24 April 2008

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

Dear Mr Woodward



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### Review of Frequency Operating Standards for Tasmania

Alinta Energy Pty Ltd welcomes the announcement of a review by the AEMC Reliability Panel of the frequency operating standards which currently apply to Tasmania.

## **Background**

Alinta Energy proposes to build a new power station, Tamar Valley Power Station (TVPS), connected to the TransEnd George Town Substation in northern Tasmania. The TVPS will have a total generated sent out capacity of 383 MW, made up of a combined-cycle gas turbine unit of 203 MW and four open-cycle gas turbine units totalling 180 MW. Alinta Energy plans to commission the TVPS combined cycle plant progressively from 1 March 2009 to September 2009.

The combined cycle generating plant selected for TVPS is capable of meeting the National Electricity Market (NEM) mainland frequency standards, but is not capable of meeting current Tasmanian over and under-frequency operation standards. This is characteristic of all large combined cycle gas turbine generating plants, including a number already operating on the mainland. Modification of design is not a practical option as plant of this type has been developed for the world market.

#### 2 **Existing Tasmanian Frequency Standards**

Current frequency standards in Tasmania have applied since Tasmania was incorporated into the NEM on 30 May 2007. They were adopted by the AEMC unchanged from the previous Tasmanian Electricity Code. The Reliability Panel proposed in its determination in 2006 that further alignment with the mainland standards be considered at a future review.

#### 3 **Proposed Tasmanian Frequency Standards**

In 2007 Alinta Energy commissioned Transend/Hill Michael to conduct a study and recommend frequency standards that TVPS would be capable of meeting without risk to system stability. The attached report titled 'Frequency Standard Development Final Report to Alinta' is the outcome of that study.

Section 4 of the report has been extracted and is separately attached as 'Required Frequency Standard for Connecting Alinta'.

It is the Alinta Energy view that the proposed frequency standards will accommodate most available world-standard combined cycle generating plants. It is also the Alinta Energy view that the Tasmanian frequency standards should be revised to accommodate such plants.

Alinta Energy does not propose that existing power generation in Tasmania should conform to a new frequency standard, and no changes or further limitations on existing generation are proposed. To the contrary, TVPS generation should assist by stabilising frequency transients within limits similar to those elsewhere in the NEM.

# 4 Frequency Reserve Impacts

The proposed TVPS combined cycle unit will be the largest single generator (203 MW) on the Tasmanian power system, rather than the Gordon units (each 144 MW). In simple terms, 64 MW of additional standby generation or other Frequency Control Ancillary Services (FCAS) may be required when TVPS is in service at full output.

Alinta Energy has commissioned an additional study, the 'Frequency Reserve Technical Impact Study', to provide a better assessment of necessary FCAS. The study report is expected within two weeks.

### 5 Economic Benefits

Alinta Energy expects that economic analysis by the AEMC of new generation in Tasmania will lead to significant economic benefits, particularly through lower wholesale electricity prices. It will also provide the opportunity to reduce Tasmania's reliance on hydro-electric generation and the BASSLINK connection with the mainland.

Please contact the undersigned directly on 08 6213 7225 should further information or clarification be necessary.

Yours faithfully

Állan Coleman Project Director

Tamar Valley Power Station Project