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Australian Energy Market Commission  
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Submitted by email to [aemc@aemc.gov.au](mailto:aemc@aemc.gov.au)

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### **Wholesale demand response mechanism Draft rule determination**

Snowy Hydro Limited welcomes the opportunity to comment on matters raised in the Draft Rule Determination (Draft Determination) from the Australian Energy Market Commission (the Commission) on the Wholesale Demand Response Mechanism (WDRM).

Snowy Hydro Limited is a producer, supplier, trader and retailer of energy in the National Electricity Market ('NEM') and a leading provider of risk management financial hedge contracts. We are an integrated energy company with more than 5,500 megawatts (MW) of generating capacity. We are one of Australia's largest renewable generators, the third largest generator by capacity and the fourth largest retailer in the NEM through our award-winning retail energy companies - Red Energy and Lumo Energy.

Snowy Hydro supports competitively neutral approaches that do not advantage one technology over another and a transparent approach that aids the price discovery process. Market-based solutions already incorporate demand response, as intended in the NEM design, allowing the demand side to respond to price signals in the spot market, resulting in the best and most economical solutions for all parties. Accordingly, Snowy Hydro does not consider the WDRM rule change a positive step, as it is a complex solution to a problem that does not exist, and will lead to unnecessary costs ultimately borne by consumers.

Demand response is occurring under current arrangements and this is increasing, driven by the revenues available for standard and bespoke products in the changing NEM. There is no evidence of a market failure or fault that warrants, or could be addressed by, WDRM. If customers have been unable to enter into demand response facilities in the past, we believe this is because they were not viable as they were either too costly or not reliable. This is therefore a question of value and not availability.

Critically, any proposed market improvement must pass the tests that it must not distort or reduce the efficiency of the operation of the energy-only market and, in addition, it must not reduce the transparency of market signals for investment in new plant. If the Commission were to progress with a WDRM in the form proposed to satisfy other objectives, Snowy Hydro considers that the issues regarding the baseline measurements and methodology, costs to the consumers, reimbursement and settlements, pool price pass through, and the potential for gaming of the mechanism must be further assessed. This will have significant implications on market participants including:

- WDRM baseline methodologies create significant retail risk as they will be based on assumptions and will be open to gaming. Retailers will need to incorporate this risk into their retail contracts, another cost on consumers.
- The settlement proposal is unclear, with an inaccurate reimbursement scheme to the retailer. The settlement model's reimbursement rate, which reflects historical spot rate,

does not reflect retailers' hedging costs. Further to this, the historical approach would be more prone to errors leading to gaming in the market.

- Lack of retailer notification of the availability and dispatch of demand response in real time creates hedge risk.
- While shaving load off peak demands may appear intuitively attractive, the consequence of this is that peaking generation will receive a lower return and therefore there will be a lesser incentive to build and maintain new firm generation. When DR is not able to respond, the backup that would otherwise exist may not have been built, or the alternative is the DR must be paid for as well as the peak generation, thus duplicating costs.
- Market change and compliance is not a costless exercise with end use customers having to foot the bill.

The focus on large customers and prohibition of small customers in a WDRM is appropriate. The consumer protection issues need to be adequately assessed along with the system costs and complexities associated with aggregating portfolios of small customers to participate in wholesale demand response. Retailers would be required to enact significant system changes for small customers to participate in this scheme, the cost of which would be ultimately borne by consumers.

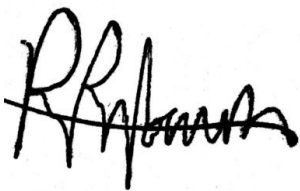
Any demand response service provider (DRSP) should participate in central dispatch in a transparent, scheduled manner, similar to scheduled generators. DSRPs should have a number of obligations and incentives consistent with the obligations imposed on scheduled generators. These include compliance with dispatch targets and incurring FCAS contribution factors deviating from dispatch targets, as these obligations are vital for maintaining the integrity of the central dispatch and price setting process. Snowy Hydro is concerned that DRSPs could potentially bid strategically, creating risk to market participants by distorting the contract market.

