23 April 2020

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr Pierce

Second Draft Rule Determination: Wholesale Demand Response Mechanism (ERC0247)

Energy Queensland Limited (Energy Queensland) appreciates the opportunity to provide a submission to the Australian Energy Market Commission (AEMC) in response to the *Draft Rule Determination: National Electricity Amendment (Wholesale Demand Response Mechanism) Rule 2020, National Energy Retail Amendment (Wholesale Demand Response Mechanism) Rule 2020* (second draft rule determination). The second draft rule determination implements a wholesale demand response mechanism to facilitate wholesale demand response in the national electricity market (NEM).

Energy Queensland is generally supportive of the AEMC's second draft rule determination as it presents an achievable mechanism to introduce wholesale demand side participation in the NEM. However, Energy Queensland does have significant concerns with certain aspects of the second draft rule determination, particularly with respect to the commencement date for the final rule determination and the assessment of costs without consideration of the financial and broader economic impacts for electricity retailers. Energy Queensland's detailed comments on the second draft rule determination are provided in the attached submission.

Energy Queensland appreciates the extensive consultation the AEMC has undertaken on this rule change to date. Should you require any additional information or wish to discuss any aspect of this submission, please contact me on (07) 3851 6787 or Charmain Martin on (07) 3664 4105.

Yours sincerely

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Energy Queensland

Submission to the Australian Energy Market Commission

Wholesale demand response mechanism second draft rule determination

Energy Queensland Limited

23 April 2020

About Energy Queensland

Energy Queensland Limited (Energy Queensland) is a Queensland Government Owned Corporation that operates businesses providing energy services across Queensland, including:

- Distribution Network Service Providers, Energex Limited (Energex) and Ergon Energy Corporation Limited (Ergon Energy);
- a regional service delivery retailer, Ergon Energy Queensland Pty Ltd (Ergon Energy Retail); and
- affiliated contestable business, Yurika Pty Ltd (Yurika), which includes Metering Dynamics Pty Ltd (Metering Dynamics).

Energy Queensland's purpose is to 'safely deliver secure, affordable and sustainable energy solutions with our communities and customers' and is focused on working across its portfolio of activities to deliver customers lower, more predictable power bills while maintaining a safe and reliable supply and a great customer service experience.

Our distribution businesses, Energex and Ergon Energy Network, cover 1.7 million km^2 and supply 34,000GWh of energy to 2.25 million homes and businesses each year.

Ergon Energy Retail sells electricity to 738,000 customers in regional Queensland.

Energy Queensland also includes Yurika, an energy services business creating innovative solutions to deliver customers greater choice and control over their energy needs and access to new solutions and technologies. Metering Dynamics, which is a part of Yurika, is a registered Metering Coordinator, Metering Provider, Metering Data Provider and Embedded Network Manager. Yurika is a key pillar to ensuring that Energy Queensland is able to meet and adapt to changes and developments in the rapidly evolving energy market.

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1 Introduction

On 12 March 2020, the Australian Energy Market Commission (AEMC) published the *Draft Rule Determination: National Electricity Amendment (Wholesale Demand Response Mechanism) Rule 2020, National Energy Retail Amendment (Wholesale Demand Response Mechanism) Rule 2020* (second draft rule determination). The second draft rule determination sets out changes to the National Electricity Rules (NER) to implement a wholesale demand response mechanism (WDRM) to facilitate wholesale demand response in the National Electricity Market (NEM).

The second draft rule determination introduces a new category of market participant, a demand response service provider (DRSP), who will be able to bid demand response into the wholesale market as a substitute for generation. It also sets out the obligations that will be placed on DRSPs, the process for determination of baseline methodologies to apply to wholesale demand response units, settlement and cost recovery, other consequential changes to the NER and proposed implementation timeframes for the new mechanism.

