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Chairman
The Reliability Panel
Australian Energy Market Commission
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By email: submissions@aemc.gov.au

Reliability Panel Technical Standards Review- Draft Report

The NGF appreciates the opportunity to provide comment on the AEMC Reliability Panel's Draft Report on the Technical Standards Review. This submission provides feedback on the principles developed by the Reliability Panel in the Draft Report.

The NGF submission on the Issues Paper identifies the following important points the NGF was hoping to identify with in the draft report. In the submission the NGF stated that, in the opinion of the NGF, Technical Standards to be used by a participant proposing a connection:

1. should focus on the technical characteristics of specific plant;
2. require further modification (schedule 5 standards that are the starting point for a new standard);
3. should be clearly linked to system standards;
4. cover only aspects of performance that can not be provided as services;
5. be established during a connection agreement finalisation;
6. be only changed with agreement of the participant, NEMMCO and the relevant NSP.
7. only have the applicable standard items reset when parts (that affect that item) are upgraded.

With the exception of point 7, it is generally accepted that the proposed draft report has identified with these listed issues. Point 7 discusses an issue that, it could now be argued, forms part of the 5.3.9 process where only the relevant item of the standard needs to be renegotiated when an alteration is proposed.

Point 2 generally refers to the need to modify the standards of chapter 5 schedule 5 and it is considered the draft report in item 3.9 has indicated that a complete review of all present standards will result from the finalisation of the principles of the standards. It is also pointed out that the Panel appears to have not considered it necessary in the draft report to include a principle that was previously proposed to ensure that "contributions to the technical standards review should be sought from both power system experts and specialists from the new technology".

Whilst the public consultation process can result in such contributions it is not guaranteed to and the NGF believes without enough expert input from all participants of the industry the standards will continue to be fall short of all possible improvements that could be considered necessary.

The draft report and principles proposed by the Reliability Panel appear to have overlooked the set of principles previously proposed by groups that contributed to National Electricity Amendment (Technical Standards for Wind Generation and other Generator Connections) Rule 2007 No.2. The NGF believe it would be advisable for these principles to be considered against the proposed principles from the Panel to ensure all previous work can be reflected in the final report.

The AEMC and the Reliability Panel should recognise the existing principles, developed by the WETAG, presented to the WEPWG, and used by NEMMCO and the TSRG in the drafting of the new standards, with the approval of the SCO. The current technical standards have been drafted using the existing principles. These guiding principles were used by NEMMCO in Attachment A of the rule change proposal by NEMMCO in section 2.3 (page 3). This document is available on the AEMC website at: http://www.aemc.gov.au/electricity.php?r=20060324.143345

The NGF has now attempted to frame these previous principles and compare and contrast the new set against these old ones and comment on the collective view of the forum regarding the proposal (see Attached).

As a general comment it appears that the proposed principles can be categorised as either related to:

a) "content" of the standards affecting the choice of words to be used in development of a particular performance standard for a unit,
b) "definition" of the terms Minimum and Automatic, and/or
c) "process" of the development or alteration of a particular standard.

In the opinion of the NGF it is advisable that the three categories be kept separate in the principles and perhaps be separated to provide better guidance as to the principles of the content and then the principle of the process to negotiate, agree to or alter a standard. It would appear that the proposed Principle 5 contains elements of both these categories and it is recommended that the elements be separated. The "definitions", once accepted, should be removed from the principles and placed in the Rules Glossary.

We hope the comments of the NGF provide some support to cause further consideration of the proposed principles to improve the final outcome for all participants. If you have any questions in relation to the comment provided by the NGF please do not hesitate to call Mr. Frank Elsworth on (02) 9285 2706.

Yours faithfully,

John Boshier
Executive Director

Attach

Reliability Panel Proposed Principles for Technical Standards	National Electricity Amendment (Technical Standards for Wind Generation and other Generator Connections) Rule 2007 No.2	NGF Submission Point Number	Comments from the NGF
Principle 1 – "content" Access standards should be aligned with the system standards wherever appropriate.	**Principle 2** Minimum, automatic and mandatory standards should be defined so that performance requirements are consistent with the potential impact of generating plant on the power system.	3	From previous work it would appear that the proposed principle can only work if the system standards are modified. The previous principle from the WETAG group may have some merit.
Principle 2 – "content" Access standards should support the efficient operation of the power system.	**Principle 1** The technical standard must provide for adequate security, quality of supply and reliability.		These principles do not align well. The concept of "efficient operation" needs to be communicated so it can be better understood by the NGF. The draft report appears to suggest that NEMMCO might lower transfer limits on a constrained corridor to maintain system standards and that this in "inefficient". Such an example is reflecting the lack of transmission corridors which should be encouraging new entrants to build new corridors not being promoted as a debilitating reason to relax the need for better standards that apply to all jurisdictions.

