

# Increasing security of supply

## Ministerial Review Findings

The Ministerial Review found that:

- Sufficient new generation is being built to maintain adequate security of supply margins.
- However there is a widespread perception that New Zealand has a fragile and vulnerable electricity supply system. This arises because New Zealand is vulnerable to dry years (because of its heavy dependence on hydro generation which has limited storage capacity), and the frequency of calls for public conservation campaigns over the last decade.
- There is an undesirable incentive for market participants who are over-exposed to spot prices to push for conservation campaigns, which depend on a sense of crisis to work. The incentive arises because conservation campaigns lower spot prices for market participants. However costs (of conservation) are shifted on to consumers.

## Government Decisions

### **1. *Phase-out the reserve energy scheme and transfer Whirinaki to Meridian***

The reserve energy scheme was introduced following the 2001 and 2003 conservation campaigns. To date, the only contracted reserve energy is the Whirinaki station which was built for the Crown in 2004.

The Ministerial Review concluded that the reserve energy scheme has a number of perverse effects and probably does not improve overall security of supply. Concerns are that the scheme:

- Reduces incentives on market participants to manage their own risks (because the Electricity Commission is expected to manage those risks as a last resort);
- Reduces the incentive for investment in peaker plants and for demand-side responses (because Whirinaki's fixed costs are recovered by a levy on all consumers); and
- Incentivises lobbying to change the rules relating to reserve energy (eg on despatch of Whirinaki and to contract for additional reserve capacity), creating uncertainty.

### **2. *Introduce compensation payments to consumers during conservation campaigns***

The Ministerial Review recommended that retailers should be required to make compensation payments to consumers in the event of a conservation campaign or enforced power cuts, with a graduated scale reflecting the level of nationwide savings

(as determined by the System Operator), and with a minimum payment of, say, \$10 per week.

The objectives of this recommendation are to:

- remove the incentive on market participants exposed to high spot prices (eg over-hedged generators and under-hedged retailers and users) to push unduly for conservation campaigns,
- improve the incentive on generator-retailers to better manage supply risks; and
- make conservation campaigns, when required, more acceptable to the public.

The Electricity Industry Bill provides for:

- The Minister of Energy and Resources to make rules if the Electricity Authority (or the Electricity Commission before it) has not done so within a specified time.

### **3. *Put a floor on spot prices during conservation campaigns and rolling outages***

The Ministerial Review recommended mandatory floor prices for similar reasons as compensation payments: namely to improve incentives on market participants to manage supply risks and to remove incentives on those over-exposed to spot prices to push for conservation campaigns.

The Electricity Industry Bill provides for:

- The Minister of Energy and Resources to make rules if the Electricity Authority (or the Electricity Commission before it) has not done so within a specified time.

### **4. *Investigate improved emergency access to 'reserve water' in hydro lakes***

The Ministerial Review recommended an investigation of whether terms and conditions should be set for accessing 'reserve water' in lakes in dry year emergencies which cap benefits to generators and provide for compensation to affected communities and mitigate or avoid environmental effects.

The Government has decided that:

- The Minister of Energy and Resources and the Minister for the Environment will report back to Cabinet next year on whether, and if so how, terms and conditions should be set for access to water below current consent levels in Lake Pukaki and Lake Hawea in a dry year emergency.

### **5. *Incentivise gas exploration and development***

Gas is a critical fuel for electricity generation. It currently supplies around 25% of total generation and has a major influence on both short-run costs and the cost of

new capacity. It plays a vital role in backing up renewables generation, particularly hydro and wind, and is a premium fuel, providing flexibility for short-notice generation and lower emissions than other thermal fuels

The Minister of Energy and Resources has announced a Petroleum Action Plan to incentivise oil and gas exploration in New Zealand. See:

<http://www.beehive.govt.nz/speech/unlocking+our+petroleum+potential>

## **6. *Improve the quality of information on gas reserves***

It is important that good quality information is available in the marketplace on gas reserves to assist with risk management and investment decision-making. The Ministerial Review recommended an improvement to the quality of published information.

The Minister of Energy and Resources has:

- directed the Ministry of Economic Development to report to him by 31 March 2010 on measures to improve the quality of published information on gas reserves.

## **7. *Identify barriers to the development of geothermal energy***

Geothermal is generally considered to provide the most economic tranches of new generation for much of the coming decade, so it is important to ensure there are no barriers to development.

The Ministry of Economic Development will:

- report to the Minister of Energy and Resources by April 2010 on this issue, including on whether there is a need for an updated stock-take of geothermal resources nation-wide.