NATIONAL GENERATORS FORUM

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The Chairman
Australian Energy Market Commission
Level 5, 210 Elizabeth Street
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Email:- submissions@aemc.gov.au

Dear Dr Tamblyn

Congestion Management Review, Exposure Draft, March 2008

The NGF welcomes the publication of the Congestion Management Review, Exposure Draft and thanks the Commission for the opportunity to contribute to the development of the Rules in relation to the management of congestion in the NEM. The NGF broadly supports the proposed changes but has some specific comments on the detail.

Recovery Of Negative Settlement Residues

The NGF supports the proposal to change the method of recovery of negative settlement residues on regulated interconnectors.

We suggest that, in order to limit the number of reviews, the requirement to have a review within three years be qualified somewhat, since it may transpire that a full review is unnecessary. In the event that the proposed arrangements prevent the market from operating in an efficient manner, it would always be open to several Market Participants to seek a review and propose alternative arrangements.

Constraint Formulation Guidelines and Information resource

The NGF supports the development of constraint formulation guidelines in consultation with stakeholders. The suggested congestion information resource, (CIR) is welcomed by the NGF as supportive of a transparent process for the management of transmission system constraints within the dispatch process. We would expect this resource to include all the information which is currently available to the market through the TNSP obligations (cl 3.7A(c)) and NEMMCO assessment of the impact of these, (cl 3.7A(d)). The NGF regards the consultative process leading to the CIR guidelines as an important part of the process, to ensure that the information provided meets the needs of an efficient market.

The NGF notes that the proposed Rule does not impose any reporting obligations on Generators. This may be because possible impacts of generating units on the transmission network capability, (through connection or disconnection of generating units or through network support agreements) would be available from data provided by the relevant TNSP. However, the NGF would expect that if any such obligations were created through future changes to the Rules or via the CIR guidelines,

then Generators would be protected by liability limitations in the same way that TNSP are through new clause 3.7A(o).

"Mis-Pricing"

The NGF supports the development of measures of congestion, which assist market participants to better predict the likely impact of transmission system constraints on their physical and financial trading risks. Whilst appreciating the need for an appropriate measure of transmission network congestion, the NGF wishes to express its severe disquiet with the use and codification within the Rules of the term 'mis-pricing', since this term has previously been used elsewhere with another meaning.

It is considered unnecessary for the Rules to include a precise definition of the measure of congestion. The current version of NEMDE is able to provide the cost of constraints and future versions of the dispatch engine, which may yet be in the form of a full network model, may yield other and better measures.

The NGF suggests that new clause 3.7A(b)(2) be drafted as "the incidence of congestion in the *National Electricity Market* through the use of historical data on the cost of constraints as determined in the dispatch process". Proposed transitional Clause 11.X.2(b)(2) should be amended similarly.

In any event, it is noted that the suggested glossary definition for 'mis-pricing' is unworkable, in that the units of the two quantities to be compared are not the same[1].

If it is considered necessary to include within the Rules an explicit definition of a measure of congestion, then perhaps it is better to first clarify what is being measured. In the case of a constrained-on Market Participant[2], the volume at which it is dispatched is greater than the volume it is willing to produce for the price it is paid. Conversely, a constrained-off Participant is dispatched at a MW level that is less than the volume it is willing to produce for the regional reference price. Such constraints on dispatch impact on Participants and it is these effects which we are trying to measure, record and inform the Market about, so as to assist Participants in their operational and investment decisions.

Ideally therefore, the appropriate measure is specific to each affected participant and relates to the impact on their involvement in the competitive market. This has two components. The price component, which could be called the "Congestion Price Difference", is the difference between the price at which the resource is dispatched (given its location) and the RRN price. The volume component is the difference between the actual dispatch of that Participant's plant at the affected location and the volume which the resource is willing (based on its offer) to dispatch at the RRN price. This could be called the "Congestion Affected Volume". Combining these two numbers would construct a useful measure of the "Value of Congestion

Fully Co-optimised and Alternative Constraint Formulation Rule

One AEMC recommendation is to include within Chapter 3 of the Rules the requirement for NEMMCO to use fully co-optimised network constraint formulation to the extent practicable, except where NEMMCO reasonably determines that an alternative constraint formulation is necessary to meet system security requirements or to manage negative settlement residues provided that NEMMCO's use of an alternative constraint formulation is consistent with the guidelines referred to in Section 6.2.2 of the CMR Draft Report.[3]

[1] *Settlement amount* ($) and *dispatch price* ($/MWh)
[2] Generator or Dispatchable Load
[3] Recommendation 6, page 3, Congestion Management Review Exposure Draft.

