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John Tamblyn, Chairman
AEMC

By email (submissions@aemc.gov.au)

Dear John

TRUenergy submission to Draft Report: Congestion Management Review

Thank you for this opportunity to provide the attached comments upon the draft report. We apologise for its lateness. The commission is welcome to publish this submission on its website.

TRUenergy assisted the preparation of the ERAA and NGF submissions and supports those positions. Those submissions discuss the more general questions of materiality, market access and locational incentives upon new investment.

This TRUenergy submission responds only to the technical discussion on chapter 5, Risk Management and Appendix G-Positive Flow Clamping.

You are welcome to call me for explanation on 03 8628 1280.

Yours Sincerely,

Ben Skinner
Senior Regulatory Manager, Wholesale Markets

Funding of Negative Residues

TRUenergy strongly supports the draft recommendation to cease the netting off of positive and negative residues within a settlement week that has unnecessarily added to the unreliability of the SRA instrument.

During the commission's deliberation on the proposed rule change "Recovery of Negative Inter-Regional Settlement Residues" in late 2005 submissions favoured a minor rule adjustment to bring this to effect. Nevertheless, in its final decision the commission chose not to promote netting-off, citing:

"The Commission considers that it is preferable to address these issues in a broader context than this Rule change proposal. The CMR is a more appropriate environment for their investigation. Accordingly, the Commission raised these broader issues in its Issues Paper. The Commission is seeking comments on:

- How should negative settlements residues be funded?; and
- Should the current process of offsetting negative residues with positive residues within the current billing week be continued or changed?"¹

In TRUenergy's opinion this delay was unnecessary and the question of intra-week net-off does not have a broader context. The AEMC should separate this from the more complex issues and facilitate an expedited rule change.

Raising the clamping threshold

TRUenergy agrees that the main objection to raising the threshold to \$100,000 will be alleviated upon the removal of settlement week net-off. However it should not be presumed that allowing negative residues to accumulate represents the most efficient dispatch², as these often result from "disorderly bidding". Clamping at zero flow constrains such generators, admittedly at an arbitrary level. Thus it cannot be assumed there is any dispatch efficiency advantages in selecting any particular threshold.

The threshold choice should therefore be driven only by questions of operational practicality. NEMMCO may find it easier to manage a larger threshold, and intervention will be less likely when the event is caused by transient conditions.

However, a larger threshold will make NEMMCO's activities less predictable for participants. At present participants expect NEMMCO to intervene in any case of non-trivial negative residues, but an increase to \$100,000 will add uncertainty. It could lead to opportunities for gaming, for example by breaking large residue accumulations into a series of \$100,000 events.

Participant funding of Negative Residues

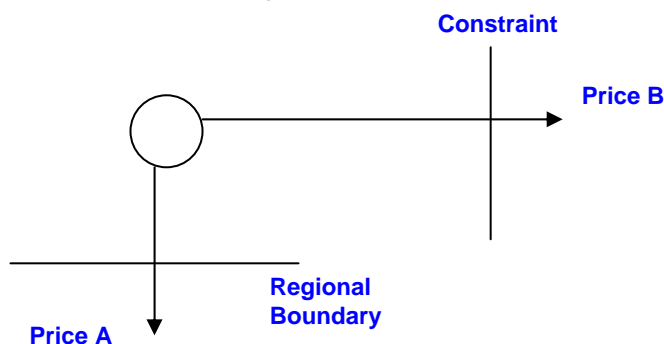
TRUenergy has no objections to generators voluntarily funding negative residues to avert zero clamping. A rule change should not be required: such generators could simply arrange a bilateral agreement with NEMMCO, who could take that into account in their procedure for monitoring the accumulation of negative residues.

¹ **AEMC 30 March 2006, Determination. Rule Change Proposal: Recovery of Negative inter-regional settlement residues**

² **Except where the regional boundaries dissect a loop, such as in the historic snowy region**

We doubt, however, that such an arrangement will ever be voluntarily entered into. This is because in most situations, the revenue gained by increasing output will be less than that required to fund the residues.

Consider the simple case of a single generator between an interconnector and a simple constraint with unitary coefficients.



