



*East Harbour Management Services Ltd
PO Box 11-595, Wellington
New Zealand
Tel: 64-4-385-3384
Fax: 64-4-385-3397
E-mail: brian.white@eastharb.co.nz
www.nzgeothermal.org.nz*

Newsletter July 2008

Another four months down the gurgler since our last newsletter. The busier life gets, the quicker it passes

Board Activities

The NZGA Board continues to be busy in many areas. Our most recent meeting was late in June at the SKM offices in Auckland.

At the Board meeting, Dougall Gordon was made the new Board observer for Environment Bay of Plenty. As an observer, he provides a communications channel between the NZGA and EBOP, but does not have voting rights.

Vote for New Board Members

As part of our 3 yearly rotation policy, 5 of our current Board members (Alastair Maxwell, John Bottomley, Mike Glucina, Mike Mongillo, and Kevin Brown) will retire at the end of this year. We have had an excellent response to the call for new board members. We now have 6 nominees for the new board to fill the current five vacancies. Mike Glucina has circulated information on the candidates for a postal ballot. (If you have not received this information, please let Brian White know and he will forward the documentation). All nominees are well qualified and we urge you to participate in this - voting closes 12 September 2008.

The April IGA, WPRB and INAGA Events in Bali

Jim Lawless and Colin Harvey represented the NZGA at the IGA board meeting and the very successful Bali meeting and AGM of the Western Pacific Regional Branch at which there were over 70 attendees at the Seminar. Colin also gave a presentation on the NZ Geothermal Scene to an Asian Geothermal Seminar in Bali which addressed the role of geothermal in the current Asian energy crisis.

Meeting with Minister of Energy

Brian and Colin met the Minister of Energy on June 30th and had a very good reception. The Minister volunteered that he saw geothermal as New Zealand's best option for increasing our percentage of renewable energy in the next five years, as part of a mix of energy solutions.

Geothermal in the Media

Geothermal energy is in the media. Brian White has been invited to make general comments on geothermal development on radio and television (with Corin Dann on a breakfast show). A new on-line energy magazine has been started (Energy News) which has been giving geothermal energy some good coverage. The magazine intends to send a reporter to the Reservoir Management Seminar in August as part of a commitment to geothermal coverage and networking.

Developers have continued to receive coverage for their respective developments.

The NZGA Reservoir Management Seminar August 25th

A Reservoir Management Seminar will be given by Dr. Cedric Malate of PNOG-EDC who will expand on some of the advanced practices being used in the Philippines. The Philippines has a number of challenging reservoirs, now with significant operating histories. This seminar has been arranged through the Western Pacific Regional Branch of IGA, and is being partially financially supported by the NZGA.

This will be a one day Seminar, led by Cedric, but including input from some New Zealand reservoir engineers. The venue is currently set as the GNS Science office at Wairakei, but it currently looks like interest in the seminar exceeds the capacity of available rooms at GNS. We will investigate alternative venues at Wairakei or Taupo and will let registrants know the alternative location.

Please register with Kay Elliston on 07-374-8211 if you are able to attend the event. Also let Kay know if you are interested in a casual evening meal after the event.

Cedric's time is being maximised while he is here in New Zealand. He will be making a lunchtime presentation for the Energy Federation in Wellington on the 26th and giving a further short presentation to geothermal students at Auckland University before he returns to the Philippines.

The Wairakei 50th Celebration, Geothermal Workshop and NZGA Seminar (10th – 16th November)

Please make a diary note to attend this November combined event which should be very successful and worthwhile. Combined Wairakei 50th Anniversary celebrations hosted by Contact Energy in the Taupo Great Lake Centre, include an IEA geothermal sustainability modelling workshop, the Geothermal Workshop (with a research focus, and with some Wairakei papers), the NZGA AGM, the NZGA Seminar (with a sustainability focus) and site visits. A conference subcommittee was nominated to finalise themes for the Workshop and Seminar, invite speakers, etc. This comprises Juliet Newson, Colin Harvey, Jim Lawless, Robyn Orchard, and Peter Barnett.

Auckland University will be considering holding short courses again in conjunction with the Workshop.

Membership

Our numbers continue to climb but we are aware that although several companies are growing in staff numbers this may not be translating into NZGA membership. Are you making all your staff and associates aware of the benefits of joining the NZGA? For \$50 per year the discounts available for the seminars and workshop allow quick recovery of this sum, plus the IGA newsletters keep you up to date with international activities. Can you please circulate this newsletter to any non-members you feel would benefit by joining us. Adding a further \$7.50 for the Western Pacific Branch membership is also to be strongly encouraged, given the quality of the proposed August Seminar.

Currently the NZGA has 194 members compared with 162 at the time of our last AGM. We have recently followed up members for subs payment. Note that the bylaws call for disqualification if subs are not paid by 30th July.

Funding for Geothermal Research

In case you were not aware, GNS Science was awarded \$800k annually for four years for low temperature geothermal research and will also bid for a further \$1 million research for Deep Geothermal Research later in 2008.

Colin will attend the International Geological Congress in Oslo in August to present a paper at the geothermal session (John Lund) and co-author a paper at the Oceania session.

Geothermal Courses

Although this was in our previous Newsletter, the Auckland geothermal course outline is attached in case you or your staff are interested in specific modules.

You may be interested to note that the number of geothermal students at Auckland University Post Graduate Certificate Course number 11 (similar to last year). This includes 2 from the Philippines, 2 from Indonesia, 2 from the USA, 2 Europeans, 1 New Zealandder (and another doing a short course) 1 from Monserrat and 1 from Iceland. Higher numbers had been expected.