The second draft rule determination follows consultation on three rule change requests received by the AEMC seeking to introduce a mechanism for wholesale demand response in the NEM and is a more preferable draft rule. The AEMC considers that the more preferable draft rule will not only promote greater demand side transparency and price and reliability related benefits but will also assist in transitioning the NEM to a two-sided market in the longer-term.

The AEMC has requested that interested parties make submissions on the second draft rule determination by 23 April 2020. Energy Queensland's comments are provided in Section 2 and 3 of this submission.

We are available to discuss this submission or provide further detail regarding the issues raised.

2 General comments

Energy Queensland is generally supportive of the AEMC's second draft rule determination as it presents an achievable mechanism to introduce wholesale market demand side participation, while:

- minimising the Australian Energy Market Operator's (AEMO's) costs in adjusting its systems and processes;
- limiting the distortions from applying baseline methodologies across large, diverse customer groups;
- including requirements for information disclosure from DRSPs to AEMO, network service providers and retailers who will be managing the risks associated with the dispatch of wholesale demand response units (WDRUs);
- recognising and allowing existing off-market demand control mechanisms; and
- encouraging participation from individual customers who have the capability and capacity to provide demand response in the wholesale energy and ancillary services markets.

Notwithstanding the above, Energy Queensland does have significant concerns with respect to certain aspects of the second draft rule determination and provides specific comments in section 3 of this submission. In particular, Energy Queensland has reservations with respect to the commencement date for the final rule determination and the assessment of costs without consideration of the financial and broader economic impacts for electricity retailers.

Energy Queensland appreciates the extensive consultation the AEMC has undertaken on this rule change to date and would welcome providing further assistance if required.

3 Specific comments

Energy Queensland provides the following comments on the second draft rule determination for further consideration by the AEMC:

3.1 Existing arrangements for demand response

Energy Queensland acknowledges that the purpose of the WDRM is to increase transparency and facilitate more demand response where it is cost-effective. However, it should also be acknowledged that retailers, such as Ergon Energy Retail, currently have contractual arrangements with some large customers for demand response. As such, it is important that existing and new demand response arrangements between customers and their retailers are preserved outside of the proposed new WDRM. Energy Queensland also considers that care should be taken to ensure that the new role of DRSP is viewed as a new, alternative demand response supplier for customers and should not become the only option for customers to participate in demand response.

3.2 Exclusion of Small customers

Energy Queensland supports the AEMC's decision and rationale for excluding small customers from participating in the WDRM. We agree that inclusion of small customers would add unnecessary costs and complexity to the mechanism, and these costs would outweigh the benefits to customers and the market. Further, Energy Queensland considers that it would be difficult to calculate actual demand response based on the determination of baselines for discretionary small customer loads and that the NEM dispatch obligations are not well-suited to small customers.

3.3 Implementation date

Energy Queensland does not support the expedited implementation of the WDRM by bringing forward the commencement date from 1 July 2022 to 24 October 2021. We are of the view that the AEMC has not adequately justified the need for such urgency and, in light of current and emerging challenges in the energy market and the broader economy, Energy Queensland questions the appropriateness of bringing forward implementation of the mechanism. Further, given the clear intent is to transition to a two-sided market in the longer-term, we consider it is important to ensure the effective implementation of the WDRM to enable a smooth transition.

Energy Queensland therefore recommends that the commencement date for the WDRM should remain as 1 July 2022 as originally proposed to ensure implementation is efficient and affords retailers the opportunity to put in place appropriate risk mitigation strategies.

3.4 Implementation costs

The second draft rule determination suggests that the changes proposed by the AEMC from the initial draft rule determination will lower AEMO's costs to implement the WDRM. However, it appears that the cost-benefit analysis associated with the second draft determination has been limited to AEMO's costs to implement the WDRM, and we question the consideration which has been given to the commercial and regulatory challenges expected to be faced by market participants, principally electricity retailers, in implementing the final rule. For example, the draft determination does not make clear the broader financial or economic analysis which has been undertaken and which supports the WDRM proposal, nor has the AEMC quantified the demand response that is expected to arise in addition to that already provided by market customers.

