

Essential Services Commission of Victoria
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The true value of distributed generation to Victorian Consumers: Draft Report 1

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.

The Energy Council is the industry body representing 22 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 1 draft report: The energy value of distributed generation

The Australian Energy Council maintains a fair and reasonable value of energy from distributed generation is best determined through the operation of a competitive market, free from regulatory intervention. Under a competitive market the value of any FiT will be set through competitive tension across participants seeking to service solar customers. With the implementation of smart metering and greater data availability, distributed generation owners would continue to receive an efficient price for the energy they generate. The regulated feed-in-tariff (FiT) in Victoria interferes with competitive incentives amongst retailers for distributed generation owners and inhibits the flexibility and innovation of offers.

Competitive markets support efficient pricing structures and encourage competition in the development of alternative products and levels of service. When they do not do so, it is typically because they are impeded by regulation. With enabling technology such as smart metering now available in Victoria, the Energy Council believes a period should be allowed to observe a competitive market where retailers and distributed generation owners can contract without government intervention in prices.

Evidence from Queensland shows that retailers and distributed generation owners negotiate prices for energy exported, without intervention. From mid-2014, there was no mandated FiT for the South East Queensland market, and retailers competed for solar customers. The Queensland Productivity Commission (QPC) reported “nine retailers compete for solar export customers through a feed-in tariff, with offers from 4-11c/kWh. The two large retailers are offering 6 and 8c/kWhⁱ.” By contrast, customers in the Ergon service area receive a regulated feed-in tariff of 6.348c/kWh (higher line losses mean that if anything the Ergon FiT should be slightly higher than the SEQ FiT). SEQ solar customers can access a significantly higher feed-in tariff thanks to the market and the majority of retail customers receive an amount approximately equal to or higher than their regional counterparts.

The ESC has not identified evidence that makes the case for regulation due to the existence of a market failure. The Stage 1 Draft Report does not present evidence of a market failure and the case for regulation. The proposed Victorian FiT policy imposes costs as well as benefits, while providing no additional emissions abatement beyond that achieved by the Small Renewable Energy Scheme (SRES)ⁱⁱ. The cost of regulation should be carefully considered against any potential benefits delivered through continued regulation of the FiT, to make a credible case for continued regulation.

Victoria committed to reduce complexity in energy markets and deregulate prices to provide consumers with more choice. As a signatory to the Council of Australian Government's Australian Energy Market Agreement Victoria agreed to phase out retail price regulation where effective competition is demonstratedⁱⁱⁱ. The ESC's proposed FiT imposes price regulation for distributed generation customers into the future.

The Energy Council acknowledges that the Terms of Reference of the Inquiry required the ESC not to consider the deregulation of payments to distributed generation owners.

On the basis that the ESC is still required to determine a regulated FiT methodology, the Energy Council supports the ESC's separation of the energy value and network value of distributed generation. The Energy Council supports the ESC's finding that additional environmental and social benefits cannot be identified and should not be incorporated to the tariff.

The Energy Council sets out its response to the Stage 1 Draft Report questions below.

Wholesale market value of distributed generation

The Energy Council's position is that a mandated FiT is not necessary because market participants can contract and compete for distributed generation consumers. The implementation of smart metering and greater data availability, has for the first time allowed retailers to provide distributed generation owners with an efficient price for the energy they generate. The feed-in-tariff (FiT) in Victoria interferes with competitive incentives amongst retailers for distributed generation owners and inhibits the flexibility and innovation of offers.

The Energy Council does not support the approach to mandate value-reflective prices through the multi-rate FiT to distributed generation owners. If Victoria must persist with regulated FiTs, then it is preferable to maintain a simple structure, especially absent any evidence that consumers are seeking greater complexity in tariffs.

In Victoria, the roll-out of smart meters has created an opportunity for tariffs that are more directly reflective of the costs of energy, for example through time-of-use or critical peak pricing tariffs. This is a recent development and successive state governments have effectively discouraged widespread marketing of such tariffs. Nevertheless more innovative tariffs may emerge as an attractive option for some consumers in the future. Cost-reflectivity could have been further enhanced by the implementation of the national rule requiring LRMC-based network charges, although the Victorian government has exercised its right to jurisdictional derogation from this rule. Instead Victoria has preferred to emphasise that customers should have the choice of whether they are subject to cost-reflective network tariffs. In the light of this decision it is inappropriate to mandate a time varying export tariff.

