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## **Newsletter March 2008**

It is almost six months since our last newsletter. I was surprised when I realised this but – life is pretty hectic and so time passes.....

Brian and I have compiled this and some parts may be more interesting for you than others. So please be as selective as you wish in reading it through.

### **1. Board Activities**

The NZGA Board had its first formal meeting on 28<sup>th</sup> February at MRP's office in Hamilton, though members are included in a range of discussions on various issues affecting the Association throughout the year. Some of the issues we are involved in are reflected in this newsletter.

We are grateful that Kevin Brown has agreed to step into the previously vacant position of Vice President.

There have been several recent movements of our NZGA Board members:

- Greg Raasch has resigned from MRP to return to a new position in the USA.
- Peter Barnett has left SKM and is now with Hot Rock in Australia.
- Murray Stanley has relocated from Wairakei to Wellington where he is now the Generation Operations Manager for Contact Energy.

It is noteworthy that we now have a strong international flavour on the Board:

- Phil Hutchings has commenced his Board term while based in Austria. He joined the recent NZGA Board meeting in what will be regular mid-night conference calls.
- Greg Raasch will be in the US but still intends to participate on the Board in the interim.
- Peter Barnett will continue as a board member from Australia.

### **Call for New Board Members**

As part of our 3 yearly rotation policy, 5 of our current Board members (Alistair Maxwell, John Bottomley, Mike Glucina, Mike Mongillo, and Kevin Brown) will retire at the end of this year. These retiring board members will not restand. We are seeking new blood on the board for the next term. Colin Harvey will step down after 4 years in the President's role. So the vacancies include the positions of: **President, Vice President, and Secretary**. If you have a view that you think is not represented on the Board, then please consider offering yourself for nomination. We very strongly need input from those of you who haven't participated at the Board level. The health of any society requires turnover of such positions so please give it your consideration.

### **2. Forthcoming events: For your calendars:**

**16<sup>th</sup> March: Kawerau:** Open day at the new MRP Kawerau Geothermal Power Plant currently under construction. Just turn up any time through the day. This corresponds with the first steam blow.

**26<sup>th</sup>-28<sup>th</sup> April: Bali:** Annual conference of the Western Pacific Regional Branch (Chairman, Jim Lawless) in combination with the Indonesian Geothermal Association Meeting and the IGA Board Meeting.

**International Geothermal Association/INAGA**

**Joint Technical Seminar**

**Melia Bali Hotel, Nusa Dua, Bali**

**26-28 April 2008**

**“Cost reduction through improved geothermal well targeting”**

**14<sup>th</sup> July: Start for the Geothermal Institute Classes:**

**Postgraduate Certificate in Geothermal Energy Technology**

**(PGCertGeothermTech)**

**Programme for 2008: 17 weeks from 14 July - 7 November.**

This is a one semester course consisting of three papers and a project. All students take introductory courses in geoscience (601) and geothermal engineering (602) and then choose an advanced paper in their specialty (603 or 620), and all take the project paper (689). Some scholarship funding may be available. For more information or to register interest, please contact Olwen Morgan ([o.morgan@esc.auckland.ac.nz](mailto:o.morgan@esc.auckland.ac.nz))

Paper Name	Paper Description	Points
GEOTHERM601	Geothermal Resources	15
GEOTHERM602	Geothermal Energy Technology	15
GEOTHERM603	Geothermal Exploration	15
GEOTHERM620	Geothermal Engineering	15
GEOTHERM689	Geothermal Project	15

In addition, the following short courses will be available (information from Olwen):

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

**Early August: Oslo:** World International Geological Congress at which geothermal will feature in several sessions.

**25<sup>th</sup> August: At GNS Science Wairakei:** A Reservoir Management Seminar will be given by Dr. Cedric Malate of PNOC-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 financially supported by the NZGA. We will advise of additional speakers and Seminar costs at a later date.

**10<sup>th</sup>-16<sup>th</sup> November Wairakei 50<sup>th</sup> Celebrations:** Combined Wairakei 50<sup>th</sup> Anniversary celebrations hosted by Contact Energy in the Taupo Great Lake Centre, including an IEA geothermal sustainability modelling workshop, the Geothermal Workshop, our Annual

Seminar and our AGM. A conference subcommittee was nominated to finalise themes for the Workshop and Seminar, invite speakers, etc. This comprises Juliet Newson, Colin Harvey, John Burnell, Robyn Orchard, and Mike Mongillo. The Auckland University will be considering holding short courses again in conjunction with the Workshop.

### 3. Action Plan

Following input at the NZGA Seminar, and the recent Board meeting, we have a long and detailed Action Plan that has been revised for the current year. We are aware that the number of tasks in the Plan risks diluting our efforts. However, the current key actions follow.

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. Committee to meet to decide themes and invite speakers while working in closely with Contact
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
Geothermal Heat Pump Studies	Heat pumps are now entering the New Zealand market. Initial indications are that, for large domestic loads 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. EECA has approved a short GHP review study
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.
Government Lobbying	There is opportunity to shape these key policy documents at the earliest possible stage	Preliminary advice has been given on the NPS on Renewable Generation
Assessment of Direct Heat Usage	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 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
Maori-Focused Energy Seminars	Future geothermal projects will involve Maori Trusts in lead roles, partnering roles and/or in their kaitiakitanga roles.	Seminar planned by GNS Science.
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.	
Distributed Energy Opportunities	A review is needed of the contribution that geothermal energy can make to distributed energy supply and how to facilitate this.	A proposal has been presented to EECA and approved
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 has been 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

### 4. 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.
- EECA has just approved two projects – one based on distributed energy and the other based on generic heat pump studies. The DE study will largely be undertaken by East Harbour, while the heat pump study will largely be undertaken by Beca.

