

**NEW
ZEALAND
GEOTHERMAL
ASSOCIATION
INC**

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NZGA Newsletter August, 2006

The first half of 2006 came and went at a rapid rate. The association had another busy 3 months and the following are some of the recent highlights. The planning for the Geothermal Workshop (15-16th Nov) and NZGA seminar (17th Nov) to be held at the University of Auckland, is now well advanced and we would recommend that you make diary notes to ensure your attendance there.

Deadlines for Abstracts for the Workshop and Seminar – final reminder from Jane Brotheridge

The deadline for abstracts is next Monday 21st August. A short paragraph will suffice as an abstract at this stage and Jane will post a preliminary program on our web page.
www.nzgw06.auckland.ac.nz

Membership and Subscriptions

We are still growing at a steady rate with membership now standing at just over 150 members. This is a further increase of 10% since March of this year. New members come from Contact (6), MRP (3), SKM, GNS, Connell Wagner, Kingett Mitchell, and Warmfloor Heating. Membership subscription invoices were emailed in early April. At the time of writing 60 members have not paid their subscriptions. A drive through organisations represented by the Board would bring in 34 outstanding payments.

Bylaws

Our bylaws have been reviewed and some revisions will be circulated for voting very soon. The proposed changes are not extensive but will enable us to have better retention and rotation of board members. In addition, there have been some general tidy-ups.

Sponsorship

Our total sponsorship from within the Association is currently \$53,000 for the 2005-6 year. This is at a similar level to 2004-5 and is very pleasing. It enables us to adequately fund the Executive Officer and ensures that we keep the profile of the Association at a high level.

On 2 May EECA sponsored two reports prior to the 30th June 2006 end of year and have also guaranteed us a further \$10,000 for the July 1st 2006-June 30th year. For this coming year, EECA has allowed us to fund whatever activities we decide. The two reports funded to 30th June 2006 are :

1. **EECA Project: Assessment of Geothermal Direct Heat Use in New Zealand.** This project has proceeded under Brian White's authorship, and a draft was circulated to the Board prior to finalising it. A copy has been placed on the NZGA website. Total

direct use is about 9,500TJ/year (a figure equal to the total geothermal generation for the last year). Cost of the project was \$10,000 (plus GST).

2. EECA Project: Assessment of Current Costs of Geothermal Power Generation in New Zealand. The second project looked at current costs of geothermal power generation. It was subcontracted jointly to SKM (bulk of the report and inputs) and East Harbour (financial modelling). Valuable feedback was given on the initial assumptions/draft. Cost of the project was \$10,000 (plus GST). This report is currently being finalised.

New Logo

A contract was let with GNS to develop a new NZGA logo. There has been active feedback on this from the Board and the final version is shown below. The board feel this is an excellent effort, combining various aspects of the natural environment, engineering and Maori.



Meetings and Presentations

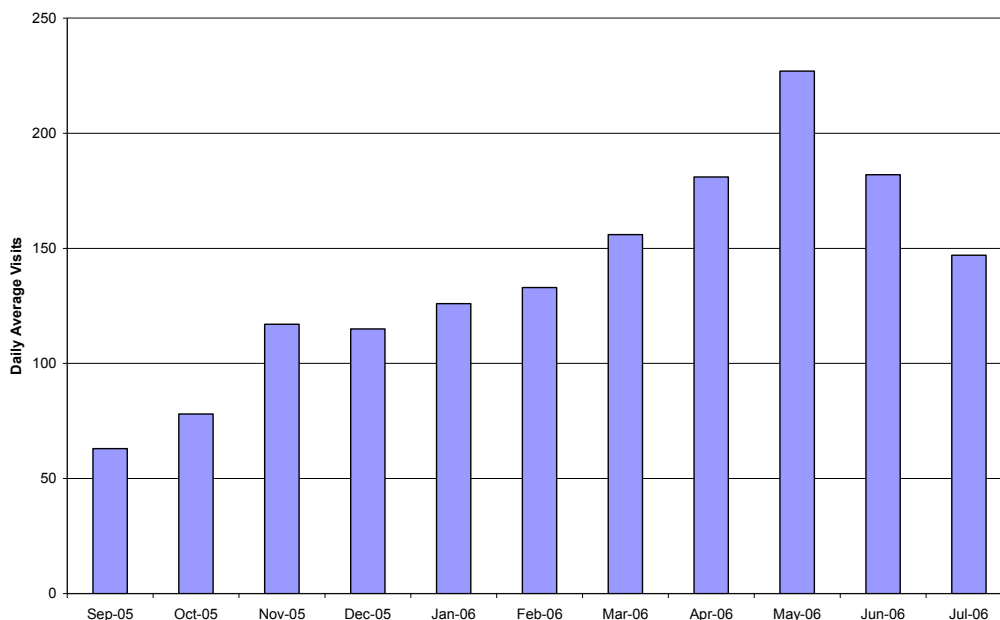
Brian and Colin have worked together on material for a number of conferences and technical meetings to raise geothermal's profile. This has included material for:

- Institute of Advanced Engineering workshop on Distributed Generation on 15 June (Colin) ,
- Conferenz "8th Annual New Zealand Energy Summit" 17-19 July (Brian),
- the cancelled IIR "Securing New Zealand's Energy Future Conference" (Colin),
- 7th Asian Geothermal Symposium 26-29 July (Brian). Kevin Brown forwarded an invitation to attend this Symposium with disbursements being covered by the symposium organisers.
- Conference: Strategies for developing geothermal industry in Chile and Latin America (31 August) with funding through the framework of "Bicentenary Program of Science and Technology " (Colin).