The ESC proposes a mandatory peak, shoulder and off-peak price structure for distributed generators however, it is not established that consumers prefer greater complexity in pricing. Without establishing a market failure for prices paid to distributed generation owners, it is unclear that energy consumers value a more granular and complex bill structure.

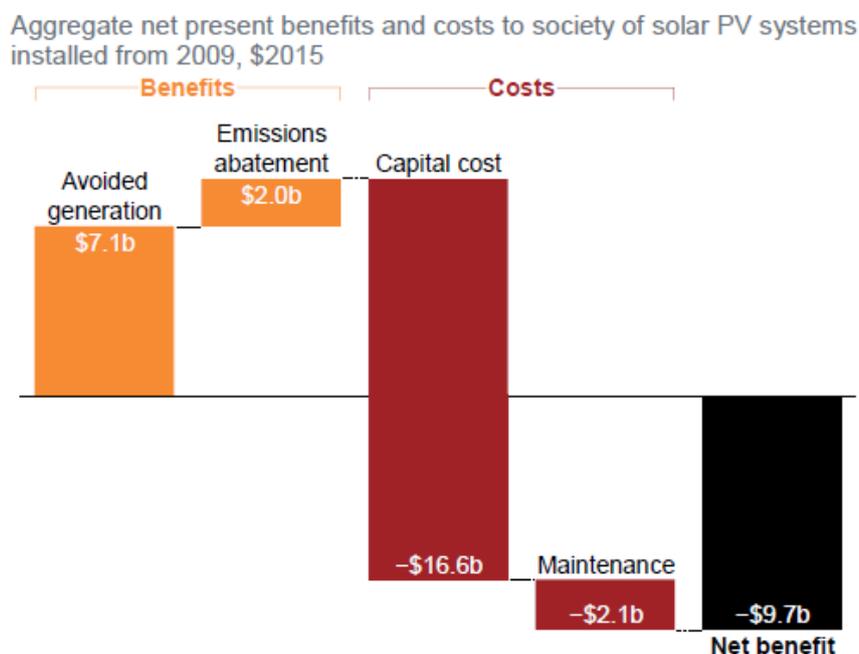
The proposed multi-rate tariff would create a mismatch between a relatively flat consumption tariffs and time-varying export tariffs. The majority of distributed generation is behind the meter of households and businesses. At the margins, consumers make decisions about the value of self-consumption versus export (with storage adding another option to maximize revenue from energy exported). The price structure mismatch does not improve either the efficiency or the equity of tariffs, and it should not be imposed on Victoria's consumers.

For these reasons, the alternative proposal that if retailers offer "real-time" pricing to match the NEM spot price, they are not bound by the multi-rate regulated FiT (for those customers on the real-time option) is a red herring. There is no evidence that consumers are seeking that granularity of pricing, and the implementation

costs will be material with the risk that no take-up eventuates. For example, linking the spot price to a retailers' billing engine would require significant changes and resourcing to design, test and implement a solution. This proposal also overlooks the fact that retailers typically hedge their loads against the spot price.

Any ex ante floor price paid to distributed generation owners by retailers creates a risk that the level is set above the true avoided cost of energy that retailers are facing. In that case, the excess costs will be passed onto users through higher costs of production than would prevail under a market mechanism. The excess costs of the Victorian FiTs, including the legacy premium tariffs are passed onto all energy consumers (including vulnerable customers) through their network and retail charges^{iv}. The Grattan Institute estimate that from 2009 to 2015, the total net cost of Australia's solar FiT policies has been \$9.7 billion, paid by all electricity consumers and highlights the need for well-designed carbon policy (see Figure 1) and the removal of these continued cross subsidies.

Figure 1: Grattan Institute estimate that rooftop solar PV has come at a large cost to society^v



*Note: includes all costs and benefits from 2009 to 2030. Does not include solar PV systems yet to be installed.
 Source: Grattan analysis of CER (2015), BOM (2015), Solar Choice (2015), APVI (2014), AEMO (2015b), ABS (2014), IPART (2012), ESC (2014), QCA (2013), ESCOSA (2014), Synergy (2014), OTTER (2015).*

Environmental and social value of distributed generation electricity

The Energy Council acknowledges the potential for renewable distributed generation to contribute to greenhouse gas emissions reduction. However, the owners of such distributed generation are currently compensated for avoided emissions under the Commonwealth SRES. Under the scheme, eligible small-scale renewable energy systems are entitled to certificates (STCs) at a value of \$40 each (noting that the secondary market can trade at a modest discount to this amount). The number of small certificates for each distributed

generation owner is calculated on geographical location of the system, and capacity over 15 years, or the life of the system.

