

Energy Policy WA  
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**Submission by Expert Consumer Panel members Chris Alexander and Noel Schubert on the Review of the Participation of Demand Side Response in the Wholesale Electricity Market**

Dear Ms Guzeleva,

Thank you for the opportunity to make a submission in response to the Review of the Participation of Demand Side Response in the Wholesale Electricity Market (The DSR Review).

We are members of the WA Expert Consumer Panel (ECP) participating in the working group supporting the DSR Review, as well as the Market Advisory Committee (MAC). The ECP is supported by the State Government's Western Australian Advocacy for Consumers of Energy (WA ACE) funding, to engage in consumer advocacy and contribute to major decision making in the sector. Our submission is informed by feedback from our colleagues on the ECP.

Understanding the context for this review is critical. In other parts of Australia and around the world, supply chain, labour, social licence and other challenges are slowing the build-out of electricity transmission and utility-scale renewable generation infrastructure. Western Australia is not immune from these challenges which complicate progress towards Net Zero targets and put upward pressure on consumer bills. Demand response can defer the need for generation and network capacity and also offers a way to manage new electricity demand associated with flexible loads like electric vehicle charging, electrification (e.g. water heating, space heating) as well as enhancing the resilience of the electricity system in a more volatile climate.

It is vital therefore that governments and industry prioritise work to unlock the capability and value of demand response which provides a way to support and smooth the transition.

The DSR Review is therefore timely and, within its focused scope, has identified a list of ways in which the market rules as they are currently specified are acting as a barrier to demand response. We broadly support the proposals in the consultation paper to address these issues. In this submission, we suggest opportunities to strengthen the proposals to ensure the DSR Review delivers outcomes for Western Australian households and businesses. We also highlight issues beyond the scope of review that need to be addressed to unlock the value of demand response.

We provide the following feedback on proposals 1-12 in the Consultation Paper.

***Proposal 1***

We support Proposal 1. In relation to implementation, it is important that Western Power provides proponents seeking to connect loads to parts of the network that are

load-constrained with the information they need to understand the implications of connecting at those locations, particularly the system conditions under which they would be disconnected, for how long, and how often, as well as the other matters listed on page 9 of the Consultation Paper.

It is also critical that Western Power shares information about constrained access loads with the Australian Energy Market Operator (AEMO) to inform its operational decisions and longer-term network planning.

This should only apply to loads that are large enough to materially affect planning and operation of the Wholesale Electricity Market (WEM), including where material aggregations of smaller loads are constrained. Western Power providing real-time operational information via automated SCADA data exchange only, may not be sufficient for AEMO's control room operators to notice when certain material load constraints operate (e.g. runback scheme loads are curtailed), and in these cases more obvious explicit notification may be required from Western Power to AEMO in real time.

Consideration should be given to Western Power introducing a streamlined and transparent process for loads to connect to constrained parts of the network, potentially including standard constrained-load-connection contracts, to assist load proponents to understand the implications and connect. We recognise that in some cases, terms and conditions applicable to connection are likely to be specific to the constrained network location and so result in bespoke connection contracts. This may limit the extent of standardisation possible.

### ***Proposal 2***

We support Proposal 2 as it will provide additional flexibility for demand side response resources in relation to registration, and should reduce the administrative costs to participate in the market. We note that the costs associated with requirements to become a 'scheduled facility' are material, and the desire to develop lighter-touch options for demand side response resources is one of the drivers for the 'Scheduled Lite' mechanism being developed in the National Electricity Market (NEM). We note comments from demand side response providers in the DSR Working Group that even the reduced costs under Scheduled Lite may still be prohibitive for aggregators.

### ***Proposal 3***

We support Proposal 3. It is critical that metering issues do not unreasonably limit the flexibility of demand side response providers to manage, either as a whole or separately, their consumption, generation and flexible resources, for the purposes of participating in the short and real-time electricity markets.

We note that under this proposal, the metering would still need to be Western Power's approved, revenue-grade technology. We note that measurement technology is developing quickly, and new lower cost, but nevertheless accurate, metering technologies are emerging. Western Australia must ensure that the market rules keep up to date with these developments, engaging with national measurement bodies where

necessary, because metering costs have traditionally been seen as a material barrier to demand side response.

#### ***Proposal 4***

We support the proposed methodology for a dynamic baseline because it better reflects the real value demand side response resources can offer. The specific methodology Energy Policy WA is recommending, the 'X of Y' approach, has been successfully used in other jurisdictions and has the support of demand side response providers, as it gives a rigorous baseline to avoid over-compensating providers, while not unreasonably dulling incentives to participate.

#### ***Proposal 5***

We agree with Energy Policy WA's assessment that no change is needed to the Supplementary Reserve Capacity (SRC) Mechanism to further support demand side response. Demand side response already participates in the SRC, and the objective of this review, is, among other things, to ensure that the primary support for these resources is through the core WEM markets, not backstop mechanisms like the SRC.

#### ***Proposal 6***

We support Proposal 6 to enable Western Power to share metering data with AEMO, as this removes an unnecessary regulatory barrier to efficient market operation.

#### ***Proposal 7***

We support Proposal 7 for DSR to participate directly in the STEM. It is a quirk of the history of the design of the STEM that demand side response is not currently able to directly participate in this market, and removing this prohibition is an obvious and necessary change to make. As the Consultation Paper notes, the STEM is a relatively simple market from a participant perspective, providing a way for emerging demand side response providers to gain experience and grow in sophistication.