Issues and Projects

Letter to Jeanette Fitzsimons. A letter has been sent to Jeanette seeking a meeting with her, and inviting her to be an opening speaker at the Workshop/Seminar. We have just today had confirmation that Jeanette will open the Seminar.

NZGA Website. The NZGA website (www.nzgeothermal.org.nz) has been regularly updated. Website visits now average around 150 visits per day after a high visit period through April to June. The intervening period was marked by high US commercial interest (around 50% of visits), particularly in New Zealand geothermal fields. The most visited pages are the descriptions of fields and of generation, and the education pages provided by Contact and LEARNZ in early November. Less than half (possibly as low as 15%) of visits are from New Zealand users. The website is generating email queries, including initial media contacts.



Media Releases. There have been no formal media releases over the period. However comments have been provided to interested journalists, including one article for the New Zealand Listener. It is noted that the release in mid-April of Agnes Reyes' data on heat in abandoned oil and gas wells generated a lot of discussion which was followed by an article in Investor Magazine in August.

Geothermal Short Course/Workshop/Seminar. While Stuart Simmons has been overseas, the Board has been working with Jane Brotheridge on aspects of the Workshop and Seminar. NZGA position on funding provision for the combined event has been clarified, and Brian held preliminary funding discussions with EECA, Mitsubishi, NZTE and TPK. SKM have generously agreed to sponsor satchels, while PB Power has also generously agreed to sponsor drinks. We have cooperated on the content of the combined event webpage, and initial fliers were prepared by AUGI. NZGA membership information was provided to Jane to enable mailouts on the event. AUGI will now be developing a short course content prior to the Workshop. Trade display costs have been developed. Initial ideas around the generation Seminar have been developed.

Action Plan. We have developed and finalised a new shortened NZGA Action Plan focussed on activities that NZGA can reasonably do or assist with. The Action Plan was finalised after an initial meeting with EECA on 26 April. The Plan contains 12 identified activities and their status is summarised below:

Action	Comments	Status
Website Update	The website will be continually updated to include latest studies and information. Some of the tasks below reflect current weaknesses in the website and NZGA's knowledge base. This is one of the principal means by which we educate the public and inform our own members.	Continuing action
Update Field Capacity Tables	Draft is currently being reviewed by Board members.	There was a further action following the last Board meeting to provide feedback on recent high temperature field assessments by Jim Lawless (et al) with a view to an agreed NZGA position. Comments were sent through to Jim on 29 March, but this has not been progressed
Annual NZGA Seminar and the New Zealand Geothermal Workshop	The theme this year for the NZGA Seminar will be Generation and linking current developments to resources. The theme for the Workshop will be Pacific Rim Geothermal. The two conferences will be held in conjunction. This will be the premier industry event for information dissemination and networking.	See separate comments. This is being progressed
Assessment of Direct Heat Usage	A more careful probe of usage will both provide a reliable estimate from which baseline movement can be measured, and also give greater attention to current usage from which Case Studies can be derived. This is part of a fundamental inventory.	See separate comments. Complete
Description of Major Geothermal Developments	This report, aimed at the public and those with a general geothermal interest would replace several more intrusive studies suggested previously, including the station efficiency study. It would include short (1 or 2 page) descriptions of the field and of the station including simple schematics and photos, followed by short descriptions of operational history with graphs of past discharges and generation. Some of this material could feed into sustainability discussions, assisting further development. This will effectively be a collection of case studies.	No progress
Manufacturing and Service Capability	This report will look at typical New Zealand components of geothermal developments e.g. drilling rigs, pipe and pressure vessel manufacture, insulation, electrical services, civil contractors. An assessment will be made of their ability to handle an upturn in geothermal work, related issues, and whether there are alternatives to their use.	No progress. This report is intended as a follow-on report from the Personnel Capability Report
Cost of Geothermal Power Development	There are indications that previous estimates of geothermal development costs in New Zealand may be light. Changed factors in recent years include major exchange rate movement, escalating raw material prices and a changed drilling scene. Costs should be revisited so geothermal generation can be more accurately compared with alternative generation forms.	See separate comments. Substantially complete
Geothermal Heat Pump Study	An installer of heat pumps has been found along with real New Zealand cases. Initial indications are that, in niche situations, this could compete with solar hot water so could be a significant contributor to our national energy future. A New Zealand report is needed on costs, practice and case studies.	No progress (some information in a recent GNS report)
Desperate Generation (Future Must Run Auctions)	Must Run auctions are a feature of the NZ electricity market. Currently on rare occasions generators compete to offer generation that must run into the market at periods of low demand. With forecast increases in wind and geothermal energy, some hydro generation that must run because of consent requirements, inflexible gas contracts and increased call on coal and oil-fired stations whose units should not shut down overnight then daily auctions will be required. Plant that must run will not be able to run and there will be efficiency losses. This study will look at which plants are likely to stay running, whether geothermal plants can respond through load-following or venting, possible changes to consenting regimes to enable more flexible operation and likely impact on load factor. This study may be run in co-operation with NZWEA.	No progress
Geothermal Short Courses	Short courses (normally crammed into a day), can give a broad overview of geothermal energy for consenting agencies, developers and other interested parties. This assists development directly.	This is now being progressed by AUGI and NZGA linked to the Workshop/Seminar
Regional Branch of the IGA	A regional branch of IGA will improve international linkages and understanding of wider development issues.	Substantially complete. Inaugural AGM will coincide with the Workshop/Seminar
Position Paper on Overseas Treatment of Renewables	This would collate policy papers on renewable energy sources with a view to identifying further positive action that could be undertaken in New Zealand	No progress, but excellent summaries are available from Eric Martinot.

