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Dear Sir/Madam

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**TransGrid Submission to MCE SCO Consultations on Discussion Paper on Impediments to the Uptake of Renewable and Distributed Energy and Draft National Code of Practice for Embedded Generation**

TransGrid would like to thank the Ministerial Council on Energy (MCE) for the opportunity to comment on these documents. The importance of marshalling renewable and energy efficient power sources is recognised and the need to develop supporting policy initiatives supported.

In general terms the SCO and their advisers are encouraged to be clear on the problem they are trying to address. It should also be recognised that, by definition, 'embedded generation' has connection arrangements with electricity distribution network service providers and not transmission network providers.

Regarding the 'definition of the problem' there appears to be confusion about whether policy initiatives are required to encourage renewable energy sources, embedded generators, or embedded generators that are also powered by renewable energy sources. This is most important, because policies aimed at encouraging embedded generators per se may result in the proliferation of high emission and economically inefficient outcomes when the intention may be to encourage low emission outcomes at a reasonable cost. Not all embedded generator technologies are low greenhouse gas emitters.

The relationship between embedded generation and distribution network businesses highlights the need for policy measures to focus on the interaction between electricity distribution connection arrangements, including distribution prices, and generators. TransGrid notes and supports the proposed additional initiatives which appear to have this focus.

One matter where transmission network service providers interact, albeit indirectly, with embedded generators, is in relation to arrangements to 'pass through' to embedded generators the value of avoided transmission use of system charges (avoided TUOS). TransGrid notes that while the total quantum of avoided TUOS is a result of transmission charging arrangements, the way in which this quantum is 'passed through' to an embedded generator is a matter for electricity distributors in accordance with the relevant requirements of the National Electricity Rules.

For convenience, our brief comments on this matter have been separated under the two consultation paper titles.

## **“Impediments to the Uptake of Renewable and Distributed Energy” Discussion Paper**

The paper includes a range of comments about network pricing and incentives on network service providers which are not supported with robust evidence and, in TransGrid's view, may not stand up to reasonable analyses. In particular, the following points should be noted:

- Transmission prices do include locational price signals. In fact the existing NEM Rules require TNSPs to undertake a lengthy and complex process to derive these locational price signals on an annual basis.
- The discussion is highly confused regarding what signals should be sent through network charges. Those mentioned include locational signals, time varying load signals and congestion signals. These are not necessarily all logically consistent.
- Contrary to the implication in the first dot point on page 26, TNSPs do consider and include measures to reduce network losses. NSPs are required to consider and assess alternative options for meeting reliability standards or removing constraints, including R&DG options. The impact of various options on network losses is an integral part of this analysis.

The paper comments that "There are not sufficient levels of transparency in network planning information, particularly forecast future loads, constraints, and proposed augmentations." (Issue 5.2). The paper's authors should be aware of the Annual Planning Reports produced by all TNSPs or the various planning documents published by DNSPs, for example, Integral Energy's *Network 2015*.

In addition, there is a mandatory open public process to be undertaken for all network augmentations expected to incur capital expenditure in excess of \$10 million.

TransGrid's experience is that generation proponents are making very active use of this planning information to develop proposals for embedded generation.

## **“A National Code Of Practice For Embedded Generation” Consultation Paper**

TransGrid believes that the paper is intended to cover embedded generation (EG), but only appears to consider a subset of EG technologies. For example, perhaps the best known recent embedded generator in NSW, Redbank, is a coal-fired plant but such technologies are not listed in the discussion on page 6.

The advantages for EG listed on pages 6 and 7 may also require further review. For example, it would be hard to sustain that embedded generation has a lower capital cost than conventional power stations. Similarly, some forms of EG do not offer reduction in environmental emissions, for example diesel stand-by generators and perhaps the Redbank example. It may also be considered prudent to include all emissions for power plant, not just CO<sub>2</sub> emissions.

TransGrid also notes the reference to 'Avoided TUOS payments' to embedded generators. TransGrid considers that there is a need to re-consider the Rules relating to Avoided TUOS and network support payments in order to provide a clear framework for support to embedded generators and/or DM providers who are contracted to provide an alternative to network service. For the SCOs reference TransGrid made extensive comments on this issue in its recent submission to the AEMC on the AEMC's Transmission Pricing Issues Paper (pages 11 -12). The AEMC process provides an appropriate forum to progress this matter.

However, it should be clarified that there is no direct linkage between the avoided TUOS payments and any particular network augmentation. In some circumstances, no augmentation may be needed for many years, and the generator simply reduces load on an unconstrained system. In effect, the avoided TUOS payment reflects an act of faith in a reduction in costs at some future time.

In summary, initiatives to encourage environmentally friendly forms of electricity generation are supported. However, policy formulation needs to be focussed and informed if this is to be achieved. TransGrid encourages the SCO to be clear about its objectives and focus endeavours accordingly. The comments in this letter are intended to assist in this regard. Should you wish to discuss any of these matters further, please feel free to contact me on (02) 9284-3434 or via email: [phil.gall@transgrid.com.au](mailto:phil.gall@transgrid.com.au) .

Yours sincerely

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