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23 April 2020

Attention: Declan Kelly  
Australian Energy Market Commission  
SYDNEY  
Submitted online to: [www.aemc.gov.au](http://www.aemc.gov.au)

Dear Mr Kelly

### **Submission: Second Draft Rule Determination Wholesale Demand Response Mechanism**

CS Energy welcomes the opportunity to provide a submission on the Australian Energy Market Commission's (**AEMC**) Wholesale Demand Response Mechanism Second Draft Rule Determination (**Draft Rule**).

#### **About CS Energy**

CS Energy is a Queensland energy company that generates and sells electricity in the National Electricity Market (**NEM**). CS Energy owns and operates the Kogan Creek and Callide coal-fired power stations. CS Energy sells electricity into the NEM from these power stations, as well as electricity generated by other power stations that CS Energy holds the trading rights to.

CS Energy also operates a retail business, offering retail contracts to large commercial and industrial users in Queensland, and, is part of the South-East Queensland retail market through our joint venture with Alinta Energy.

CS Energy is 100 percent owned by the Queensland government.

#### **General comments**

CS Energy welcomes the opportunity to respond to the Draft Rule on the Wholesale Demand Response Mechanism (**WDRM**).

CS Energy is supportive of demand response and ensuring its ability to participate on equal terms in the market and seeks to provide its retail customers with demand response opportunities where possible.

Demand side participation is likely to become more valued in the market over time, so it is important to ensure that the appropriate regulatory and market frameworks are in place when the economics of providing demand response via different load types or business

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models are favourable. CS Energy does not consider the Draft Rule to be reflective of this as it:

- Does not demonstrate the need for the mechanism and the anticipated benefits, nor does it evaluate these against the overall cost of the scheme, irrespective of this cost having reduced;
- Does not appropriately allocate risk with other market participants shouldering the costs and risks while the Demand Response Service Providers (**DRSPs**) are not obliged to provide any collateral. This is particularly true of the requirement on retailers to have qualifying contracts against a customer's baseline consumption to meet their Retailer Reliability Obligation; and
- Does not efficiently achieve the removal of barriers, instead focuses on shifting the current "passive" demand response that, as highlighted in the determination, already exists in the market where economic to do so, to be more directly visible to the system operator and the market. This objective of visibility could be achieved through a much more efficient mechanism.

CS Energy is disappointed that participant feedback on the implementation timeframes has been ignored, with the timelines brought forward with the cited reason that the mechanism is now simpler for AEMO to implement. The energy market is undergoing considerable change and implementing the WDRM earlier will misalign with the typical retail contract terms and will serve only to increase consumer costs overall for little demonstrable benefit.

The latest developments with COVID 19 have further stretched resources across the industry, which will impact on the ability of participants to implement the WDRM. COVID 19 impacts are not limited to the implementation of the WDRM, and the market bodies are considering deferring a suite of projects, including the industry implementation of five-minute settlement, a core reform in incentivising wholesale demand response. Additionally, the anticipated fall in energy demand will have short-term effects on the market and will likely quell any economical demand response opportunities. As such, CS Energy recommends that the AEMC do not proceed with the WDRM as proposed, rather absorb it fully into the ongoing work on two-sided markets.

Our detailed comments on the Draft Rule are set out in the Attachment.

Please contact us if you would like to discuss this submission further.

Yours sincerely



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## ATTACHMENT

### 1. Proposed Wholesale Demand Response Mechanism

CS Energy considers that demand response can potentially manage reliability and security in a more affordable way than building new peaking generation and network capacity, both of which are capital intensive.

CS Energy retails to large commercial and retail customers and actively markets demand side response to customers. Its experience is that offers for demand response are not aggressively being taken up by customers either due to load inflexibility or the relative economic benefit, however it recognises the role of demand side participation as the energy market evolves<sup>1</sup>.

