



Hydro Tasmania
the renewable energy business

5 October 2006

Dr John Tamblyn
Chairman
AEMC
Level 16, 1 Margaret St.,
Sydney NSW 2000

By email: submissions@aemc.gov.au

Dear John,

Snowy Region Boundary and Alternative Snowy Region Boundary

The recent determination by your Commission in relation to “Management of negative settlement residues in the Snowy Region” has led Hydro Tasmania to reconsider your current Rule change proposals, jointly referred to as “Snowy Region Boundary and Alternative Snowy Region Boundary”.

We seek to make this additional submission, which we believe will assist you in considering this matter.

Hydro Tasmania, as part of the “Southern Generators” group, has raised concerns in relation to each of the Snowy Region boundary change proposals under consideration. These concerns related to the treatment of network constraints.

This letter raises additional issues, particularly with the proposal by Snowy Hydro.

Hydro Tasmania is of the view that consideration of the loss modelling issues described below will lead to the conclusion that the boundary change proposals will worsen the performance of the NEM relative to the market objective.

The AEMC’s recent determination on negative settlement residues in the Snowy Region, taken together with trial of CSP/CSC that was proposed by Snowy Hydro and is now included in Chapter 8 of the Rules, appears to have

resolved all the known dispatch and pricing issues in relation to the constraint within the Snowy region.

We note that the primary focus of the consideration of the two regional boundary change proposals affecting Snowy has been on the effects of network constraints.

However, with means to deal with such network constraints now in place, we believe that the focus should now shift to the other consequences of regional boundary changes.

We are concerned in particular by the consequences for loss modelling in the NEM if Snowy generators were incorporated into a Victorian or a NSW region.

Snowy is connected to Melbourne and to Sydney by long transmission lines with significant losses, and which are subject to tidal flows due to economic dispatch over the whole NEM. Hence the losses on these lines vary significantly and in a way that does not relate solely or directly to Snowy production levels. The modelling of these losses is therefore significant in the efficient dispatch of the market.

If Snowy generators were incorporated in a Victorian or NSW region, they would need to be allocated a single static annual loss factor, relative to the appropriate Regional Reference Node, thus eliminating the detailed dynamic modelling of losses for these transmission paths that now applies.

The proposed change to region boundaries would introduce detailed modelling of losses to apply to the lines between Murray and Tumut, but these lines are much shorter and their losses are of only minor significance. Hence there would be a net loss of accuracy in loss modelling, affecting those transmission paths related to Snowy where accurate loss modelling is most significant.

A review of the loss factors applied by NEMMCO between Victoria and Snowy, and considering the period between January 2005 and the present, shows a range from 0.83172 to 1.1588. Similarly the loss factor between NSW and Snowy has shown a range of 0.88068 to 1.2495. These wide ranges are a reflection of the tidal flow patterns at these locations that arise from efficient dispatch of the NEM.

We contend that there would be a considerable reduction of dispatch efficiency if these wide ranges of loss factors were replaced by any single annual figure.

We ask your Commission to note in particular that –

- Any loss of accuracy in loss modelling applies virtually all the time, in contrast with constraint issues which apply only for that small fraction of time when the relevant constraint is binding, and

- Loss factors affect not only the efficiency of dispatch and pricing, but also market settlement.

We believe that NEMMCO could provide your Commission with technical advice on the issues that we have raised here.

If you have any questions on this submission, please call me on 03 6230 5775.

Yours faithfully

David Bowker
Manager Regulatory Affairs
Hydro Tasmania