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## New Zealand Geothermal Association (NZGA) News: 30 June 2016

Dear Members and friends, welcome to this issue of the NZGA Newsletter!

### President's Report

### WHAT'S IN THIS ISSUE?

A warm (of course!) welcome to the NZGA Newsletter.

In this June 2016 issue we report on efforts by the geothermal community to understand what making the transition to a low carbon economy might look like. There is no doubt that the challenge to do so is urgent, and a couple of articles in the newsletter go into detail on how.

- *Welcome*
- *National news*
- *Information*
- *Membership*
- *Events*

We also introduce what various members of NZGA have been doing in NZ and around the world, and some ideas for courses coming up.

Inside the NZGA Board we have been doing a bit of navel gazing on how we can serve our membership better. In 2011 we tried using specific subject matter groups to entice our wider membership into more engagement than is the case with the annual workshop, occasional course, looking at the website and reading the newsletter. Some of these groups took off with a hiss and a roar – the heat pump group is now better known as the (very well-supported) Geothermal Heat-pump Association of New Zealand (GHANZ) and is doing some great work with heating options, particularly as Christchurch is rebuilt. Others, it would be fair to say, never gained a lot of traction. So, learning from this attempt, in March we revised our focus to be a smaller number of core themes. GHANZ obviously continues, but other key areas now are Brand, Value for Members, International, and Source of Knowledge. We also need funds, so Juliet Newson is heading a group to figure out other sources than just tapping the membership. With these groups we want to make sure the association is the place people automatically come to for any information or advice on geothermal matters. We want our networks to be strong, so that we support each other in advising people of who has suitable expertise, for the great range of geothermal specialisations that we represent. We want to continue to support professional development in a range of geothermal spheres. So expect to see and hear action on these fronts in the coming months.

NZGA is run by its members for its members. The more of us actively engaged in making it a great forum, the more useful it is for all of us. If making the **Geothermal Brand** bigger and better is something that you'd like to be involved in, Abbie Dean is who you need (Contact). If you have suggestions or want to help with **Value for Members**, get in touch with Mark Green (Contact). Ideas of **funding**, go to Juliet Newson (Contact). For **International** or **Source of Knowledge**, please let me or Brian White know.

**Bridget Robson**  
President New Zealand Geothermal Association  
June 2016

## National News

### New Targets for Heat?

Hon Simon Bridges announced in early March that Government is exploring the establishment of targets for heat and low carbon transport is great news and an opportunity to contribute to the development of realistic targets. More at - [Targets to provide direction for our energy future](#)

### 'Yes We Can' Symposium

The NZ Government agreed to the Paris targets (COP 21) but has not developed a plan on how to achieve them yet. In late May, twenty NZ renewable energy associations and their associates came together to

present examples of the opportunities that are technically and economically achievable within the Paris timetable.

Post this event a collaborative **Plan of Action** is being prepared, to present to Government and to give guidance on possible productivity and investment opportunities for business decision makers. The ["Yes We Can" web-site](#) provides all current details on progress.

The symposium covered the opportunities for the supply of energy from geothermal, solar, wind and bioenergy resources; the increased productivity from wise energy management; the availability of technology options such as electric vehicles and biofuels; and the demand for sustainable energy for business, transport and domestic use.

The opportunities discussed at the event were not "maybes", or wishful thinking, but realistic and achievable. Attendees were invited to test how realistic the opportunities are and contributed their views on what would be required to achieve the targets in the timeframe proposed.

**Understanding how it all fits together:** - This roadmap sets out how we got to where we are- [Roadmap](#)

**NZ Geothermal Association Input:** The NZ geothermal industry can make a significant contribution to meeting [the climate change goals](#) (as noted above). In advance of the Symposium, NZGA's Executive Officer prepared a paper which set out some steps – [geothermal contribution](#).

NZ's geothermal industry will be assisting other nations develop their geothermal resources to lead to further global benefits in the areas of electricity, heat and transport.

## RSNZ Report - Transition to a low-carbon economy for New Zealand

*"Good opportunities to lower emissions to reduce threat of climate change, starting now"*. The Royal Society of New Zealand expert panel has launched its report on a Transition to a low-carbon economy for New Zealand. The report, appendices, media release, an infographic outlining the many actions New Zealand can and should take now to reduce the threat of climate change and transition to a low-carbon economy, can be found on the [Society's website](#).