Energy Queensland notes that AEMO has suggested its implementation costs under the second draft rule determination will be reduced from between $40 to $95 million to between $13 and $17 million. While these costs are lower than initially projected, we note that system changes associated with other recent reforms, such as five-minute settlement, have been higher than expected and are met by market participants, and ultimately customers, in addition to their own implementation costs.

It is also Energy Queensland's view that retailers require additional time to assess the impact of the WDRM on their forward contract book (noting the bring-forward commencement date of October 2021). This analysis is particularly important at a time when retailers are facing significant risks to their hedge position and revenue as a result of the response to the COVID-19 pandemic. Any move for retailers to accept additional costs or risks at this time could have impacts on the market.

Energy Queensland therefore recommends that the AEMC release a comprehensive and transparent cost-benefit analysis to market participants which makes clear that the benefits outlined in the second draft determination outweigh the costs associated with implementing the WDRM, prior to the release of the final rule determination. Given the many references in the second draft rule determination to the potential introduction of a two-sided market in the future, analysis of the costs and benefits of implementing the WDRM will also provide useful inputs to inform the Energy Security Board's (ESB's) Post-2025 Market Design project.

3.5 Information provision

Energy Queensland agrees with the principle of greater transparency and supports the requirement for AEMO to provide retailers with information when their customers are participating in the WDRM. In particular, we support retailers having access to the following:

- Which National Metering Identifiers (NMIs) have arrangements with a DRSP;
- What the baseline is for each NMI; and
- Knowledge of the demand response dispatch.

We also support the provision of information for both dispatch and pre-dispatch and request that the proportion of customer load contracted for demand response (for forecasting purposes) is also provided.

The AEMC has acknowledged the importance of forecasts in providing the best information to inform decisions.[1] Energy Queensland notes the need to ensure the accuracy of information for the medium-term Projected Assessment of System Adequacy, Energy Adequacy Assessment Projection and Electricity Statement of Opportunities and considers there is a strong need to ensure information provision requirements placed on DRSPs are equivalent to those placed on other market entities such as generators.

3.6 Baseline determination

Energy Queensland notes the significant importance of the determination of appropriate baselines under the proposed revised model and supports the transfer of responsibility for determination of baselines from the Australian Energy Regulator to AEMO. However, Energy Queensland notes that AEMO's consultation on baselines will need to be extensive to ensure that the methodology can be applied broadly across all customers and circumstances and we therefore question whether this can be achieved by the expedited implementation date.

Energy Queensland also considers that:

- Careful consideration will be required to avoid opportunities for DRSPs (or customers) to game the WDRM through inaccurate or manipulated baselines and be paid for providing demand response when demand response is not actually provided (for

[1] Ibid, p. 155.

example, during plant shutdowns and maintenance). The use of artificial baselines for settlement and billing will require vigilance to avoid gaming from occurring.

- Baseline inaccuracies under the WRDM will tend to favour the DRSPs at the expense of the customer's retailer. Energy Queensland therefore suggests that baselines should be conservative to minimise impacts on retailers. Further clarity is also required as to whether retailers will be reimbursed for inaccuracies in baselines identified ex-post.

- Energy Queensland notes and agrees with the Australian Energy Council's comments in its submission to the first draft determination that baselines limit retailers' ability to take advantage of diversity resulting in purchasing more hedges than required to mitigate spot market risk.[2]

3.7 WDRM participation

Energy Queensland provides the following comments in relation to participation in the WDRM generally:

- Energy Queensland considers that if DRSPs are to compete in the wholesale market against scheduled generators, then the WDRM should establish an even playing field, with DRSPs being subject to the same costs and obligations as generators. For example, in Energy Queensland's view, DRSPs should also be liable for frequency control ancillary services and consistent registration thresholds.

