



Ben Shafran
Director, Transmission and Distribution Networks
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235
Submitted via email at www.aemc.gov.au

3 November 2016

Reference: ERC0191

Dear Mr Shafran,

Re AEMC 2016, Local Generation Network Credit, Draft Determination

AGL Energy (**AGL**) welcomes the opportunity to respond to the Australian Energy Market Commission's (**Commission**) *Local Generation Network Credits: Draft Determination (Draft Determination)*, September 2016.

AGL is one of Australia's leading integrated energy companies and largest ASX listed owner, operator and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy, providing energy solutions to over 3.6 million customers throughout eastern Australia.

In 2015, AGL established a New Energy division, with a dedicated focus on distributed energy services and solutions. AGL New Energy works with customers of all sizes (residential, business and networks) to understand their energy requirements and design tailored solutions. We offer customers 'beyond the meter' energy solutions, new and emerging technologies including energy storage, electric vehicles, solar PV systems, digital meters through our ring-fenced subsidiary business Active Stream, and home energy management services delivered by digital applications. We are also working with customers to develop a network services capability involving load management solutions.

AGL supports the Commission's Draft Determination to not introduce the proposed Local Generation Network Credit (**LGNC**). We strongly support the LGNC objective of encouraging more efficient investment in and use of embedded generation. However the proposed LGNC was problematic in a number of respects and seemed likely to only increase electricity costs to consumers without achieving this objective. In AGL's view the introduction of a 'system limitations report' will be a positive step in promoting far more practical and constructive engagement between DNSPs and non-network solution providers thereby enabling more effective use of existing frameworks to encourage efficient utilisation of non-network solutions.

Although AGL supports the Draft Determination, we do not agree with all the findings, particularly as regards the effectiveness of existing frameworks to encourage efficient utilisation of non-network solutions. There are currently a number of other reforms to the National Energy Rules (**NER**) being contemplated (at different levels of advancement) that AGL considers necessary to encourage the efficient deployment of non-network solutions, and to allow the participation of the competitive market to deliver these.



The progression of these reforms is important to ensuring the costs of network investment and operation is kept to efficient levels in the long term interests of customers. And in AGL's view the establishment of these frameworks for efficient network planning and investment, and the right competitive architecture, should precede further incremental tariff reform. Once these areas have been addressed, then a reconsideration of network pricing frameworks may indeed be required to reflect a more decentralised, bi-directional grid, and evolving customer expectations for grid access.

Effectiveness of existing NER mechanisms

AGL does not agree with the Commission's finding that existing mechanisms in the NER are sufficient, without modification, to encourage efficient deployment and use of distributed generation and other distributed energy resources (**DER**) to reduce network investment and operation costs. However there a number of interrelated rule change proposals that are currently under consideration and other developments that are underway, which have the potential to better balance the incentives of distribution network service providers (**DNSPs**) to make use of both network and non-network solutions to identified constraints and other network needs. These include:

- Rule change launched by the Australian Energy Regulator (**AER**) on Replacement Expenditure Planning Arrangements. Amongst other things, this rule change seeks to expand the application of the Regulatory Investment Test for Distribution (**RIT-D**) to also include replacement expenditure. In the current environment of flat or declining network demand, the existing focus of the RIT-D solely on augmentation expenditure significantly limits the number of projects that fall to be considered within this framework. The current \$5 million threshold is another highly limiting parameter that requires reconsideration.
- Rule change launched by the COAG Energy Council on the contestable provision of energy services. And rule change launched by the Australian Energy Council (**AEC**) on the implementation of demand response and network support services. Both of these rule changes focus on the competitive delivery of services from DER (including embedded generation) that support network operation. This is expected to allow distribution businesses to procure these more cost effectively thereby promoting more efficient fulfilment of network service obligations and lower overall costs. Quarantining these from monopoly service provision also allows the DER investor to optimise for a range of potential sources of value. The AEC rule change also proposes changes to the RIT-D to ensure competitive non-network solutions are considered for the widest practicable range of investment decisions.
- AER development of a revised, nationally consistent Electricity Distribution Ring-fencing Guideline. Effective ring-fencing of regulated monopolies from entities operating in contestable markets is essential to the development of vibrant, competitive markets for the delivery of products and services utilising DER, including embedded generation.

AGL considers that each of the above are important steps towards enabling more effective use of the mechanisms which already exist in the NER to encourage efficient investment in and use of non-network solutions (including embedded generation) to reduce the costs of operating and maintaining the distribution network.

We note also that the AER is currently developing a Demand Management Incentive Scheme and Demand Management Innovation Allowance. In AGL's view, it is important that alongside the design of these schemes, a contemporaneous review of the full suite of incentive schemes in the NER (including the primary mechanisms: the Capital Expenditure Sharing Scheme and the Efficiency Benefits Sharing Scheme) be undertaken to ensure they are in line with overall policy direction and operate together so as to neutralise DNSP biases that have historically favoured traditional network solutions over non-network solutions.