The report identifies opportunities in:

- heat supply
- electricity supply
- transport
- forest and other land-use.
- buildings
- industry
- agriculture

## Asia Pacific Energy Summit

In mid-March, the City of Wellington, the World Energy Council and the BusinessNZ Energy Council hosted the inaugural Asia-Pacific Energy Leaders' Summit, opened by Prime Minister, the Hon John Key.

Under the theme of resilience, the event brought together 200 business practitioners, energy experts and policy-makers from around the world, to better understand the growing resiliency risks and challenges presented by: climate change, emerging technologies, extreme weather events, cyber security, and the energy water-food nexus. Insights, lessons and solutions were shared from around the world. [More here](#).

The conference was an excellent opportunity to hear first-hand how other international constituents were dealing with these challenges. Many of the contributors spoke about the need for increased resilience in energy infrastructure design.

## Drilling Supervisor's Workshop

A Drilling Supervisor's Workshop was held at MRP's Rotorua offices in March. This provided a fantastic (and rare!) opportunity for the geothermal drilling supervisor ("Company Man") fraternity to get together.

A key objective of this session was to build on the high calibre geothermal drilling supervisor capabilities that already exist in NZ. Maintaining and growing this skill base serves our local industry as well as promoting NZ Inc, where our internationally recognised supervisors are engaged to work on overseas projects.

The workshop was attended by around 20 supervisors and drilling consultants, representing a significant proportion of our NZ geothermal drilling supervision expertise. Also in attendance were MRP and Contact, representing the operator companies, and representatives of some of our geothermal drilling contractors

including MB Century, Iceland Drilling and Honnor Drilling.

The workshop included an update on NZS2403, Code Of Practice For Deep Geothermal Wells and a review of the newly enacted Health & Safety At Work Act. The group also worked through a safety incident case study, discussing the Drilling Supervisor's duties in promoting safe work practices. Presentations were made by Contact and MRP on their expectations of the DSVs working on projects. Ralph Winmill of Contact presented a proposal to develop a competency framework for geothermal well control.

The group committed to reconvening again in the future, with a view to building the local supervisor skill base.

## Geothermal Steam for Kiln Drying

Geothermal heat supplier Ngati Tuwharetoa Geothermal Assets Limited has supplied Sequal Lumber Kawerau with geothermal steam for kiln drying for the last 12 months. The initial 2 kilns are to be joined shortly by another 2. The use of geothermal steam for kiln drying has been a major step forward for Sequal lumber who previously relied on sending timber off site to third parties for drying. All aspects of Sequal's business are managed in environmentally sustainable ways including only sawing Radiata Pines sourced from sustainably managed forests.



Sequal maintains Forestry Stewardship Certification and is a member of the Rainforest alliance. They take environmental management seriously and find geothermal steam kiln drying is an excellent fit for their business. [More here.](#)

## Sale Process Underway for Norske Skog TOPP1 Geothermal Power Plant

In mid-June Norske Skog announced it has successfully implemented a EUR 20 million transaction financing the sales process of the Tasman geothermal power plant, and in addition, raised a EUR 10 million loan from other sources. This specifically relates to the TOPP1 geothermal station, so the land around this has already been sectioned off ready for a clean sale. [More here.](#)

## Deloitte Energy Excellence Awards Finalists

While winners of the Deloitte Energy Excellence Awards have still to be announced, a number of finalists have already been announced with several geothermal industry players leading the way.

- Contact Energy is a finalist for the Health and Safety Initiative of the Year with their "Start Small, Think Big" programme.
- Two of the four finalists for Energy Engineer of the Year have geothermal involvement.
  - Rosalind Archer of the University of Auckland is well-known to the industry and an active member of the NZGA Board.
  - Brendan Bleasdale of Contact has made valuable contributions to our submissions on Major Hazard Regulations while having a wider role in Contact.
- MB Century is a finalist in the Energy Technology of the Year category (sponsored by Callaghan Innovation) with their high temperature casing condition tool. (Note that MB Century has sponsored the Editor's Award for Outstanding Contribution to the Sector).

Congratulations to all those individuals and companies within our sector that continue to demonstrate this excellence and leadership. And as there are many more examples within our industry, we encourage you to consider putting your projects and people forward next time.

## Government Push on Electric Vehicles

According to recent developments in Government policy, NZ is seen as being very well suited to electricity vehicles. Details on the support the government is giving to encourage growth in this area is available here -

<https://www.beehive.govt.nz/release/govt-driving-switch-electric-vehicles> and in the following link on the Ministry of Transport website: <http://www.transport.govt.nz/ourwork/climatechange/electric-vehicles>.

