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Australian Energy Market Commission
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Re: Proposed Rule Change – Local Generation Network Credits

The Southern Sydney Regional Organisation of Councils (SSROC) is an association of sixteen municipal and city councils. SSROC provides a forum for the exchange of ideas between our member councils, and an interface between governments, other councils and key bodies on issues of common interest. Together, our member Councils cover a population of over 1.6 million, (one third of the population of Sydney), and an area of 680 square kilometres.

SSROC supports the rule change proposed by the City of Sydney, Total Environment Centre and Property Council of Australia. SSROC agreed in 2011 to work towards increasing the proportion of stationary energy consumed in the region that is derived from renewable sources, and has been steadily working to increase the take-up of renewables by residents, councils and local businesses since that commitment. We have developed a Renewable Energy Master Plan, *Our Energy Future*, and its implementation to date has included the delivery of www.oursolarfuture.nsw.gov.au, a website that enables residents to get quotes for the installation of solar PV, solar hot water and heat pumps, from suppliers whose offers have been vetted by the Alternative Technology Association (ATA), and reliable, unbiased information.

Community consultation carried out as part of *Our Energy Future* has clearly demonstrated the groundswell of interest in local generation. That interest in, and increasingly commitment to, local generation has increased in that time. Today it is widely recognised as a very important way to reduce greenhouse gas emissions as well as to reduce the costs of electricity for consumers. Residents are not asking for information about whether or not to install solar, but about how to make the right decision for their circumstances.

SSROC has responded to the questions in the consultation paper in the pages that follow. Please note that in order to make this submission within the timeframe of the review, it has not been possible for it to be reviewed by councils or to be endorsed by the SSROC. In view of the major significance of this issue we would ask that the AEMC extend the deadline for submissions to permit broader consultation across the region. This is particularly important since many of the stakeholders whom we would like to consult on this important matter have been unavailable over the December/January holiday period. We note that a series of public workshops is planned for later this year, and look forward to further participation in the public engagement process.

However, if the AEMC is unable to extend the deadline, then I would ask that the rest of this submission be considered to be a draft, pending further council consultation and the proposed workshops.

Definition
Like the proponents, SSROC uses the term “local generation” and “local generator” to mean smaller scale embedded generation/generator, connected to the distribution network. The phrase is used in this way throughout this submission.

General comments

SSROC agrees that a change to the National Electricity Rules (NERs) to mandate Local Generation Network Credits (LGNCs) would improve the current framework, which is unfairly biased in favour of DNSPs, and which do not account for the economic value of local generation.

While it is important to maintain reliable networks and supply, it is essential that we look beyond the current

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National Electricity Market (NEM) frameworks, which were designed for a centralised mode of supply that has become out-dated. This change would support a move away from the out-dated centralised model, and towards a model that integrates multiple different sources including local and other non-dispatchable generation.

Furthermore, SSROC considers that a long-term view of the benefits and avoided costs should be incorporated into the framework, rather than just the short-term perspective of current electricity prices, which would tend to perpetuate the flaws in the existing framework.

The payment of LGNCs to local generators would be economically appropriate and therefore entirely consistent with the National Electricity Objective (NEO), to:

> *"promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to -*
> *(a) price, quality, safety, reliability and security of supply of electricity; and*
> *(b) the reliability, safety and security of the national electricity system"*

Question 1 Assessment framework

The NERs are currently a barrier to the take-up of more widespread local generation, within an NEM that was designed for a centralised generation model based around large, coal-fired power stations. Many households and businesses already have local generation capacity, installed because it brings a financial benefit or for environmental reasons.

These households and businesses are being charged for a standard of network that is in fact not required, because they have taken it upon themselves to alleviate the pressure on it. In NSW early this century there was over-investment in network capacity. As a result, market is distorted such that the cost avoidance these local generators might have caused would not be recognised.

Clearly, the NEM is no longer meeting the NEO, since this model is no longer promoting efficient investment and operation of electricity services for consumers. Pricing is inequitable, and safety and reliability are over-provisioned, failing to recognise local generation. The rule change request would directly improve the framework's capacity to deliver the NEO.

Local generators can reliably and securely supply electricity to the network, with today's robust and proven technology: the NEM and its stakeholders all need to change to consider local generators as part of the solution and not a threat to the network. A change in attitude is necessary, whereby the reliable and secure supply of electricity is delivered by means of a range of sources, not solely by the centralised source. SSROC has previously argued for complete reform of the NEM: however, failing this, a change in approach to the overall electricity supply could bring reform, with changes such as that proposed being accepted as new or modified rules. We therefore welcome the proposal that "money that would otherwise have been paid to one group of market participants … is instead paid to embedded generators."[1]

With a national electricity system that incorporates local generation, the full scale of the local contribution can be acknowledged, and long-term benefits to all electricity customers identified, taking into account the costs of both supply and generation. The assessment framework needs to be changed to permit all these factors to be accommodated.

SSROC agrees with the proposal that LGNCs should be delivered through a new payment relationship rather than through any existing billing system. This would signal to all stakeholders that the credit is for generation, and is distinct from the consumption of electricity.

[1] AEMC Consultation Paper, National Electricity Amendment (Local Generation Network Credits) Rule 2015, 10/12/15 s3.3.1 p13

Question 2 Perceived issue with current NER

Falling prices for renewable technologies are leading increasingly to financial savings, which is a big incentive to many people in Australia. Robust evidence that climate change is real and anthropogenic, and increasing evidence that it is already happening, provides an environmental incentive as well for many people. The technology required for local generation is now well proven, also rapidly evolving with improvements to solar PV efficiency and to battery storage: the combination even makes the option of going off-grid realistic for many. Collectively, local generation is capable of making a real difference to the supply of electricity, and the contribution from that source will increase as still more households and business become local generators.

