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

18th October 2018

*Submitted via e-mail*

Dear Mr Pierce,

**Demand Response Mechanisms**

The Australian Energy Council (the "**Energy Council**") recognises that demand response can contribute to the safe and reliable operation of the power system. To this end it is important that it does so under just terms, and the *National Electricity Rules* cater for parties wishing to aggregate demand response, retailers with whom customers have a relationship, and market participants. Accordingly this rule change proposal is submitted for the Australian Energy Market Commission's ("**AEMC**'s") consideration.

This proposed rule change responds directly to the AEMC's recently completed Reliability Frameworks Review recommendation that a new demand response mechanism be introduced into the National Electricity Market ("**NEM**"). In response to that recommendation, the Energy Council notes that the AEMC has already received a rule change request "Wholesale Demand Response Mechanism" (ERC0247) which proposes changes to settlement processes involving a direct financial relationship between third parties and the Australian Energy Market Operator ("**AEMO**") outside the relationship with the Financially Responsible Market Participant ("**FRMP**").

In contrast, the Energy Council's proposed rule change attempts to address the recommendation through a less significant reform, by supporting the development of demand response without fundamentally restructuring the FRMP – AEMO settlement relationship, nor relying upon theoretically determined baselines in settlement and/or customer billing. The Energy Council considers this rule change proposal will provide many of the benefits of the ERC0247 rule change, but at significantly lower costs.

The Energy Council therefore considers this proposed rule change should be considered alongside ERC0247 and recommends it be viewed as an alternative, rather than adjunct, to ERC0247.

In the present settlement construct, third-party demand response specialists participate by developing systems and technologies for a retailer's customers on behalf of, and with the endorsement of, the retailer. The Energy Council understands that the key concern that potential third party demand response specialists express about this construct is that their demand-response investments are at risk of becoming stranded should the customer change retailers. A subsequent retailer may not see value in taking on the previous retailer's existing demand-response arrangements. The Energy Council's proposal directly addresses this concern by providing some confidence for aggregators that their activities can endure beyond a change in retailer.

Like ERC0247, the proposal attempts to meet the AEMC's preference that all such activities under the new mechanism be scheduled.

**Name & Address of the Person making the Request**

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**Description of the Proposed Rule**
The proposed rule defines a new category of market participant, Demand Response Aggregator ("**DRA**"). DRAs will be parties that control demand response and behind-the-meter generation at a connection point.

Under the proposed rule:

1) A new registration category, DRA, would be created.
    a) As this has no settlement relationship with AEMO category participants would not have prudential requirements.
    b) Category participants would have a small technical relationship with AEMO due to obligations under the proposed rule in relation to information provision and scheduling.

2) AEMO would maintain a register ("**Connection Point DRA Register**") of the demand-side capabilities of DRAs.
    a) The register would record each connection point where a DRA had elected to notify its involvement in a demand-side activity.
    b) The DRA could be the same party which acts as the FRMP for that connection point, or a third party with the express informed consent of the customer or their FRMP on behalf of the customer, where the FRMP has the consent of the customer.
    c) FRMPs would be able to access from the register the name of the DRA (if any) in relation to their NMIs and any NMIs they are potentially acquiring, but no other demand response-related information.
    d) For simplicity, a maximum of one DRA could be registered at each connection point.

3) Where a demand-response activity exists at a connection point, registering it to a DRA would be voluntary, i.e. demand response arrangements could continue to operate under the existing arrangements, being a commercial matter between a customer and its FRMP, subject to the existing declaration requirements of the Demand Side Participation Information Guidelines.[1]

4) For customers *already* participating in demand response, upon changing FRMPs:
    a) The new FRMP would be required to accept the previous FRMP's DRA arrangements or to negotiate in good faith changes to DRAs and the associated agreements. The FRMP would be obliged to attempt to honour previous commitments made to the DRA, unless it was materially inconsistent with the new FRMP's business strategy, systems or processes.