## Regional Policy Statement for Northland

The Regional Policy Statement for Northland was officially operative as of Monday 9 May 2016. Since the hearings and the release of the decisions in late 2013, there have been a range of appeals to the Environment Court. All of the appeals are now resolved – except for those on genetic engineering and genetically modified organisms.

Northland has taken the decision to make the Regional Policy Statement operative (final) except for those parts relating to genetic engineering and genetically modified organisms. By making it operative, it means the Regional Policy Statement will have full legal effect.

The Regional Policy Statement and background information were available on the NRC website from 09 May 2016: [www.nrc.govt.nz/newRPS](http://www.nrc.govt.nz/newRPS). The NZGA submission on the Regional Policy Statement for Northland was supportive of a number of policies, but underlined the importance of renewable energy for the region and the nation, and of infrastructure associated with Ngawha power stations. NZGA considered that the RPS needed further consideration of the value of the Ngawha geothermal resource, its surface features, and the use of the resource for electricity production, tourism, cultural well-being, and for other potential uses such as direct heat applications.

## International News

### Iceland conference – report back by Andy Blair

A small (~10 person) NZ contingent attended the biennial Iceland Geothermal Conference in Reykjavik on the 26-29<sup>th</sup> April. 740 delegates from 46 countries participated in the event.

The conference had three main themes; Operability – Plant and field management, and solutions; Feasibility – Funding, policy, and case studies, and; Practicality – Direct and cascade use projects.

Simon Addison was invited to present a case study on the Rotokawa Geothermal field. He focussed on the challenges associated when dealing with high separation pressures. After an initial hiccup, whereby the organisers had used an Australian flag next to his name on the programme, Simon delivered a succinct and engaging presentation.

Field trips included visits to: Resource Park companies; Hellisheiði power station; Svartsengi power station, and; the Reykjavik district heating system.

Noticeably, there was a focus on improving gender equality in the Icelandic geothermal community. All of the session chairs were women, a choice made by the organisers of the conference, and during the company updates Bjarni Bjarnasson (CEO, Reykjavik Energy), focussed on his company's gender equality initiative. Specifically, on the financial and cultural benefits the initiative has had on their business. The Women in Geothermal (WING) event had over 200 participants, >70% of which were male. Iceland's Minister of Industry and Commerce, Ragnheiður Elín Árnadóttir, spoke at the event.

NZ representatives participated in a number of international meetings that coincided with the conference; International Geothermal Association Board Meeting; International Partnership of Geothermal Technologies Steering Committee Meeting; World Geothermal Congress 2020 Steering and Organising Committee Meeting, and; the World Bank Geothermal Global Development Plan Roundtable.

The two main messages from Iceland coming from the geothermal community are: 'Waste is a Resource', and 'We do what's best for Iceland'. For example, at the Resource Park (<http://www.resourcepark.is/>), with exception of the Blue Lagoon, HS Orka does not have ownership in any of the cascade businesses that are associated with their plants. However, they work hard, and invest in engineering solutions to deliver fluid to those businesses. This has seen a growth in employment from 60 staff at HS Orka to >600 staff working for cascade use businesses.

This philosophy has seen the increase in the number and variety of companies utilising geothermal in their operations. Current businesses include; Methanol production, fish head drying, beauty products from algae fed on waste gas, geothermally cooled data centres, Silica health supplements (yes they drink it), tourism and many more.



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## Establishing an Expert Pool?

The IGA Geothermal Expert Pool of the International Geothermal Association was launched in Reykjavik, Iceland last month. It is something that NZGA is also considering for New Zealand.

The Expert Pool will provide recruitment opportunities for entities in need of consultants and create new employment windows for experts. The online tool helps project developers/ companies/ developing partners/ international organisations to find suitable personnel fast and direct. Geothermal experts are invited to register their profiles with the IGA via the online registry: [http://www.geothermal-energy.org/iga\\_service\\_gmbh/geothermal\\_expert\\_pool.html](http://www.geothermal-energy.org/iga_service_gmbh/geothermal_expert_pool.html). The consultant database can be searched for by the following categories:

- Country where the expert resides,
- Key expertise,
- Language skills.

Over the last years a need for a matchmaking platform was expressed by project developers, government representatives, development banks, int. organisations, regional commissions and IGA members, all in need for consultants with specific expertise.