Facilitating demand response requires the correct market and regulatory frameworks that allow it to participate on equal terms with other participants, technologies and business models. The challenge is to balance the frameworks against the required flexibility for residential, commercial and industrial loads, while achieving the National Electricity Objective (**NEO**). It is our understanding that this is the underpinning objective of the two-sided market work currently underway by the AEMC and AEMO.

The Draft Rule stated that the WDRM was the first step towards the two-sided market under consideration and leverages this context in presenting the benefits of the rule change. However, the publicly available information on the two-sided market work is scant<sup>2</sup>. Without an understanding of, and more importantly consultation on the two-sided market framework, it is difficult to assess the veracity of the WDRM in this context.

CS Energy thus focuses this submission on the standalone efficacy of the rule change and does not consider it to satisfy the assessment principles outlined by the AEMC.

### 2. Efficacy of the WDRM

#### 2.1. Objective

The objective of the WDRM is to incentivise demand response from large customers through the removal of barriers to participation, increasing competition and providing the market with greater transparency. CS Energy's comments on each of these objectives are set out below.

##### (a) Removing barriers to participation

One of the key barriers cited was the inability of a customer to provide demand response with a party other than its retailer. The WDRM provides a means for Demand Response Service Providers (**DRSPs**) to access the customer without requiring a retail licence or additional metering equipment at the customer's connection.

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<sup>1</sup> See for example CS Energy, *Submission to AEMC Reliability Review*, 28 May 2018.

<sup>2</sup> This largely consists of a [short paper](#) on how advances in digitisation can facilitate opportunities for demand side participation published by the AEMC in November 2019. CS Energy notes that the ESB released a discussion paper on two-sided markets days prior to this submission, however, the level of detail precludes proper consideration here.

This does not effectively remove the barrier however with the Draft Rule restricting the affiliation of each National Metering Identifier (**NMI**) to one DRSP only. Given that retailers must register as a DRSP to participate in the mechanism, the barrier has been reversed, not removed.

The ability to facilitate multiple trading relationships (**MTR**) at a NMI has long been recognised as a key barrier to demand side participation. The Draft Rule also acknowledged the role of MTR in two-sided markets and is scheduled to release a report on this by 30 June 2020<sup>3</sup>. The MTR would be a more applicable “first step” to a two-sided market that would deliver more benefits than the WDRM in its current form as it would more efficiently address the identified barrier and would be applicable across all customer classes.

(b) Promoting competition and consumer choice

On the surface the WDRM increases competition and consumer choice but it is unclear whether this will be realised. In addition to the restrictions on customer access, the focus of the mechanism on large customers narrows the potential participation both in terms of capability and willingness. Many loads do not have controllable portions that are coincident with peak times, while for others demand response may only be economical as part of a structured contract rather than standalone.

Competition and consumer choice may also be inadvertently compromised by the allowance of a certain level of demand response per region to participate without advanced telemetry. If this is coordinated on a “first in, best served” basis then it would be feasible for a DRSP to effectively crowd out this market segment and re-establish the barriers for other potential DRSPs, thereby limiting consumer choice. The processes and requirements on this aspect needs careful consideration.

(c) Incentivising demand response from large customers

CS Energy believes that by focusing the mechanism on large customers, it is less likely to incentivise demand response additional to what is currently provided in the market, some of which was acknowledged in the Draft Rule.<sup>4</sup> In these cases, retailers can provide greater incentives to customers as they procure demand response not just for the price differential at peak times but to hedge against their portfolios.

In CS Energy’s experience the spot price alone has not provided sufficient incentive to date for large customers to participate in demand response. Most demand response through the WDRM in the short-term is likely to be the existing demand response rebadged.

