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12 April 2012

Australian Energy Market Commission
PO Box A2449
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Fax: 02 8296 7899 faxed 12/04/12.

Dear Sir/Madam,

AEMC Consultation Paper "National Electricity Amendment (Small Generation Aggregator Framework) Rule 2012

Ausgrid welcomes the opportunity to response to the AEMC Rule Change consultation for a "Small Generation Aggregator Framework" proposed by the AEMO. The framework proposed by the Rule change seeks to introduce a new market participant that can aggregate multiple small generating units without having to register each one. Ausgrid understands AEMO's intention in proposing the new arrangements is to reduce registration costs for generators and therefore provide the ability for the generation output from smaller generators to receive payment through the settlement process for the National Electricity Market (NEM).

Ausgrid supports reducing barriers to the more efficient use of and investment in small generators. In this regard, Ausgrid does not have any significant concerns with the Rule change proposed by AEMO; however we raise our concern or seek clarity with regards to two aspects of the proposed Rule change, namely;

- Concerns with providing AEMO with ability to commence changes to market procedures prior to AEMC's final determination;
- Clarity on the assessment framework the AEMC will use to assess the possible reduction in the need for network infrastructure (and hence network charges for customers) as a result of the proposed Rule change.

The remainder of our comments focus both on issues related to the proposed Rule change and matters that Ausgrid considers need to be considered from a broader policy perspective when considering the efficient participation of distributed generation in the NEM.

If you have any queries or wish to discuss this matter in further detail please contact Keith Yates on (02) 9269 4171.

Yours sincerely

Neil Gordon
Acting / Executive General Manager System Planning and Regulation

Attachment: *Ausgrid comments on the AEMC Consultation Paper "National Electricity Amendment (Small Generation Aggregator Framework) Rule 2012*

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Ausgrid comments on the AEMC Consultation Paper "National Electricity Amendment (Small Generation Aggregator Framework) Rule 2012

Scope of the "small generator aggregator framework"

The proposed framework outlines who and how a registered market participant can register as a "small generator aggregator" and puts in place the fees and financial arrangements associated with the market participant role and the settlement of the generation output in the NEM. The framework does not introduce any new arrangements for metering and hence Ausgrid concludes that the existing arrangements would continue to apply.

However, the framework does not cover the underlying structure or processes for the new framework. The proposed Rule change also provides AEMO with the ability to commence changes to the Market Settlement and Transfer Solution (MSATS) Procedures and any "action taken by AEMO [to amend the MSATS procedures] prior to the Participation of Small Generation Rule commencement date..... is taken to satisfy any equivalent actions required under the Rules."[1] The reason this has been provided is to allow AEMO to implement changes to systems and processes in a timely manner[2]. However, there is no detail provided in the consultation paper regarding the likely scope of those changes.

It is therefore unclear how processes or obligations will be changed in the MSATS Procedures or introduced as part of this process. It is not clear what obligations will be placed on Distribution Network Service Providers (DNSPs) or on the Small Generator Aggregator. Ausgrid considers this is a shortcoming in the consultation process for establishing the framework as enforceable obligations and requirements related to the market should be addressed in the Rules following an AEMC rule consultation process. Ausgrid does not support the proposal transitional arrangements that will allow AEMO to commence this work prior to AEMC's final determination. Further, Ausgrid requests that the scope of the proposed changes to Market Procedures be outlined as part of the rule change request.

Possible reduction in the need for network infrastructure and hence network charges

As part of the AEMC's assessment framework for the proposed Rule change, the AEMC states that it will consider the "....possible reduction in the need for network infrastructure and hence network charges for customers. The AEMC indicates that any cost reduction must be balanced against security, reliability and safety issues, including the potential reduction of predictive capacity for both AEMO and Network Service Providers (NSPs)."

The Rule change proposed by AEMO will incentivise small generators to operate at times of peak pool price. Periods of peak pool price can align with peak network demands across some parts of the distribution network and some network constraints; however this is not always the case. Any benefits that arise from distributed generation in avoiding network costs will be locational and time-specific. Experience to date indicates that any benefits are likely to be small as the output of small generators has not usually been able to offset the need for network upgrades. However, the potential for location and time-specific benefits (and costs) may increase as more generation is installed and arrangements between DNSPs and generators are put in place.

Ausgrid is unclear how the AEMC will assess the need for network infrastructure and network charges for customers as a result of increased generation deeper within the distribution network. In particular, it is unclear how this assessment will consider the site specific nature and connection arrangements

[1] Page 6 of Appendix 1 – Small Generation Aggregator Draft Rule.

[2] Page 9 of AEMO's National Electricity Rule Change Request – Small Generation Aggregator Framework 22 December 2011.

of each generator and the impact on security, reliability and safety issues. Ausgrid seeks further guidance from the AEMC on this issue.