5) For customers *already* participating in demand response, upon changing demand response arrangements:
    a) FRMPs would be required to negotiate in good faith changes to DRAs and the associated agreements, subject to receiving written confirmation from the customer of its intention to vary its demand response arrangements. When negotiating the revised arrangements, the FRMP would be entitled to consider material changes to its bargain with the customer, with the overarching principle applied that the FRMP should be kept whole from any variation.

6) For customers *not* participating in demand response:
    a) FRMPs would be required to negotiate in good faith with prospective DRAs, subject to receiving written notice from the customer of its intention to enter into a demand response arrangement.

7) The agreement between the FRMP and the DRA would be required to include a minimum set of topics set out in the Rules, including (but not limited to) measurement, operational control, demand response activations & limitations, load accounting procedures and liability.

8) Disputes between FRMPs and DRAs would be resolved in accordance with Chapter 8.2 of the Rules.

[1] Available at https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Demand-Side-Participation-Information-Guidelines

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9) Availability and scheduling information would be managed and provided by the DRA to AEMO.

10) There are two suggested treatments for curtailed loads' interaction with the spot market, each of which has advantages and disadvantages. They are set out as follows:

    a) OPTION 1: All loads registered with a DRA must be classified as *scheduled loads*, which obliges them to continuously provide short and long-term availability information to AEMO, and to bid and re-bid their behaviours to the same level of transparency as *scheduled generators*.

    b) OPTION 2: Alternatively loads registered with a DRA could be dormant (apart from registration with the existing Demand Side Participation Information Portal) until such time as the DRAs intended the loads to be active in the market, or a Lack of Reserve Notice is issued by AEMO. Should either of these conditions occur, then DRAs would be required to participate in the spot market as a *scheduled load* for the relevant period, thereby only suffering the compliance burden for the critical period. Should capabilities change, for example by exhausting a limited number of activations, DRAs would be obliged to update their availability advice to AEMO.

        i) The Energy Council suggests that the compliance burden of Option 2 would not be markedly less than Option 1, since a DRA would be obliged to have the systems and processes in place to participate in the market regardless.

        ii) There may also be difficulties in determining a Lack of Reserve prior to receiving the scheduled load information which is triggered by it.

    c) It should also be acknowledged that the current *scheduled load* bidding and compliance systems are simply copies of the *scheduled generator* systems, and are inconveniently designed for most *normally-on* loads, although they are generally satisfactory for *normally-off* loads, such as pumps.[2] One example of this is that bidding occurs only in megawatt increments. However this is a problem in AEMO's systems rather than the Rules, and is unlikely to be improved until there is an impending compulsion for loads to start using them. The Energy Council would expect the requirements for scheduled loads to be naturally improved and expanded as a result of the proposed rule, and this would be an additional benefit of the rule.

11) In accordance with the current provisions of the Rules, AEMO would be obliged to fully consider the contribution of demand response in its projections of system availability and other forecasting reports, such as the Electricity Statement of Opportunities and the Integrated System Plan.

12) In order to counter possible anti-competitive behaviour, and to prove the efficacy of their arrangements, DRAs would have to demonstrate that they have exercised their demand response arrangements at each connection point at least once each financial year, subject to the customer having had an arrangement in place for at least six months. This will prevent opportunistic counterparties registering as a DRA for customers, with no intention of participating in demand response activities.

13) The Energy Council considers that it would be beneficial to investigate whether the rule change is working as expected after an initial period of implementation. To this end, it is suggested that the AEMC conducts a market review three years after the proposed rule takes effect.

**Nature and Scope of the Issue that is proposed to be addressed**

Demand response will play an increasingly significant role in the National Electricity Market, and the Energy Council believes that formalising the concept of a demand response aggregator will provide increased clarity and transparency for AEMO. In particular, the ability to schedule demand response may allow AEMO to activate or procure less Reliability and Emergency Reserve Trader ("**RERT**") capacity, and thereby reduce costs to consumers.