What is proposed is a simple change to Clause 3.8.1 (b) that removes the distinction between intra regional and inter regional network constraints. This should make no difference if the Rule was interpreted with the use of the term constraints meaning limitations or physical constraints rather the mathematical formulations of these limitations that are used as 'constraints' in NEMDE.

The NGF's view of the change proposed to clause 3.8.10 is that it is cumbersome and overly prescriptive and does not allow NEMMCO to readily use a more efficient dispatch approach such as might be available in the future with improved software and computer speeds. One could envisage in the future a model which produces security constrained dispatch by smartly combining the market dispatch with full N-1 security constrained network model. In this case there would be no explicit formulation of network constraints in the 'fully co-optimised form'. It is a very bad idea codifying existing practices into the Rules rather than codifying desired objectives or outcomes.

Some suggested alternatives to the AEMC suggested approach are given in Attachment 1. These suggested changes to clause 3.8.1 clarify the intention of 3.8.1 which was for NEMMCO to manage the central dispatch process to maximise the benefits of spot market trade within the power systems physical and security limitations (the power system security envelope) rather than within whatever NEMDE constraints that NEMMCO formulates. The original intention is quite clear in 3.8.1 (c) as it states that the central dispatch process "should aim to maximise …". The qualification of the aim would not have been used if the 'constraints' in 3.8.1 (c) were meant to mean NEMDE constraints rather than power system and network limits.

With the proposed clarifications above it is no longer necessary to introduce the AEMC's proposed clause 3.8.10 (b) as NEMMCO will be obliged to try and maximise the value of trade based on the security limits of the network and given the current approach of doing this via generic constraints will then require them to be in the fully co-optimised form nearly all of the time though not always. Further the suggested approach leaves the door open for NEMMCO to implement an improved dispatch process that does not involve generic constraints without requiring Rule changes.

Minor Drafting Suggestion – Affected Participants – Clause 3.8.1(c)(11)(A)

A minor amendment is suggested to clause 3.8(c)11(A) so that the effect on Affected Participants is minimised rather than the number of Affected Participants. This is because clearly it may be inefficient to prefer a large negative effect on a single participant over several trivial impacts on more than one participant.

In closing, the NGF would like to thank the Commission again for the opportunity to contribute to the development of the congestion management processes and looks forward to continued improvements in this area. Should you have any queries in relation to this submission, please contact John Arneaud on 0408 589 513.

Yours sincerely

John Boshier
Executive Director

Attachment 1. Proposed Rule Clauses

3.8.1

(a) *NEMMCO* must operate a *central dispatch* process to *dispatch scheduled generating units, scheduled loads, scheduled network services* and *market ancillary services* in order to balance *power system supply* and demand, using its reasonable endeavours to maintain *power system security* in accordance with Chapter 4 and to maximise the value of *spot market* trading on the basis of *dispatch offers* and *dispatch bids*.

(b) When using its reasonable endeavours to maintain *power system security* in accordance with Chapter 4, NEMMCO must aim to discharge this responsibility in a way that best utilizes the power system to maximise the value of spot market trading, given the power system's current state.

(c) The central dispatch process should aim to maximise the value of spot market trading i.e. to maximise the value of dispatched load based on dispatch bids less the combined cost of dispatched generation based on generation dispatch offers, dispatched network services based on network dispatch offers, and dispatched market ancillary services based on market ancillary service offers subject to:

(1) *dispatch offers*, *dispatch bids* and *market ancillary service offers*;
(2) *constraints* due to availability and *commitment*;
(3) *non-scheduled load* requirements in each *region*;
(4) *power system security* requirements determined as described in Chapter 4 and the *power system security and reliability standards*;
(5) *network constraints (physical constraints or network limits)*;
(6) *intra-regional* and *inter-regional losses (physical losses)*;
(7) *constraints* consistent with *registered bid and offer* data;
(8) current state of the power system including: current levels of *dispatched generation, load* and *market network services and* current network state;
(9) *constraints* imposed by *ancillary services* requirements;
(10) arrangements designed to ensure pro-rata loading of tied *registered bid and offer data*; and
(11) ensuring that as far as reasonably practical, in relation to a *direction* or *dispatch* of *plant* under a *reserve contract*:
(A) the effect on *Affected Participants* is minimised; and
(B) the effect on *interconnector flows* is minimised.

Suggested clause 3.8.10 (b):

(b) NEMMCO must represent network constraints as inputs to the dispatch process in a way that reflects the capability of the physical network and power system at the time of dispatch and in a form that can be reviewed after the trading interval in which they occurred.

Or if some of the AEMC's other suggested changes are implemented such as 3.8.10 (f) then this clause could be reduced to

NEMMCO must represent network constraints as inputs to the dispatch process in a way that reflects the capability of the physical network and power system at the time of dispatch.

End of submission