

**NZGA Submission on the
National Energy Efficiency and Conservation Strategy**

**Renewable Energy:
The Proposed Target for New Zealand**

April 2002

Email to: renewablesfeedback@eeca.govt.nz by 14 June 2002

Summary

The New Zealand Geothermal Association (NZGA) supports the preferred 30PJ (consumer energy) target for 2012.

The NZGA supports the mechanisms of programmes and projects as set out in the document, as they apply to geothermal.

The focus on research, information promulgation, training and specific pilots is correct. Public information on the benefits of renewable energy in general, and geothermal energy in particular, and a realistic view of the minor adverse effects is required.

A pilot project developing a geothermal energy distribution system for a cluster of wood processing businesses is a possible beneficial *project*.

A similar project could be providing low temperature heat to a group of domestic users.

1. Do you support the preferred renewable energy target of 30 PJ of consumer energy from renewable sources by 2012?

Yes.

The NZGA agrees with the process followed for setting the target and further understands that it may be lifted if it transpires that a higher target is reasonably achievable.

2. Do you support the proposed mechanisms to achieve this target?

Yes.

However, a National Policy Statement on renewable energy is required, which is something that could be done immediately under the existing legislation. This would be a means of dealing with the inherent contradiction that issues such as the use of renewable energy and reducing greenhouse gas emissions are nation-wide considerations, whereas under the RMA

procedures, decisions are made at the local level and the national interest is not taken into account.

Programme mechanisms

The NZGA agrees with the components of the *Programme* (item 1) being a focus on:

- Research
- Information
- Training
- Demonstrations/pilots

The NZGA also agrees that these will contribute to the business development benefit noted (item 7), in that expertise gained in the renewables area will provide national value and opportunities for exporting the technology. Geothermal energy development has already demonstrated this, with NZ companies having been involved with projects throughout the world, based on our initial experience at home.

The NZGA does not have a position on the proposed government purchase programme for solar water heaters in low-income households, except to note that a similar programme could include geothermal or ground source heat pumps in suitable areas. The advantage that ground source heat pumps have over solar water heaters is that they can be used for both water heating and full space heating duty.

The NZGA also agrees with the cross-sectoral programme (item 22); of specific relevance to geothermal:

- Promoting renewables by providing guidance for development under the RMA – a National Policy Statement is needed for geothermal.
- Assisting with resource assessments for commercial use
- Support for renewable energy associations
- Developing an Action Agenda for realising opportunities

Project mechanisms

The NZGA supports the *Projects* mechanism, to support renewable energy projects on a competitive basis, noting that the intention is to have the projects on a common basis with climate change initiatives. We do favour partitioning of funding between the renewable and climate change programmes though.

3. In the sector(s) you are most familiar with what improvements could be made to the sectoral programmes?

Cross sectoral initiatives

In all sectors where geothermal energy is a potential contributor, one of the significant barriers is lack of knowledge among potential users, a second barrier is a misunderstanding of the risks – they are often perceived as being greater than they actually are. A programme

of education would be useful – preparation and promulgation of an information package, initially through schools but including resources suitable/available to the general public. (Similar information has been prepared by the Geothermal Education Office, The University of Utah, the US Geological Survey and the US Department of Energy – all in the USA. A booklet was also prepared by the NZ Government, through the Ministry of Works and the Ministry of Energy in 1985 – it could be updated and new media used).

Electricity

The NZGA agrees that an increase in price of fossil fuels resulting from a tax on CO₂ emissions will encourage geothermal use in most fields. The emissions of gases from geothermal projects can be adequately and fairly dealt with by this mechanism.

However, a major impediment to a greater level of geothermal development is unnecessarily locking up developable geothermal fields, for example Tokaanu, Ngatamariki and Mangakino/Maraetai. This has occurred through the current Waikato Regional Plan. The NZGA believes that a major change to this document is required.

A part solution is a public awareness campaign of the benefits of geothermal use and of the relatively minor actual effects of its use. (The reason being that locking up of fields to protect geothermal features is partly – if not primarily – a result of public/political pressures).

The programme also needs to address existing transmission constraints, which prevent full use of some existing and potential renewables.

Otherwise the proposed programme (item 23 and box) is appropriate.

Process heat

The NZGA agrees that the proposed programme is appropriate (item 27 and box).

A barrier to use in smaller industrial concerns is a lack of knowledge of geothermal energy, but more particularly the high cost of a one-off heating system. There is great potential for energy to be made available to a cluster of users (for example, timber processors/dryers) as a utility. The energy market is changing. Although there is now a number of organisations that are actively investing in energy utility services, some research into the most practical and efficient process is required, as is some specific market research. Assistance could then be provided to set up the first system.

Low temperature heat

The NZGA agrees that the proposed programme is appropriate (item 35 and box first bullet point).

A related item could be encouraging multi-household use from one source. This requires an analysis of best current practice (specifically in NZ, but also comparing with overseas) and development of a practical system. A demonstration project could be appropriate. Obviously direct use of moderate temperature geothermal energy is restricted to geothermal areas such as Taupo or Kawerau, but ground source heat pumps have much wider application – though the costs may be higher.

4. Do you have any further comment on the proposed renewable energy policy?

No