

Thur-10-Dec-2015

Mr. Arik Mordoh  
Australian Energy Market Commission  
L6, 201 Elizabeth Street  
Sydney NSW 2000

By online submission  
Thursday 10 December 2015

### **Demand Response Mechanism ERC0186**

Dear Arik,

Progressive Green is most concerned about the demand-side response (DSR) rule change proposal, we appreciate participating in the consultation process.

We strongly support a competitive electricity market and market based approach, including demand side participation in the wholesale market. The original design principles of the NEM included a “two sided” market where a clearing price is established by the intersection of generator offers and customer bids. In this way the clearing price may be set by customers some of the time and generators at other times.

However, we do not support the current relentless pursuit of a specific demand side mechanism (DSM) implementation as proposed in the rule change.

There is no evidence of a market failure, and, in fact, demand response (DR, abridged nomenclature for DSR) is occurring and certainly isn't being prevented from occurring.

Specifically, proponents have not demonstrated that the proposed rule change will provide net benefits to consumers in the long term. Information provided by industry participants has demonstrated clearly that the system costs that will be incurred by industry if required to enable settlement on baseline will be considerable and certain, whereas the benefits from enabling settlement on baseline are doubtful and at best marginal.

This is the reason that the rule change has been framed as a voluntary arrangement: a voluntary arrangement seeks to obtain some of the benefits of the compulsory model, without incurring the costs. However, it has not been demonstrated that the voluntary model as proposed, has any incremental net benefits compared to the current market rules.

We consider that the voluntary model, as proposed, is highly unlikely to have incremental net benefits over the current arrangements, primarily because the model adds complexity and costs in an attempt to ‘facilitate’ something that is already occurring anyway.



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We do not consider the perceived lack of DR as accurate nor do we agree that there is a case of market failure that needs to be addressed. The key elements of our argument are as follows:

#### 1. Low barriers to entry into retail

The barriers to entry are low, many new retailers have emerged over time and continue to emerge. Some new entrant retailers have successfully started with just a few customers.

#### 2. Chronic oversupply blunts demand response signals

The wholesale electricity market is chronically oversupplied, mainly due to the forced subsidised renewable generation in the mix, which has resulted in multiple exits and moth balling of thermal plant.

The chronically low and unsustainable wholesale prices do not stimulate a major demand side response, as the economics do not support it for many businesses.

#### 3. Effective competition for large/medium size customers is evident; Customer "power" drives offers by retailers

Supply to large customers is hotly contested as evidenced by the very low retail margins in this market segment. Large customers are able to choose pool exposure for some of their load, or demand side response, some already elect to do so.

It is common for large customers to tender out their electricity supply requirements, frequently using third-party brokers to facilitate the competitive process.

There is no barrier, with the exception of low pool price, to prevent these customers from stipulating demand side response elements in their tenders. However only a few large customers show interest in such products. This is possibly exacerbated by their short term contracting strategies. For example, large customers commonly seek 12 month or 24 month contracts. In some cases they seek shorter periods, such as six months.

#### 4. Retailers already offer and settle demand side response contracts

Retailers have access to all of the necessary information required to offer and settle demand side response contracts. Retailers are in a prime position to negotiate baselines with customers and to measure actual demand for settlement purposes. There is no need for additional prudential requirements to be imposed on retailers for baselines under this approach.

Retailers are also well placed to extend the service to smaller customers and to include network services as part of their energy services offering without resorting to demand side aggregators.

#### 5. Infrastructure and technology



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Demand side response requires sharing of information and communications to facilitate response. This can be done purely manually (by phone), or can be semi or fully automated.

Retailers may use in-house services or can outsource these services to external service providers.

Progressive Green has developed such capability and are providing services to most of our customers and we are also available to other Retailers to assist in their DSR process.

## 6. Demand is already responding and retailers are participating

Progressive Green has been active since 2009 with most our large customers participating in demand side response.

Progressive Green customers are kept informed of price events and we facilitate remote load management. This includes both demand management and coordination of onsite generation at times of high wholesale prices.

