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National Electricity Market Campaign

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Submission to the AEMC

Power of Choice Review

Discussion Paper

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Total Environment Centre's National Electricity Market Campaign

Established in 1972 by pioneers of the Australian environmental movement, Total Environment Centre (TEC) is a veteran of more than 100 successful campaigns. For the last forty years we have been working to protect this country's natural and urban environments: flagging the issues, driving debate, supporting community activism and pushing for better environmental policy and practice.

TEC welcomes the opportunity to contribute to the Australian Energy Market Commission's (AEMC) Power of Choice review (DSP3). TEC has been involved in National Electricity Market (NEM) advocacy for eight years. For the past six years we have been funded by the Consumer Advocacy Panel to advocate for better environmental outcomes in the NEM in the long term interests of consumers, especially through greater utilisation of demand side participation (DSP). We understand DSP to incorporate energy conservation, demand management, energy efficiency and distributed generation.

Positive signs

TEC is pleased that the Directions Paper (DP) finally acknowledges that there are structural deficiencies in the NEM that inhibit the uptake of efficient DSP opportunities, even though uptake provides considerable long term benefits to consumers and the environment. This acknowledgment is an important development in the context of ever increasing investment in networks and the consistent underutilisation of DSP since the NEM's inception. Over the past decade, a litany of government reports and reviews has highlighted the need for reform, yet little has changed.[1]

We are encouraged by the DP's acknowledgment that:

- appropriate commercial incentives are needed for Distribution Network Service Providers (DNSPs) to invest in efficient DSP;
- transitional arrangements are also required for managing risks faced by DNSPs in increasing DSP; and
- there is an important role for "intermediaries acting as agents of consumers – to reduce or manage their electricity use."[2]

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[1] In 2002, the Parer Review stated, "Installation of interval meters should be mandated for all consumers with the installation program to be achieved over the next 5 to 10 years".[1] Ten years on, interval meters have only been widely introduced in Victoria and have experienced numerous setbacks. In 2004, the Ministerial Council on Energy stated that there should be "A requirement for energy retailers to provide benchmark data on household energy bills".[2] This requirement is yet to be implemented, in spite of a regulatory impact statement issued in March 2010 which showed that the benefits outweighed costs. In 2006, the Ministerial Council on Energy noted, "Distribution network price regulation may not appropriately reward and facilitate distributed generation (and demand-side response) as an alternative to network augmentation".[3] There has been no move to reconsider network regulation.

[2] DP, page 4.

TEC also supports the widespread introduction of such technologies such as interval meters and smart grid technologies that will enable consumers to adjust their electricity usage according to cost-reflective price signals. Over time this should reduce the need for network expenditure by lowering peak demand in areas of network constraint. However, consumers do not necessarily always act rationally in the sense envisaged by purely economic models, and there are strong systemic biases against DSP that will conflict with the goals of cost-reflective pricing.

Systemic problems

There are systemic problems with the NEM, the first of which is, understandably, not discussed in the DP, while the current review touches on the others but is yet to provide comprehensive solutions:

1. A myopic National Electricity Objective (NEO): The focus of the DP is on improving choice and constraining cost for consumers, yet DSP has other environmental and social benefits which are not captured by the Power of Choice process. This is principally because, following the exclusion of social and environmental criteria from the NEO, the AEMC considers itself to be solely an economic regulator — in spite of which, from time to time the AEMC engages in negative critiques of proposed social and environmental policies, when it should instead be facilitating them.

2. Supply-side bias: Almost all market participants along the supply chain make their money from encouraging consumers to use more energy rather than to save it. This creates perverse incentives against DSP. While the DP addresses measures to overcome such barriers to DSP in the case of networks, the DP does not suggest any concrete action to increase DSP uptake amongst generators and retailers, seeing these parties as facilitators of consumer-led DSP.

3. A one-way grid: The NEM was constructed essentially around a 'hub and spokes' model of largely passive consumers being supplied with energy from baseload coal-fired and peaking gas plants, whereas the challenge now is to construct a grid that is two-way, dynamic and interactive.

4. A traditional industry-centric NEM: It is difficult for new market participants (such as demand aggregators and small and medium scale generators) that have not had a traditional role to enter the NEM.

Possible solutions

Distributed Generation

TEC is keen to see the implementation of incentives for DNSPs to connect small- and medium-scale renewables. For instance, we believe that the Property Council's new rule change proposal relating to connecting embedded generators, which could apply to community scale projects as well as building owners wishing to install cogen or trigen plants, would go a long way to overcoming the regulatory barriers facing mid-scale projects (i.e., those between 10 kW and 30 MW capacity).

Distributed generation could also be encouraged by the unbundling of services at the connection point — as recommended, for instance, by electric vehicle (EV) company Better Place in its submission to the Issues Paper of the AEMC's review of Energy Market Arrangements for Electric and Natural Gas Vehicles — in order to allow more than one market participant to provide services to, or facilitate provision of services to the market by, any consumer. This would allow EVs to provide additional supply at peak demand periods, as well as allowing separate metering to ensure that EVs under contract are only supplied by retailers with contracts with renewable generators.

With improvements in small scale battery technology and lower costs for such systems, it would be advantageous for consumers to be able to switch on and off the grid, providing their own power needs when they deem it advantageous and supplying into the grid when they have a net output, or

during peaks, when for instance, their retailer may offer them financial incentives to reduce their demand. We understand that the Rules do not allow this to occur at present.

Finally, community renewable energy projects would benefit from the introduction of virtual net metering or split billing, so that the income from the output from a small wind farm, for instance, could be split among the members of a cooperative. At present we understand that the Rules apparently do not allow this to occur either.

