

Dr Kerry Schott AO and Mr David Swift
Energy Security Board
Email to: info@esb.org.au



18 May 2020

Re: Discussion Paper – Moving to a Two-Sided Energy Market

Dear Dr Schott and Mr Swift,

The Energy Efficiency Council (EEC) thanks you for the opportunity to comment on the Energy Security Board's (ESB) (AEMC) Discussion Paper – *Moving to a Two-Sided Energy Market*.

The EEC welcomes the ESB's continued focus on the importance of managing energy demand, which includes energy efficiency, demand response and load shaping. Our submission on the two-side market is set out in the attached letter. In summary, the EEC:

- Supports continued work to identify and assess both the costs and benefits of a two-sided energy market;
- Recommends that a two-sided market should be characterised as a fundamental reform that will have multiple impacts on the National Electricity Market (NEM), rather than solely framed a demand-side reform. While a two-sided market could support demand-side participation, it also offers a range of other potential benefits, including more precise price-setting and dispatch;
- Argues that, to be effective a two-sided energy market would need to be accompanied by other reforms that have value even in the absence of a two-sided market, such as multiple trading relationships with consumers (e.g. retailers and demand-side providers). Without accompanying reform, a two-sided market potential for demand-side participation will not be realised; and
- Recommends that the ESB develop a list of priority reforms for demand-side participation, to mitigate the risk that a two-sided market becomes the sole focus for work on demand-side measures. The reform list should include, but not be limited to:
 - A two-sided wholesale market;
 - Multiple trading relationships;
 - Ensuring network service providers (NSPs) support demand-management;
 - Ensuring that any capacity-style markets support demand-side measures; and
 - Governance reforms to ensure that energy management is given an appropriate and coordinated focus within and outside the energy market.

We look forward to continuing to engage with the ESB on this matter. For further information please contact me on rob.murray-leach@eec.org.au or 0414 065 556.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Rob Murray-Leach", written over a light blue horizontal line.

Rob Murray-Leach
Head of Policy
Energy Efficiency Council

EEC submission on a Two-Sided Energy Market

Demand-side benefits and barriers

Increasing the volume of energy efficiency and demand response would deliver multiple benefits to Australians, both through and outside the energy, market.

These benefits include:

- Increased energy security and affordability, by providing low-cost, flexible and reliable capacity. Increased levels of energy management increase competition in energy markets and reduce the construction and dispatch of more expensive forms of generation, network capacity and ancillary services.
- Better aligning supply and demand to consumers' preferences; and
- Reduced risk of stranded assets compared to large-scale infrastructure projects. Energy markets are undergoing extraordinary changes at the moment, and there are significant risks associated with investing in large-scale energy infrastructure projects that turn out to be sub-optimal. In contrast, investments in energy management are typically small, scalable, involve modest capital and have non-energy benefits; and
- Non-energy benefits that can significantly exceed energy benefits, such as improved health and worker productivity. For example, the low levels of insulation in Australia's building stock contributes to 2,600 Australians dying each year due to cold weather. Sydney has almost double the cold-associated mortality rate as Stockholm in Sweden.

In order to discuss the benefits of a two-sided energy market, it's worth recapping the barriers to demand management that have been identified by reports such as the Parer Review (2002) and the Power of Choice Review (2012). These include:

- **Many consumers do not face accurate price signals** that reflect the cost of energy supply at specific times and locations. Firstly, distribution network service providers (DNSPs) do not charge most consumers locational or time-specific charges. Secondly, most consumers seek simplified tariffs from energy retailers.

Currently, consumers are only appropriately incentivised to manage the shape of their demand profile from a wholesale perspective if they face wholesale electricity prices or are offered a demand-response incentive by their retailer. The Wholesale Demand Response Mechanism that is being considered by the Australian Energy Market Commission (AEMC) will offer consumers a third route to receive price signals.

- **Many consumers lack the necessary expertise and time** to properly manage their energy use. This applies to both measures inside and outside the energy market, such as the purchase of insulated homes. Key routes to address these barriers include:
 - Governments providing public-good information and trusted rating schemes, such as energy efficiency ratings for homes at the point of sale; and
 - Enabling energy users to connect to experts that can provide advice and/or support. For example, the demand response mechanism being considered by the AEMC will enable energy users to engage demand management experts to manage their energy use.
- **Other parties either make, or are necessary to aggregate, consumers' decisions.** A range of consumer decisions only deliver value if they are coordinated and aggregated. For example, even if consumers faced both nodal and time-of-use pricing, it would be exceptionally complex for them to coordinate their demand-management

in a way that reduced the need for investment in network infrastructure. Energy market structures need to enable parties to engage consumers to support this type of collective action.

