

Essential Services Commission of Victoria
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13 December 2016

The true value of distributed generation to Victorian consumers: Stage 2 draft report

The Australian Energy Council (the Energy Council) welcomes the opportunity to make a submission to the Essential Services Commission (ESC) Inquiry into the true value of distributed generation to Victorian Consumers Stage 2 Draft Report (the Draft Report).

The Energy Council is the industry body representing 21 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

Stage 2 Draft Report: The network value of distributed generation

The Energy Council supports the ESC's finding that feed in tariffs are an inappropriate policy tool to reward distributed generators for network benefits. The ESC has correctly identified that distributed generation can under certain circumstances provide network value (for example, by reducing network congestion) and that this value may not be reflected in the private value captured by the distributed generation owner). But the true value of network benefit of distributed generation is highly specific to the location, time of generation, regional peak demand, and by the firmness of the generated electricity. It could also change significantly over time as distribution businesses invest in network upgrades or demand patterns of other users change.

The ESC has identified a policy direction to develop a market for network services in Victoria's distribution network. It is important to investigate the opportunities for networks and emerging service providers to use the network more efficiently and provide benefits for that efficient use. However, the ESC has not identified a market failure to warrant the creation of a market, and risk the emergence of commercially led solutions to network services provision.

The penetration of smart metering within Victoria raises the possibility that opportunities exist in Victoria for the further development of a well-functioning market for grid services that may not presently exist within the other jurisdictions of the national energy market.

As the ESC notes in its draft report, under the current National Electricity Market (NEM) frameworks, there is already opportunity for innovative, commercial businesses to develop programs or products which provide networks with alternatives to traditional augmentation or ancillary services. The market for these types of services is still emerging (the roll out of advanced metering in Victoria was completed in 2014) and technology as well as consumer engagement in new products is evolving considerably. It would be untimely to impose a jurisdictional –specific market structure over the top of an evolving market, which has the potential to leverage competition and negotiation to drive innovation and effective products that consumers want.

A national solution for nationally regulated networks

The Energy Council supports a nationally consistent, competitive network services market for distributed generation or any other emerging technology or service. Networks are economically regulated under a national regime administered by the Australian Energy Regulator (AER). This regime is designed to encourage network businesses to use non-network solutions (such as grid services provided by distributed generation) whenever most economically efficient. The NEM is interconnected and any policy change in one jurisdiction will impact

the efficient operation of the market. The Australian Energy Market Commission (AEMC) and AER, as national rule maker and regulator, are best placed to assess impacts of distributed generation across the interconnected market.

The AEMC have just commenced two relevant pieces of work:

1. Distribution market model reviewⁱ.
2. Annual monitoring of electricity network regulationⁱⁱ.

We encourage the ESC to recommend to the Victorian government that it pursue any regulatory changes considered necessary to improve upon the existing regime through the COAG Energy Council and AEMC rule change process. This will better ensure that the national economic regulatory framework evolves in a consistent manner to facilitate the emergence of an effective grid services market. State-based regulatory frameworks will ultimately slow down uptake of new technologies due to higher transaction costs for producers and consumers.

Market principles

The Energy Council supports a competitive market for energy services and the opportunity for market led solutions driven by consumers' needs. The development of a new market by a government entity should robustly demonstrate a net benefit which outweighs the costs and regulatory distortions that are created with market intervention. The AEMC considers any net benefits arising from payment of a Local Generation Network Credit is outweighed by the cost to implement a payment, and it is prudent to increase information in the market rather than require network benefit paymentsⁱⁱⁱ.

The innovative services which provide network benefits by reducing congestion are in an early stage of development. Competitive pressures to bring these services to market, combined with recent reforms to network regulation outlined in the ESC's Draft Report, have created new opportunities for product development. Businesses such as Reposit Power which partner with networks and retailers to sell grid services from distributed generators are engaged in this process of experimentation and market development^{iv}. ERM Power is trialing demand management, energy efficiency measures and information to help a school change their energy use behaviour^v. AGL has established its New Energy division to provide distributed energy services which includes digital metering, solar PV, battery storage and electric vehicles^{vi}. In 2016, AGL also conducted trials of innovative offerings, including virtual net metering and demand response^{vii}, to investigate how emerging technologies can be used to balance spikes in electricity demand, reduce network costs and ultimately reduce energy costs. These are just a few examples of the many trials and new services being developed in businesses around Australia.

The market requires time to learn and adapt to these new product offerings and imposing a facilitated market while this process is ongoing would be premature. Creating a facilitated market at this point of evolution could stifle product and program development which provides benefits to energy users and distributed generation owners.

Consumer preferences are highly variable and prescribing their interaction with new services is premature. At one end of the reform spectrum, prescriptive restrictions on how network businesses interact with distributed generation owners could be imposed — for instance, strengthening the default terms and conditions of their contracts, and leaving little room for businesses to deviate from the prescribed conditions. This approach would limit the scope for innovation and discovery, which are essential benefits of new technology and software at this point in the energy transition.

The ESC's terms of reference require it to consider costs relative to benefits. A robust cost benefit analysis is required to understand the policy case for market intervention. After all, the ESC has estimated a network benefit of \$3 million in 2017, which is marginal relative to the investments networks make annually in Victoria.

The AEMC's more preferable rule with respect to Local Generation Network Credits should be allowed to be observed in the market prior to assessing the need for further intervention.

