

Australian Energy Markets Commission

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AEC Submission to AEMC Review of the Wholesale Demand Response Mechanism – Consultation paper

The Australian Energy Council (AEC) welcomes the opportunity to make a submission in response to the AEMC Review of the Wholesale Demand Response Mechanism – Consultation paper.

The Australian Energy Council is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. AEC members generate and sell energy to over 10 million homes and businesses and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 per cent emissions reduction target by 2035 and is committed to delivering the energy transition for the benefit of consumers.

In reviewing the original Wholesale Demand Response Mechanism (WDRM) rule change process (2018-2020), it is clear that it was extensive and used a lot of resources. The AEC did not support the proposal for a range of reasons including complexity, dependence on questionable inputs, existing bilateral approach was superior, high implementation costs, uncertain benefits, and creating new retailer risks.¹

AEMO's implementation costs were expected to be \$13-17 million and \$10-16 million for retailers and DSRPs for a total of \$23-30 million. We do not find the economic arguments presented in support of the WDRM to be compelling or adequate when considering these expected costs. There appears to be an element of false precision with the expected benefits as presented in the 2020 Final Determination (pages 21-27). When compared with average annual wholesale market turnover of \$18.5 billion (real 2023 dollars), they are insignificant. Furthermore, no consideration appears to have been given to the possibility that the operation of the WDRM could slightly influence supply side behaviour. And if this were the case the benefits may be nullified. We are not saying this has occurred, only that we don't know.

The Consultation paper notes the AEMC's two recent rule determinations on *Unlocking CER benefits through flexible trading* (CER benefits) and *Integrating price-responsive resources into the NEM* (IPRR) have progressed two-sided market arrangements. And that under the CER benefits and IPRR rule changes, parties with responsive demand can more easily participate in dispatch and this may have reduced or removed the need for the WDRM or whether the WDRM still plays an important role in engaging demand side participation in the NEM. This definitely requires further consideration and prima facie it appears that the former might be the case.

Question 4: Are retailers offering demand-responsive contracts?

The introduction of the Wholesale Demand Response Mechanism (WDRM) in the National Electricity Market (NEM) has significantly influenced how retailers offer contracts with demand-responsive options. Prior to the

¹ <https://www.aemc.gov.au/sites/default/files/2019-01/Australian%20Energy%20Council.pdf>
<https://www.aemc.gov.au/sites/default/files/2019-09/Draft%20Determination%20Submission%20ERC0247%20-%20Australian%20Energy%20Council%20-%2020201....pdf>

WDRM's implementation in October 2021, demand response was primarily facilitated through agreements between retailers and large energy consumers, enabling consumers to adjust their demand during peak times in exchange for incentives.

With the establishment of the WDRM, it was anticipated that large consumers having gained the ability to directly participate in the wholesale market by offering demand response services independently, would no longer rely on retailer agreements to benefit. This shift presupposed a new competitive dynamic emerging, as third-party Demand Response Service Providers (DRSPs) could now aggregate demand reductions and bid them into the market. Retailers would now face competition from DRSPs targeting their large customers, potentially impacting their demand response offerings and customer retention. Retailers could also collaborate with DRSPs or even register as DRSPs themselves, allowing them to continue offering demand-responsive contracts and participate in the wholesale market.

The fact that this has not occurred in any meaningful way is in of itself signal a fundamental mismatch between the market design and the needs or preferences of participants; that the WDRM was always misaligned with market realities. But that doesn't mean that it could not have had an impact, so it is worth considering that in context of what has happened since the introduction of the WDRM that may also have impacted retailers offering contracts with demand-responsive options.

Coal closure

The closure of coal-fired power stations in Australia's National Electricity Market (NEM) would theoretically influence the increased use of demand response. As these plants retire, the energy landscape shifts, creating both challenges and opportunities for demand response initiatives.

The retirement of coal-fired plants reduces the availability of dispatchable generation, leading to greater reliance on gas and renewable sources. This transition can cause higher price volatility, especially during peak demand periods, thereby enhancing the value of demand response programs that help balance supply and demand.

Increased renewable energy generation has led to record low minimum demand levels in certain NEM regions. For example, South Australia recorded negative operational demand, highlighting the purpose of demand response mechanisms to manage excess supply and to maintain grid stability. The closure of major coal plants, such as Liddell, has also impacted grid reliability, particularly during periods of low renewable output. This situation underscores the operational challenges, and highlights the likely importance of demand response to retailers selling balancing services.

As the profitability of coal plants declines due to increased competition from renewables, there is a growing financial incentive to adopt demand response strategies. Consumers and businesses can benefit from financial rewards by adjusting their consumption patterns to align with retailer and participant needs, likely further promoting contracts with demand response options.

The closure of coal-fired power stations in the NEM has heightened the importance of demand response as a tool for ensuring reliability and market efficiency. As the energy market continues to evolve with increasing renewables integration, demand response can play a role in balancing supply and demand and mitigating price volatility.

Gas Powered Generation

Forecast increased Gas Powered Generation (GPG) in the NEM may also influence the effectiveness of the WDRM. As GPG plays a crucial role in balancing supply and demand, its operational patterns can impact the incentives and opportunities for demand response participants. Recent indications are that GPG units in the NEM are starting more frequently but operating for shorter durations. This shift is primarily due to the increasing penetration of renewable energy sources, with their attendant variability and intermittency. GPG

units are thus required to provide even more flexible support, adjusting their output to complement renewable generation and to maintain system stability.

This has implications for Demand Response, as the operational behaviour of GPG units affects wholesale electricity prices. Frequent cycling and variable output can lead to price volatility, creating more opportunities for demand response participants to capitalise on price signals. But GPG can influence the effectiveness of demand response programs by addressing supply, thereby providing fewer opportunities for higher priced demand response actions.

All things considered, it would therefore be difficult to assert that the WDRM has had a material impact on retailers offering contracts with more demand options.

Conclusion

Our initial assessment is that the WDRM was a costly market reform that was supported by less than robust analysis and has failed to deliver the expected benefits. Nevertheless, we think the WDRM should not be discarded until it becomes clear that take-up under the new rules demonstrates its time has passed.

Any questions about this submission should be addressed to peter.brook@energycouncil.com.au or by telephone on (03) 9205 3116 and David.markham@energycouncil.com.au.

Yours sincerely,



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