Aurora ENERGY

Mr Ian Woodward
Chairman, AEMC Reliability Panel
PO Box A2449
Sydney South NSW 1235

3 October 2008

Dear Mr Woodward

TASMANIAN FREQUENCY OPERATING STANDARD REVIEW – DRAFT REPORT

Aurora Energy welcomes the draft determination of the Tasmanian Frequency Operating Standard Review published on 28 August 2008, by the AEMC Reliability Panel (the Panel). We provide the following comments in reply to the Panel's draft report.

Aurora Energy supports the Panel's position to change the frequency standards to allow the connection under the NEL of higher efficiency thermal generating units. In particular we support the tightening of the frequency ranges to the figures quoted in the draft report of the:

- Generator event band;
- Network event band;
- Separation and multiple contingency event bands; and
- Alignment of the load event band with generation and network event bands.

We believe that these changes are superior to the other options considered as shown in the draft report and will enable modern thermal generating plant to meet the minimum access standard within Tasmania as outlined in the current Rules (in particular Rule S5.2.5.3).

However we have concern that the proposed requirement of a fixed contingency size of 144MW will lead to inefficient economic outcomes. We support the conclusion that allowing a 210MW contingency size has lower net benefits than a 144MW option, however we believe that a dynamically

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determined contingency size would provide the maximum economic benefit.

The Panel discusses on page 22 of the draft report that ideally the size of the contingency should be determined dynamically following an economic trade off between the benefits of the resultant generation and costs of the associated FCAS. The report then continues to say in the absence of this dynamic economic trade off, the Panel is proposing a fixed limit on the contingency size of 144MW.

The Alinta submission of 7 August 2008 indicates that limiting dispatch at all times to a maximum of 144MW is a waste of resources. The Alinta submission also outlined an approach to co-optimise the allowable contingency size with the cost of local supply, imports from Victoria and cost of FCAS R6. This was proposed to be done through an open loop process to mimic the outcome of co-optimising the FCAS and energy markets in Tasmania. NEMMCO could develop constraint on the dispatch of the maximum contingency size that aligns with the Tasmanian system limitations. The submission indicates that preliminary discussions have been had with NEMMCO on such an approach.

NEMMCO in their advice on Tasmanian Frequency Operating Standards of 26 August 2008 indicated on pages 4 and 5 that in their earlier FCAS review they examined the issue of co-optimisation between the size of the largest generation contingency and the FCAS requirement. They concluded in Decision 03 that the energy target of the largest generating unit should theoretically be co-optimised with the cost of meeting the associated contingency FCAS requirement. NEMMCO then stated there was no compelling reason to change at the time. NEMMCO in their final advice to the Panel have indicated that this issue (co-optimisation of contingency size with associated FCAS costs) may represent a situation where a limited introduction of this concept in this special case only (i.e. for Tasmania with higher efficiency thermal generating units) could be justified.

Aurora Energy believes that allowing a dynamically developed contingency size would increase the net economic benefit compared to a fixed limit on the contingency size of 144MW. We note that the Alinta submission indicates in figure 5 that based on a co-optimised dispatch, an output of 190MW (or more) presents an economic optimum for more than 45 per cent of the time. Aurora Energy believes that this increase in net economic benefit would even further enhance the National Electricity Objective compared to a fixed limit of 144MW. We believe that NEMMCO should be

encouraged to pursue a limited introduction of co-optimising the contingency size with the FCAS and energy market outcomes in Tasmania.

Aurora Energy believes that placing a fixed limit of 144MW in part B of the Tasmanian Frequency Operating Standards has the effect of restricting the implementation of any solutions delivering a dynamic trade off between the contingency size and an economic optimum from the co-optimised dispatch of energy and FCAS. It would certainly delay any solution being effective until a further Reliability Panel consultation process was conducted to alter this requirement.

We believe that there are a number of ways that the dynamic trade-off could be implemented, either through,

- A co-optimisation of energy targets and contingency FCAS requirements for each 5 minute dispatch period, or
- A simplification with a variable contingency size limit based on a fixed floor at low load and a percentage of Tasmanian demand, with the greater to apply (the objective being to limit the contingency FCAS requirement to an acceptable level without restricting generator output unnecessarily).

The dynamic trade off solution has clear economic benefit and there is no advantage to be gained by requiring a new Reliability Panel consultation to allow this solution to be introduced.

The draft report did highlight that generating units could operate above the contingency limit by implementing an arrangement that automatically trips contracted load. However, it is not clear that appropriate loads will be commercially available for a special protection scheme to allow the combined cycle thermal generator currently under construction to be dispatched to its full capability with the part B restriction. We ask the Panel to consider the implications of the proposed Tasmanian Frequency Operating Standard if the current drought continues and rationing is required due to insufficient generation availability in Tasmania to meet the load requirements, but a thermal generator is sitting available but not able to be used to its full capacity due to the fixed limit placed in the Tasmanian Frequency Operating Standard. This limitation would exist even though, for a significant number of dispatch periods, sufficient FCAS would be available to allow a greater level of dispatch with no impact on power system security and very little impact on price outcomes.

As a result, the Panel should consider changing the Part B fixed 144MW requirement to a dynamic trade-off mechanism as explained above and empower NEMMCO to implement such a mechanism. The Panel should

also set a timeframe to review Part B (h) in 12 to 18 months after a period of operational experience with the new standard.

Regarding implementation and transitional arrangements for the new standard to take effect, Aurora Energy suggests the Panel sets a date that aligns with the commissioning date of the new Tamar Valley Power Station CCGT. This date (around mid 2009) would appear to be achievable for system modifications to occur.

I wish to thank you for the opportunity to provide comment into the Tasmanian Frequency Operating Standard Draft Report. Please contact Shaun O'Loughlin on (03) 6237 3544 if you have any queries regarding this matter.

Yours faithfully

Peter Davis
Chief Executive Officer