While there are some gaps in the provision of aggregated services, a raft of parties already make decisions on consumers' behalf, including the Australian Energy Market Operator (AEMO), NSPs and electricity retailers. These parties need to be appropriately facilitated and incentivised, or not disincentivised, to support investment and dispatch in the combination of supply-side and demand-side measures that best meet consumers' needs.

In addition to incentives, making demand-management capacity visible to parties like AEMO is important to held development and dispatch.

- **Governance issues.** There is a range of barriers inside and outside the energy market to better energy management, such as principle-agent barriers in the construction of new homes. The ESB has brought a welcome focus to the demand-side of the energy market, but this focus has very much been driven by the expertise of current individuals working for the ESB, rather than the terms of reference for the ESB, and the ESB on its own is not in a position to coordinate the overlap of energy management issues that occur within and outside the energy market.

Potential benefits of a two-sided market

A two-sided market could deliver a number of significant benefits to the energy market, including the development of wholesale prices that closer match resources. In relation to demand management, a two-sided market would likely deliver the following benefits:

- **More visibility.** A two-sided market would increase the visibility of demand-side resources in the energy market, which would increase the focus of AEMO and other parties on unlocking and using these resources.
- **Potential to bid in consumption into the market.** The wholesale demand response mechanism currently being considered by the AEMC will enable large energy users to bid their demand response capacity into the wholesale energy market, generally via an aggregator. A two-way market could theoretically allow smaller energy users to bid their capacity into the market via an aggregator, but only if they can form relations here separately to their electricity provider.

However, to fully deliver on its potential benefits for the demand-side, a two-sided market would need to be accompanied by a range of other changes. The barriers to the benefits of a two-sided market include:

- **Muting of price signals to energy users.** While a two-side market would improve the accuracy of price signals in the wholesale market, as most consumers already receive muted price signals, on its own a two-sided market wouldn't necessarily result in more consumers receiving accurate price signals.
- **Lack of ability for multiple parties to support energy users.** For demand-management specialists to support consumers and aggregate their demand-side measures, consumers will ideally need multiple parties to offer them services (e.g. electricity retail and one or more load managers).
- **Complicated incentives for parties to facilitate demand-side measures.** A range of parties in the energy market, including NSPs, face complicated incentives that impede the optimum balance of investment in supply-side and demand-side measures. While network issues may appear tangential to wholesale market issues, the full incentive

for demand-side measures requires stacking together multiple value-streams, including wholesale, network and ancillary support.

- **Lack of consumer expertise and barriers outside the energy market.** Even if consumers are provided with significant price-signals and facilitation in the energy market, barriers outside the energy market could impede the optimum deployment of demand-side assets. For example, parts of the construction industry already face incentives to lower the upfront cost of construction despite this causing significant ongoing costs for homeowners, and more accurate price-signals in the NEM will not change this.

It is also important to note that a two-sided market will also be associated with a range of costs, and any assessment of the two-sided market will need to consider both the costs and benefits of a two-sided market. Given the uncertainties about whether a two-sided market should be introduced, it is essential that work on the two-sided market should not up other priority reforms to support demand-side participation.

Recommendations

Based on the above, the EEC:

- Strongly supports continued work to explore the benefits and costs of a two-sided energy market;
- Recommends that a two-sided market should be characterised as a fundamental reform that will have multiple impacts on the National Electricity Market (NEM), rather than solely framed a demand-side reform. While a two-sided market could support demand-side participation, it also offers a range of other potential benefits, including more precise price-setting and dispatch;
- Argues a two-sided energy market needs to be accompanied by other reforms, such as multiple trading relationships with consumers (e.g. retailers and demand-side providers). Without accompanying reform, a two-sided market potential for demand-side participation will not be realised; and
- Recommends that the ESB develop a list of priority reforms for demand-side participation, to mitigate the risk that a two-sided market becomes the sole focus for work on demand-side measures. The reform list should include, but not be limited to:
 - A two-sided wholesale market;
 - Multiple trading relationships;
 - Ensuring network service providers (NSPs) support demand-management;
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 - Governance reforms to ensure that energy management is given an appropriate and coordinated focus within and outside the energy market.