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Dr Ron Ben-David
Chairman
Essential Services Commission
Level 37/ 2 Lonsdale Street
Melbourne VIC 3000

Submitted Electronically at: dginquiry@esc.vic.gov.au

Dear Dr Ben-David

The Network Value of Distributed Generation

EnergyAustralia is one of Australia's largest energy companies, providing gas and electricity to over 2.5 million household and business customers in New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory. EnergyAustralia owns and operates a multi-billion dollar portfolio of energy generation and storage facilities across Australia, including coal, gas and wind assets with control of over 4,500MW of generation in the National Electricity Market.

EnergyAustralia welcomes the opportunity to comment on the Distributed Generation Inquiry Stage 2 Discussion Paper. We believe that distributed generation policy should reflect a broader policy of cost reflectivity for energy users and account for both the costs and benefits which users impose on the network. The following submission outlines EnergyAustralia's views in relation to a number of the questions raised in the Discussion Paper.

Capturing Network Impacts

While benefits may exist in some circumstances, the quantum of these benefits is difficult to determine and apportion. The existence of distributed generation can lead to the easing of network constraints, thus eliminating the need for further capital investment; however this effect is far from uniform across the network. The value of any such network benefit is highly location-specific and consequently cannot be applied across the network as a whole without the creation of cross subsidies.

In its draft report on a fair value for solar generation, the Queensland Productivity Commission found "*Where network benefits exist, they are best harnessed through mechanisms that can efficiently and effectively target these benefits, rather than paying all solar PV owners a uniform feed-in tariff unrelated to network impacts. A number of*

mechanisms exist and the Australian Energy Market is considering whether any additional mechanisms are required".¹ While the scope of this inquiry is broader than just photovoltaic generation, EnergyAustralia considers that this finding is relevant as setting tariffs which assume that all distributed generation has the same network impact creates cross subsidies and will not reflect the true benefit of distributed generation as required by this inquiry.

It is also important to consider the cost of which distributed generation imposes on networks. Across Australia, networks have historically been upgraded on the basis of forecast increases in electricity demand. As this increase may not materialise as a result of a number of factors, including the penetration of distributed PV, the network will be under-utilised resulting in considerable inefficiencies². This inefficiency counteracts the benefits and as such must also be accounted for if a decision to recognise the network benefits of distributed generation is pursued. Other factors such as the saturation of PV exports in localised network areas may lead to additional costs for network augmentation to mitigate quality and reliability impacts. If the benefits, but not the costs, are returned to distributed generators, then the Commission will not have accurately captured the value.

Alternative Network Solutions

There are numerous initiatives that seek to encourage efficient network utilisation and investment. EnergyAustralia has long supported the concept of more cost reflective network tariffs as an effective mechanism to reflect a customer's impact on the network. In addition to encouraging more efficient investment over the longer term, such tariffs unwind cross subsidies – of which owners of small scale embedded generation have often been beneficiaries – and therefore, represent a more equitable way of recovering network costs.

Where network constraints exist, singling out distributed generation as a means for resolving these issues could promote it above other better solutions. Ultimately, this will lead to less efficient outcomes. We acknowledge that improvements are required to ensure that networks are transparent about opportunities for implementing non-network solutions to alleviate constraints; however this is outside the scope of this inquiry.

Impact on Retailers

While the network benefits are rightly being assessed as separate issue to the energy benefits of distributed generation, EnergyAustralia is concerned about the interactions between any recommendations arising from Stage 2 and those recommendations already made as part of the Stage 1 draft report. EnergyAustralia has provided details of costs likely to arise if the recommendations from Stage 1 are adopted. We are concerned that additional business and system changes required by distributors and/or retailers to provide network benefits may significantly increase the overall costs.

For example, given that network benefits are likely to be highly dependent on location, additional network tariffs may be required. These will need to be replicated by retailers leading to the Stage 1 recommendations being more expensive as they are implemented

¹ <http://www.qpc.qld.gov.au/files/uploads/2016/03/Solar-Draft-Report-FINAL.pdf> Pxvii

² AusNet Services 2017-22 Revenue proposal indicates that network under-utilisation is likely and outlines distributed generation as a factor.

across a larger number of network tariffs.³ We urge the Commission to work closely with retailers and distributors to ensure that the costs of implementing any additional recommendations are minimised, and where possible, implementation is undertaken in a consistent manner by the five networks.

Also encourage them not to have mis-aligned network/retail and FiT tariff time periods – i.e. more confusing for customers and will result in calls to retailers, and more confusing retailer materials to explain to customers.

Summary

Although we welcome this enquiry as an opportunity to discuss the role that distributed generation plays within the Victorian energy market, we do not feel that it would be cost effective to attempt to allocate any network benefits which may occur. To do so with any degree of accuracy would result in additional costs that may well eclipse the benefit derived. The QPC has recently assessed the same question for solar FiTs in Queensland and determined that they are not the appropriate means for capturing network benefits.

We believe that cost reflective network tariffs are a more appropriate mechanism for recognising a customer's impact on the network. Network tariffs with a demand component reflect a customer's contribution towards network issues regardless of whether or not they have distributed generation installed. Creating a separate mechanism to specifically address the impacts of distributed generation is unnecessary. By explicitly returning the network benefit of distributed generation, opportunities for more efficient solutions to network issues will be missed as distributed generation is artificially incentivised over alternative options

While we assume that the network companies would be liable for payments to distributed generators to reflect any benefits, it is likely that the costs of implementation would largely be borne by retailers, and ultimately Victorian consumers. We ask that the Commission consider not only the cost of implementing any further recommendations, but also the interaction between these recommendations and those outlined in the Stage 1 Draft Report.

If you have any further queries with regard to this submission please contact Joe Kremzer, Industry Regulation Lead on

Yours sincerely,

Joe Kremzer
Industry Regulation Lead

³ We note that distributors only need to implement their own tariffs, but that all retailers operating in Victoria will need to implement and maintain all these new network tariffs for all distribution zones. In addition, retailers may implement new retail prices that match the new network tariffs and this will further exacerbate the number of price structures managed by all participants. The proliferation of network tariffs drives up costs in two main ways: 1) it creates more to configure the tariffs and prices each time they are updated; 2) there are many more options and combinations of network tariffs and retail prices for each customer, this increases time and costs in managing customer quotes and enquiries as well as increasing the likelihood of errors.