

4 February 2015

Mr Hayden Green
Project Leader
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr Green

Local Generation Network Credit Rule Change Proposal

SA Power Networks appreciates the opportunity to comment on the Australian Energy Market Commission (**AEMC**)'s Consultation Paper in relation to the Local Generation Network Credit rule change requested by the City of Sydney, Total Environment Centre and the Council of Australia.

The proposal is seeking that embedded generation (**EG**) proponents be eligible for Local Generation Network Credit (**LGNC**) payments from Distribution Network Service Providers (**DNSPs**), reflecting the network benefits brought about by the EG.

SA Power Networks does not support the proposed rule change.

SA Power Networks considers that the current framework provides an appropriate mechanism to facilitate payments to EG where the network augmentation is subject to a RIT-D (ie project cost exceeds \$5M). Under this framework there is a direct link between the installation and operation of EG and the deferment of network capital expenditure. SA Power Networks is currently paying an embedded generator for network support in lieu of network augmentation. Under the RIT-D framework, SA Power Networks established a contract with the embedded generator, which includes penalties for non compliance with that contract (ie the network support is guaranteed). In addition, the overall cost of the payments to the embedded generator is open to public scrutiny as they are disclosed during the RIT-D process.

DNSPs not funded for LGNCs and any EG network benefits are already factored into plans

Our network plans for the next five years, and funds to support these plans, have just been approved by the Australian Energy Regulator (**AER**). We have not been funded by the AER to pay any LGNCs.

Our plans already factor in forecast EG on our network. To the extent that future EG reduces the need for augmentation, these benefits are already implicitly realised in current (lower) expenditure and revenue allowances benefitting all customers, including those with EG. The LGNC proposal would effectively require the AER to approve funds on the basis of network plans without any EG, and then for DNSPs to pay LGNCs from these increased allowances. This would result in higher overall network charges to customers without EG.

SA has very high penetration of EG – further incentives are not required

We do not believe that EG proponents are “not sufficiently rewarded” and require further incentives. South Australia already has a very high penetration of EG connected to the distribution network, with one in four residential homes now having installed roof-top solar photo-voltaic generating systems (PV) and the PV uptake by the business sector is increasing. We acknowledge that much of the existing EG will have been incentivised by government rebates and Feed-in-Tariff schemes which will be phased out over time. However, independent forecasts indicate PV in South Australia will continue to grow significantly. The Australian Energy Market Operator (AEMO)’s most recent forecasts show that solar penetration will continue to rise in South Australia in the coming years, increasing by approximately 70% compared to 2015 levels by 2020¹.

As noted by the AEMC, there are a range of mechanisms under the National Electricity Rules which encourage economically efficient options to alleviate network constraints. These mechanisms include, amongst others:

- requirements for more cost-reflective network pricing to be implemented by DNSPs;
- the undertaking of regulatory investment (RIT-D) tests by DNSPs prior to any significant network augmentation being approved; and
- a new Capital Efficiency Sharing Scheme (CESS) encouraging out-performance of capital expenditure allowances.

These mechanisms encourage non-network solutions such as demand management by customers and EG where these are the least cost options.

Non-PV customers are subsidising PV customers on energy-only network tariffs

Our network costs are largely driven by customers’ maximum demands, not the energy they consume. However, our small customer network tariffs are dominated by energy-only usage tariffs as the vast majority of these customers have accumulation meters which only record customers’ overall consumption, not maximum demand.

Our analysis of PV customers’ loads evidenced that PV customers consume less energy from the network than non-PV customers but they have a similar maximum demand from the network. As network charges are predominantly energy-only tariffs, the analysis shows that PV customers generally pay less, and customers without PV pay more, for the same amount of network capacity. In effect, non-PV customers subsidise PV business customers on energy-only network tariffs – and this is not economically efficient. Proposed tariff reforms from 2017, enabled by interval metering that can record maximum demand, will extend cost-reflective demand tariffs to all small customers to reduce this subsidy.

EG is increasing network costs

As the AEMC points out (and the proponents omit to say in their proposal) increasing EG, particularly intermittent EG such as wind and solar can and does increase network costs. It requires expenditure to manage the following network issues:

- voltage volatility, particularly when EG is intermittent such as wind EG and PV EG;
- protection systems changes/upgrades;
- reverse power flows; and
- fault level issues.

¹ Refer ‘Medium growth’ scenario in AEMO’s National Electricity Forecasting Report (NEFR), June 2015. See also Appendix B for further details.



These network costs are caused by EG but are currently paid for by all network customers with or without EG.

Further, under current market rules, generators only pay for 'shallow' connection costs. If more EG is connected to the network, it could require increased upstream capacity, triggering the need for deeper network augmentation, further increasing overall network costs. It would be economically inefficient for customers to bear these costs when they are not causing them.

Proposal is inconsistent with and undermines the CESS

The Capital Efficiency Sharing Scheme (**CESS**) incentivises DNSPs to outperform capital expenditure spend – and any savings are shared approximately 30% with the DNSP and 70% with customers. The rule change proposal is seeking 100% of network savings be payable to EG. Agreeing to this proposal is inconsistent with and would undermine the CESS incentives.

Few network benefits of further EG in current South Australian environment

In South Australia, existing large embedded generators are situated in locations where no augmentation constraints are forecast for the next 10 to 20 years. Removing these generators from our network would have no impact on the network capability.

Therefore any LGNC payments to such generators would increase the cost to end customers for no benefit. Given AEMO has forecast a near zero load growth for South Australia for the next five years at State level, any new EG connecting in South Australia is likely to:

- have few, if any, network benefits; and
- increase SA Power Networks costs to manage the associated network issues discussed above – and therefore increase costs to end customers.

Proposal increases transaction costs

It is not clear how the long run marginal benefit of avoided network costs could be calculated simply, given network benefits are likely to be highly location dependent and vary over time.

Given the considerable volume of EG forecast, undertaking such calculations presents a significant cost to DNSPs and may require a new or increased application fee to recover these costs.

As the AEMC notes, the proposal also establishes a new payment relationship between DNSPs and EG customers. This would require costly changes to billing systems and the issuing of payments and/or billing credits to these customers, further increasing transaction costs.

Summary

EG is already the significant beneficiary of a number of existing policy and market arrangements in the National Electricity Market. EG penetration on the South Australian distribution network is already very high and connecting further EG is likely to have few network benefits and will create network issues requiring increased expenditure to manage.

We believe the proposed rule change is unnecessary, is inconsistent with existing incentive arrangements, introduces significant burden and costs on networks for little benefit and effectively seeks a wealth transfer from all network customers to EG customers. For these reasons, the



proposed rule change is not promoting the National Electricity Objective and should not be supported.

We trust these comments are useful. If you wish to discuss any of our comments further, please contact Richard Sibly, Regulatory Development Manager on 08 8404 5613.

Yours faithfully



Sean Kelly

General Manager Corporate Strategy

