



Hydro Tasmania
the renewable energy business

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Australian Energy Market Commission
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Emailed: submissions@aemc.gov.au

Proposed NEM Regional Boundaries

Information Disclosure Statement

Hydro Tasmania would like to thank the AEMC for the opportunity to assist the Commission in its consideration of the inputs in relation to the proposed market modelling, which is being undertaken as part of the AEMC's review of proposed regional boundary changes in the Snowy Region.

Loop Flows in Transmission Network

A critical issue in relation to the Macquarie Generation proposal is how the market dispatch process could deal with a looped structure of market regions, as opposed to the current essentially linear regional model. The discovery of potential counter-price flows across any of the new region boundaries, due to the looped configuration of the transmission network, should form a key component of market modelling in relation to the Macquarie Generation proposal.

If counter-priced flows can occur with the proposed regional structure, then the choice of method for dealing with this could be critical for determining market outcomes relative to the alternative options, ie (a) no change to regional structure or (b) the Snowy Hydro proposal. If intervention by NEMMCO is assumed then the form of and criteria for NEMMCO intervention would constitute significant inputs to the modelling process.

Consistent Use of Option #4 Constraints

We note that in some locations in the NEM, constraint equations have not yet been formulated in the fully optimised (Option #4/5) form. In addition to re-formulating the constraint equations used in the 2005 ANTS to reflect the proposed boundary changes, we hope that the modelling work used as the basis for the Commission's determination will be based on a consistent set of Option #4 constraint equations¹. If this is not done, then the new regional boundaries will be modelled with an outdated set of constraint equations, which would not apply when the proposed new boundaries came into force.

¹ For example in the South Australian region, some equations relating to VIC-SA transfer have local generation on the RHS.

Non-ANTS Load Data

The cut sets in the regional boundary model proposed by Macquarie Generation differ from those in the NEMMCO ANTS model. For example the locations of Ballarat and Murray differ. This means that care will need to be taken in assigning ANTS load data to loads in the Macquarie Generation model. It seems strange that previous NEMMCO ANTS have not foreshadowed the severe transmission network constraints which have driven Macquarie Generation to locate a regional boundary between Bendigo and Ballarat.

Planned Network Outages

No mention is made in the Information Disclosure Statement of any intention to include planned transmission network outages in the market modelling. A review of the past year's market performance will indicate the extent to which significant price volatility is related to planned outages of critical transmission infrastructure. If these outages are omitted from the Commission's modelling of the proposed regional boundary options, then the modelling will give a false result in terms of customer benefits. Perhaps a historical set of network outages could be used as the base data.

General Criteria for Boundary Change

Whilst we appreciate that this review of the two regional boundary proposals is being conducted prior to the determination of general regional boundary criteria, we consider that in the interest of consistency, the lessons from the proposed modelling studies should be captured for later application in the determination of general criteria for regional boundary change.

If you wish to discuss any aspect of this submission, please feel free to contact John Arneaud on 03 6230 5190 or by email on john.arneaud@hydro.com.au.

Yours sincerely



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