

The following paragraphs are a repeat of some of the background and policy sections in report 03.11 March 2003, Renewable Energy Initiative.

During the mid 1990s, there was an abundant supply of gas and electricity in New Zealand. Now electricity supply and demand are becoming more in balance, particularly in a dry year, and the effective life of the Maui gas field is about two years shorter than expected. This means the country is going to need new electricity generation and the development of various gas resources. In the order of 150 MW of new electricity generation is needed each year to meet increased demand. Such developments take time. A report by the Ministry of Economic Development (MED) in February 2000 shows a rising wholesale electricity price from 2000 onwards. Updated projections are expected in March or April 2003 and are likely to indicate more aggressive price rises than the report of two years ago. One of the reasons for this is the early depletion of the Maui gas field.

An issue for New Zealand is the future sources of energy. For electricity generation, this is likely to mean coal, gas, oil or renewables. Greater Wellington – The Regional Council can play a role in shaping the outcomes. The choice is stark. At one end of the scale is coal and greenhouse gas emissions, at the other end renewables and virtually zero emissions.

In September 2001, the Government released the National Energy Efficiency and Conservation Strategy. It included two high level targets to be achieved by 2012:

- *An economy wide energy efficiency improvement of at least 20%*
- *25-55 Petajoules (PJ)¹ of additional consumer energy to be obtained from renewable energy sources – with further work required to refine the range.*

Then in October 2002, the Government announced the refined energy target of an additional 30 PJ from renewable sources by 2012. This is equivalent to 8340 GWh a year – an ambitious target to achieve within 10 years.

A number of policies were mentioned in the Government's announcement as to how the renewables target may be achieved. Three of these are of particular relevance to this report, they are:

- *Improved processes under the Resource Management Act (RMA) in order to remove unreasonable barriers to renewables development.*
- *Developing a renewable energy action agenda.*
- *Renewable energy resource studies.*

The Energy Efficiency and Conservation Authority is responsible for implementing some of the policies.

¹ A Petajoule (PJ) is equivalent to 278 GWh. This is slightly less than the quantity of electrical energy the city the size of Porirua would consume in a year. A GWh is one million kilowatt hours (kWh). An average household consumes about 8,600 kWh a year.

New Zealand's ratification of the Kyoto Protocol on 10 December 2002 and the associated enactment of the Climate Change Response Act 2002 also point to a growing need to seriously address sustainable energy production and energy management generally.

Greater Wellington's objective of sustainable energy use is in line with the Government's policies. As part of the annual long-term planning process, one of the work streams under the "Take '10' Quality for Life" is to investigate the potential for greater use of renewable energy in the Region. This report is part of that process. For its part, Greater Wellington Water is currently negotiating an energy supply contract to assist in underpinning the expansion of a wind farm in the Wellington Region. Greater Wellington has already demonstrated its commitment to responding to energy shortages and energy efficiency initiatives. For example, in the power shortage in 2001, the wholesale water supply system was operated in a mode to minimise electricity usage, as opposed to the usual mode of minimising production and distribution costs.

In recognition of its energy efficiency work, Greater Wellington Water received an EECA Innovation Award in 2002. Fostering potential sustainable energy developments builds on the earlier work of the Council.

The Regional Policy Statement for the Wellington Region also supports investigation and use of the Region's renewable energy resources. For example, Objective 2 of the Energy Chapter aims for "an increasing proportion of energy (to be) provided by sources that are renewable", and Policy 6 seeks to "promote efficient energy production from the Region's renewable energy assets, where the effects of the development are environmentally acceptable". Wind power, in particular, is identified as offering potential.

There are a number of positive linkages between greater use of renewable energy sources, reduced greenhouse gas emissions and improved air quality. In addition, there is also the opportunity of strengthening local energy security.

As part of its goal of working towards a sustainable region, the Council has taken a positive position on renewable energy. This is well supported in the submissions to the Council's LTCCP process. In excess of 40 submitters were in favour of wind energy development in the Wellington Region. There were no submissions against wind energy developments. Relative to the other submissions the Council receives on its activities, this represents very strong community support for wind energy developments.