The Commission should undertake a cost benefit analysis to determine the "net benefit" of the rule change before it is finalised. If the rule change does not pass the cost benefit test, we would welcome a wider review of the available DS models that could fit into the NEM.

There are numerous changes occurring in the NEM. With the current challenges of implementing 5 minute settlement and global settlements, market participants should not be required to also implement the required system changes to operationalise this rule change, noting Snowy Hydro's opposition to the mechanism. Bringing forward this rule change from 1 July 2022 is not supported.

Snowy Hydro appreciates the opportunity to respond to the Draft Rule Determination and any questions about this submission should be addressed to [panos.priftakis@snowyhydro.com.au](mailto:panos.priftakis@snowyhydro.com.au).

Yours sincerely,



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## **The current market and the distortionary impacts of WDR mechanisms**

Existing and available commercial incentives for demand response in the NEM have led to numerous projects being undertaken across the NEM. There are no barriers to consumers providing demand side response and there is no factual evidence to suggest that there are insufficient incentives on retailers to offer demand response services. Retailers already provide Industrial and Commercial (I&C) customers with demand side services raising questions on the need for a WDRM.

The WDRM would undermine the efficiency of the energy only market. Energy only markets are designed in allowing generators to recover capital costs at times of tight demand supply, the idea being that at these times prices will be high. However, the introduction of a demand side market that incentivises Commercial and Industrial (“C&I”) customers to bid their energy through the WDRM, reducing peak prices for generators, reduces the time frames for them to recover their capital costs. This comes at a particularly sensitive time when the market is transitioning to renewable generation and the need for base-load generation is critical, we cannot support the WDRM.

On the retail side, retailers already provide C&I customers with demand side service currently in the market. Retailers provide demand response services to help their customers manage their spot price risk during high price periods basically operating in the same manner as other hedging products. The competition from other retailers to provide these products provides retailers with the incentive to provide value adding demand response (DR) services to their customers.

The market for demand side services is progressively growing, retailers have started to target the smaller C&I customers for demand management activities. This has involved collaborating and partnering with other companies that have experience providing demand response solutions and the required technologies.

A major criticism of the demand side services that retailers currently provide is they have developed slowly. However, Snowy Hydro does not agree with this. It is difficult to tailor demand side services for specific customers such that all parties benefit. For example, it is not unusual for C&I customers to have different peak periods from the market. Hence, this might make developing demand side products for these customers more challenging.

Retailers currently supply demand response services to their C&I customers. Given this, we do not support a WDRM.

## **Scheduled**

The price discovery process will become more challenging in a dynamic NEM environment over time, with increasing distributed generation and demand response. It is therefore important that the Australian Energy Market Operator (AEMO) has visibility of demand response and the implication on its ability to manage power and system security in the short-term and longer-term.

Snowy Hydro therefore welcomes the Commission’s proposal to require the DRSPs to participate in central dispatch in a transparent, scheduled manner<sup>1</sup>. This would require DRSP’s to be treated in a similar manner to scheduled generators by receiving dispatch targets to provide wholesale demand response and also able to set the wholesale market price. The information DRSP will provide is vital in informing the market of their intentions and to honour these bid/offer intentions. In summary we

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<sup>1</sup> AEMC, Wholesale demand response mechanism, Draft rule determination, 18 July 2019, pp iv.

strongly believe informing the market of DR intentions would improve price discovery and ensure an overall more efficient utilisation of resources for the NEM.