Members should consider if joining this initiative is something they would like to do and/or also consider if there is scope for a standalone one-stop-shop of NZ Geothermal Exports. Contact the [Executive Officer](#) with your thoughts.

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**IGA Geothermal Expert Pool - application form**

Step 1/4: Mandatory Information | 2/4: Geothermal Experience | 3/4: Optional Information | 4/4: Summary and Submit

**INTRODUCTION**

The IGA created the geothermal expert pool with the aim of providing hints on geothermal expertise for the geothermal industry, project developers and governmental representatives. We herewith wish to open networking and recruitment opportunities for entities in need of consultants - and consultants/ company representatives looking for short/ longer term employment opportunities to become involved in projects. The IGA hopes that this matchmaking platform will help partners to recruit suitable personnel fast and direct.

**For the consultant applying:**

This expert pool will be publically available and is fed by you. The details marked with a star (\*) need to be filled in by you and are displayed on the website (see example). Other information is optional. If you wish, you can upload technical papers, your CV and photo which will then also be made visible to website users. In case you do not wish your name and other mandatory details to be displayed, please send us an E-Mail to [iga@hs-bochum.de](mailto:iga@hs-bochum.de) explaining your request. We understand that people in employment do not wish their employers to see their profile displayed online. We will then impersonalize the profile and only publish certain details to others after your written approval.

You have two options to register with us, either by filling out this online form - or by downloading the following Word document: [IGA Expert-Pool application form \(docx, 80kB\)](#).

All fields marked with \* are mandatory. Please also send enclosed with your application:

1. Curriculum Vitae (CV)
2. Reference projects (including work input, country, your role description, financial project outline, project objectives)
3. Technical papers

**Personal information:**

Mr./Ms./Mrs.

Title:

First name: \*

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## Notes from Mike Allen (Geothermal New Zealand and Special Envoy for Renewable Energy)

### Comoros

MFAT has been providing ongoing support to Comoros with the completion of surface exploration late in 2015 and a successful submission to the GRMF for drilling funding. A visit to Moroni in May allowed direct discussions with newly elected President Azali Assoumani and the UNDP team with whom New Zealand has been collaborating on the project. Efforts are now focused on raising the funds required to move into the exploratory drilling phase of the project.

### Kenya

The Kenyan Government held a two-day workshop in May to attract additional investors into their geothermal programmes by explaining the current status and opportunities within the market. While progress continues at Olkaria, with a new round of tenders out to bid, progress at Akiira has been hampered by poorer than expected results from the initial wells drilled there. GDC has yet to resolve how it will overcome the issue of inadequate steam supplies for the anticipated 3x30 MW power plant developments that were awarded in 2015. A specific meeting looking to address these issues was held late in April but no clear resolution appears to have been reached.

### Ethiopia

The IFC has been working with the Government of Ethiopia as they look to establish a practical process for the implementation of private sector geothermal projects. A geothermal proclamation has been drafted and the documentation and procedures for the issue of exploration and development licenses are being finalised.

### African Opportunities through MFAT

On 12th July a half-day meeting will be held in Auckland to discuss the potential opportunities for a long term geothermal support programme in East Africa. Initial efforts to commence a long term design process to develop an appropriate strategy was not progressed. This meeting will allow industry and MFAT to consider what an appropriate facility to take this concept forward might look like. It is expected that Minister McCully will join the meeting later in the discussion so that he can hear firsthand what has been discussed and the recommendations that come from these discussions. If you are interested to participate in this meeting, please contact Mike Allen ([mike.allen@xtra.co.nz](mailto:mike.allen@xtra.co.nz)) as soon as possible as space is limited and there has been strong interest.

### Caribbean

Through last year Jacobs has been involved in the completion of MFAT-funded surface exploration in Grenada and St Lucia. The reports on both projects have been presented to the respective governments and efforts are underway to move both developments to the next stage. Alastair Brookes is based in Grenada and continues to interact with all the geothermal opportunities in the region and has been closely involved with the development of the Geo Smart facility established within the Caribbean Development Bank. Supported by a number of bilateral agencies, this facility will be an important source of risk capital for geothermal developments in the region.

### Mexico

Through IEA Geothermal, Mike Allen was involved in a two-day workshop in Mexico City in late June as the country looks to develop a road map for geothermal through until 2030. The industry has great potential but is facing challenges in terms of competition from low cost gas supplies from the USA and large scale solar projects. CFE recently called for offers for energy supply and reportedly has accepted offers for some 2000MW of solar PV at around US\$0.4/kWh.