Principle 3 – "process" An access standard proposed by a connection applicant should be rejected when it fails to meet the level of the minimum access standard. **Principle 3 – "definition"** The minimum access standard denotes the performance level where there is a high degree of certainty that any network user, employing any technology, located at any point on the national grid, would adversely impact system security, the quality of supply to other network users, or where relevant, the operation of the power system in accordance with the system standards.	See principle 2 above.		The definition in the principle needs further discussion and the end result should be removed from the principles and placed in the Rules Glossary of terms. The Minimum access standard should be a permitted standard for certain applications and locations. The point of the minimum is that there is no guarantee that the minimum standard will be acceptable in all locations, technologies etc. Anything below Automatic standard needs negotiation and network studies to prove its acceptance. Anything below Minimum should be rejected unless Principle 6 (proposed) is applicable. Suggest the words "below which" replace the first appearance of the word "where". The definition should be expressed so as to create an obligation; replace "denotes" with "should denote".

Principle 4 – "process" An access standard proposed by a connection applicant should be accepted when it meets the level of the automatic access standard. **Principle 4 – "definition"** The automatic access standard denotes the performance level where there is a high degree of certainty that any network user, employing any technology, located at any point on the national grid, could connect to the power system and not adversely impact system security, the quality of supply to other network users, or where relevant, the operation of the power system in accordance with the system standards.	See principle 2 above.		Performance beyond the Automatic standard should not be required of a Generator. The first word "should" should be changed to "must". The definition should be expressed so as to create an obligation; replace "denotes" with "should denote".

Principle 5 – "process" A connection applicant may negotiate an access standard below the level of the automatic access standard, but above the level of the minimum access standard, where this does not adversely impact system security, the quality of supply to other network users, or where relevant, the operation of the power system in accordance with the system standards. **Principle 5 – "content"** A negotiated access standard must reflect the technical capability of the equipment to be connected, and connection applicants must prove why their plant cannot meet an automatic access standard.	**Principle 5** Where possible, the technical standards (access standards) should provide clear guidance on the basis for negotiating access standards for each requirement.	5	The point from the WETAG principle 5 about ensuring the access standards are modified to contain the clear guidance for negotiating lower than automatic standards is a point worth noting. The "content" based part of the proposed principle contains a principle followed during the Expert Determinations of 2007 that led to many participants obtaining revised registered Performance Standards.
Principle 6 – "process" A lower performance standard should be permitted at the time of connection on the condition that equipment is upgraded in the future if a higher performance standard is deemed			This should only apply if the standard is less than minimum or if the rectification is considered reasonably "easy" and "inexpensive" to achieve or, where it can be rigorously proven by the relevant NSP or NEMMCO that a security issue is present.

necessary.			
Principle 7a – "process" The performance standards under a connection agreement are protected for the duration of those agreements, and **Principle 7b – "process"** a performance standard may only be changed when agreed to by the relevant network user, the relevant NSP, and NEMMCO.	**Principle 6** Changes to the (registered) technical standards must include appropriate transitional arrangements.	6	The WETAG principle 6 should be reconsidered for the proposed principles. It has a massive impact on generation projects that are progressing to construction or are in construction.
Principle 8 – "content" Technical standards should be technology, size and location neutral.	**Principle 4 –** Where reasonable, the technical standards should be written so that they are applicable to all technologies. Technology-specific terms should be used only where necessary to clarify requirements for particular technologies.	1	The principle for Standards being neutral in all these areas may be opposed to the NGF opinion reflected in Point 1 that they "focus on technical characteristics of specific plants." Discussion at the TSRG recognised that some technology specific wording was required where there is a fundamental difference between that of synchronous machines and asynchronous machines. The technical standards must adequately cover all types of generator technologies. To the extent reasonably possible the technical standards should not treat one technology

			more favourably than another.
Principle 9 – "process" Technical standards should apply to NEMMCO, NSPs, Market Network Service Providers, and Generators and Customers whose equipment is registered with NEMMCO.			The NGF notes the statement from the panel in the draft report that "non-registered generators" should not be required to comply with technical standards.
Principle 10 – "content" Where market arrangements can replace a technical standard, then this should be considered.		4	NGF agrees as indicated in point 4 of this letter.
Principle 11 – "content" Technical standards should be specific, clearly defined, unambiguous and consistent.			Agreed.

Principle 12 – "content" Technical standards should be measurable and assessable, in a form that allows effective compliance programs to be developed and maintained, and be enforceable.	**As above**		Agreed.
Principle 13 – "content" The technical standards should place obligations on the party that is most capable of responding to that obligation in a manner that advances the National Electricity Objective (NEO).			Where NSP equipment plays a part in the performance standard of a generator, this should be recognised (and has been in some registered standards with the agreement of all parties).
No equivalent principle	**Principle 3** Terminology used in the technical standards should support their appropriate application. Where technically appropriate, performance of generating plant should be measured at the connection point.		This principle from WETAG is used throughout the current standards with respect to where the technical standard applies, in particular whether it is a connection point measure or a single unit requirement.

No equivalent principle – “content” of Rules based access standards i.e. Schedule 5 of Chapter 5	**Principle 7** Changes to (Access Standards) technical standards are to be technically justified		To provide adequate certainty to generators and intending generators the technical standards should only be changed if an appropriate industry body can demonstrate an adequate technical requirement for the change. The justification for this could include the need to correct an error or omission or to incorporate a new technology. In general, when changes are required to incorporate a new technology into the (Rules-based) technical standards, contributions to the technical standards review should be sought from both power system experts and specialists from the new technology.