

13 June 2008

Mr Ian Woodward  
Chairman  
Reliability Panel  
PO Box A2449  
Sydney South NSW 1235

Dear Ian,

### **NEMMCO Submission to Reliability Panel Technical Standards Review**

NEMMCO appreciates the opportunity to comment on this important matter. Generally NEMMCO considers that the process for negotiating access standards for new or modified generator connections is working well. There is a large degree of co-operation between NEMMCO, Generators and Network Service Providers (NSPs).

The AEMC is currently considering two Rule change proposals submitted by the National Generators Forum (NGF):

- Confidentiality arrangements in respect of information required for power system studies<sup>1</sup>; and
- Performance standard compliance of generators<sup>2</sup>.

Both of these Rule changes are relevant to the Panel's review as they propose changes to improve the effectiveness of the current processes for developing performance standards for generating systems.

Performance standards are defined for each generating system and record the level of technical performance the generating system is required to achieve as set out in Chapter 5 of the National Electricity Rules (Rules). NEMMCO and NSPs take these performance standards into account in defining the secure operating limits for the power system. The Rules define the process for developing and registering performance standards for generating systems.

NEMMCO requests that the Panel, as part of their review into the Technical Standards, consider the following aspects:

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<sup>1</sup> <http://www.aemc.gov.au/electricity.php?r=20080424.113727>

<sup>2</sup> <http://www.aemc.gov.au/electricity.php?r=20080228.150735>

- **Alignment of negotiated standards and plant capability**

The negotiation process should be clarified to ensure that if a generating system is not able to meet the automatic access standard then the negotiated access standard should be set as close to the automatic access standard as possible and should reflect the actual capability of the generating system. This approach could also apply to reactive power access standards but such a change would cut across the existing process in acquiring ancillary services.

- **Time allowed to assess proposed performance standards**

The extent of time allowed for NEMMCO to consider proposed performance standards should be increased from 20 to 30 business days in recognition of the changes to the scope of the technical standards introduced with version 13 of the Rules.

- **Definition and application of relevant projects**

Relevant projects should be defined sufficiently to ensure a consistent application of the term across all connections. The application of relevant projects and considered projects should be reviewed to ensure they are consistently applied in assessing performance standards.

Further details are contained in Attachment 1.

NEMMCO would be happy to discuss this submission and our proposed Rule drafting amendments with the Panel. If you have any queries regarding this submission please contact Mr Garth Gum Gee on (02) 8884 5353.

Yours faithfully

  
**Brian Spalding**  
Chief Operating Officer

Enc. Attachment 1

# ATTACHMENT 1

## 1 Introduction

This attachment provides the details of NEMMCO's submission to the Reliability Panel's (Panel) review of technical standards<sup>1</sup>. On 9 May 2008 the Panel published an Issues Paper on the review of technical standards in the National Electricity Market (NEM). The issues paper represents the first stage of the consultation process being undertaken by the Panel.

The AEMC is currently considering two Rule change proposals submitted by the National Generator Forum (NGF):

- Confidentiality arrangements in respect of information required for power system studies<sup>2</sup>; and
- Performance standard compliance of generators<sup>3</sup>

Both of these Rule changes are relevant to the Panel's review as they propose changes to improve the effectiveness of the current processes for developing the performance standards for generating systems. Section 2 provides further explanation of the relevance of these Rule change proposals.

Performance standards are defined for each generating system and record the level of technical performance the generating system is required to achieve as set out in Chapter 5 of the National Electricity Rules (Rules). NEMMCO and NSPs take these performance standards into account in defining the secure operating limits for the power system. The Rules define the process for developing and registering performance standards for generating systems. Section 3 of this submission identifies various aspects of the existing process that should be reviewed by the Panel.

NEMMCO is directly involved in the negotiation of performance standards for generating systems. Our experience with the technical standards for other participants (market customers and Market Network Service Providers) is more limited. As such this submission is focussed on issues relevant to performance standards for generating systems.

## 2 Relevant Rule Change Proposals

### ***2.1 Confidentiality Arrangements in Respect of Information Required for Power System Studies***

The NGF has submitted a Rule change seeking to alter the confidentiality of information arrangements currently in the Rules.

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<sup>1</sup> <http://www.aemc.gov.au/electricity.php?r=20080509.151254>

<sup>2</sup> <http://www.aemc.gov.au/electricity.php?r=20080424.113727>

<sup>3</sup> <http://www.aemc.gov.au/electricity.php?r=20080228.150735>

The NGF's proposal seeks to allow NEMMCO to release information that is reasonably required to carry out power system studies (including load flow and dynamic studies) for planning and operational purposes. The NGF's proposal emphasises the importance of sufficient information being provided to all Registered Participants for operational and planning purposes. With regard to the Panel's review, the availability of the type of information intended to be made available is critical to allow assessment and negotiation of access standards.

Under the current Rules, Generators and Connection Applicants are unable to fully assess the impact of a new or modified generating unit for a number of technical access standards including, for example, those under Rule clauses:

- S5.2.5.5 Generating system response to disturbances following contingency events;
- S5.2.5.12 Impact on network capability; and
- S5.2.5.13 Voltage and reactive power control.

Assessing these aspects of generator performance requires access to system data including network and dynamic modelling data for all generators. This data is also required to design the appropriate generator control systems and calculate their impacts on the power system. As this data is currently confidential, the only parties able to carry out these design studies are the connecting NSPs.

NEMMCO made a submission to that Rule change proposal which would allow the release of a limited amount of information to Registered Participants. NEMMCO's submission suggested that the information proposed to be provided to Registered Participants may not be sufficient for all of their study requirements and that a review of information requirements may be required. The Panel may wish to consider whether NEMMCO's suggested review of information requirements is within the overall scope of the Panel's review of technical standards.