### Indonesia

With NZTE, GEONZ is looking to participate in the Indonesian International Geothermal Conference and Exhibition (IIGCE) 10<sup>th</sup> to 12<sup>th</sup> August in Jakarta. NZTE will run a one-day briefing workshop – giving excellent coverage on the challenges and solutions for doing business in Indonesia – ahead of the IIGCE. GEONZ and GNS Science are looking at the opportunity to run a Start to Steam workshop on the day after the workshop focused on topics of key interest for developers in Indonesia. If you have an interest in participating in the IIGCE, NZTE is offering a NZ\$500 package which will include the briefings, geothermal VIP networking luncheon, participation at the NZ pavilion in IIGCE, 1 conference pass, ground transport to all activities and catering for all networking events. Participants will need to cover travel to/from Indonesia and accommodation costs – contact Mike Allen for more information.

### **IRENA – Geothermal Global Alliance**

Mike attended a further meeting of the GGA in Abu Dhabi in May. Although additional work has been done on the GGA work plan and focus, it still lacks a strong and clear mandate. At present it is building on a number of internal IRENA initiatives; how this will really help build a constituency, to turn this into an effective initiative, has yet to be demonstrated.

### **Pacific Energy Conference**

Following on from the success of the March 2013 Pacific Energy Summit, over 400 delegates from the Pacific and regional and international donor agencies, met in Auckland on June 7<sup>th</sup>. The donors undertook to commit some US\$950m over the next three to five years to continue efforts to build the energy services in the Pacific. On the 8<sup>th</sup> June NZTE hosted a private sector session to look at specific opportunities; the utilities from Fiji, Samoa, Tonga and Cook Islands outlined the potential developments that they are considered and for which they are seeking investors / project developers.

### **Start to Steam: Acid Volcanic Geothermal Systems**

A three-day technical workshop that focuses on the exploration and development of acid volcanic geothermal systems for electricity power production will be held in Taipei, Taiwan, in early 2017. The workshop will draw together internationally renowned technical experts, in respective fields that include geology, geochemistry, drilling and engineering, to describe and discuss the challenges faced during the exploration and development of these types of high enthalpy geothermal systems. The workshop will include presentations of several case studies from the Asia – Western Pacific region, and a one-day Tatun Volcano field trip to visit geothermal surface features and the drill site of the latest exploration well. It will be co-hosted by the Asia and Western Pacific Regional Branch of the International Geothermal Association and by GNS Science. For further information contact Andrew Rae: [a.rae@gns.cri.nz](mailto:a.rae@gns.cri.nz)

### **ADB supports Geothermal in the Philippines**

Earlier this year, the Asian Development Bank announced it issued its first-ever bond initiative to help back geothermal energy in the emerging Philippines market. The ADB helped establish a local-currency bond valued at \$225 million, on top of a direct loan of \$37.7 million, to help support regional development of geothermal energy facilities.

The bank, which has headquarters in Manila, last year committed to doubling its finance for climate change and the bond represents the first such initiative of its kind in Asia. The government of the Philippines set a goal of installing about 2,870 MW of renewable energy capacity by 2030. The bank said bonds would offer an attractive alternative to bank financing for long-term renewable energy investment in the country.

Growing To address Africa's current and future energy needs, the [African Development Bank \(AfDB\)](#), in a "New Deal on Energy for Africa," wants to help the continent get its hands on all its energy resources, including the 15 gigawatts of geothermal energy under the surface.

As an example, [the Menengai Geothermal Energy Project in Kenya](#) is located in the Rift Valley, about 180 km northwest of Nairobi. Through the development, the AfDB seeks to harness the potential of the Menengai geothermal steam field in generating 150 MW of clean, reliable and affordable electricity annually so as to meet the growing energy needs of Kenyan households, businesses and industries.