In summary:

- Progressive Green supports market based solutions including the demand side response as intended in the NEM design
- Demand side response is already occurring and we as a licensed Retailer are active in that space under the current arrangements - there is no market failure
- The proposed arrangement does not offer any additional value to customers or retailers and stands to create a distorted playing field.
- The proposed rules move away from the settlement of physical energy and introduces the settlement of financial instruments by AEMO. AEMO should not be expanding into the settlement of financial products and this should be left to the competitive market, which has successfully managed these products to date. A regulated solution should only be imposed when the market has been demonstrably failed, which is not the case here.
- Demand side response is a form of energy service offering that should be led by customers and licensed retailers
- We submit that the proposed rules, as currently drafted fail the National Electricity Objectives test as they introduce additional costs with no additional benefits beyond what the existing market is already delivering and therefore should be abandoned.



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Yours sincerely,

Bill van der Linden  
**Compliance Manager**

## Appendix 1- Specific responses to questions raised in the consultation paper

### Question 1 Assessment Framework

1. Would the proposed framework allow the Commission to appropriately assess whether the rule change request can meet the rule making test?
2. What changes to the proposed assessment framework would stakeholders' consider appropriate, if any?

Demand side response can and does occur under the existing regulatory arrangements. The rule change will introduce a different mechanism which relies on fundamental changes to the role of AEMO and the settlement process.

Software changes to participant systems will be expensive, as was previously established and articulated by independent consultants.

Therefore the proposed rule change introduces significant additional costs without additional benefits and thus fails to meet the NEO criteria.

As a matter of market design principle, AEMO should not be expanding into the settlement of financial products and this should be left to the competitive market. This reliance on market based mechanisms has worked well to date and no change to the standing principles and arrangements is necessary.

While we understand that it is challenging to develop a robust cost-benefit assessment to determine that a regulatory change is justified in terms of improved net benefits compared with current arrangements, we consider that this is the standard the AEMC should strive to achieve. The proposed assessment framework is overly qualitative and this leads to a significant risk that costly regulatory changes will be made on the basis that they are considered to have a theoretical justification.

A robust cost-benefit analysis is needed, as this will enable stakeholders to provide further information that can help avoid a poor decision. Under the proposed assessment framework, in contrast, we cannot see how a stakeholder could provide information that would overturn a view that the proposed changes would 'send better signals to market participants', for example. Whether or not a signal is 'better' is too subjective.

Additionally, a test such as 'whether the costs and benefits are allocated to parties that are best able to manage them' does not help decide whether a change to regulations will give better outcomes than the current arrangements. For example, costs may be increased by more than benefits, meaning that in overall terms



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outcomes are worse, but the change may still pass this test if the worse outcomes are appropriately allocated.

In conclusion, we consider that the proposed assessment framework should be replaced with a robust cost benefit analysis of the proposed changes in comparison to the current arrangements, following a clear determination that a market failure exists.

## **Question 2 Potential barriers to demand side participation relevant to this rule change request**

1. What are stakeholders' views on the potential barriers to demand side participation that have been set out in this consultation document? How relevant might they be? Should they be considered in the Commission's assessment?
2. Have stakeholders identified other barriers to DSP that should be considered in the Commission's assessment? Please, explain and provide evidence where possible
3. What are the costs and benefits of removing the barriers that are identified as significant to this rule change request? Which barriers are the most problematic and/or more cost-effective to remove?
4. Are there any current or upcoming changes in the market that would mitigate or address any of the identified barriers?
5. Might there be any unintended consequences from addressing such barriers?

The proposed rule change fails to establish a case of market failure and also ignores existing demand side participation and demand side service providers such as provided by Progressive Green.

The biggest obstacle to demand side participation currently is the chronically low wholesale pool price. However this doesn't represent a market failure, but is the correct and economically efficient response of a competitive electricity market.

Large customers already generally face cost reflective (capacity based) network tariffs, and the introduction of cost reflective small customer tariffs should encourage further demand side response. Coincident network demand in a distribution infrastructure maybe costly to build out and demand response could be the least cost solution.

Customers would decide based on the value they place on electricity consumption (either they consume and pay, or reduce demand and avoid energy and network costs).