Allowing for the fact that National Electricity Market (NEM) emissions intensity is less than 1 tCO₂e/MWh (a figure of 0.86 is commonly applied, although this is trending down over time) and the discount value of paying SRES up front and on deemed output (de-risking the owner), the implied abatement value is likely to be in the order of \$65-80/ tCO₂e or more.

The ESC's contention is that because the relevant Commonwealth legislation does not make explicit that the SRES payments are for avoided emissions, it should not be taken into account in considering whether to implement a premium payment. The Energy Council considers this contention to be flawed and disingenuous. A close examination of the objectives of the RET, in section 3 of the *Renewable Energy (Electricity) Act 2000*, indicates that the SRES is designed to lower emissions by introducing renewable energy technology into the market. The Commission states that it cannot apportion the value of each in the certificate price for the SRES but it would be artificial to separate out these two objectives. After all, the price is intended to capture the value necessary to bring on renewable energy technology in order to avoid emissions. A requirement of an additional environmental cost (additional to the SRES) will increase costs for remaining Victorian consumers for no proven environmental benefit.

The Energy Council believes consistent Commonwealth policy is the most effective at addressing electricity market renewable integration because of the interconnected NEM. Introducing a new state-based environmental subsidy distorts technology choices and increases compliance costs. This distortion is exacerbated by the ESC's proposal that only certain technologies should receive the subsidy, and that this approach is not compatible with battery storage (see below).

The Energy Council supports the ESC's finding that additional environmental and social benefits cannot be identified and should not be incorporated to the tariff.

Implementation (retailer and distributor)

The Energy Council supports the ESC's consideration of implementation costs of the proposed distributed generation tariff. Ultimately, all policy implementation costs will need to be borne by consumers, because Victoria's retailers are unable to offer distributed generation customers higher charges than non-distributed generation customers^{vi}. Victoria's competitive retail market ensures that retailers have mature processes and systems in place to bill customers efficiently. Adapting to a new regulatory process will require system upgrades which will lead to higher retail costs, that are ultimately passed on to consumers. These costs should be weighed against the estimated benefit of the policy, which we note the ESC has not identified despite the terms of reference asking it to assess practicality and cost. Analysis by Deloitte Access Economics of utility sector compliance costs finds that this sector has an above-average regulatory compliance burden^{vii} with compliance workers' making up more than 16 per cent of the workforce.

The implementation costs of policy change will increase the short term costs of retailers and accumulate with the costs to implement other policy changes currently under way. The layering of additional complexity in customer data will require additional resources for each customer. Implementing the proposed FiT could produce significant system challenges for retailers that will require resourcing to overcome..

The proposed 1 January 2017 timeframe for implementing the proposed FiT is unrealistic. Adapting systems, particularly for the application of the critical peak payments, by 1 January 2017 FiT determination crosses over the implementation of the ESC's hardship allowance rules. This would be a very tight timeframe for retailers and communication to existing FiT customers would be complex, increasing the risk of customer dissatisfaction. The ESC's proposals do not set out the intention for existing customers, which creates uncertainty for retailers. The implementation process can be achieved but the timeframe appears short, raising

the cost to comply and increasing the risk of customer dissatisfaction. The Energy Council recommends that the Victorian Government establish a consensus with retailers on an achievable implementation date.

If the environment portion of the FiT is implemented as proposed by the ESC, there is no need for it to be administered through the electricity supply chain as the amount paid is not dependent on meter data. The environment payments are based on the deemed output of a distributed generation system, and given the capacity of a system is constant over time, the environment payment will be constant or fixed for a given system. Under a fixed benefit, the ESC has not built a case for regulating the benefit through a retailer which will involve system upgrade costs. It will also expose the retailer to the risk of greater bad debts. The ESC's Hardship Enquiry effectively acknowledges that bad debt is an issue in the industry and in this context it is not clear why it would want to exacerbate the issue.

