

8 February 2016

Hayden Green  
Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Lodged online at [www.aemc.gov.au](http://www.aemc.gov.au)

Dear Mr Green

### **ERC0191: Local Generation Network Credits**

The Competitive Energy Association of Australia (CEA) welcomes the opportunity to make a submission to the Australian Energy Market Commission's (AEMC) consultation on the Local Generation Network Credits (LGNC) rule change consultation paper.

The CEA represents the policy positions of 22 electricity and downstream natural gas businesses operating in 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.

CEA member companies own and operate a range of embedded generators but do not support the proposed rule change. Initiatives which are already in place or underway are expected to provide significant and sufficient incentives for efficiently enhancing the commercial installation of embedded generation.

### **No evidence of the alleged market failure**

*The proponents suggest that small-scale embedded generators offer significant benefits for which they are not sufficiently rewarded under the current NER provisions. This is said to risk insufficient investment in small-scale embedded generation, inefficient use of its capacity to export electricity and, ultimately, higher prices for consumers.<sup>1</sup>*

The CEA notes that investment in embedded generation has boomed in recent years, most notably in relation to small scale solar installations – with almost 1.5 million systems installed between 2010 and 2015. This investment is highly correlated with non-market subsidies (similar to the proposed LGNC) however the CEA is unaware of any comprehensive studies performed to date regarding whether these installations have come at a net benefit or net cost to network investment.

The consultation paper also enunciates an extensive list of measures currently in place or under development which allow embedded generation to monetise the benefits provided to the network by their operation, or require the network service provider (NSP) to consider the value of embedded generation where it can decrease or defer network investment.

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<sup>1</sup> AEMC 2015, *Local Generation Network Credits, consultation Paper*, 10 December 2015, Sydney, pp i.

The rule change proposal notes that some distribution areas already have tariffs that explicitly account for the net export of electricity from embedded generators<sup>2</sup>. The CEA considers that mandating actions which are already being provided by the market is unlikely to enhance efficiency.

The CEA also notes the proponent's acknowledgement that "*The high transaction and administrative costs of the bespoke arrangements generally required in the 'NSP', 'Avoided TUoS' and RIT-D will often exceed the benefits these arrangements could provide to small-scale local generators.*"<sup>3</sup> The CEA considers that there will always be a level where transaction costs exceed savings which implies that a transaction would be inefficient. If the proposal is that the current thresholds are at inefficient levels (typically 5MW), proposals to adjust the thresholds would be more effective than the creation of an administratively burdensome, opaque set of network tariffs.

Accordingly, the CEA does not consider that a market failure has actually been identified, which would warrant implementation of a policy solution and further consider that the proposed rule change would be a highly inefficient manner of covering the "gap" alleged by the proponents.

### **Wealth transfers do not lower system cost**

The CEA agrees that where embedded generation or other non-network solutions allow services to be provided at lower cost than network solutions, consumers benefit through a reduction in total system costs. As identified in the consultation paper, the proposed rule change does not actually reduce system cost, but merely creates a wealth transfer<sup>4</sup>.

Under the proposed rule change, consumers will either pay for augmentation of the network (to the NSP) or pay for the non-augmentation of the network (to the embedded generator via the NSP). Further, the single sided arrangement of the proposal (where the LGNC cannot be negative) means that the rule change would socialise the cost of embedded generation but privatise the benefits.

The CEA considers that there is no benefit to consumers associated with the proposed arrangement.

### **Identified international schemes are not comparable**

The rule change proposal refers to actions in the UK market as a precedent for the creation of LGNC, however the UK proposal contains material differences to what is proposed.

Specifically, Ofgem requires the publication of "decentralised generator tariffs" which vary for

- Different classes of generator,
- The size of the generator,
- The level of intermittency, and
- The time of operation.

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<sup>2</sup> Oakley Greenwood, *Local Generation Network Credit Rule Change Proposal*, 14 July 2015, pp3.

<sup>3</sup> Oakley Greenwood, *Local Generation Network Credit Rule Change Proposal*, 14 July 2015, pp1.

<sup>4</sup> AEMC 2015, *Local Generation Network Credits, consultation Paper*, 10 December 2015, Sydney, pp 28.

By contrast the proposed rule would specifically require the LGNC not to vary by any of these attributes<sup>5</sup>.

**“Virtual portfolio” benefits are likely to distort incentives**

The rule change proposal requires that all embedded generators receive a LGNC regardless of whether they contribute to a reduction in network investment on the basis that a “virtual portfolio” of embedded generation may do so.

The CEA is concerned that such an arrangement would materially distort investment signals, create perverse incentives and potentially decrease compensation available to embedded generators who *do* contribute to deferral, cancellation or minimisation of expenditure on network assets.