Ring fencing arrangements for monopoly businesses

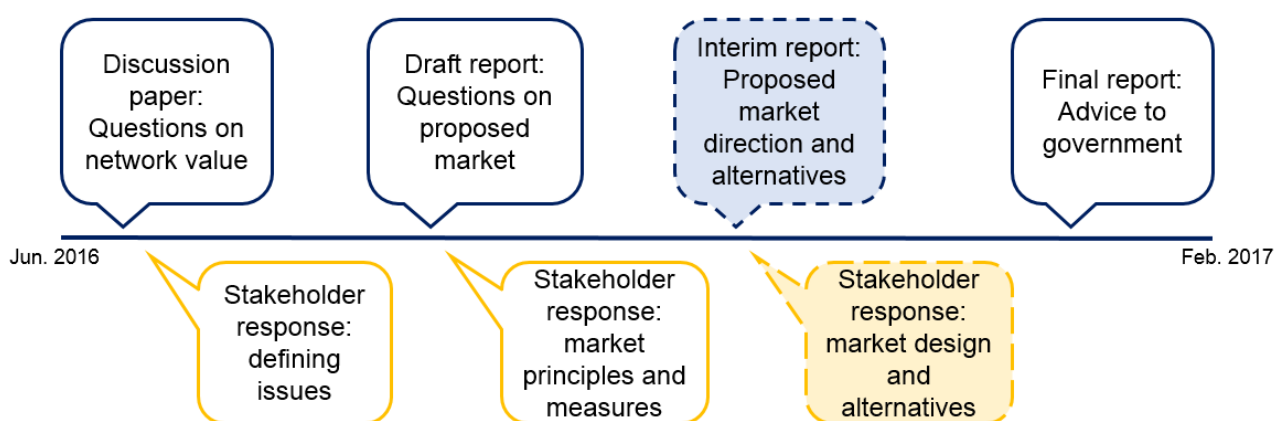
The competitive delivery of an emerging class of energy services would benefit from clarification in the National Electricity Rules (NER). Accordingly, in October 2016, the Energy Council lodged a rule change request with the AEMC to propose that networks must procure network support services externally where they are provided by an asset that provides services in addition to the conveyance of energy^{viii}. Such services may be provided by technologies such as distributed generation, storage and demand management tools. The key challenge that has arisen is how to maximise the use of the competitive market to provide innovative and adaptive solutions that will deliver the most efficient outcomes in both the short and long term.

The regulatory framework should encourage productive, allocative and dynamic efficiency in both the market for regulated network services, as well as the market for behind the meter services (such as demand response and distributed generation). Arrangements that foster efficient outcomes will be consistent with promoting the achievement of the National Electricity Objective. Care should be taken to ensure that distribution businesses are not able to use their monopoly position (or their ability to obtain benefits from network support services that cannot be obtained by other parties) to enjoy a competitive advantage. This could reduce competition for the provision of network services involving consumers which could also reduce efficiency in the market in potentially both the short and long term.

ESC inquiry process should include an interim step if a new facilitated market is proposed

To the extent the ESC determines that some form of regulatory intervention is required to facilitate an effective grid-services market in Victoria, then stakeholders should be provided further opportunity to analyse and comment on the proposals. This may be in the form of an interim report (shown in Figure 1 below) which includes an opportunity for consultation on design and alternatives. Given the substantial change and costs of implementing a policy to create a new market, those required to participate in the market should have the opportunity to provide their expertise to the process.

Figure 1: An additional step in the ESC process allows for discussion of market design and alternatives



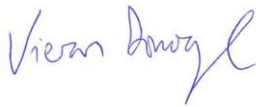
Summary

Any assessment of the true value of distributed generation network value should be undertaken on a nationally consistent basis. The value of distributed generation should not be considered in isolation without also understanding both the import and export impacts to the distribution system of the generating customer. It is

likely that when both of these factors are determined that the application of any distribution benefit may be customer and locational specific and care must be taken to ensure that the complexity of allocating any benefit or cost does not exceed its true value. To the extent the ESC recommends any regulatory intervention to further promote a grid-services market in Victoria, an additional step comprising an interim report outlining the policy proposal should allow stakeholders to contribute to the debate fully.

Any questions about our submission should be addressed to Emma Richardson, Policy Adviser by email to

Yours sincerely,



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ⁱ AEMC, 2016, *Distribution market model*, <http://www.aemc.gov.au/Major-Pages/Distribution-market-model>

ⁱⁱ AEMC, 2016, *Electricity network economic regulatory framework review*, <http://www.aemc.gov.au/News-Center/What-s-New/Announcements/Approach-paper-for-new-annual-monitoring-of-electr>

ⁱⁱⁱ AEMC, 2016, *Rule change: Local generation network credits*, <http://www.aemc.gov.au/Rule-Changes/Local-Generation-Network-Credits>

^{iv} Reposit Power, 2016, <http://www.repositpower.com/features/>

^v ERM Power, 2016, http://www.ermpower.com.au/post_powering_on/lessons-energy-efficiency-bring-immediate-savings/

^{vi} AGL, 2016, *Sustainability report 2016*, http://agl2016.sustainability-report.com.au/system/files_force/downloads/agl_csr_2016.pdf

^{vii} AGL, 2016, *AGL trials impacts of emerging technologies on the grid and energy bills*, Media Release 11 March 2016,

^{viii} AEMC, 2016, *Contestability of energy services - demand response and network support*, <http://www.aemc.gov.au/Rule-Changes/Contestability-of-energy-services-demand-response#>