However, the Energy Council considers that a "one size fits all" approach to procuring, valuing and metering demand response is likely to be inefficient – risking both excluding some valuable resources and valuing response that is not truly additional. In particular, standardised baseline methodologies are unlikely to be applicable for many commercial and industrial loads, and especially for residential loads. This was recognised

[2] Note that these issues apply to ERC0247 also.

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by AEMO in its proposal for a Demand Response Mechanism as recently as 2013, where resources with high variability in output would not be eligible.[3]

To this end, providing a framework for parties to negotiate the best possible agreement to facilitate demand response will improve market efficiency and provide a platform for further development as the power system changes in response to different market drivers and technology improvements.

**Explanation of how the Proposed Rule will contribute to the achievement of the National Electricity Objective**

The National Electricity Objective is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

(a) price, quality, safety, reliability and security of supply of electricity; and
(b) the reliability, safety and security of the national electricity system.

The proposed rule change will facilitate the increased use of demand response in the NEM, and offer an alternative to increased network construction or additional generation to meet peak demand. In this way the efficiency of investment in the power system will be improved by deferring capital and operational expenditure with consumption foregone, at a competitive price. By having demand response scheduled in the spot market, it will be appropriately valued, and the alternatives will be competing in the same arena. The complexity and opportunity for error by mandating baselining will also be avoided under this proposed rule change. Market efficiency (and hence efficient investment in the power system) will therefore be optimised by having comparable offerings between the different methods.

The DRAs' offerings will compete with peaking plants, and may potentially provide a lower cost and more efficient option to balance supply and demand during low reserve margin events, at which time wholesale prices have historically been highest. Reducing wholesale prices at these times will have the effect of lowering average wholesale prices, which will benefit all consumers.

In addition, the entry of additional demand response into the market may have the effect of improving reliability and security of supply by a reduction in the likelihood of load shedding.

**Explanation of the Expected Benefits and Costs of the Proposed Change**

The expected benefit of the proposed rule change will be to allow demand response businesses to invest with the confidence that their arrangements will be enduring. The proposed rule change will facilitate demand response's participation in the NEM and the optimisation of competitive alternatives to satisfy the supply-demand balance, thereby maintaining reliability and increasing market efficiency.

It would be expected that introducing a demand response framework as part of the proposed rule will allow retailers and DRAs to negotiate mutually beneficial arrangements, and facilitate the maximum value of the arrangement to be extracted and shared, for all parties and for the market as a whole.

Such a framework will provide greater confidence and certainty to customers, retailers and DRAs. This could encourage specialised DRAs with clear plans for how to identify, access and then verify demand response from certain types of customers. Over time, the Energy Council expects that a range of standardised contracts will be developed for different services, emerging from repeated market experience but also being able to evolve over time.

Greater transparency around the availability and dispatch of distributed generation will also assist AEMO in improving demand forecasting, minimising the procurement of ancillary services, and reducing RERT procurement and activation.

There will be costs associated with the establishment of the Connection Point DRA and the negotiation of demand response agreements between new retailers and DRAs. In addition there will be system costs for AEMO to accommodate scheduling.

[3] AEMO, *Demand Response Mechanism and Ancillary Services Unbundling – High Level Market Design*, 30th July 2013, available at https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Demand-response-mechanism

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However as there is no change to the FRMP – AEMO settlement relationship, there are considerably lower costs than is proposed under the alternative proposal ERC0247, and the proposed rule change resolves the financial settlement issues associated with using baseline techniques.

**Conclusion**

In conclusion, the Energy Council believes that the rule change it has proposed would be more effective than that proposed in ERC0247 since it maintains the existing settlement relationship with the Financially Responsible Market Participant, and provides a framework for Demand Response Aggregators to establish long-term arrangements with customers without compromising the fundamental customer-retailer relationship and the necessary customer protections.

Any questions about this proposed rule change should be addressed to Duncan MacKinnon (Wholesale Policy Manager), by e-mail to Duncan.MacKinnon@energycouncil.com.au or by telephone on (03) 9205 3103.

Yours sincerely,

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