### **Geothermal Energy and Tourism comes to the Caribbean**

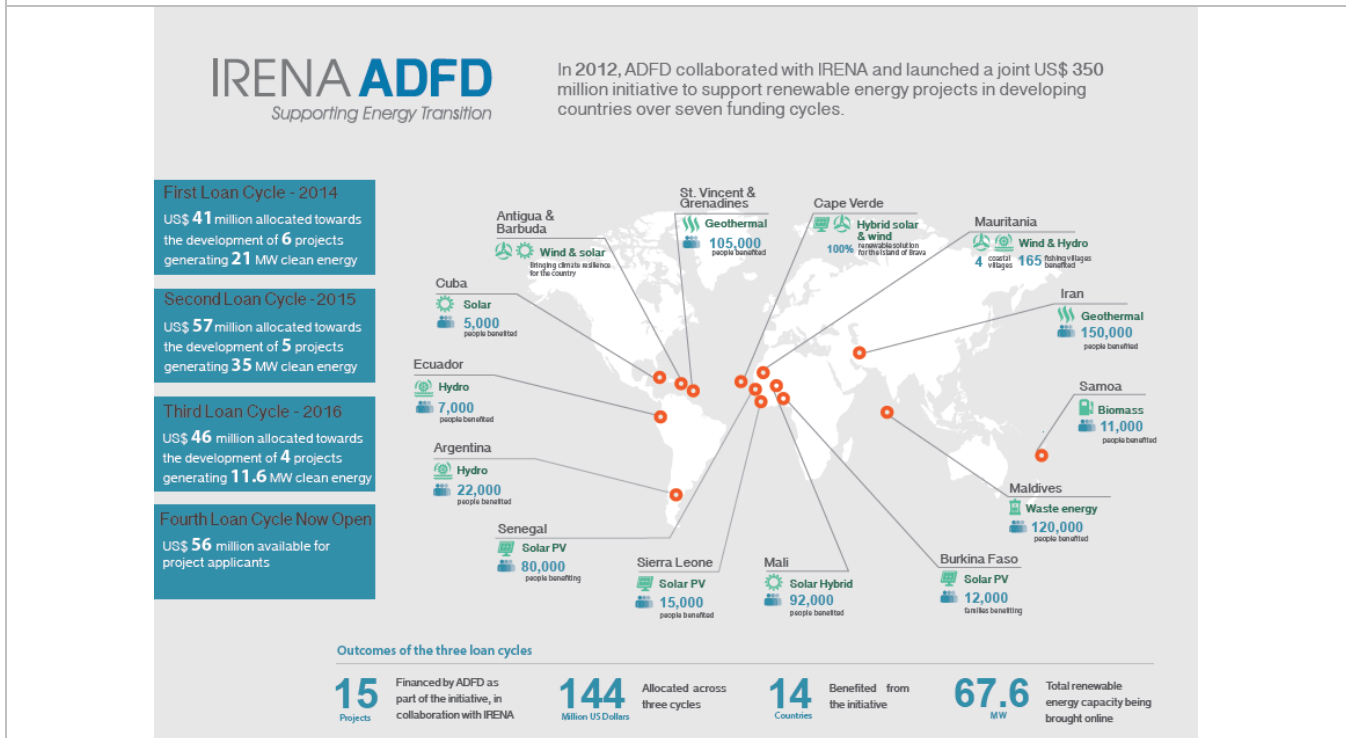
After a decade-long effort to construct a geothermal power plant on the Caribbean Island of Nevis, things are now moving forward with an expected 10 MW to start with, the planned geothermal power plant will play a significant role for tourism in Nevis. There could even be a further development of an additional 140 MW, which would allow the country to not only fully derive power for the island but also become an exporter of geothermal power to other Caribbean islands. Geothermal energy promises to change the nation forever with a new revenue stream and the potential for the island to show that a small Caribbean island can become a model for sustainable development. [More details.](#)

### **ADFD and IRENA Funds up for Grabs**

The Abu Dhabi Fund for Development (ADFD), which has typically invested in large scale renewable energy projects, has had an agreement for the last three years with the International Renewable Energy Agency (IRENA) to ensure the effective allocation of \$350 million of funds pledged by ADFD for renewable energy

projects in developing countries.

The Project Facility has already allocated \$144 million worth of funds over three cycles for renewable energy, which will see 15 projects supported from the Pacific to Africa and from the Caribbean to the Middle East. Together, the projects will produce 68 megawatts (MW) of new generating capacity, which, when complete, will positively impact the lives of over 760,000 people, added the WAM report. The facility has offered funding for two geothermal projects; one to allow the extension of activities in the Sabalan field in Iran, in which New Zealanders played an early role; the second to support the steamfield and/or power plant phase of the proposed development in St Vincent in the Caribbean.



## NZGA Update

### NZGA Board and Executive Team

Bridget Robson (Eland) joined the NZGA Board as President (at the November AGM), so Brian Carey (GNS Science) stepped into the Past President role.