## **5. Ground Source Heat Pumps**

At the recent NZGA Board meeting, Row Robinson of MRP gave a presentation on a demonstration ground-source heat pump system and other environmental initiatives. The system will be used for conditioning the air in part of the MRP Hamilton office. It will be capable of 24kW of cooling for 3.6kW of electrical input and 26kW of heating for 4.5kW of electrical input.

## **6. Research Funding**

For those of you who are not aware, the Government (FRST) research funding for geothermal was raised in late 2007 from about \$1.6 M to close to \$2 M. The major agencies receiving the support are GNS Science and the University of Auckland. In addition, the major geothermal power generators also provided significant financial and in-kind support for both organisations. This funding is for six years (2007-2013). In addition, submissions have recently been made for a further parcel of \$800,000 which has been allocated for low temperature geothermal and utilisation of waste heat.

## **7. Sponsorship**

The Board has just approved a plan to seek sponsorship for the 2007/8 financial year for NZGA. Letters will be sent out shortly.

At this time we would like to thank the sponsors for the 2006/7 financial year again. These included: Contact Energy, Tuaropaki Power Company, Century Resources, Sinclair Knight Merz, Parsons Brinckerhoff, Exorka International, Mighty River Power, GNS Science, Meridian Energy, Air Drilling Associates, Parker Drilling Company, Bay of Plenty Electricity, Weatherford NZ, Halliburton NZ, and Geothermal Development Associates.

## **8. Nominations for Royal Society Fellowships and for Medals**

As you may recall, the NZGA became affiliated to the Royal Society in 2007. We are now entitled to nominate members for election as Fellows of the Society. We have also been advised of a range of medals to be awarded. Further information is provided as an attachment. If you have nominees you consider worthy, can you please discuss them with Brian White or Colin Harvey.

## **9. Final Words**

This will be a busy year for everyone, with so many projects on the go. We note the progress now being made by MRP on the Kawerau power station that many of you will see next week. Contact has successfully had its Te Mihi power station called-in to a Board of Inquiry which will be receiving evidence this week. Top Energy's Ngawha extensions are progressing. Contact is progressing their Centennial Drive project announced at the Geothermal Workshop last year. Rotokawa consents are in place and planning is proceeding. Further expansion may be coming at Mokai. We hear other projects by other parties are progressing below the radar screen, while Genesis develops its relationships to progress its new geothermal interests. On top of this some major heat projects are being progressed. It will be interesting to see whether direct heat use continues to closely match generation.

This is not a case of talking things up. So much is happening locally and overseas and this position is long term. We hope you can make time to consider the wider geothermal industry and your possible role in taking it forward.

Brian White and Colin Harvey  
New Zealand Geothermal Association  
March 2008

## **Attachment Extracted from Royal Society of New Zealand Correspondence**

### **Call for Fellowship and Honorary Fellowship Nominations 2008**

The Royal Society of New Zealand is now calling for Fellowship and Honorary Fellowship nominations for 2008 in all areas of science and technology and will consider candidates in universities, Crown Research Institutes, other government or industry-based research institutions and the private sector.

Fellowship of the Royal Society of New Zealand (FRSNZ) is an honour conferred for distinction in research or the advancement of science or technology. The criteria for Honorary Fellowship are similar to those for Fellowship.

Since its earliest days the Society has made provision for the election of Honorary Fellows (called Honorary Members until the Society's new Act in 1997) to encourage liaison between scientists of different nations and to encourage and promote communication and links. Consideration shall be given to each nominee's sustained research excellence in the scientific field and to his or her association with New Zealand.

In 2007 there were 77 nominations with 10 Fellows elected.

The Fellowship nomination forms, Bylaws, administrative requirements, and Fellowship Selection Panels for 2008 are available from the website at <http://www.rsnz.org/members/fellowship.php>

Please note the closing date for receipt of Fellowship and Honorary Fellowship nominations is FRIDAY, 11 APRIL 2008.

All nominations will be acknowledged.

### **2008 Medals and Awards Administered by the Royal Society of New Zealand**

The following suite of medals and awards is being offered in 2008 by the Royal Society of New Zealand.

- Rutherford Medal - for exceptional contributions to New Zealand society and culture through activities in the broad fields of science, mathematics, social science, and technology
- Pickering Medal - to recognise excellence and innovation in the practical applications of technology
- Thomson Medal - for outstanding and inspirational leadership in the management of science and outstanding contribution in the development and application of science and/or technology to wealth generation
- Cooper Medal - for the best single account of original research in physics or engineering
- Dame Joan Metge Medal - recognising excellent contribution to capacity building, beneficial relationships with research participants, mentoring of new researchers as well as contributions to new knowledge
- Hector Medal - Mathematical and information sciences
- Sir Charles Hercus Medal - Biomedical sciences and technologies
- Hutton Medal - Animal sciences
- Hamilton Memorial Prize for beginners in scientific or technological research in New Zealand
- Hatherton Award for the best scientific paper by a PhD student at any New Zealand University in physical sciences, earth sciences and mathematical and information sciences
- New Zealand Science and Technology Medals - to recognise and honour those who have made exceptional contributions to New Zealand society and culture through activities in the broad fields of science, mathematics, social science, and technology

The closing date for nominations for all the Medals and Awards listed above is 30 June 2008.

Electronic copies of the information and application forms are available from [awards@rsnz.org](mailto:awards@rsnz.org); copies are also available on the Society's website [http://www.rsnz.org/awards/academy\\_awards/](http://www.rsnz.org/awards/academy_awards/)