Where $A < B$, and the counterprice flow = the Volume increase.

The profit gain available to the generator for entering into this situation is (ignoring losses):

Volume increase*Price B	{ Dispatch increase}
+ Volume increase*(Price A-Price B)	{ Negative Residues}
-Volume increase*fuel cost.	{ Marginal cost}

Thus the profit available is (Price A-fuel cost).

An inspection of historical counterprice scenarios shows that in general price A is only marginally above low cost fuels and sometimes negative. Thus the generator may inadvertently penalise itself with a negative profit margin on the arrangement.

If multiple generators are located between the constraint and regional boundary, then all players would need to agree to be included to avoid free-riding. Even a small generator opting out would destroy the possibility for profit.

Further, if the coefficients of the generators and interconnector terms in the constraint equation are not equal, then great complexity results and it will be very difficult for a generator to predict a profitable outcome from the arrangement. The complexity further multiplies if there are a range of possible constraint equations that may trigger the congestion.

The relationship between fluctuating inter-regional loss factors versus static intra-regional loss factors also adds complexity when attempting to predict such a narrow profit margin.

Positive Flow Clamping-static "k"

As a significant participant in the SRA market, TRUenergy finds the suggestion of positive flow clamping with a static "k" initially appealing as it may firm up the instrument. For example, if k was selected at 50% of the interconnector's nominal rating, we could use it as an effective risk management tool to that level. Like any

scarce resource, an upfront allocation of the transmission capacity between players is necessary to enable sensible business decisions to be made around it.

We note the commission's concerns³ regarding the practical implementation of a static "k" and concur that these are serious shortcomings.

Meeting what we believe is the commission's objective of a "sharing" concept between disorderly bidding generators and an interconnector could only be achieved by a new form of constraint formulation away from the fully optimised form or an interconnector support system as discussed below.

Positive Flow Clamping-dynamic "k"

We understand why the commission prefers this model due to the problems of a static "k" identified above. But in doing so, it has destroyed the key objective for implementing positive flow clamping, i.e. providing more certainty for SRA holders by identifying a fixed sharing ratio.

Furthermore, the practical difficulties for NEMMCO identified by ROAM in the NGF submission regarding distinguishing exactly when disorderly bidding is taking place seem very serious and unlikely to be resolved.

Way Forward-Interconnector Support

We note that the commission, having already decided to not progress general solutions to the many distortions created by the locational mispricing problem has attempted to address one of its obvious symptoms, that of negative residues upon interconnectors.

The disease behind the symptom, of course, is the mismatch between the marginal value of generators at the point of dispatch and their marginal settlement prices. The commission may find that the only mechanisms capable of succeeding in dealing with any of its symptoms are ones that address the cause.

Whilst the commission has formed a strong conclusion against a generalist resolution to mispricing, if it wishes to improve interconnector efficiency, then there is already a well developed solution that deals with mispricing in the presence of interconnectors: Interconnector Support Services, colloquially known as the "gatekeeper" concept. This concept is described in a document prepared by Charles River Associates for and published by NEMMCO "Dealing with NEM Interconnector Congestion: A conceptual Framework, March 2003".

In a similar manner to the Positive Flow Clamping with fixed "k factor", the intent of this mechanism is to pre-define the relative shares of access to a RRN that a SRA holder has viz generators that share the LHS of a constraint equation. It could be applied to all constraint equations that have both generator and interconnector terms, or a selection of those constraints that have shown the greatest propensity to cause negative residues.

The outcomes of this approach is superior to positive flow clamping in these ways:

- No constraints need to be applied, therefore there is no operational involvement by NEMMCO nor unpredictability;

³ App G Pg 277

- Generators are priced, at the margin, accurately to their coefficient in the constraint equation, therefore optimal dispatch is guaranteed and disorderly bidding is not rewarded;
- Generators and Settlement Residue holders know with certainty, in advance, what proportion their settlement will be in relation to the various Regional prices, therefore it provides the most certain possible environment for hedging;
- Counter-price flows are theoretically possible, but the negative residue is funded by the “gatekeeper” generators.

We urge the commission to consider this concept alongside these other manners of improving risk management across interconnectors.