#### ***Proposals 8 and 9***

We support proposals 8 and 9 - to leave the Real-Time Market as is - as no material barriers to demand side response participation were identified by Energy Policy WA in its analysis, or by stakeholders as part of the working group process.

#### ***Proposal 10***

We note the arguments against the need to establish a dedicated minimum demand service. While concerningly-low levels of demand only occur occasionally at present, it may not be appropriate to introduce a market-based service that would require significant work to specify and introduce into the market rules.

Importantly, it is likely that programs that directly incentivise households and businesses - particularly those with rooftop solar PV, and in the future electric vehicles - to address the minimum demand challenge, could be more effective at lower cost and complexity.

We note that Synergy has recently offered an incentive program to customers with up to 5kW solar PV systems to be paid for allowing Synergy to turn off their PV systems during periods of low system demand up to 15 times.<sup>1</sup> The program attracted strong interest and is fully subscribed.

Households and small businesses could also be incentivised to help address the challenge by upgrading their electric storage hot water systems to heat in the middle of the day, and enlisting behind-the-meter batteries and electric vehicles in appropriate programs. Larger (business) behind-the-meter PV systems could also be managed to be temporarily turned off during the middle of low system demand days (not preferred); while other flexible loads, such as those mentioned in the consultation paper (page 21), could be set up to turn on in the middle of the day.

We also see an opportunity to engage more effectively with the public around ways they can support system security at the times of the year when the risk posed by minimum demand is greatest. There is now significant research, and experience in Western Australia and other jurisdictions, that shows that the public is willing and able to make a contribution to these challenges when they are engaged the right way.<sup>2</sup>

There was a view put by some members of the working group that forecast load growth and announced battery storage projects will mitigate the minimum demand concern in the coming years. We are less confident about this outcome and are concerned about a level of complacency within the industry on this issue. In our view, minimum demand will only moderate if the electricity demand from load growth and batteries at minimum system demand times exceeds the rate of demand reduction at those times due to the ongoing installation of rooftop solar PV. If the latter exceeds the former, minimum demand will continue to decline and remain a challenge for the market operator.

We note that AEMO has already triggered the Non-Co-optimised Essential System Services (NCESS) procurement process for minimum demand services twice, indicating that AEMO considered there to be too great a risk to system security without this NCESS.

AEMO has triggered the NCESS procurement process for the 2023 spring, and the 2024/25 and 2025/26 capacity years, but at a significant cost. As a backstop measure

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<sup>1</sup> Synergy Solar Rewards:

<https://www.synergy.net.au/About-us/News-and-announcements/Media-releases/Sunny-savings-for-rooftop-solar-homes>

<sup>2</sup> See for example, ECA-KPMG report, Supporting demand flexibility in the energy transition, <https://energyconsumersaustralia.com.au/publications/supporting-demand-flexibility-in-the-energy-transition>

outside the market, NCESS is a second-best mechanism, and if it continues to be needed then our view is that the need for a dedicated minimum demand service should be re-visited.

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### ***Proposal 11***

We support Proposal 11. Minimum load size and telemetry requirements are not necessarily justified and represent potential barriers to DSR participation in the ESS markets. We note for instance that emerging DSR providers may seek to initially participate with relatively small aggregations, gaining experience and growing over time. Arbitrary minimum load size requirements stand in the way of small aggregators getting a start and growing in ways that are core to competitive markets. These requirements should be re-examined with input from DSR proponents.

### ***Proposal 12***

We support Proposal 12 and agree that no changes are required to the ability of DSR to simultaneously participate as a DSP and as an Interruptible Load providing ESS.

There is significant potential to make more use of customer flexible loads to manage system peak and minimum demand requirements, to avoid the need to build as much network and generation capacity to meet AEMO and SWISDA forecast demand growth. Although some opportunities are outside of the scope of this DSR review, recent reports highlight matters that could be considered in the appropriate forums.<sup>3</sup>

We consider that more work could be done to identify the main reasons for the limited response of consumers to the needs of the SWIS. Why are existing flexible loads not participating to the extent that they could, to assist with minimum demand and peak demand needs for example?

1. A key reason is that consumers are not receiving price signals or other signals or incentives to respond when they could, coupled with a lack of information about the opportunities.
2. Program and product opportunities are not being offered to the extent that they could be because the demand response industry is yet to mature, although there is growing activity in this area.

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<sup>3</sup> See for example, Growing the Sharing Energy Economy - <https://ieefa.org/resources/growing-sharing-energy-economy>, and Project EDGE <https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en&hash=44F425D9262E247EBBB45411737D32AE>

3. Bilateral contracts dominate the WEM and it is likely that many of these are not structured to reflect the wholesale market price signals that indicate the needs of peak demand and low demand occurrences for example. The contracts hedge retailers and mask the WEM price signals from being passed on to contestable consumers.
4. Government tariff setting for residential and small business (non-contestable) customers shields these customers from market price signals, although some more cost-reflectively structured retail tariffs are now being offered separately to the government regulated tariffs, to signal minimum demand and peak demand system needs (e.g. Synergy's Midday Saver tariff, with an EV add-on).<sup>4</sup>

We would be pleased to provide any further information to support this submission and look forward to continuing to engage with Energy Policy WA on the DSR Review.

Yours sincerely,

Noel Schubert

Chris Alexander

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<sup>4</sup> Synergy Midday Saver tariff: <https://www.synergy.net.au/Your-home/Energy-plans/Midday-Saver> , and EV Add-On: <https://www.synergy.net.au/Your-home/Energy-plans/Electric-Vehicle-Add-On>