Third-Party Aggregators

TEC is disappointed that the AEMC has explicitly ruled out what it terms "significant reform to the current market" in relation to ancillary service markets. TEC believes that we must transition away from viewing the NEM as solely an electricity market, but should instead see it as a market for the delivery of energy services. In this conception, parties such as third party aggregators, who have not to date been able to play a significant role in the delivery of energy services under the NEM framework, could play a key role in providing consumers with incentives for energy use reduction and NSPs with efficient DSP alternatives to network augmentation. However, it is not clear how the AEMC intends to increase aggregator involvement through the creation of a new class of participant in the absence of a market in which they can sell their product.

TEC would be particularly receptive of the views of aggregators already operating in Australia, such as EnerNOC, in determining whether this is likely to be an effective solution in the absence of the creation of a capacity market or similar. These businesses are the actors that are already dealing with the poor regulatory framework and so best understand the changes that are needed to make market access easier.

TEC is convinced that cost effective DSP will not be implemented unless competition is opened up so that NSPs compete directly with demand side aggregators and DSP proponents. Competition is the cornerstone of electricity deregulation worldwide and this should extend to monopoly NSP businesses facing competition for the supply of energy services. This competition should take place at the wholesale level, and at the Regulation Investment Test and revenue reset stages.

TEC understands that currently a scheduled load does not receive the market price for electricity where it sheds load at times of peak demand.[3] This is not conducive to greater DSP through aggregators, who struggle to make a business case out of such a limited incentive. TEC believes this is part of the reason why load shedding of scheduled loads is not prevalent in the NEM. TEC therefore recommends that the AEMC facilitate scheduled load DSP being sold directly into the wholesale market.

Allowing DSP aggregators and proponents full access to network constraint information will also be essential to achieving effective competition. Full information is needed in order to ensure that such parties have enough time to develop detailed proposals for non-network alternatives capital expenditure for relieving network constraints. This, coupled with a requirement that NSPs preference DSP options, will increase the utilisation of DSP.

Decoupling revenue from consumption

The regulation of electricity networks must be modernised so as to decouple revenue from increased investment in networks. Decoupling is perhaps the holy grail of network reform, but the Supplementary Paper on Profit Incentives for Networks does little more than restate the problem. This is an issue which demands specific attention by the AEMC and stakeholders as part of the current review.

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[3] Instead, it merely avoids paying the contracted price when instructed by the AEMO to shed load at times of peak demand.

The UK has recognised the need for a paradigm shift in the role of NSPs and has recently overhauled its network regulation.[4] Under the RIIO model,[5] network businesses are not passive conduits for electricity delivery, but are instead active participants in transitioning away from a supply focused electricity system. NSPs under the RIIO model are not only paid for delivering electricity, but are also rewarded for implementing DSP initiatives and are given incentives to do so.

We support Energex's proposed approach, detailed in its submission to the DSP3 Issues Paper, of developing a program of demand side investments and incorporating these investments in the building block proposal. This would be a step toward rewarding DSP expenditure and would provide some immediate incentive for DSP activities, even though it is not truly decoupling profit from expenditure. We would prefer to then see broader reform toward full decoupling in the longer term.

Incentives and Targets

As noted above, the DP recognises the need for incentives for DSP, and TEC broadly supports the implementation of incentives for DNSPs to implement DSP and ambitious targets for DSP implementation. TEC supports Ausgrid's proposal, detailed in its submission to the DSP3 Issues Paper, for a "peak demand performance incentive", using a range of possible index measures. We also strongly support the ATA's proposal, detailed in its submission to the DP, that network demand management targets be set.

We note that the AEMC has expressed their hesitance to introduce new incentive schemes into the regulatory framework before the conclusion of the Energy Users Association of Australia (EUAA) and Australian Energy Regulator (AER) rule change process regarding the economic regulation of NSPs. However, it is TEC's belief that the capex and opex incentives under discussion in that rule change relate to improving efficiency in spending on existing network assets, while the incentives under discussion here relate to into alternative DSP solutions to lower, primarily, peak demand.

We do not believe the EUAA/AER rule change should prevent the AEMC from recommending incentives for DSP be implemented quickly. Waiting for the conclusion of the EUAA/AER Rule Change before acting will introduce unacceptably long time scales, particularly when it is highly unlikely to have a bearing on the necessity for DSP-specific incentives. We therefore believe that the AEMC should proceed with developing recommendations incentive schemes now to promote the adoption of DSP by NSPs.

Recommendations

1. **Encourage more distributed generation** by one or more of the Rule changes or other measures referred to above.

2. **Consider DSP first**: require NSPs to give priority to DSP over investment in network upgrades. This can be implemented as a legal requirement through the Rules as part of the five-yearly regulatory reset reviews and Transmission and Distribution Regulatory Investment Test processes. Network owners would be required to publicly disclose full information regarding network constraints through these review processes, and third-party DSP solution providers would need adequate access to information and time to respond with alternative proposals involving non-network solutions.

4 See Ofgem (2011) RIIO - a new way to regulate energy networks.

5 Revenue=Incentives+Innovation+Outputs

3. **Decouple revenue and consumption**: modernise the regulation of networks to decouple revenue from increased investment in poles and wires by one or more of the Rule changes or other measures referred to above.

4. **Open the NEM up to aggregators:** allow third party aggregators to capture the value of their demand reductions directly in the NEM through the introduction of a capacity market or allowing scheduled load shedding to be sold directly in the wholesale market.

5. **Implement incentives and targets**: provide DNSPs with both incentives and targets to encourage greater DSP activity.

TEC staff would be happy to present or answer questions at any public hearing related to this inquiry.

Yours sincerely,

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