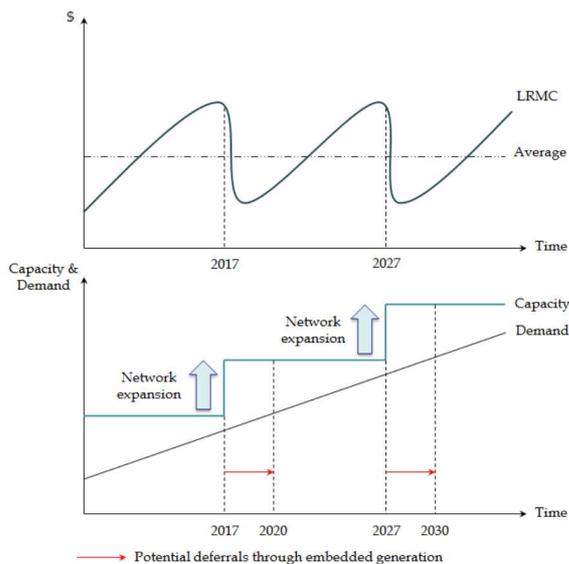
By contrast, for *actual* portfolios – offered as a defined package - the benefits of diversity may allow a network support service or investment deferral to occur with the appropriate party being compensated.

**Over-compensation under the proposed rule**

The LGNC is proposed to be based on the long run marginal cost (LRMC) of deferred or avoided network investment and complementary to existing network capacity support payments which are based on the short run marginal cost (SRMC) of such investment change<sup>6</sup>.

As noted in the consultation paper the “value” of deferring network expenditure is very low when the proposed augmentation is in the future and increases significantly when the augmentation is imminent. From this, it appears that the proponents and AEMC are using differing definitions of SRMC and LRMC in their analysis.

Figure 5.2 Fluctuations in network cost savings



<sup>5</sup> Depending on the form of the LGNC, generator size may affect the dollar value of the credit, however the LGNC is proposed to be available to generators of all sizes on equal terms.

<sup>6</sup> Oakley Greenwood, *Local Generation Network Credit Rule Change Proposal*, 14 July 2015, pp14.

*Source: AEMC Consultation paper on Local Network Generation Rule Change*

If embedded generators were to be paid the average LRMC value under the proposed LGNC, and the difference between the actual LRMC and average LRMC (or SRMC and LRMC) under existing schemes, the overall payments would significantly exceed the benefits created by the deferral of network expenditure.

In any case there is a lack of evidence that generic small-scale embedded generation systematically assists in reducing network costs. The impact on network costs of small scale PV varies with a range of factors including location, feeder characteristics and local penetration. Analysis by EY for the Clean Energy Council<sup>7</sup> shows that for sample feeder types, the impact on network costs can change from a benefit at low penetration rates to a cost at high penetration rates. It also shows that the impact can be highly variable between feeders.

Further, AEMO have forecast<sup>8</sup> that as early as 2023, PV penetration in South Australia could be sufficient for the output of distributed PV to exceed demand on occasion. This would result in the marginal embedded PV output needing to use the low, medium and high voltage network and the interconnector in order to be ultimately consumed in Victoria. In such a scenario, the argument that exported embedded generation is only using a small part of the network on its journey to a consumer fails to hold.

### **Mismatch between import and export tariffs**

The CEA is supportive of cost-reflectivity in tariff-setting. But the efficient and equity of network tariffs is not necessarily enhanced by the “cherry-picking” that would result if consumers who also have distributed generation are able to select an export tariff that incorporates a credit for the putative benefits to the network, but then are not paying cost-reflective tariffs on their consumption. Should the AEMC decide the rule change has merit then we consider it would be fair for beneficiaries of the proposed network credit to be moved onto a more cost-reflective import tariff such as a time of use or demand based tariff where their DNSP offers one.

### **Local Electricity Trading Trial**

The CEA notes that the proponents are participants in a series of local trials in different parts of the NEM. Some CEA members are also participants in this trial. We understand that trial data may be available later this year to inform this rule change and we would support the AEMC taking account of such information in making its final decision on the rule change.

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<sup>7</sup> <http://fpdi.cleanenergycouncil.org.au/reports/value-of-small-scale-generation.html>

<sup>8</sup> <http://www.aemo.com.au/Electricity/Planning/National-Transmission-Network-Development-Plan>

Any questions about our submission should be addressed to Panos Priftakis, by email to [panos.priftakis@esaa.com.au](mailto:panos.priftakis@esaa.com.au) or by telephone on (03) 9205 3115.

Yours sincerely

A handwritten signature in blue ink that reads "Kieran Donoghue". The signature is written in a cursive style with a long, sweeping tail on the letter 'e'.

**Kieran Donoghue**  
General Manager, Policy & Research