Kevin McLoughlin (Tauhara North No 2 Trust) and Jane Brotheridge (Jacobs) were re-elected and continue their Treasurer and Secretary roles respectively. At the May Board meeting Shanon Garden (Mighty River Power) took on the Vice President role.

The November AGM saw Rosalind Archer (University of Auckland) and Abbie Dean (Contact Energy) join, and Spence McClintock (Tuwharetoa Holdings) and Chris Mann (MTL) retire from the Board, although Chris retains Observer status as leader of the Generation and Industrial interest group.

Nigel Matuschka (Thorndon Cook) resigned from the Board and Boaz Habib (HERA) who received the next highest number of votes took this position.

Within the Board, members have been taking on particular roles, so:

- Abbie Dean heads our Brand strategy group and is the WING representative
- Mark Green heads our Member Value strategy group
- Juliet Newson heads the Funding strategy group as well as being President of the IGA
- Andy Bloomer is doing a great job on archiving
- John Burnell is our link to the Royal Society of NZ
- Mike Allen is our link to Geo NZ, and its international commercial opportunities.

We'll keep you posted as we shoulder-tap other Board members for specific roles.



We also welcome Taparoto Nicholson as a new Observer onto the NZGA Board. Taparoto was nominated by the Waiariki Māori Geothermal Advisory Group. His role involves:

- To provide guidance on Māori protocol matters
- To lead (or arrange leadership of) NZGA representatives onto marae settings in culturally appropriate ways
- To provide connections with significant Māori groups and provide initial liaison if requested
- To broadly consider implication for Māori, or Māori perspective of policy documents that the Board is considering submissions on
- To contribute to discussions and add to the vigour of the NZGA Board.

## NZGA Vision and Strategies

NZGA has developed a new Vision and associated strategies. Great progress was made at a well-attended meeting in Rotorua on 7 March 2016 and subsequently. Board members and Observers are now developing draft action plans for each segment of work, and will be actively seeking member input to this.



(Photo - Juliet Newson)

The NZGA will:

- Position the geothermal resource as a great opportunity to create prosperity in a sustainable manner.
- Provide leadership and connection for the New Zealand geothermal community.

To **'Sustain today and Lead tomorrow'** NZGA will:

1. Connect members, NZ public, government and industry and the international community
2. Look to and develop a wider community of geothermal users and interested parties
3. Build on New Zealand's geothermal capability and track record
4. Create value for members
5. Connect and expand the networking of expertise
6. Facilitate NZ geothermal sector growth
7. Be the "go to" organisation to access NZ geothermal expertise
8. Develop the global presence, identifying NZ as an international geothermal centre of excellence.

## Recent Submissions

NZGA has made two public submissions which can be found on the NZGA website:

- [Submission on the 2016 review of the Rotorua Geothermal Safety Bylaw](#). This submission, by Bridget Robson, Shanon Garden, Greg Moore, Andrew Austin and Brian White was made in March 2016. It sought a number of changes to the Bylaw to better address the risks and reflect current good practice that NZGA felt were not adequately addressed in the Bylaw. NZGA concerns were based on the large number of wells in Rotorua for which poor initial design is now causing maintenance issues. Although Shanon and Greg made a strong case at the hearing, many of these concerns were not part of the revised bylaw. These good practice and safety issues will need to be addressed through other means.
- [Submission on the Repurposing of Existing Energy Levies](#). Juliet Newson prepared this submission in consultation with the Board in June 2016. MBIE had been consulting on opportunities to repurpose existing levies (within certain constraints). The NZGA submission favoured the option that would allow EECA to support the funding of direct use projects, and allow adequate capture of data on this.

## Geothermal Well Control Competence Framework

A group of drilling engineers, led by Ralph Winmill of Contact Energy, is proposing that the geothermal industry develop a specialised geothermal well control qualification.

This initiative has come about because parts of the standard (IWCF) oil and gas well control training does not reflect best practice in our geothermal industry. Initially, this training may be delivered as an add-on to the oil and gas well control qualification that drillers, supervisors and well engineers are required to have. Eventually, it may be possible to have this geothermal well control qualification replace the IWCF standard.

The path to developing such a course will be to get industry input/support in developing a training programme, to trial and refine the programme, to formalise the training (e.g. as a NZQA accredited course) and eventually to have it recognised as the default standard by any applicable codes of practice or regulation.