For smaller consumers networks charges are more costly to consumers than energy charges, and high energy prices don't necessarily occur at the time of high distribution demand (ie the energy market and distribution system dynamics are different).



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The unintended consequences may well be that the changed arrangements harm existing DR response retailers by creating an un-level playing field for existing retailers such as Progressive Green by allowing non-retail entities to compete for some services but under a “softer” set of regulatory arrangements.

### Question 3 Questions on the overall DRM design proposal

1. Would the proposed DRM generate useful demand-side information in relation to improving wholesale pre-dispatch and dispatch prices? How significant would this improvement be?
2. Would the proposed DRM generate useful demand-side information in relation to improving the management of transmission constraints through the dispatch process? How significant would this improvement be?
3. Would the proposed DRM generate useful demand-side information in relation to improving the provision or procurement of ancillary services? How significant would this improvement be?
4. Would the proposed DRM operation result in a technology neutral approach between demand response and generation resources?
5. Do stakeholders think that there exist and relevant gaming risks or unintended consequences from implementing the overall proposed DRM operation? If so, how could they be mitigated in a cost-effective way?
6. Would the DRM result in system-wide benefits and/or costs that might impact the operation and investment in electricity transmission and distribution networks? What aspects of the design would contribute to this?
7. Would the DRM result in improved ability for AEMO to manage system security and reliability? What aspects of the design would contribute to this??

The proposed DRM is unlikely to generate useful demand-side information that could not be more easily obtained by other means.

The proposed DRM allows the customer or demand response aggregator (DRA) to call a DR interval at any time before the end of a trading interval. There is no incentive for the call to be made before the trading interval, because the DR provider will benefit from high generator bids that are responding to a high level of expected demand. Early notice of DR would, in contrast, be expected to reduce generator bids as generators compete to service a lower level of expected demand. As a result, DR calls themselves are unlikely to provide useful information about upcoming trading intervals.

Similarly, DR calls provide minimal additional information about trading intervals that have already happened, which can usefully inform forecasts about future trading intervals. If information about DR is to inform future trading intervals, then it is necessary to forecast it. AEMO does not need DR call information to forecast future DR impacts. Instead it can forecast based on observation of how load changed as prices changed (similar to how it forecasts load changes in response to weather and the time of day). For these reasons it is unlikely that the proposed



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DRM will provide system-wide benefits or improvements to system security and reliability management.

As a technology neutral alternative to the proposed DRM, there are several potential ways of improving the pre-dispatch and dispatch processes and these include:

- Mandatory bidding of large loads into the market (would require a rule change)
- Estimation of price sensitive load by AEMO to inform the market (doesn't require a rule change but a change to AEMO procedures (similar to wind and PV generation estimation))

The proposed DRM shouldn't hinder the pre-dispatch and dispatch processes subject to reasonable accuracy of baseline and DR response estimation.

However the proposed DR approach is redundant if the one or both of the abovementioned improvements are introduced.

#### **Question 4 Accredited baseline consumption methodologies**

1. In stakeholders' views, are there any alternative demand response mechanism options that would not require the use of baseline consumption methodologies?
2. What might be the costs, benefits, and consequences from having an administrative baseline developed and then managed by AEMO?
3. What are stakeholders' views on the proposed baseline methodologies, and the proposed assessment criteria to be applied when assessing baseline consumption methods?

The principle behind the baseline is that settlement is based on real and notional consumption. The notional consumption is essentially a hedge which is a financial instrument.

One pragmatic option is for the baseline to be negotiated between the customer and retailer; "a customer choice". This negotiation sets the level of hedging (tariff) the customer wishes to arrange in relation to their expected load and DR response. For a customer this will ultimately be a trade-off between higher ongoing cost (tariff/hedge quantity) and higher potential payoff during DR events, and lower ongoing tariff/hedge and lower payoff during DR events.

This is a commercial decision which the customer and retailer are best placed to address. AEMO has no commercial expertise in this area and isn't in the business of developing and settling financial products. As a result, we do not support AEMO calculating baselines.

Limiting the baseline to a physical supply arrangement is unlikely to deliver an optimal solution for a customer as it ignores the commercial drivers for the DR load.



