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24 November 2006

The Chairman  
Australian Energy Market Commission  
Level 16, 1 Margaret Street  
SYDNEY NSW 2000

Dear Dr. Tamblyn,

***NGF comments on the AEMC draft determination on Technical Standards for Wind and other Generator Connections Rule change proposal***

The National Generator Forum (NGF) is pleased to respond to the Draft Determination regarding the proposed Rule change on Technical Standards for Wind and other Generator Connection. The NGF notes that the AEMC has accepted many of its comments in relation to the original proposal.

The NGF, with many others, urged the AEMC to only progress changes necessary to allow renewable generation to readily access the NEM. We note that the AEMC has chosen, however, to progress many of the other changes. The NGF repeats its concern that much of the technical standards regime, including the testing and compliance regime, is not yet satisfactory. We therefore consider that further review is required.

***Further review of the technical standards regime***

The NGF supports the proposed further review of technical standards proposed by the AEMC in response to the Review into Technical Standards Enforcement. In particular we support:

- examination of the compliance regime with a view to focusing on assurance that a plant will perform as expected – this must include reducing the strict liability aspect of the Rules and the obligations on generators to ride through system disturbances;
- further development of compliance plans and appropriate testing processes; and
- further examination of the technical standards themselves to ensure that all technical standards required of generators can be linked to a system requirement.

While we accept that the timing of the review is the decision of the AEMC, we would urge that the review not be delayed, particularly the work on the compliance regime. Generators are working to ensure technical standards and compliance programs are in place by the agreed 30 June 2007 deadline. In doing so it has become obvious that in the area of fault ride through, no testing process can guarantee 100% compliance due to the complex nature of generator unit response to severe system conditions. It is the view of the NGF that a Rule change to address this issue should be considered as a priority to support the development of compliance programs that are practical and achievable.

We believe it would be possible for a working group to commence examining these issues, based on the principles in our previous submission, on the back of the goodwill developed between the AEMC, AER, NEMMCO and generators in addressing the grand-fathering issue with the current technical standards. The working group, comprised of all relevant participants, including NSPs, and chaired by a member of the Reliability Panel, could be charged with developing a specific set of proposals for review by the Reliability Panel.

### ***Payment for augmentations to maintain access/network capability***

The NGF believes that connecting parties should not be allowed to degrade network performance nor reduce services available to others. We believe that this principle should be always applied in the market because it:

- is economically efficient. Ensuring that parties always see the costs of their locational decisions means that the network will be augmented efficiently and parties will always choose the optimal location, based on overall costs;
- will support investment. If a person who connects, even if they have to pay to ensure the network capability it maintained, can be sure that they will not have their connection, or the network, degraded, they will be able to invest with more confidence;
- was intended under the rules. The principle that a connecting party should pay the costs to avoid degrading the network service was debated and accepted before the National Electricity Market commenced.

### ***Information provisions***

The AEMC ask for further opinion on the provision of models and other information as part of the connection and commissioning process.

The NGF considers that connecting parties should provide all necessary data and models to all NSPs and NEMMCO to fully test the proposed connection before commissioning. That said, it is important that the requested data is truly required. We therefore support further examination of information requirements as part of the technical standards review.

### ***Active Power control***

The NGF supports the general principle that all connected plant must be capable of active power control to assist in controlling system loading. We consider, however, that there could be circumstances where it may be unnecessary and therefore suggest that the minimum standard allow for some negotiation.

NSPs and/or NEMMCO should only be able to require active power control where a connection can impact system security, increase the risk to the network or adversely impact the access of parties already connected.

### ***Use of connection point and generating system for connections***

The NGF is generally supportive of change the approach for connections to allow assessment of technical standards for generating systems rather than units and for the measurement to be at the connection point rather than the generator terminals. This is a reasonable change to allow a broader range of technologies.

We note, however, that for some plant types, sizes and configurations the existing approach is actually preferable. The NGF therefore recommends that the actual scope and measurement location for technical standards be negotiable based on the connecting parties preference and the least overall cost.

As long as the standards are tailored for the type of connection so that the system impact is the same, NEMMCO and TNSPs should be indifferent to the actual scope and location of measurement of standards.

### ***Generator ride through of voltage disturbances***

The AEMC ask whether the Reliability Panel should review the proposed requirements on generators to ride through voltage disturbances, particularly when connected to the distribution system. The Commission also seeks information on likely costs.

The NGF proposed an early review of the standards regime at the beginning of this submission and this issue should be addressed in this review. If the review is established quickly, as proposed by the NGF, this matter could be examined early in the review and put to the Reliability Panel for their consideration.

The NGF considers that the main additional cost associated with this requirement will be the ongoing compliance costs. It is therefore imperative that appropriate testing and compliance approaches are developed to minimise these costs.

### ***Australian and International Standards***

The NGF does not accept that the Rules should require connected parties to meets standards that exceed the Australian Standards. Indeed, the decision to include the concept of Plant Standards in the Rules was to ensure that generally available equipment built to international standards could be used in the NEM to avoid imposing unreasonable costs on participants. We therefore find it difficult to accept that equipment that is manufactured to the Australian Standards would not meet the requirement to connect to the NEM.

We accept that in certain circumstances NEMMCO or TNSPs may seek a higher standard for connecting parties due to specific network issues. We consider, however, that NEMMCO or the TNSP should be paying for any support the system requires rather than lumping excess costs onto participants. This approach is consistent with the principle established during the last technical standards review that newly connecting parties should not be required to make up for any deficiencies in the network.

### ***Savings and transitional provisions***

The NGF considers that it is important that the principle that anyone who is connected or reasonably advanced in the connection process, as evidenced by a signed connection agreement, not be disadvantaged by virtue of changed standards. All parties need to accept the principles that:

- once a connection agreement is signed a connecting party has locked in the design and costs and should not be required to change them. They are of course required to meet the standards agreed at that time;
- a connected party is not required to modify their plant to meet changed standards in the Rules unless they are modifying their plant for other reasons and Rule 5.3 applies. In that case only the standards directly impacted by the changes are to be re-negotiated; and
- if NEMMCO or a TNSP require a connected participant to change or modify their plant because of system changes then the participant is entitled to recover the costs of doing so.

### ***Minor points***

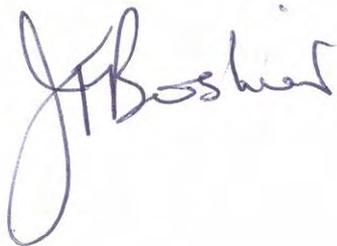
The NGF notes that the responses to our comments in relation to s5.1.7(c), s5.2.5.8(a)2(I) & s5.2.5.8(c) do not address the points we raise. We would ask the Commission to verify that they understood the points and that they have considered and addressed them.

We also reiterate our concern the s5.2.9(e), which is a TNSP obligation, should be separated from the remainder of that section.

### ***Contact for this submission***

The contact within the NGF for this response is Alex Cruickshank, who can be reached on (03) 8633 6026, mobile 0402 060 881 or by email to [acruicks@agl.com.au](mailto:acruicks@agl.com.au).

Yours sincerely

A handwritten signature in blue ink that reads "John Boshier". The signature is written in a cursive style with a large initial 'J'.

John Boshier  
Executive Director