Additionally, CS Energy considers large customers with consumption significantly in excess of the upper consumption threshold will be limited in their ability to participate in demand response as many have spot price exposed loads. In CS Energy’s experience, customers with loads of this size typically negotiate quite sophisticated pricing mechanisms, with pricing determined for each trading interval with a proportion of the consumption potentially exposed to spot price (depending upon actual consumption in that trading interval). As stated in the Rule Change, customers who have some form of spot price exposure cannot participate in the WDRM.<sup>5</sup>

CS Energy understands the customer is only prohibited from participating in the WDRM for those trading intervals when the load was exposed to the spot price. Practically, it is not

<sup>3</sup> AEMC, *Second Draft Rule Determination*, p.70

<sup>4</sup> *Ibid*, Section 3.3

<sup>5</sup> *Ibid*, Section F.5.7

clear how either the customer or the DRSP will be able to ascertain with certainty prior to the trading interval that no proportion of the consumption will be exposed to the spot price (unless the pricing mechanism was fixed for that trading interval).

## 2.2. Demonstrated need

While CS Energy is supportive of demand response, the need for the WDRM for large customers is not apparent. Large customers already provide demand response both if they can and if it's economical to do so.

The Draft Rule fails to demonstrate the gap in the current frameworks other than this demand response is “passive”, that is, not directly visible to the market. CS Energy acknowledges the benefit that this visibility would have to the market and to AEMO, but if the outcomes of the WDRM are to effectively shift demand response from “behind the retail contract” to “in front of” then more efficient alternatives should be considered.

The second draft determination posits that consumers want to and can participate due to technology advances. CS Energy agrees that increasingly sophisticated technologies can facilitate greater demand side participation but an increase in enabling technologies does not translate to a direct willingness to participate. As echoed by other market participants in their submissions, many larger customers do not wish to participate. All the discussion in the second draft determination on the need is with respect to residential and small business customers which are excluded from this rule change.

## 2.3. Benefits and costs

The benefits of the WDRM are not apparent and even the AEMC repeatedly states in the Draft Rule that it *“is unclear how much demand response will occur from the mechanism”*. The second draft determination has instead focused on reducing the implementation costs to justify the mechanism. While a reduction in implementation costs has been achieved, the flow-on impact of these changes and their associated costs have not been adequately considered. Furthermore, the fact that the implementation costs have been reduced does not stand as a reflection of the overall effectiveness and efficiency of the mechanism, particularly when the benefits are not clear.

The AEMC also argues that the WDRM will provide a valuable testing environment for scheduling demand side participation and the associated systems and processes. It would seem more appropriate to conduct such testing in a funded trial rather than jump to a full-scale implementation within the market that imposes costs without certainty of benefits.

## 2.4. Implementation timeframes

CS Energy is disappointed that implementation of the WDRM has been brought forward to 24 October 2021 despite strong advice from market participants.

Retail contracts are typically a two to three-year term meaning the Draft Rule will not allow time for those contracts to roll off and for new contracts entered into to include appropriate provisions addressing engagement by the customer of a third party DRSP. Without these appropriate provisions prior to the commencement of the WDRM, a retailer is likely to trigger change in law provisions to recover any additional costs it incurs. This is a costly and time-consuming process which all parties typically would rather avoid.

While the proposed mechanism requires less system changes than its predecessor, the implementation within AEMO's dispatch and settlement systems is still intricate and a

shorter implementation risks a budget blowout. Further, while the WDRM does not require changes to retailers' billing systems, CS Energy considers the AEMC has underestimated changes retailers will be required to make to other internal systems and processes. This implementation will also occur against the backdrop of the other regulatory changes underway, specifically five-minute settlement.

It is also unclear how the WDRM may be impacted by the out-of-market reserve mechanism endorsed by the Council of Australian Governments (COAG) Energy Council in March. It is possible that this new mechanism may crowd out potential participants in the WDRM. Demand in the short-term is likely to be impacted by the current pandemic measures and it is not clear how peak demand will be affected both in the immediate-term and as the economy recovers. This invariably dampens the economic case for wholesale demand response in the near-term independent of considerations stemming from a deferral of five-minute settlement.

Given the WDRM is anticipated to be the first step towards a two-sided market, the current environment suggests that it would be more efficient and effective to absorb the WDRM in the two-sided market work being progressed through the Energy Security Board's 2025 market reform process.