IGA Western Pacific Regional Branch. In early-May Jim Lawless advised that the IGA Western Pacific Regional Branch had been established. The attached map shows its boundaries. The inaugural AGM will be held during the Workshop/Seminar with membership being voluntary.



IGA Western Pacific Regional Branch Map

IGA World Geothermal Congress Findings and Recommendations. In mid-May the IGA approached Brian with a view to distribution of the “Findings and Recommendations” from the WGC to key Ministers. Information was provided. The report has been added to the NZGA website and has been well-visited.

IEA Direct Use Survey. Input was provided through Chris Bromley on a geothermal direct use survey being undertaken by the International Energy Agency on 31 March.

Comment on Energy Federation Energy Research Investment Strategy Paper. Comments were provided on this paper on 5 April.

Review of Royal Society Paper on Energy. Brian and Colin have provided brief comments on a Royal Society paper on energy. We were both concerned that this paper reflected an unnecessary bias in favour of biofuels at the expense of general balance.

Approach from Embassy of Eritrea, Canberra. In May the Embassy of Eritrea in Canberra approached the NZGA to seek assistance in developing their geothermal resources. This enquiry was forwarded to several candidate companies and one company chose to follow this up.

National Policy Statement on Generation. Consultation documents were expected in April, but delays continue as the government has had a strong focus on transmission in recent months. The Generation NPS was always intended to lag behind the Transmission NPS process.

NZCEC Funding. In June the Taupo-based New Zealand Clean Energy Centre received government funding (conditional upon matching funding from local interests). While it had been hoped by NZCEC that funding in kind or property could all count towards the local contribution, Steve Tritt has advised that the rules were changed preventing this. This still leaves NZCEC with a long way to go in terms of securing any firm funding and they remain interested in industry support.

Environment Waikato Plan and Policy Statement, Geotherm and Contact Appeals. While NZGA is no longer directly involved in the process, considerable progress was made on the Plan and Policy Statement, with only two major items progressing to appeal. By the time of this newsletter the hearing on Plan and PS matters will have been held. Similarly Contact and Geotherm will have presented their evidence in chief on their respective appeals. The final decisions will be of great interest to all NZGA members.

Minister of Energy. David Parker has returned to the role of Minister of Energy and Minister Responsible for Climate Change Issues. It should be noted that the energy portfolio is coming under the close scrutiny of both the Prime Minister and Deputy Prime Minister. Dr Cullen, in particular has made several comments on energy matters.

New Zealand Energy Strategy, Replacement of National Energy Efficiency and Conservation Strategy, and Government direction on Climate Change. On 4 July, David Parker issued a media release on these three aspects, including cabinet papers on each. These could all have a significant impact on geothermal development. For relevant material see <http://www.beehive.govt.nz/ViewDocument.aspx?DocumentID=26353>

Next Steps

- We will continue to follow up outstanding subscriptions.
- The EECA-sponsored Cost of Geothermal report will be finalised and added to the NZGA website.
- Mitsubishi, EECA, NZTE and TPK will all be followed up in terms of targeted funding of upcoming events.
- The NZGA will continue to provide support for the Workshop and Seminar.
- Papers will be written for the Workshop summarising the findings of the EECA sponsored papers: Direct Heat Assessment and the Costs of Geothermal projects.
- Where appropriate, NZGA will make comment on consultation documents related to NZ Energy Strategy, replacement NEECS and climate change policy.
- The proposed bylaw changes will be circulated over the coming weeks.

Brian White and Colin Harvey

New Zealand Geothermal Association
14th August 2006