

# Climate change and renewable generation



## 40% challenge

We believe the electricity industry can cut its emissions of greenhouse gases by 40 per cent by 2014.

**New Zealand's electricity generation sector is one of the cleanest in the world, with between 60 and 70 per cent of the country's total electricity generated from renewable sources – mainly hydro.**

The electricity generation sector produces around 10 per cent of New Zealand's total greenhouse gases, and Contact believes the electricity industry can cut these emissions by 40 per cent by 2014.

Contact believes this reduction in greenhouse gas emissions could be achieved through the development of new renewable generation – both to meet increasing demand and displacing coal-fired generation – and through the promotion of energy efficiency solutions.

Contact is committed to reducing greenhouse gas emissions both through its own generation investment programme and through continuing to help our customers make energy efficiency improvements in their own homes and workplaces.

In terms of electricity generation, Contact's clear preference is for renewable generation options and, in February this year, we announced plans to build upon the 50 per cent of our electricity generation that already comes from renewable sources. Contact's renewable generation plans involve investing up to \$2 billion over the next five years in geothermal and wind energy developments.

As a part of this commitment, Contact placed on hold a decision on whether to proceed with a large combined-cycle gas-fired power station at our Otahuhu site. Deferring the decision on whether to proceed with this new plant, which already has resource consents, was made in order to give renewable generation projects the opportunity to be rapidly developed.

The projects involved in Contact's \$2 billion renewable investment programme consist of:

- A new 225 MW geothermal power station to be located on the Te Mihi steamfield to the north of Taupo township. This plant will, in time, replace Contact's 50-year-old Wairakei power station with a modern and more efficient power station that will produce enough clean, renewable electricity to power up to 200,000 average homes per year.

With the replacement of the Wairakei power station, the Te Mihi project will contribute a net gain of around 60 MW of renewable electricity.

Contact has filed resource consent applications for this new plant and expects to produce the first electricity from the Te Mihi power station in 2011. For more information on this project, visit [www.contactenergy.co.nz/temihi](http://www.contactenergy.co.nz/temihi).

- A new geothermal power station of a similar size to the proposed Te Mihi power station, to be located on the Tauhara steamfield to the north-east of Taupo township. Contact expects to file resource consent applications for this new plant in 2008 and to have the plant producing electricity in 2012.
- The development of strategically significant wind generation projects.

In June this year, Contact also received resource consents to build a 17 MW hydro generation scheme at our Lake Hawea control gates in Central Otago. Generation from this project will be used locally and will help meet strong electricity demand from the Otago Lakes region. Contact has appealed two conditions in the consents to remove ambiguity in the drafted conditions. Contact will update progress on this project in future reports.

While these projects are all critical to cutting emissions of climate changing greenhouse gases from electricity generation, Contact is committed to consulting carefully and fully with the local communities in which these projects will be located.

### – ① Web links

For more information on the new Te Mihi power station project, visit [www.contactenergy.co.nz/temihi](http://www.contactenergy.co.nz/temihi)