For more information on the following short courses or to register interest, please contact Olwen Morgan (o.morgan@esc.auckland.ac.nz):

Dates	Short Course	Fees
14 July-15 August 2008 (5 weeks)	1. Introduction to Geothermal Science (with 1 week field trip)	NZ\$5,800
14 July-15 August 2008 (5 weeks)	2. Introduction to Geothermal Engineering (with 1 week field trip)	NZ\$5,800
25 August-26 September (5 weeks)	3. Advanced Geothermal Engineering (with 1 week field trip)	NZ\$5,800
25 August-26 September (5 weeks)	4. Advanced Geothermal Geology and Geophysics (with 1 week field trip)	NZ\$5,800
22 September-17 October (4 weeks)	5. Geothermal Reservoir Modelling	NZ\$5,000
22 September-17 October (4 weeks)	6. Geothermal Geochemistry	NZ\$5,000

Action Plan

Following input at the NZGA Seminar, the Action Plan has been revised for the current year. Progress against the current key actions follows.

Action	Comments	Status
Annual NZGA Seminar and the New Zealand Geothermal Workshop	The common theme last year for the NZGA Seminar and Workshop was Growth. The coming conference will be hosted by Contact and held in conjunction with Wairakei 50 year celebrations This will be the premier industry event for information dissemination and networking.	Event has been announced and venue has been booked. Themes of Sustainability and Celebration have been decided. Speaker invitations are required for the Seminar.
Geothermal Drilling Review	NZ geothermal drilling should be reviewed. The review should include: the Code of Drilling Practice, certification of drillers, industry resources, drilling training programmes (possibly including NZ and Aus crews)	Hagen Hole has been invited to undertake a scoping study on drilling regulation and legislation as an initial step
Description of Major Geothermal Developments	This information, aimed at the public and those with a general geothermal interest, would replace several more intrusive studies suggested previously, including the station efficiency study. This will effectively be a collection of case studies.	All major developers have now been approached with information requirements. Contact has committed to complete this.
Geothermal Heat Pump Studies	Heat pumps are now entering the New Zealand market. Initial indications are that, for large domestic loads (including water heating) and above, this option is competitive with other common heating options so could be a significant contributor to our national energy future.	Now trying to develop a project involving Landcare and GNS Science to define soil properties. Draft report by Beca is being finalised, with additional input from MWH.
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. There is a risk that generation can become demand-limited affecting project economics, and effects should be understood.	Incidental discussions with the Electricity Commission indicate that they are considering a study of this nature.
Cost of Geothermal Power Development	This study revisits the costs of geothermal generation accounting for major exchange rate movement, escalating raw material prices and a changed drilling scene. This allows more accurate comparison with alternative generation forms.	Currently being finalised by Peter Barnett and SKM.
Government Lobbying	There is opportunity to shape these key policy documents at the earliest possible stage	Various meetings have been held including with the Minister of Energy
Assessment of Direct Heat	Baseline data is now available. Future requirements are for ongoing monitoring of changes	A baseline report was developed in 2006. Historical use over time was approximated in a

Usage		2007 NZGA Seminar paper.
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 will normally be lead by the Geothermal Institute and held in conjunction with the Workshop
Maori-Focused Energy Seminars	Future geothermal projects will involve Maori Trusts in lead roles, partnering roles and/or in their kaitiakitanga roles.	Complete for 2008 – A seminar hosted by GNS Science and TPK was held on 24 June 2008 in Rotorua.
Industry Archive	Key people are leaving the industry through retirement, transfer or death. With this loss, comes potential loss of valuable experience and loss of knowledge.	Contact Energy is independently capturing memories of Wairakei pioneers, but the Wairakei celebrations provide a unique opportunity to capture information.
Distributed Energy Opportunities	A review is needed of the contribution that geothermal energy can make to distributed energy supply and how to facilitate this.	Complete. A report by East Harbour has been finalised and will be published on the NZGA website
Training and Education	Training and currency of information is critical in an expanding industry with ongoing development. This applies to electricity generation, heat supply and heat pump applications	A survey form was delivered to all members. A committee is to meet to address issues at all levels.
Skills and Services Register	A skills and services register could be developed to emphasise NZ capabilities. This should be updated on a regular basis.	The HERA register has been added to the website

EECA Projects

The Energy Efficiency and Conservation Authority has previously sponsored a number of NZGA projects from our Action Plan and continues to do so.

- Peter Barnett will finalise the project related to major generation costs.
- Brian White has just completed a study on distributed energy options for geothermal energy covering both heat and electricity generation. This is about to be added to the NZGA website.
- Beca's has drafted a report on geothermal heat pumps (including comparative costs with other heating options). This will be finalised shortly with additional input from MWH.

Sponsorship

At this time we would like to thank the sponsors for the 2007/8 financial year again. These include: Contact Energy, Tuaropaki Power Company, Sinclair Knight Merz, Parsons Brinckerhoff, MB Century, GNS Science, Mighty River Power, Meridian Energy, Parker Drilling Company, Bay of Plenty Electricity, Geotherm Group, Hot Rock Ltd, Geothermal Development Associates and Genesis Energy. Other parties are still considering sponsorship and Brian White is still actively approaching companies.

Final Words

The NZ Geothermal Association with the Western Pacific Regional Branch of the International Geothermal Association has been pleased to support the industry through the provision of the Reservoir Management Seminar. The interest in this event has exceeded our original expectations, but does reflect interest in the long term operational experience of others and possible entry into new and challenging reservoirs.

We continue to be busy, and there is no reason to expect this to back off for many years. With this in mind we all have to keep in mind ongoing personal development, and wider development of staff within the industry.

Brian White and Colin Harvey
New Zealand Geothermal Association
July 2008