The environmental benefits of distributed generation are enjoyed by the whole State, not retailers specifically and should the Government pursue this policy, it should fund them through budget measures. This would also improve Government accountability for its policy decisions.

Reducing unnecessary regulatory burden has been a sustained focus of the Victorian Government for over a decade. The Energy Council supports the Government considering whether the proposed FiT adds benefit that is outweighed by the cost of implementing the policy and administering the regulation. In May 2016 the Victorian Auditor General reported that,

“A constant theme in the [Department of Treasury and Finance's] advice about red tape reduction programs is that ministers and departments need to ensure that additional regulation does not add to the unnecessary or inefficient regulatory burden targeted by these programs..estimates of the additional regulatory costs created in a typical year imply that the additional burden is likely to have been at least equal to claimed savings from red tape programs^{viii}.”

Batteries

The take up of batteries for residential and small commercial use will increase the inefficiency and market distortion of the proposed FiT policy, without reform to network tariffs. Batteries and complementary software can enable distributed generators to store surplus energy when demand is low and conversely, to export surplus energy when demand is high. The tariff structure proposed by the ESC creates a time varying tariff for exported energy, while the import tariff faced by the distributed generation owner is relatively flat. This incongruence in import and export tariff structures creates an opportunity for arbitrage and may not be the most efficient driver of battery take up.

Batteries assist to manage the integration of variable renewable energy to the grid and are seen as beneficial to lowering emissions and moderating the cost of network infrastructure. The uptake of batteries should be driven by price signals allowed through network tariff reform which increase the incentive to invest in batteries that appropriately values the asset^{ix}.

FiT review

While the ESC continues to regulate FiTs, the Energy Council supports in principle the recommendations around annual review of the FiT value. However, we believe that distributed generation owners and retailers should be free to contract as they choose. We are of the firm view that the value of distributed generation is best determined through a competitive market, free from regulatory intervention. Retailers should be allowed a period of time to offer contracts to distributed generators free from regulatory distortions, to allow for the development of a competitive market. If after a period of time it was evidenced that retailers would not contract with distributed generators a market failure would be identified and the case for regulation may then be

considered. Under this situation a minimum regulated FiT could be implemented, however the evidence of a market failure is not established.

Timing of the final report

We request that the ESC delay making final recommendations under the stage 1 report until the stage 2 analysis has been undertaken. There should be a cohesive set of recommendations that recognise the interplay of network, consumption and export pricing and prioritise outcomes that will have the most benefit to customers in the long-term.

The Energy Council supports a free market for renewable energy and the existing Commonwealth policies to lower the emissions intensity of Australia. The NEM is interconnected and any policy change in one jurisdiction will impact the efficient operation of the market as the FiT policy does in Victoria.

Any questions about our submission should be addressed to Emma Richardson, Policy Adviser by email to [REDACTED] or by telephone on [REDACTED]

Yours sincerely,

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ⁱ Queensland Productivity Commission, 2015, <http://www.qpc.qld.gov.au/files/uploads/2016/03/Fact-Sheet-Solar-Draft-Report-Revised.pdf>

ⁱⁱ Productivity Commission, 2011, *Carbon Emission Policies in Key Economies*, <http://www.pc.gov.au/inquiries/completed/carbon-prices/report/carbon-prices.pdf>

ⁱⁱⁱ COAG Energy Council, 2013, *Australian Energy Market Agreement*, <http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/Australian%20Energy%20Market%20Agreement%20-%20Dec%202013%201.pdf>

^{iv} Electricity Industry Act 2000 (Vic) - Section 40FH

^v Grattan Institute, 2015, <http://grattan.edu.au/wp-content/uploads/2015/05/822-sundown-sunrise5.pdf>

^{vi} Electricity Industry Act 2000 (Vic) - Section 23C

^{vii} Deloitte Access Economics, 2015, *Get out of your own way: unleashing productivity*, <http://www2.deloitte.com/au/en/pages/building-lucky-country/articles/get-out-of-your-own-way.html>

^{viii} Victorian Auditor-General, 2016, *Reducing the Burden of Red Tape*, page 19 http://apo.org.au/files/Resource/vago_20160525_red_tape_2016.pdf

^{ix} Grattan Institute, 2015, <http://grattan.edu.au/wp-content/uploads/2015/05/822-sundown-sunrise5.pdf>