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### **Question 5 Restrictions on the provision of demand response**

- 1. In stakeholders' views, how effective would the proposed DRM design be in preventing the exercise of potential gaming opportunities?**
- 2. Are there alternative options to improve upon the current design to manage gaming risks?**

Gaming opportunities under this arrangement are overstated, most likely as a result of a misunderstanding of the proposed DR mechanism. A customer would pay more for a higher baseline (which the retailer needs to hedge) which would offset the potential increased payoff during DR events.

Consequently there is a negative feedback once the baseline quantity is increased beyond the expected physical demand and DR response. Beyond the actual response, the customer is essentially taking a view that the retail product is mispriced, in the hope of receiving a larger payoff during the high priced DR events to offset the higher purchase costs of the hedge (tariff).

Customers may wish to have a larger or smaller margin on their load. This would be inconsistent with the AEMO arrangement as they don't have visibility of the commercial drivers of customers.

### **Question 6 Interactions with demand side participation mechanism**

- 1. Does the proposed DRM design appropriately capture and address all potential interactions between the DRM and other demand side participations options in the NEM?**

The paper states that a customer has multiple ways that it can offer its demand response to those who can benefit from it: its retailer, its distributor, and the ancillary services market (scheduled DR only).

Where DR can provide multiple benefits at the same time, it is appropriate that the DR provider can access multiple markets. However, it has not been demonstrated that the proposed DRM is needed to address a deficiency in the current options that prevents potential DR providers from accessing any relevant market.

### **Question 7 Prudential requirement**

- 1. Are the proposed prudential requirements on DRAs and retailers appropriate?**

The DRM proposes that retailer Prudential's would be based on baseline energy rather than actual energy. This is yet another example of how the model distorts well-established and well-performing market mechanisms that are based on actual consumption, and replaces them with mechanisms based on notional values.

Additionally, as identified in the paper the DRA, while expected to normally be a creditor, can become a debtor under some circumstances. This creates a risk for the



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market that will require DRAs to provide a risk-based instrument that will cover a DRAs potential debit position if it should occur.

### **Question 8 Settlement charge**

- 1. Do stakeholders have any observations over the proposed changes to the way the costs of ancillary services would be recovered from DRAs and/or retailers?**
- 2. Do stakeholders have any observations regarding the proposed changes to the compensation cost recovery from retailers?**
- 3. Do stakeholders have any observations regarding the proposed changes to the way the operating costs would be recovered from DRAs and/or retailers?**

These arrangements are likely to be quite costly and are arguably unnecessary. Any costs associated with these changes must be confined to the DR loads under this arrangement.

Cross subsidisation from other customers must be specifically prohibited. Otherwise customers with DR arrangements with retailers not using the AEMO settlement process would be disadvantaged by having to pay for settlements they use with retailers as well as a cost of settlements with AEMO they don't use.

Customers without DR would be also disadvantaged if the AEMO settlement costs are allowed to be smeared across loads.

### **Question 9 Implementation issues in relation to the DRM**

- 1. The Council proposes a voluntary approach for retailers to enable their customers to participate in the DRM. How effective do stakeholders think this voluntary approach will be in encouraging retailers to enable their customers to opt-in into the DRM?**
- 2. What are stakeholders' views on allowing manual billing as a viable short term solution to encourage retailers to enable their customers to opt-in the DRM?**

In the event that the AEMC decides to proceed with the unnecessary rule change, it is imperative that choice is maintained. This is important because analysis has shown that a compulsory mechanism has expected net costs, due to the certainty of high implementation costs and the low and uncertain potential benefits.

There must be freedom for customers to use other market arrangements (already in place as well as potential schemes) without being constrained to the AEMC proposed scheme.

The proposed manual billing is strongly supported to minimise costs to customers and the industry.



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### **Question 10 Voluntary and staged approach**

- 1. The Council proposes a voluntary approach for retailers to enable their customers to participate in the DRM. How effective do stakeholders think this voluntary approach will be in encouraging retailers to enable their customers to opt-in into the DRM?**
- 2. What are stakeholders' views on allowing manual billing as a viable short term solution to encourage retailers to enable their customers to opt-in the DRM?**

Replicated questions, see response to Q9