

National Electricity Market Management Company Limited

ABN 94 072 010 327

Sydney

7 March 2006

Dr John Tamblyn Chairman Australian Energy Market Commission PO Box H166 Australia Square NSW 1215 RECEIVED - 8 MAR 2006

Dear John

#### SUBMISSION ON NATIONAL ELECTRICITY AMENDMENT RULES

This submission responds to the following notices of proposed Rules under Section 95 of the National Electricity Law:

- National Electricity Amendment (Snowy Region Boundary) Rule 2006, proposed by Snowy Hydro Limited; and
- National Electricity Amendment (Alternative Snowy Region Boundary) Rule 2006, proposed by Macquarie Generation.

This submission also refers to the National Electricity Amendment (Region Boundaries) Rule 2006, proposed by the Ministerial Council on Energy (MCE proposal).

NEMMCO is unable to support the region boundary change of either NEM Participant proposals in their current form on the following grounds:

- although NEMMCO does not oppose fast-tracking a region change through the Rule change process, the proposals do not provide sufficient technical and economic information such as is contemplated in the MCE proposal; and
- neither proposal would provide sufficient time for NEMMCO to implement the proposed region structures may not give time for parties to adjust their contract positions.

Further information on the above is in the Addendum to this submission.

If you have any questions regarding the above please do not hesitate to call me on (02) 9239 9103.

Yours sincerely

Brian Spalding

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#### **ADDENDUM**

# 1. Using a Rule request to change a region boundary instead of a region boundary review

Given there has been a moratorium in recent years on region boundary reviews and that the new regime is not yet implemented, NEMMCO is not opposed to the principle of using a Rule change to process a region boundary change. However to justify fast-tracking, instead of waiting for the new region boundary review processes to be applied, the proposals would need to demonstrate the economic benefit characteristics outlined in the MCE proposal and the Charles River and Associates<sup>1</sup> (CRA) report for the MCE on Region Boundary Structure.

# 2. Summary of proponent cases

### Identifying congestion

Macquarie provided a description and diagram of the intra-regional congestion that can occur between Tumut and Murray generating plant in the Snowy region, and hydro generating plant between Eildon and Kiewa in the Victorian region. A schedule of hours that the Murray-Tumut constraint had bound between 2002 and 2006 and ANTS data for binding constraints between Snowy and Victoria and Snowy and NSW was also provided.

### Future investment

Macquarie included schedules from the TransGrid, NSW Annual Planning Report 2005 and the VENCorp, Victorian Electricity Annual Planning report 2005 as evidence that it was unlikely that there would be further transmission or generation investment in the Snowy region.

# Economic benefits

When addressing the NEM objective the Snowy proposal outlined:

- Scenarios which claimed that the existing boundary structure caused inefficiency which results in higher costs to customers;
- That the price signals would improve efficiency of new generation and transmission investment. An example of the possible region change benefit to flow from the Liddell to Marulan 500kV ring upgrade was used; and
- That the impact of loop flows would be removed when the Murray to Tumut constraint binds.

The benefits that Macquarie pointed to were improved dispatch signals, minimised loop flows, reduction in counter-price flows for inter-region trading, and reducing the need for devising artificial solutions to minimise the incidence of negative residues. All generation centres would be included in constraint equations which would allow the system operator to accurately control dispatch.

<sup>&</sup>lt;sup>1</sup> Charles River and Associates, NEM-Transmission Region Boundary Structure, Sept 2004.



Both proposals identified that their region boundary changes would meet the CRA recommendation that no region should have a demand of less than 200MW.

### 3. Conclusion on proponent cases

Although the proposals explain how the Rule would provide incentives for efficient dispatch, neither proponent extended their case beyond a description. Stronger cases would have been made had indicative changes to prices and quantifiable investment<sup>2</sup> been used. Forward looking scenarios using probable developments arising from the region boundary change would have helped define when and who, would realise the benefits from the change.

Clause 3.5.2(c) (2) of the MCE Rule change request requires the AEMC to have regard to:

The extent to which benefits could better be achieved by alternative mechanisms

While the current Constraint Support Contract, Constraint Support Pricing (CSC/CSP) trial in the Snowy Region was referenced in the proposals, convincing arguments on why the benefits that could be delivered from a CSC/CSP arrangement would be less then a region boundary review were not provided.

No acknowledgement was made of unintended consequences that could occur on the power system. While congestion may be improved in the areas identified in the proposals, there could be a risk of transferring "pinch points" to another location, or introduction of loop flows.

In providing explanations, schedules on augmentation and binding constraints, both proposals have gone some way in making their cases. However, further economic and technical analysis is required to justify the one-off costs and increased risk that a region boundary review would bring.

## 4. Lead time

The two proposals would change the Snowy region boundary on either 1 July or 1 August 2007. Taking into account the Rule making process, the earliest date for a final determination would be late September 2006, which allows about 9 months' notice of a change to the region boundary. This contradicts the three years' notice contained in the MCE proposal. The CRA Report on page 50 defines a notice of between 2 and 3 years as:

sufficient for commercial players to adjust the majority of contract positions.

The lead time would not be sufficient for NEMMCO to undertake the work required for a task of this magnitude, particularly as there was not a high level of technical analysis in either proposal. At a minimum a region change may require NEMMCO and TNSP's to re-interpret existing limit equations and NEMMCO to re-formulate constraints and recalculate intra

<sup>&</sup>lt;sup>2</sup> Charles River and Associates, NEM-Transmission Region Boundary Structure, Sept 2004, page 47.

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regional loss factors.<sup>3</sup> If either proposal introduces loop flows, fundamental changes to the dispatch algorithm or more complex constraint equations may be involved.

# 5. Intra-regional loss factors

The Macquarie Generation proposal would change the region boundary on 1 August 2007. Under clause 3.6.2 of the Rules, intra-regional loss factors are to apply for a Financial Year. This in effect suggests that all region boundary changes should occur on 1 July of any year or corresponding Rule change be introduced to alter the loss factor timing.

<sup>&</sup>lt;sup>3</sup> The reason for changing limit equations is to better express the physical capability of the plant rather than a change to the physical network.