The Panel may wish to consider whether the proposed information provision arrangements are consistent with the roles assigned to parties by the technical standards provisions in the Rules. For instance the Rules currently envisage that generators develop control system settings for their plant and submit these for approval by the NSP and to NEMMCO where necessary (clause S5.2.2). The Panel may wish to investigate whether the information provisions provide Generators with access to sufficient information to meet their obligations or whether those obligations should be modified in recognition of the information available to Generators.

The Panel is recommended to ensure its review is well coordinated with this Rule change consultation so that information provision and updating issues are adequately addressed.

## **2.2 Changes to Generator Performance Standards**

The NGF has proposed changes to the Rules allowing registered performance standards for generating systems to be varied via agreement of all relevant parties (the connecting NSP, NEMMCO and the Generator). This proposal addresses a deficiency in the Rules that only allows registered performance standards to be revised as a consequence of a modification to an existing connection or alteration to a generating system.

This Rule change is expected to simplify the process by which performance standards for generating systems are modified. This submission therefore does not comment on the deficiencies in the current Rules addressed by the NGF proposal. The Panel should ensure its review is well coordinated with this consideration of the NGF proposal by the AEMC.

### **3 Process for determining and agreeing to performance standards**

NEMMCO believes that the Panel should consider the following issues regarding the process for establishing performance standards:

- Alignment of negotiated standards and plant capability;
- Time allowed to assess proposed performance standards;
- Definition and application of relevant projects.

#### **3.1 Alignment of negotiated standards and plant capability**

Generators seeking a negotiated level of access should be obliged to demonstrate that the proposed performance standard reflects the technical capability of the plant. The Rules currently allow different interpretations regarding the negotiation process. This may result in generators seeking minimum access standards and the NSP and NEMMCO being asked to substantiate why that level of performance would be unacceptable regardless of whether it reflects plant capability.

Where possible the performance standards for generating systems should meet the automatic access standards for each technical requirement outlined in Schedule 5.2 of the Rules. Where they are not able to meet the automatic access standard the Generators should propose a negotiated access standard that reflects their plant capability. There is a tendency for Generators to seek to register the minimum access standard although the plant is capable of delivering a higher level of performance.

NEMMCO and the NSP take the registered performance standard into account in determining secure operating limits for the power system. Registering the highest possible negotiated standard (consistent with the capability of the generating system) allows secure operating limits to be increased.

Some of the possible outcomes of registering minimum access standards instead of the highest possible negotiated standard consistent with the capability of the generating system include:

- other generator control systems may need to be re-tuned;
- secure operating limits may be reduced and,
- the cost of connecting future generators may be increased.

These additional costs may be avoided if the “higher” negotiated access were required to be registered.

Within Schedule 5.2 there are clauses that attempt to ensure the “highest” standard is registered. For example, where a Generator cannot meet an automatic standard, clauses S5.2.5.11(d) and S5.2.5.13(e)-(f) require the Generator to propose a standard that is as close as possible to the automatic access standard and demonstrate that this is the case.

NEMMCO considers that this principle which seeks to ensure that the negotiated standard is only accepted if it is consistent with the capability of the generating system should be adopted for all negotiated access standards.

This principle could also be applied to the negotiation of reactive power performance standards but would cut across the existing practice in acquiring ancillary services.

### **3.2 Time allowed to assess proposed performance standards**

Under clause 5.3.4A(d) NEMMCO must respond in writing to the NSP within 20 business days regarding any NEMMCO advisory matters. NEMMCO considers that this timeframe should be extended to 30 business days.

The amendments to the Rules that came into effect on 15 March 2007 increased the scope of the access standards and the work required by NEMMCO to assess proposed performance standards. In addition connection applications may arrive at any time and therefore NEMMCO must make resources available to assess applications with little notice. The assessment timeframe specified in clause 5.3.4A(d) is insufficient to allow re-allocation of internal resources at short notice or to find appropriate external resources to carry out a thorough review of the application. This compromises the extent of the review that is possible and therefore important aspects may be overlooked.

A similar situation occurs when processing a registration application as at this time NEMMCO is required to assess the ability of the generating system to meet the registered performance standards. The Rules require NEMMCO to respond within five business days if any information is still required to assess the registration application. NEMMCO then has 15 business days once all the required information is provided to approve the registration application. The time allowed for the review of the generator's registration application should also be extended to 30 business days to allow sufficient time to complete of the required system studies and due diligence.

NEMMCO considers that the increase in the length of time for the assessment of performance standards is necessary to ensure that all relevant issues can be adequately considered. Registration of Generators tends to occur very close to commissioning and all of the information sought by NEMMCO and the NSP should be available at that stage. NEMMCO considers that the extension to the assessment timeframe would have minimal impact on an applicant's schedule. It will however assist in ensuring that all proposed performance standards may be considered in the required depth.

### **3.3 Definition and application of relevant projects**

Clauses S5.2.5.4(d)(2) and S5.2.5.12(c)(1)(i) both require "other relevant projects" to be considered when assessing the negotiated access standards. "Other relevant projects" are generation projects which may impact on those access standards. NEMMCO relies on the connecting NSP to advise which "other relevant projects" should be considered. This information may be confidential and therefore even the proponent may be unaware of which "other relevant projects" may affect their project and influence the ability of their plant to achieve a particular level of performance.

NEMMCO considers that "other relevant projects" should be defined as those that have signed connection agreements. This removes the NSP discretion in deciding

which projects are included in the assessment and allows a consistent approach across all connections.

Currently “considered projects” and “other relevant projects” are only required to be considered when assessing the ability to meet the negotiated access standards. NEMMCO considers that these projects be also be considered when assessing the ability to meet automatic access standards.