

21 July 2009

David Baldwin  
Chief Executive Officer  
Contact Energy Ltd  
PO Box 10742  
Wellington

Dear David

## **Reserve generation and the Hawea consent**

Contact Energy have requested clarification of the Electricity Commission's stance on the Lake Hawea resource consent on several occasions, most recently in May 2009. This letter sets out the Commission's response.

As you know, Contact has a resource consent from the Otago Regional Council to use water from Lake Hawea for electricity generation. The consent specifies that although the minimum permitted level of Lake Hawea is 336 m, the operating level *"shall not decrease below 338 m ... at any time except as required to ensure dam safety or when the Electricity Commission (or any statutory body exercising like powers and functions to the Electricity Commission) determines that reserve generation capacity (such as that currently located at Whirinaki) should generate electricity"*. The intention is presumably that the operating range between 336 and 338 m should only be used during potential or actual electricity supply shortages.

During winter 2008 the question of when this part of the operating range can be used was raised but not resolved. When the Electricity Commission reviewed the events of winter 2008, the reviewers recommended that the Commission should *"consider whether there are any steps it can take to provide more certainty around the terms of resource consent access to 'emergency' generation resources where consents directly or indirectly make reference to the Electricity Commission"*. Accordingly, the Commission now seeks to provide this clarification.

The Commission is neither the consent holder nor the consenting authority, and therefore cannot formally decide when the Hawea "emergency storage" can be used. However, the Commission is happy to state the conditions under which it would consider that "reserve generation capacity should generate electricity".

The Commission's Reserve Energy Scheme can include several different sources of reserve generation and reserve demand. Each can have a different dispatch policy and "should generate" at a different storage or price level (depending on their relative economics).

As you will be aware, the Reserve Energy Scheme currently only includes Whirinaki Power Station. Although Whirinaki can generate electricity at any time, its current dispatch policy specifies that it *should* run whenever total lake storage is below a reference level called the '4% hydro risk curve'. There are two such reference curves, one for the South Island and one for New Zealand as a whole. If either South Island or national hydro storage falls below their respective reference curves and Whirinaki is not generating, the Commission will consider

reducing the Whirinaki offer price so that the station does run (if this helps to conserve storage in affected areas).

When hydro storage falls below the 4% hydro risk curve, the Commission will also declare a Security Alert (or, if a sudden event results in a high risk of shortage, the Commission may bypass Alert and go directly to Security Emergency). A definition of the Commission's security levels (Normal, Warning, Alert and Emergency) and the Hydro Risk Curve framework is contained in the Emergency Response Plan, which is available at:

- <http://www.electricitycommission.govt.nz/pdfs/opdev/secsupply/policy/ERP-May09.pdf>.

The current security level will always be shown at:

- <http://www.electricitycommission.govt.nz/opdev/secsupply/status/riskmeter>.

The Commission notes that, from a national security of supply perspective, the optimal time to use Hawea "emergency storage" is likely to be:

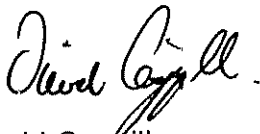
- when the Commission has declared a Security Emergency; and
- energy from the Clutha hydro schemes can be transmitted to the affected area; and
- doing so would reduce the likelihood that more extreme measures (such as involuntary demand curtailment) would be required.

However the Commission accepts that Contact Energy's resource consent allows use of Hawea "emergency storage" when the Commission determines that reserve generation should generate electricity (i.e. when hydro storage falls below the 4% hydro risk curve).

The Commission hopes that this letter provides some clarity on the Commission's reserve generation policy as it pertains to the Hawea consent. In the interest of transparency, the letter will be published on the Commission's website and provided to the Otago Regional Council and the Guardians of Lake Hawea.

As you know, the Reserve Energy Scheme may change over time. New Reserve Generation or Reserve Demand could be included, Whirinaki could be removed, and/or the Whirinaki dispatch policy could change. If at any future point you require a revised version of this letter to reflect such a change, please feel free to contact the Commission.

Yours sincerely



David Caygill  
**Chair**

cc: Graeme Martin, CEO, Otago Regional Council ([graeme.martin@orc.govt.nz](mailto:graeme.martin@orc.govt.nz))  
cc: Alison Brown, Secretary, Guardians of Lake Hawea ([brown.hawea@actrix.co.nz](mailto:brown.hawea@actrix.co.nz))