### 3. Alignment with NEO

The proposed WDRM does not contribute to the NEO as per the assessment principles outlined in the Draft Rule. This largely results from the desire to simplify the framework and reduce implementation costs. While some obligations may seem onerous and not appropriate for all participants, they exist to protect the integrity of the market and its participants, and changing these obligations has flow-on effects.

#### 3.1. Allocation of risk

Although intending to recognise DRSPs on equal footing with generators in the wholesale market, CS Energy considers the WDRM gives DRSPs preferential treatment through the inappropriate allocation of risk. This manifests through different components of the mechanism including the following.

##### (a) Retailer Reliability Obligation

Regardless of the amount of demand response its customers may be providing via DRSPs, retailers are still liable to contract against its customers' baseline consumption under the Retailer Reliability Obligation (**RRO**). Given the RRO is likely to be relevant in the same dispatch intervals as the WDRM, this is a perverse misallocation of risk; DRSPs will be generating revenue while retailers have the onus of compliance.

##### (b) Prudential requirements

The conscious decision to not impose prudential frameworks on DRSPs is a gross misallocation of risk.<sup>6</sup> If AEMO cannot collateralise DRSPs and they have no assets, there is no incentive for compliance with baselines, particularly if they are on the other side of the baseline. Any negative performance on DRSPs, whether intentional or not, will assign consequences to market participants and ultimately consumers.

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<sup>6</sup> *Ibid*, p.126



(c) Operational obligations and compliance

Requirements on DRSPs have been eased in the second draft determination the main rationale being “to allow existing systems and processes to be used by AEMO”<sup>7</sup> thereby reducing implementation costs. The integrity of the rule change should not be compromised by its implementation and these changes should not reallocate risks. For example:

- Frequency Control Ancillary Services (**FCAS**) Recovery – DRSPs should be bound to the same FCAS recovery as market participants regardless of whether they also chose to provide FCAS. Controllable load that would be eligible to participate can be greater than 100 MW discrediting the argument that there would be minimal impact on contingency FCAS.

It is also unclear whether DRSPs that also provide FCAS will still be excluded from FCAS recovery.

- Assessment of Dispatch Requirements – the dispatch requirement to consume at full capacity is not going to be assessed for non-conformance. If a participant is given dispatch instructions conformance needs to be consistent across all participants.
- Impact of non-compliance - the performance of a DRSP directly impacts the retailer of that customer as it must continue to manage its contract position against the customer’s baseline. If there are no effective penalties for non-compliance on DRSPs, the risk to the retailer increases, and there is little clarity in the Draft Rule on if or how retailers may be compensated.
- Information requirements – limiting the information requirements on DRSPs apports greater risk to other market participants who rely on accurate information across various timeframes. Market decisions largely leverage the Medium-Term Projected Assessment of System Adequacy (**MT PASA**) from which DRSPs are exempt, and although they must provide information for the Short-term PASA, it is up to AEMO’s discretion whether to include it or not.<sup>8</sup> This will be particularly true given the MT PASA is likely to be used for the new out-of-market reserve mechanism.

Relaxing the information requirements for the Energy Availability Adequacy Projection allocates greater risk to participants and AEMO and may be negligent to system outcomes. Large loads often depend on externalities such as supply chain costs and fuel costs. Generators are required to provide information to AEMO on their availability each quarter including details of fuel stocks, contracts and potential shortages that may impact available capacity. A similar requirement should be placed on DRSPs.

(d) Coordination of Generation and Transmission Investment

The AEMC has yet to determine how the WDRM will interact with the access reforms proposed under its Coordination of Generation and Transmission Investment (CoGaTI) review.<sup>9</sup> A lack of clarity on whether DRSPs will be subject to locational marginal pricing will not only impose further risk on retail contracting under the WDRM but increases the longer-

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<sup>7</sup> *Ibid*, p.81

<sup>8</sup> *Ibid*, p.159

<sup>9</sup> AEMC, *Transmission Access Reform – Technical Specifications Paper*, March 2020, p. 23

term risk to industry. This provides further weight to consideration of absorbing the WDRM into the longer-term work underway.