- In relation to the aggregation of two or more WDRUs for dispatch by the DRSP, Energy Queensland is interested to better understand how this will work in practice where aggregated WDRUs are located across multiple regions. We note that the Coordination of Generation and Transmission Investment project proposes to create further regional nodes and that this creates the potential for different prices and incentives to apply to demand response and potentially perverse outcomes under the WDRM.

- Energy Queensland acknowledges that the 5 MW minimum aggregation threshold has been removed from the second draft rule determination. However, we also note that 5 MW is a consistent threshold in the NER. For example, this threshold applies to exemptions such as those for batteries and generators. Energy Queensland therefore seeks further clarification as to what this will mean for DRSPs with loads of less than 5 MW.

[2] Australian Energy Council, *Submission to the AEMC on Wholesale Demand Response Mechanism*, 12 September 2019, pp. 7-8.

- Energy Queensland notes that under the revised proposal it will be possible for child NMIs in embedded networks to participate in the WDRM. It is expected that this arrangement will create even greater complexity for settlement in embedded networks and Energy Queensland questions whether this is appropriate.

- In relation to technical requirements for the WDRM, Energy Queensland seeks more detail on the determination of regional limits for non-Supervisory Control and Data Acquisition (SCADA) WDRUs. We note that AEMO requires scheduled generators (and 5 MW batteries) to have SCADA telemetry. Energy Queensland considers that the WDRM should be consistent with other NEM requirements.

3.8 Settlement

Energy Queensland notes that the settlement model has changed under the revised proposal whereby the retailer will be:

- required to bill the customer for their actual consumption (based on actual metering data) rather than their assumed consumption in accordance with their baseline; and
- reimbursed for its long position using the reimbursement rate, where the reimbursement rate is based on the load-weighted average of spot market prices for the previous 12 months, calculated quarterly.

While this revised approach is less complex than the initial proposal, Energy Queensland does not consider it to be a fair and reasonable outcome for retailers. If load equivalent to that which could be anticipated as future demand response came to market as a customer (that is, one that only uses electricity at peak demand times when prices are high), a retailer would not consider their wholesale cost for that customer at that time to be the load-weighted average spot price. However, that is what is proposed for retailers to be paid under the reimbursement approach under the WDRM. Energy Queensland considers that it should be possible to profile the demand response (similar to a net system load profile) and to use the load-weighted price for that profile.

3.9 Network Constraints

Another area that Energy Queensland considers requires further clarification in the drafting of the rule change relates to network constraints. Many of the large customers expected to provide part of their load as WDRUs are deeply embedded in the Energex and Ergon Energy distribution networks. There is therefore potential for the ramp rates on those WDRUs to impinge on the efficient operation of the distribution networks and impact other customers.

Energex and Ergon Energy currently document operational constraints in connection agreements with large customers who can switch their load (both load shedding and cold load pickup) in ways that impact the efficient operation of the network. However, for other customers, the distribution businesses rely on the standard connection agreement and jurisdictional rules to manage customers who impact other customers through the switching of their loads. As DRSPs will be approaching these large customers to utilise their potential for wholesale demand response, it is Energy Queensland's view that they should also be subject to consideration of network constraints and be required to provide information to all parties with an interest at the connection point for that customer.

Chapter 5 of the NER sets out requirements for connection and access, connection agreements, modifying a connection and network planning and Chapter 5A sets out the requirements for connecting new customers or altering an existing customer's connection. These chapters cover intending customers, new and existing customers but the clauses generally refer to generators as the reason for modifying or altering a connection. Energy Queensland therefore strongly recommends that relevant clauses of Chapters 5 and 5A should be reviewed to ensure they cover DRSPs' scheduled demand and WDRUs, by recognising that existing customers may participate in wholesale demand response. In our view, WDRUs should be treated on the same basis as generation and therefore constitute a connection alteration by the participating customer, as defined in chapter 5A and/or modifying a connection under Chapter 5.