The DRSP scheduled load should have the same requirement on them as large generators. This should not be limited to; dispatch targets, constraints and transmission constraint equations, marginal loss factors, PASA availability, ramp rates etc. Snowy Hydro however has certain concerns with the proposed requirement to participate in central dispatch. These include:

- **DRSPs could potentially bid strategically creating risk. Hence, DRSP load must be “scheduled” and subject to “good faith” bidding obligations in the National Electricity Rules (NER)**

DRSP loads must be considered part of scheduled load subjecting the DRSP to the “good faith” bidding provisions in the National Electricity Rules (NER). This approach will ensure these aggregated DRSP loads are transparent to the market. Also, the DS bidding obligations in the NER ensure the DRSP bids its load into the market in good faith.

- **Existing I&C contracts would most likely impose financial penalties on demand side (DS) bidding via a WDRM increasing the risk it won't be used much**

Many I&C contracts are likely to impose financial penalties for DS bidding via a WDRM increasing the risk it won't be used much. Demand side contracts are likely to include penalty provisions that would be applied to customers that switch off during high price periods and bid energy through the WDRM. It is not clear to us what proportion of the thousands of I & C contracts would include these penalty provisions. These contracts are confidential, making it impossible for Snowy Hydro to know what and how many of the current I & C contracts have these provisions in place.

Nonetheless, I&C customers with contracts that penalise them to switch off and bid their energy through the WDRM would most likely avoid this course of action. In simple terms, it is unlikely that an I & C customer would get a better return from its DR where it is shared with a DRSP while incurring a contract penalty rather than just being paid to switch off their energy at a predetermined price by the retailer.

- **Lack of retailer notification of the availability and dispatch of demand response in real time creates hedge risk**

Retailers will not know when their C&I customers will be dispatched in real time in the WDRM. Retailers must have this critical information in order for them to make any adjustments to their hedging strategies to cater for any DR that is dispatched in their retail portfolio. Otherwise, without this information retailers may overhedge for their retail load to incur significant costs. Retailers need to have the information they require to adjust their portfolio and to understand the adjustments that they would be required to make to their hedging positions.

### **Firmness**

The uncertainty/firmness of demand response has generally meant it has not been relied on in significant volumes to manage risk, as retailers need to over procure demand response capacity to effectively increase its firmness. Snowy Hydro therefore welcomes the Commission's proposal under the draft rule which notes the risk associated with the firmness of consumers' wholesale demand

response would need to be managed by the DRSP. The DRSP should ensure that their customers can provide firm demand response<sup>2</sup>.

It is important to note that non-firm demand response from the WDRM factored into MT PASA may delay critical supply side generation. In general, large scheduled generators usually have nameplate ratings. This provides Snowy Hydro with a reasonable understanding of how much generation they would have available for the market to dispatch. DRSP's would need to be clear how much energy from DS bidding will actually be available in real time. If the DS energy bid in via the WDRM is accounted for as part of MT PASA and is not firm, this has the potential to mislead the market on the amount of generation available to the market. This could delay critical investment in supply side generation required by the market potentially having a detrimental impact on wholesale prices in the long term.

### **Prohibition of small customers from WDRM**

The decision to place a prohibition of small customers in the demand side mechanism and to focus on large customers is important. The Commission needs to be aware of the repercussions of exposing small consumers to wholesale price risk as Snowy Hydro questions whether customers would want this risk. It is important that the Commission continue to target large C&I customers.

Snowy Hydro understands the importance the Commission places on the application of the consumer protections<sup>3</sup> which does not permit small consumers to participate in the wholesale demand response mechanism until the related consumer protection issues have been adequately assessed.

In addition to this, our concern on including small customers is that retailers will be required to enact significant system changes for small customers to participate in this scheme. These changes would be required to help recover and store data from DRSP who pays the retailer for the costs of the small customers DR. The retailers would need to report on that data to AEMO for reconciliation purposes. These values will also need to be reconciled against the two amounts a retailer is charged by AEMO at the wholesale price which includes the customers level of demand response plus its consumption level.

Adjustments would also be required to be made by retailers to determine baselines for small customers. Any error in the baseline would impose significant costs on retailers. For example, if baselines were overstated it could lead to a significant cost to retailers having to pay additional hedging costs. Hence, the complexity of many of these issues must be given further consideration before small customers are included in the scheme.