### 3.2. Efficient market outcomes

Aspects of the Draft Rule have the potential to distort efficient market outcomes, many stemming from the changes to reduce implementation costs that haven't adequately assessed potential flow-on impacts. CS Energy's concerns are discussed below.

#### (a) Baselines

A key reason cited why the AEMC has adopted central baselines was that "*the alternative of scheduling DRSPs to provide wholesale demand response relative to their baselines would be infeasible because it will result in the total amount of supply being scheduled in the market varying depending on the baseline methodologies in use at the time.*"<sup>10</sup> This rationale seems counter-intuitive as this is the underlying function of a market and its constituents. A departure from this will inevitably distort efficient market outcomes.

If the AEMC persists with centrally determined baselines then further clarification of the process for setting methodologies, review and testing needs to be given, including consideration of the following.

- Presently, AEMO determines the frequency of the testing of baselines. There needs to be firmer commitment on what the testing regime will be given that inaccurate or deviations against baselines will impact retailers.
- Given that retailers have the most experience with the customer's load, will provisions be made to allow retailers input on the development of specific baselines.
- Clear timelines and transparency of implementation of any improvements identified in AEMO's review.
- Provisions for adjusting baselines under abnormal conditions should include a process to inform retailers.

#### (b) Reimbursement rate

CS Energy acknowledges the AEMC's efforts in developing a model that seeks to minimise costly changes to retailer's billing systems. The Draft Rule has maintained a predetermined reimbursement rate for retailers to recover costs, with this based on the load weighted average spot market prices over the previous 12 months, calculated quarterly by AEMO.

CS Energy reiterates the discussion of its submission to the first draft rule that the load weighted average spot price is unsuitable for determining this wholesale cost<sup>11</sup>. Retail tariffs are set by reference to prices in the contract market, with a retailer using a variety of products to mitigate its exposure to the spot price (including base load swaps, peaking swaps and caps). Economic efficiency would be maximised if the reimbursement rate was priced at the marginal retail costs rather than average retail costs. This would also better account for the fact that demand response is likely to be dispatched during periods of peak demand and consequently high pool prices and additional wholesale costs to serve to load in these periods.

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<sup>10</sup> AEMC, *Op cit*, p.150

<sup>11</sup> CS Energy, *Op cit*



(c) Provision of information

CS Energy agrees that requiring demand response to be scheduled provides transparency to AEMO and the market but this shouldn't be at the expense of market efficiency. A key benefit to the market of transparency is accurate information provided to market participants.

The WDRM provides for a level of transparency but falls short of providing efficient signals to market participants as follows.

- The AEMC's objective to provide market signals to incentivise greater demand response participation is contradicted by the lack of visibility of demand response in MT PASA. Without this visibility, supply will be procured through other mechanisms such as new generation investment or out-of-market mechanisms and thus the WDRM will not deliver the least cost combination of available resources to meet reliability.
- Utilising the Demand Side Participation (DSP) Portal for market information is not adequate when participants rely on the PASAs to make decisions.
- Retailers will not receive adequate information about customer baselines. While CS Energy appreciates that the WDRM design will reduce the amount of data required to be produced by AEMO, retailers need the baseline to appropriately manage their exposure. This design simply shifts the ex-ante determination of the baseline to the retailer.

The customer's load forecast cannot simply be substituted for the baseline, given firstly, forecasts are typically aggregated across the retail book and secondly, the baseline determination is in accordance with a set methodology. Retailers will face increased costs (such as analytics and IT costs) to determine the baseline ex-ante. For CS Energy, whether these costs are material will depend upon the number of our customers participating in the WDRM. There is also a concern that a baseline calculated by the retailer ex-ante may not match AEMO's determination of the baseline for the Wholesale Demand Response Unit dispatched. If there is a material discrepancy and this mismatch is not addressed over time (for example the underlying baseline methodology is revised so that similar baselines will be determined if the methodology is applied by different parties), retailers are likely to price this discrepancy into retail tariffs, ultimately leading to increased costs for consumers.