Potential Implications of introducing a new definition to the Rules

We note the proposed Rule change includes the introduction of a new term "small generating unit". The new National Energy Customer Framework (NECF) is due to commence on 1 July 2012 and includes arrangements for categories of generators. Ausgrid questions the impact AEMO's proposed Rule changes may have on connection arrangements for generators and the operation of the National Energy Customer Framework (NECF)[3] and whether these have been considered by the AEMC in the Rule change proposal.

Impact on distribution networks

As part of the proposed rule change "AEMO initially estimates that these generating units are unlikely to have a significant impact on power system security because of their size, likely geographic dispersion and current low penetration...". It is unclear what the short term impact of the proposed Rule change will be, put it is clear that more generators will be incentivised to operate at times of peak pool price.

Whilst outside the scope of the Rule changes proposed by AEMO (but recognised by AEMO as an additional area of concern), Ausgrid encourages a broader market review that considers whether distributed generation is appropriately incorporated into the policy and regulatory framework and assesses the possible network impacts over the medium to long term. We support the Federal Government's proposal in the Draft Energy White Paper to "further assess the impacts of increased intermittent generation, particularly any consequent new requirements on the structure and operations of networks"[4].

It is important to recognise that increasing volumes of generation embedded within distribution networks is changing the way distribution networks have been planned, designed and developed for decades. This is because historically, a distribution network has been uni-directional; that is, it transported energy from the traditional large generation sources to the customers.

As noted in our March 2012 response to the Energy White Paper, increased numbers of generator connections deeper within the distribution network that can alternate between requiring load from the distribution network and exporting load into the distribution network at diverse points within the network complicates power quality, load-flows and capacity planning. Where the output of distributed generation is large enough to significantly influence the normal load-flows (in some cases even reverse them), there are additional technical issues that need to be addressed, particularly with respect to protection and voltage regulation.

Due to the requirement of DNSPs to maintain required levels of network performance for all customers connected to the network (when generators are running, and when they're not), DNSPs need to accommodate the time variant output of the generators and any mismatch with the time variant loads. The issues presented by increasing volumes of generators are currently being managed by DNSPs on a case–by–case basis to maintain the integrity of the power system. This adds time to the connection process for generators.

We note the AEMC Power of Choice Review (DSP Stage 3) currently underway will consider possible changes needed to the existing market and regulatory arrangements to ensure efficient demand side options (such as distributed generation) are delivered in the NEM, however the scope of this review does not consider possible impacts on distribution networks.

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[3] The interaction and impact of the AEMO proposed rule changes with the operation of the new National Energy Retail Law and Rules and the new Chapter 5A of the National Electricity Rules (Retail Connection amendment rules).

[4] Page 165, Australia Government Draft Energy White Paper, December 2011

In the Rule change being proposed, AEMO notes that "if power system security issues did arise [as a result of the Rule change], they have the power to issue a direction to a registered participant to act in a way so as to re-establish a secure, satisfactory or reliable operating state". However the practicality of AEMO being able to issue directions typically results in DNSPs being required to deliver this reliability outcome. To minimise the risk of this situation arising and to assist DNSPs in continuing to meet reliability conditions, DNSPs currently manage this as part of the connection process (including the connection contract) with generators.

The discussion of the impacts of increased volumes of generation in the AEMO and the AEMC papers is covered in a cursory manner. In raising the above points, Ausgrid seeks to encourage more thorough future discussions on the potential impacts of increased numbers of generators on distribution networks, customers connected to those networks and to provide some relevant context for DNSPs assessment processes for generator connection applications.

Unresolved issues surrounded generators connected within an "embedded network"

Ausgrid understands that the framework being proposed by AEMO would cover all generators whether they are directly connected to the electricity networks or are generators connected beyond the premise's connection point to the distribution network (within an "embedded network"). As part of previous consultation processes undertaken by AEMO[5], Ausgrid (then EnergyAustralia) provided comments about the need to adequately consider the role of generators within "embedded networks" from a policy perspective.

Ausgrid has previously questioned the market policy regarding generation that is not provided to the NEM as well as the associated market obligations in terms of metering and registration of NMI Standing data. Note: Ausgrid is not disputing the value of removal of load from the distribution system and the supplying of that demand through on-site generation as an efficient demand management mechanism particularly in reducing demand peaks and alleviating network constraints.

The market arrangements currently in place for embedded networks more broadly is not adequately addressed in the current Rules. AEMO agreed with this view in concluding the Small Generator Framework Design in August 2010, "that the issues [surrounding generators connected within an embedded network] ...should be addressed.." and a broader review of the role of embedded networks in the NEM is necessary. AEMO "recommend[ed] that the Department of Resources, Energy and Tourism, through the Ministerial Council on Energy, consider the aforementioned issues regarding small generators in the context of a broader review of existing embedded network arrangements in the NEM."

Ausgrid is not aware of any progress on this matter and as a result the proposed Rule change by AEMO is likely to exacerbate these existing issues.

[5] AEMO Consultation *Small Generator Framework Design Principles Consultation* commenced in May 2010 and AEMO Consultation *Minimising barriers to cost-effective small generator participation in the NEM* commenced in December 2009.