### **Baselines**

Snowy Hydro is concerned that the WDRM baseline methodologies has the potential to create significant risk for retailers. From the Draft Determination the Commission's efforts to establish appropriate baseline methodologies by applying specific metrics that the baseline methodologies would be required to comply with is vital<sup>4</sup>. There needs to be stringent compliance requirements to be applied to the proposed baseline methodologies.

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<sup>2</sup> AEMC, Wholesale demand response mechanism, Draft rule determination, 18 July 2019, pp 202

<sup>3</sup> AEMC, Wholesale demand response mechanism, Draft rule determination, 18 July 2019, pp V.

<sup>4</sup> AEMC, Wholesale demand response mechanism, Draft rule determination, 18 July 2019, pp 132

However, irrespective of the checks and balances provided to strengthen baselines, they will always expose retailers to potential risks. That is, when a DRSP baseline is overstated for a scheduled load to be bid into the NEMDE for a dispatch period, then the additional hedging costs applied to the retailer could be significant. To this end, our view is a DRSPs load bid into the market must ensure its consumption must not vary within some very tight parameters outside of its normal consumption range. Baseline metrics should be detailed enough to ensure only loads with stable enough baselines are able to become DR candidates. That is, candidates who have a large variable load with significant fluctuations cannot be a candidate as their normal fluctuations cannot provide a stable baseline.

It has been suggested that in terms of baselines it would not be unreasonable for the baselines to be wrong within acceptable variances, with demand response being either over or under. The suggestion is that over time the average demand response being dispatched will be a fair value of demand response that is exchanged between the retailer and the DRSP. Snowy Hydro strongly oppose such an approach as retailers would wear this risk. It is imperative that the Commission ensure the baseline methodology to be used in the WDRM reduces risk.

### **Settlement**

Snowy Hydro is concerned by the proposed settlement reimbursement proposal. The settlement proposal is unclear with an inaccurate reimbursement scheme to the retailer. The retailer's settlement reimbursement proposal set on historical spot rate does not reflect retailers hedging cost.


The methodology attempts to find a reasonable surrogate for a retailer's hedging costs by using a reference to the previous years average wholesale price. The concern with this approach is the reference to an average wholesale price from the previous year is it assumes risk and price are equal across time and fails to adequately capture the key factors that actually influence a retailer's hedging costs.

Snowy Hydro's view is that any methodology adopted to determine the reimbursement rate must consider the following matters. They include:

- A retailer's hedging is dynamic. A customer's contract price will reflect the time, load, and temperature at the time of the commercial transaction.
- Demand response is likely to be dispatched at times of peak demand when prices are high prices and this should be reflected in hedging costs.
- High prices are not equal across the day but only for a few hours and it is costly to hedge for these periods.
- Hedge prices generally trade at a premium to spot prices with a built in margin so any rate which is based on the spot rate would not fully compensate retailer .

### **Timing and Moving forward**

The Draft Rule Determination proposes to implement the substantive parts of the rule implementing the wholesale demand response mechanism on 1 July 2022. Snowy Hydro do not support expediting this rule change and bringing the implementation forward from 1 July 2022. The key reasons for this include:

- The industry is currently busy with the process of making the necessary system changes to ensure that 5 minute market settlement (5MS) and global settlements (GS) are in place. The industry needs to make the relevant changes to accommodate these rule changes and
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ensure they are implemented smoothly. Additional obligations that would be required to comply with any other rule changes at this time would only slow down our process.

- Retailers would need to make the key system changes to help recover and store data from DRSP who pays the retailer for the costs of the customer's baseline level of consumption in the wholesale market. They would then be required to report on that data to AEMO for reconciliation purposes. These values would also need to be reconciled against the amount that a retailer would be charged by AEMO at the wholesale price which includes the customers level of DR plus its consumption level

Hence, if this rule change progresses we prefer it begins 1 July 2022 or later.

