the *Competition and Consumer Act 2010 (CCA)*, during these discussions. Breach of the CCA can lead to serious penalties for members and for individuals involved in any breach (including large financial penalties and potentially also imprisonment for key individuals involved).

This Protocol governs the way in which Working Group discussions will proceed, and the Working Group agrees to adhere to this protocol in order to ensure compliance with the CCA.

Key principles

The purpose of this Working Group is solely to discuss issues relating to potential demand response mechanisms. Each member **must make an independent and unilateral decision** about their commercial positions and approach in relation to the matters under discussion in the Working Group.

This Working Group **must not discuss, or reach or give effect to any agreement or understanding*** which relates to:

- **pricing** for the products and/or services that any member supplies or will supply, or the terms on which those products and/or services will be supplied (including discounts, rebates, price methodologies etc).
- **targeting (or not targeting) customers** of a particular kind, or in particular areas.
- **tender processes** and whether (or how) they will participate
- any decision by members:
 - about the purchase or supply of any products or services that other members also buy or sell
 - to not engage with persons or the terms upon which they will engage with such persons (i.e. boycotting); or
 - to deny any persons access to any products, services or inputs they require.
- **sharing competitively sensitive information** such as non-publicly available pricing or strategic information including details of customers, suppliers (or the terms on which they do business), volumes, future capacity etc
- **breaching confidentiality obligations** that each member owes to third parties.

* An “understanding” does not have to be formal; a “nod and a wink” is enough if one party commits to act in a particular way.

Communication & meeting guidelines

Members must ensure that **all communications** (including emails and verbal discussions) adhere to the Key Principles. All meeting between Working Group members should be conducted in accordance with the following rules:

- Agree and circulate an agenda in advance of each meeting. The content of each agenda should not include anything that could contravene the Key Principles set out in this Protocol, and try to avoid “any other business” agenda items.
- Ensure all members understand ahead of the meeting that any competitively sensitive matters must be subject to legal review before any commitment/agreement can be given.
- The below ‘competition health warning’ is read and minuted at any meetings or conference calls:
 - Attendees at this meeting must not enter into any discussion, activity or conduct that may infringe, on their part or on the part of other members, any applicable competition laws. For example, members must not discuss, communicate or exchange any commercially sensitive information, including information relating to prices, marketing and advertising strategy, costs and revenues, terms and conditions with third parties, terms of supply or access.*
 - For any new attendees – please note that participating in these discussions is subject to you having read and understood the Protocol including the Key Principles. If you have not yet done so, please do so now.*
- Accurate minutes are kept of all meetings, including details of attendees.
- If something comes up during a meeting that could risk contravening any Competition Laws, attendees should:
 - Object immediately, and ask for the discussion to be stopped.
 - Ensure the minutes record that the discussion was objected to and stopped.
 - Raise concerns about anything that occurred in the meeting with their respective legal counsel immediately afterwards.
- Any decision about whether, and on what terms, to engage with customers and suppliers is an independent and unilateral decision of each member.