Anyone interested in contributing to the development of such a programme should communicate this interest to the [NZGA Executive Officer](#).

## Science and Research – notes from John Burnell

There have been recent changes to the way that the main government funding for research into renewable energy is allocated. Previously, areas of interest were identified by MBIE and researchers prepared bids for funding in those areas. The current system now has a single pool of funds that all researchers can bid into. There is no longer an allocated pool for energy research. For the current funding round at least one geothermal proposal has progressed into the second round. This is a GNS led bid “Waste to Wealth” looking at the extraction of minerals from geothermal fluids.

NZGA is a constituent organization (CO) of the Royal Society of New Zealand. As part of that membership, the NZGA website is hosted by the Royal Society. The Royal Society is actively seeking ways of to improve interactions with COs, partly achieved through twice-yearly meetings with the COs (the last forum was in May). A key focus for this interaction is around the expert advice panels. These are panels convened to offer expert advice to policy makers on issues of public importance. The Royal Society is keen to involve suitably qualified people from COs on these panels. Recently two panels have released reports related to climate change (<http://www.royalsociety.org.nz/expert-advice/>), one being referred to earlier in this newsletter.

## Historic Images

New Zealand was a pioneer in geothermal energy development and a wealth of historic geothermal material was gained by the Crown through the former government departments of Ministry of Works (and Development), DSIR and NZED. Recognising this, the NZGA has an objective of preserving and disseminating the early images.

The initial goal is to digitise the images and to catalogue them, that is, transfer the date and any descriptions associated with the images onto a schedule and as metadata on each digital image. Andy Bloomer is in the process of digitising the former Ministry of Works photograph collection held by MB Century at Wairakei; these go back to about 1950. There are about 20,000 prints, some 35mm colour slides and some 16mm, silent, colour film. Some of the prints are rather routine, but there are also milestones, failures and successes. Once digitised, the intention is to select a relatively small proportion for publication, possibly via the NZGA website, or more likely through a Government website.

Some early images are already available on the Alexander Turnbull/National Library's website. Some of the films, originals of which are held by Opus in Wellington, are already available on the Film Archive website.

We believe that there are more images held in private collections. If anyone knows of any such collections we would be grateful to hear about them. Please contact the [NZGA](#) or Andy Bloomer at [andy@geoeng.co.nz](mailto:andy@geoeng.co.nz) or Paul Bixley at [paul.bixley@contactenergy.co.nz](mailto:paul.bixley@contactenergy.co.nz).

## NZGA Membership Details

NZGA currently has 328 members. We welcome the following most recent members:

- **Kidane Shibeshi – Western Energy Services**
- **Andrea Ross – University of Auckland**
- **Taparoto Nicholson – Te Puia**
- **Daniel Britten – Stretton and Co**
- **Olfriady Letunggamu – Prima Gas Nusantara**
- **Chris Insley – Ngati Tuwharetoa Geothermal Assets**
- **Dave Wootton, Michael Stevens, John Clark – Mighty River Power**

- *See who our Corporate and Institutional Members are [here](#).*
- *More details on membership benefits, fees and application forms are available [here](#) on the NZGA website.*
- *NZGA operates 7 Interest Groups – find out how you can get involved [here](#).*

- **John Nicholas – MB Century**
- **Loretta Lovell – Lovell & Associates**
- **Scott Henderson - Jacobs NZ**
- **Mahendra Pardeshi – Halliburton New Zealand**
- **Brennan Williams – ARANZ Geo**

NZGA relies on membership fees in order to exist and to promote and provide services to the sector. The support of our members is much appreciated. Thank you.

## EVENTS – 2016

38<sup>th</sup> New Zealand Geothermal Workshop

23-25 November  
2016

# Innovation

Conference venue: Owen G Glenn Building, University of Auckland

Geothermal Institute, University of Auckland, New Zealand | [www.geothermalworkshop.co.nz](http://www.geothermalworkshop.co.nz)



[New Zealand Geothermal Workshop 23-25 November 2016](#)

## NZGA Annual General Meeting

24 November 2016 at the Workshop (to be confirmed)

NZGA produces this Newsletter primarily for the benefit of its members and also for the wider public. We are happy for the material in the newsletter to be used but ask that the NZGA Newsletter be acknowledged as the source. We are always keen to promote our members and their project activities – please contact us with your news, vacancies or useful materials.

**KEEP IN TOUCH –**

**If your contact details change – let us know –**

[Email the NZGA Executive Officer](#)