Local Generation Network Credit

AGL does, however, agree with the Commission's conclusion that implementing the LGNC, as proposed, would not be in the long term interests of customers. The mechanism proposed is problematic in a number of respects. In particular:

- **Incremental benefits:** Rather than targeting an identified emerging system limitation, the proposed LGNC would be structured to reward the generalised, long-term benefits of more embedded generation on the network. However, under existing frameworks, to the extent embedded generation and other customer-side activity (such as energy efficiency and conservation measures) reduces required network spending, this should already be reflected in lower overall network tariffs. As a result, incremental benefits of the proposal are difficult to identify. This outcome is amplified under current circumstances where long-term electricity demand is flat and network augmentation unlikely to be required for some time.
- **Asymmetrical design:** Under current arrangements, both the costs and benefits to the network associated with the deployment of embedded generation are socialised among all customers using the network. That is, customers with embedded generation already share in the socialised benefits of embedded generation to the extent this reduces required network spending and thereby lowers overall network tariffs. However, the proposed LGNC would alter this arrangement by fully rewarding all network benefits, but continuing to socialise the network costs. This asymmetrical design seems to risk a cross-subsidy from customers without embedded generation to those customers with embedded generation.
- **Investment impacts:** The location of new embedded generation on the network impacts whether or not its deployment there will alleviate or add to DNSP costs in operating and maintaining the network. The highly generalised nature of the LGNC (essentially a negative network tariff) and indiscriminate application across all locations on the network would likely result in payments to generators locating in areas with ample existing capacity and mute the price signal to would-be generators in constrained areas so that it is insufficient to drive additional investment in embedded generation where it would be most valuable.

As a result, the LGNC as proposed seems likely to result in higher prices for electricity customers (due to the need to fund the LGNC) without achieving its objective of incentivising efficient investment in and use of embedded generation. This result has been born out in the analyses undertaken to date and referred to in the Draft Determination. There would also be costs involved in implementing and administering the LGNC scheme.

It is important to note that the foregoing does not mean that export pricing should not be considered as a potential tool to signal when and where on the network embedded generation would be a valuable means of avoiding or deferring a network upgrade. These pricing schemes benefit network users when they are targeted to a particular area of constraint and might be used alongside other measures which also recognise the value of demand management in addressing system limitations (e.g. load reduction effectively operating as negative generation). DNSPs already have flexibility to design programs of this nature under existing regulatory frameworks.

System Limitations Report

AGL strongly supports the Commission's Draft Determination to require DNSPs to publish a 'system limitation report'. We note that some DNSPs already produce such a report and it is a very useful adjunct to the Distribution Annual Planning Report. It enables far more practical and constructive engagement between DNSPs and non-network solution providers. The fact that a number of DNSPs already produce such a report, and the information is already collected by DNSPs, means this proposal would appear to be low cost to implement.

It will be important that the system limitation report is produced to a sufficient level of detail, such as the zone-substation, feeder or even sub-feeder (distribution transformer) level, as non-network solutions are well suited to addressing limitations even at this small scale and in the current environment a great deal of DNSP capex results from the accumulation of spending on multiple



smaller scale projects. A means to test whether the system limitation report drills down to a sufficient level of detail would be to consider the proportion of forecast capex that the report covers.

Future Reforms

In AGL's view, putting in place the right network planning and investment framework, and competitive architecture, are important foundational measures that should precede further incremental network tariff reform. Furthermore, there should be some opportunity to observe the impact of newly introduced mechanisms on the efficiency of investments in and use of network and non-network solutions. For example, more cost-reflective network tariffs are intended to signal the value associated with customers managing their own maximum demand on the network and will therefore be an important driver of investment in embedded generation and complementary technologies. However cost-reflective network tariffs have only recently been introduced and are yet to see substantial up-take.

We also note the rapidity of energy-related technology innovation. New platforms that allow the aggregation and intelligent control of a fleet of DER (including embedded generation, energy storage devices, and connected loads) may enable the participation of smaller-scale (i.e. household level) installations in existing mechanisms that have historically seen the involvement only of only larger-scale, commercial installations.

In parallel to these developments, we consider that a review of the treatment of underutilised or stranded network assets in the regulated asset base is required. Without such a review, further development of cost reflective pricing frameworks may be ineffective in achieving intended outcomes and supporting a customer led energy market transformation and the uptake of DER services.

Once these areas have been addressed, then a reconsideration of network pricing frameworks may indeed be required to reflect a more decentralised, bi-directional grid, and evolving customer expectations for grid access to support new products and services which increasingly involve transacting energy and network support services in facilitated programs and markets. This medium-term review of pricing for network access should consider the full suite of options ranging from incremental change (such as combining cost-reflective network tariffs with an equivalent export tariff as proposed in the LGNC) to more fulsome reform (for example, some form of real time pricing or access pricing). It should take account of the availability and cost of enabling technologies.

Should you have any questions in relation to this submission, please contact Eleanor McCracken-Hewson, Policy and Regulatory Manager, New Energy, on 03 8633 7252 or myself on 03 8633 6836.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Stephanie Bashir', written over a light blue circular stamp.

Stephanie Bashir

Head of Policy & Regulation New Energy