



Tasmanian Renewable Energy Alliance

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TREA submission to AEMC on Local Generation Network Credits

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About TREA

The Tasmanian Renewable Energy Alliance represents the developers, suppliers and installers of small scale renewable energy generation in Tasmania. Our members include solar PV sales and installation companies, as well as individual installers and a developer of small hydro projects.

Our work includes research and advocacy on energy policy issues, including engagement with state and national processes for tariff reform.

The changing nature of the electricity system

The challenges and changes facing the electricity network have been well described elsewhere. The Background section of the rule change proposal {Oakley Greenwood 2015 p4} mentions the implications of home battery systems, electric vehicles, and commercial cogeneration and trigeneration projects. To these, particularly in the Tasmanian context, we would add mini-hydro and on-farm wind turbines connected to the distribution network.

We believe that, properly supported and implemented, these technologies can all contribute to an electricity system that is more robust and more cost effective. Increased support for distributed renewable energy generation can also provide economic development and environmental benefits.

It is essential that the regulatory environment recognises the potential of these technologies and encourages and supports their development in ways that are cost effective.

TREA's response to the proposed rule change

Cost reflectivity in relation to distributed generation

We strongly support the case made in the rule change proposal that the current regulatory environment does not adequately recognise or reward the benefits of small scale distributed generation. In particular we agree that in an environment where consumers are increasingly expected to pay cost reflective tariffs it is important that new technologies that can reduce these costs in the longer term are rewarded with appropriate price signals.

We support the proponents proposed principle that consumers should only pay for the extent of the network that they use and believe the AEMC should support this principle as part of the move to cost reflective tariffs.

Irrespective of the results of the actual rule change process, the AEMC could make an important contribution to the policy debate by identifying the likely long term cost reductions that could result from an electricity system that supports distributed generation and reduces the need for the transmission and distribution assets that make up over half the retail cost of electricity.

We are not in a position to provide detailed comments on the actual Local Generation Network Credit (LGNC) mechanism proposed but offer some observations in response the Consultation Paper.

Specificity of calculations

Question 4: If LGNCs of some form were to be introduced:

1. What is the appropriate degree of specificity in the calculation of avoided network costs ... ?
2. How often should this calculation be updated ... ?

We recognise that, in the short term, the benefits of distributed generation are highly variable based on both location and time of day. There are trade-off between accuracy, transparency and simplicity. If the strategic aim is to support the implementation of new technologies with a long term goal of reducing costs, simplicity and consistency are more important than accuracy and responding to short term location-specific costs and benefits. Consumers will benefit most if the industry implementing new technology is given significant and understandable price signals and the confidence that these will remain reasonably consistent over the timescale of proposed investments. The collapse of the large scale renewable generation industry in Australia as a result of debate about the RET is evidence of the devastating effect of perceived uncertainty, even when a policy mechanism remains in place.

We believe the way forward is for the AEMC to produce some indicative estimate of the cost benefits of distributed generation (DG) in the longer term and then to find the most efficient way to share these benefits between investors in DG, network operators and customers.

As an example of indicative benefits, AEMO has estimated that in the mainland region, rooftop PV is operating at 28-38% of rated capacity at the time of summer maximum demand { AEMO 2012 p.iii}. This figure could be used to attribute a benefit from solar PV in reducing the capital cost of distribution infrastructure.

There are two areas where we believe some distinctions can be made without creating too much complexity:

- Distribution vs transmission infrastructure: this distinction is well embedded in existing methodologies and understood by industry participants. As a first approximation, DG does not make use of the transmission infrastructure and the full value of avoided transmission costs (including all sunk costs as well as the energy charges that are the basis of the current TUoS methodology) should accrue to embedded generation connected to the distribution network.
- Time of day variations are well understood and are a component of existing retail tariffs. As a reasonable proxy for reducing the network costs associated with meeting peak demand, we would support network credits that vary in step with the time bands in retail time-of-use tariffs.

Sharing the calculated benefit

The Consultation Paper discusses the fact that calculating the benefit of DG and paying this benefit as a LGNC may not reduce total cost to consumers but may still provide a mechanism to increase efficiency:

“Even if the proposal would increase total costs, the methodology might still be modified in some way so as to give rise to a more efficient outcome. For example, by paying embedded generators a LGNC worth less than 100 per cent of the estimated network cost savings.” {AEMC 2015c p29}

While in principle an implementation of LGNCs that was cost neutral for network operators would maximise the benefit to customers, in practice it is desirable that networks are motivated to implement the change. We would therefore support some of the calculated benefit accruing to network operators as long as the substantive component of the benefit is passed on to operators of embedded generation.

References

- AEMC 2015b, *Local Generation Network Credits Information Sheet*
2 page summary by AEMC of proposed rule change {Oakley Greenwood 2015}.
<http://www.aemc.gov.au/getattachment/2f203e91-ea96-48a4-baa1-201f5d4e9ca1/Information-sheet.aspx>

AEMC 2015c, *Consultation Paper: National Electricity Amendment (Local Generation Network Credits) Rule 2015*

The Consultation Paper provides a summary of the rule change request {Oakley Greenwood 2015}, describes the assessment framework that the AEMC will use in assessing the rule change request and identifies a number of questions and issues to facilitate public consultation.

<http://www.aemc.gov.au/getattachment/ab1269b8-cde9-4610-b819-747a47267558/Consultation-paper.aspx>

AEMO 2012, *Rooftop PV Information Paper: National Electricity Forecasting 2012*

Developed as input to AEMO's National Electricity Forecasting Report, this paper provides current and projected PV installed capacity, energy production and maximum demand for each of the 5 NEM regions. In the mainland states solar PV is estimated to be operating at 28%-38% of capacity at times of maximum network demand.

<http://www.aemo.com.au/Reports-and-Documents/Information-Papers/Rooftop-PV-Information-Paper-National-Electricity-Forecasting>

Oakley Greenwood 2015, *Local Generation Network Credit Rule Change Proposal*, Submission to: Australian Energy Market Commission

This paper proposes a change in the National Electricity Rules (NER) to require electricity distribution businesses to establish posted tariffs (credits) that reflect the economic benefits that local electricity generation delivers to or imposes on the distribution system. The credit would be based on a measure of the long-term benefits (in the form of capacity support, and avoided energy transportation costs) that the export of energy from an embedded generator provides to customers of distribution businesses. The rule change is proposed by the City of Sydney, the Total Environment Centre and the Property Council of Australia.

<http://www.aemc.gov.au/getattachment/70a314d9-adf6-4d2f-9493-5f53d4f3b6eb/Rule-change-request.aspx>
<http://www.aemc.gov.au/Rule-Changes/Local-Generation-Network-Credits>

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