However, the current NERs inhibit the take-up of more widespread local generation, and the NEM is becoming a mechanism to sustain the increasingly uncompetitive centralised generation model: instead of driving a competitive market, it has become a barrier to one. Many households and businesses have already installed local generation, either for financial benefit or because they want to contribute to global and local environmental outcomes.

While there are some existing incentives that are intended to drive efficient investment, these are largely not applicable to the small scale of local generation.

Networks however, can (and do) derive revenue from investment in network improvements, without considering alternatives such as looking for, or even incentivising, local generation in order to avoid the network upgrades. The AEMC could consider incentives to the networks that would encourage them to change this approach and instead actively seek out alternatives that can meet a local need and bring more renewable and lower-emission generation into the system.

The distinction between large and small generators is not appropriate: SSROC would urge that LGNCs should be applied to all local generators, as the proposed change states, including existing and new sources.

Question 3 Determining avoided costs

As noted above, the NEM has been distorted by overinvestment in network infrastructure in the 2000s, which means that avoidable costs are very difficult to specify today. Therefore it is important to take into account the long-term future benefits, including environmental and social benefits as well as financial ones.

Direct future costs relate to avoidance of network upgrades, which relates to the extent to which existing infrastructure is not replaced, and upgrades are avoided i.e. costing something that is not happening, which presents its own challenges. However, SSROC would urge that a methodology be developed for this, which would enable the derivation of the avoided costs to be made transparent. This would require time and effort on the part of the AEMC, which SSROC would strongly support. We accept that there would have to be a trade-off between accuracy and simplicity.

Increasingly widespread recognition of the need to limit greenhouse gas emissions, and Australia's commitment to its target, mean that it is critical to find a way to build local renewable and low-emission generation into the cost-avoidance equation. This would create even greater challenges in terms of a methodology for calculation, particularly in the absence of a carbon price. However, SSROC is of the view that this will become necessary if Australia is to meet its commitments to emission reductions.

Question 4 Specificity of calculations

Consideration should be given to removing transmission charges from the existing network tariffs for local generators, since the electricity that they generate does not use or require the transmission network. Options would include removing the charges based on time of use, or charging on a pro rata basis.

Network credits should take into account the related network tariff i.e. if the network tariff differs for peak, shoulder and off-peak periods, then the credit should too. Likewise high- and low-voltage connections.

However, it is also important that the calculation of the credits be kept as simple as possible, in order to bring a high level of transparency to the calculation, and to minimise the costs of implementing and operating the LGNC system.

SSROC supports the proposal that the LGNC should be adjusted yearly, to allow for changing demand patterns and network investment needs. This should be part of the DNSP's annual pricing submission process.

Question 5 Potential benefits of the proposal

SSROC is pleased to see the AEMC recognise the concept of "total system costs", including local generators in the "total system".

The proposal would undoubtedly provide superior price signals to local generators, and would incentivise investment in local generation as well as continuing efficient operation. This would in turn reduce long-term total system costs.

The proposal would also create opportunities for DNSPs to adopt efficient network and non-network solutions, since their total revenue allowance would not decrease.

Potentially beneficial non-price attributes relate to the need to reduce greenhouse gas emissions and Australia's obligations to achieve its emissions targets. By enabling local generation, AEMC will facilitate the increasing penetration of renewable and lower-emission electricity-generation technology in the national market. The NEM was not designed for a market in which consumers are encouraged to reduce their electricity consumption through energy efficiency measures, and for whom renewables – particularly solar PV – are cheap enough to deliver financial savings. The proposed rule change would enable the benefits of reduced greenhouse gas emissions to be delivered by incentivising local generation: this type of change is essential, but currently not financially quantifiable.

With extensive local generation added into the range of sources of electricity, reliability and security of the network would improve by increasing decentralisation of power generation, reducing the risks of brown-out and potentially catastrophic black-out, that are inherent in a centralised system. This mitigating effect would increase with the increasing number of local generators responding to the price signal provided by the LGNCs.

To achieve the greatest level of benefit for all consumers, LGNCs should be available to all local generators.

Question 6 Potential costs of design, implementation and administration

SSROC understands that the rule change proposal has been designed with a view to minimise the administrative load that would result from it, and we support the principle of minimal administrative cost for any preferred rule but also that the LGNC should send the right signals to existing and potential local generators.

However, the NEM needs to be reformed, and this proposal will contribute to reforming it for the new market conditions. The costs will need to be incurred: the AEMC and its stakeholders will need to work together to find the solution, as the current framework is failing to meet the NEO.

Conclusion

SSROC supports the proposed change, and is keen to see LGNCs introduced and promoted. However, we urge the AEMC to extend the deadline for consultation, in order to allow us broader consultation internally and to allow time for more detailed consideration of the issues raised and questions posed in the consultation paper.

The reform of the NEM and/or reforming rule-changes, are essential to bring the electricity supply system up-to-date with society's expectations and to deliver Australia's emissions reductions target. Our community consultation has demonstrated clearly that there is a demand for local generation in the southern Sydney region, and the introduction of LGNCs would facilitate that change.

Thank you for the opportunity to comment on the proposed rule change. I will be in touch should any issues arise in relation to this submission as a result of subsequent review by the SSROC Sustainability Program Committee in March and then by the full meeting of SSROC Delegates in May 2016. If you would like to discuss the submission, please contact me or SSROC Program Manager, Helen Sloan on 02 8396 3800 or ssroc@ssroc.nsw.gov.au.

Yours faithfully,

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