



# GEOTHERMAL ENERGY ASSOCIATION

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## **National News**

### **Waxman and Markey Release Draft Energy and Climate Bill; Hearings After Easter Recess**

Rep. Henry Waxman (D-CA), Chairman of the House Energy and Commerce Committee, and Rep. Edward Markey (D-MA), Chairman of the Energy and Environment Subcommittee, released their 648-page “discussion draft” of the American Clean Energy and Security Act of 2009 on March 31, according to vnf.com. The bill combines climate change and clean energy legislation in a comprehensive package. The bill would reduce U.S. greenhouse gas (GHG) emissions 20% from 2005 levels by 2020 and 83% below 2005 levels by 2050. The nation’s mandate for renewable energy sources would be 25% of overall electricity consumption. “Our goal is to strengthen our economy by making America the world leader in new clean-energy and energy-efficiency technologies,” Waxman told press.

Provisions include:

- modernization of the electrical grid
- production of more electric vehicles
- efficiency increases for buildings, appliances, and electricity generation
- \$10 billion allocation for technology to capture and store CO<sub>2</sub> emissions from coal power plants
- prohibit the Environmental Protection Agency (EPA) from regulating emissions under the Clean Air Act

The economy-wide cap-and-trade program would take effect in 2012 with a cap 3% below the 2005 level of GHG emissions from covered sectors. The cap would decline to 20% below 2005 emissions by 2020 and 83% below 2005 emissions by 2050. Targets are comparable to those in the Lieberman-Warner bill but more aggressive than the Dingell-Boucher draft; the 2020 target is also more aggressive than the 14% emission reduction target proposed by President Obama.

House Speaker Nancy Pelosi (D-CA) and the United States Climate Action Partnership (USCAP) support the draft.

However, House Minority Leader John Boehner (R-OH) told press, “The Democrats' plan to raise energy taxes in the midst of a serious recession is the wrong thing to do and the worst possible time to do it.”

The House Energy and Commerce Committee plans to hold hearings on the bill after the Easter recess.

See <http://www.vnf.com/news-alerts-347.html> and <http://www.washingtonpost.com/wp-dyn/content/article/2009/03/31/AR2009033103683.html?hpid=topnews>.

## **Geothermal Mapping to Aid Transmission Planning Efforts**

Soon-to-be-released geothermal resource mapping projects will help geothermal energy's inclusion in new transmission lines for renewable energy, according to [renewableenergyworld.com](http://renewableenergyworld.com). The states of California and Nevada are developing maps to more accurately determine transmission needs for the resources in their regions:

- A joint Western Governors Association-U.S. DOE Western Renewable Energy Zones Initiative (WREZ) is expected to identify zones in late April. WREZ will then complete a conceptual transmission line report, which includes enhanced geothermal system (EGS) potentials in the low-temperature range, by this fall.
- The U.S. Geological Survey will be releasing data on mid- and high-temperature geothermal sources to support the assessment it released last fall.
- California's Renewable Energy Transmission Initiative (RETI) is surveying geothermal resources throughout the state.
- The California Geothermal Energy Collaborative will release its first high-resolution three-dimensional geothermal area map by the end of this year. This includes high-, medium-, and low-temperature sources.
- Nevada has a program similar to RETI mapping high-temperature resources in the northern and central regions of the state.

Four potential transmission corridors have come out of these efforts: Sunrise Powerlink, from the Imperial Valley to San Diego, has already been approved; Green Path, from the Imperial Valley to Las Vegas; a North-South Nevada line to Las Vegas; and Northern California, potentially linking Oregon and Nevada to the San Francisco Bay area.

See <http://www.renewableenergyworld.com/rea/news/article/2009/04/western-u-s-entities-move-quickly-on-geothermal-mapping>.

## **Obama and Iceland Minister Discuss Collaboration on Geothermal Energy**

President Barack Obama and Iceland's Minister for Foreign Affairs Össur Skarphédinsson discussed cooperation on geothermal energy during a NATO summit in Strasbourg and Kehl last week, according to [icelandreview.com](http://icelandreview.com). Obama appointed one of his primary consultants to be a special contact for Iceland on energy cooperation. Obama recognized Iceland's place as a leader in geothermal energy, the article said.

See [http://www.icelandreview.com/icelandreview/daily\\_news/?cat\\_id=21123&ew\\_0\\_a\\_id=322416](http://www.icelandreview.com/icelandreview/daily_news/?cat_id=21123&ew_0_a_id=322416).

## **Company News**

### **Sierra Geothermal: Evans Joins Board of Directors**

Press Release—April 6, [Sierra Geothermal Power Adds Strength to its Board](#)

Vancouver, British Columbia - Sierra Geothermal Power Corp. is pleased to announce that it has increased its number of directors from six to seven and appointed Mr. Jerry Evans, MBA, P.Eng, to fill the newly created vacancy on April 1, 2009. Mr. Evans' appointment is subject to Exchange approval.

Mr. Evans brings more than 25 years of corporate finance and investment management experience to SGP's Board. In addition to prior successes in developing, marketing and managing private and public equity pooled funds, Mr. Evans has many years of experience in raising capital for infrastructure, renewable and alternative energy opportunities. Mr. Evans is a Managing Partner at Aurion Infrastructure Inc., a company investing in North American mid-market infrastructure opportunities. Aurion Infrastructure Inc. is owned by its management and Aurion Capital Management Inc., which in turn is 60 percent owned by DundeeWealth Inc. Mr. Evans is a Professional Engineer, and holds a Masters of Business Administration from the University of Western Ontario and a Masters of Applied Science from the University of Toronto.

"We are delighted that Mr. Evans has joined our Board of Directors and believe that his extensive experience and contacts in the finance community should be a tremendous asset to our company." said Director, President and CEO, Gary R. Thompson.

See <http://www.tradingmarkets.com/site/news/Stock%20News/2258752/>.

## **Renewable and Climate Change News**

### **Major Economies Forum to Facilitate Climate Changes Negotiations**

Press Release—March 28, [President Obama Announces Launch of the Major Economies Forum on Energy and Climate](#)

The President is pleased to announce today the launch of the Major Economies Forum on Energy and Climate.

The Major Economies Forum will facilitate a candid dialogue among key developed and developing countries, help generate the political leadership necessary to achieve a successful outcome at the UN climate change negotiations that will convene this December in Copenhagen, and advance the exploration of concrete initiatives and joint ventures that increase the supply of clean energy while cutting greenhouse gas emissions.

President Obama has invited the leaders of 16 major economies and the Secretary General of the United Nations to designate representatives to participate in a preparatory session at the Department of State on April 27-28 in Washington, D.C. The preparatory sessions will culminate in a Major Economies Forum Leaders' meeting, which Prime Minister Berlusconi has agreed to host in La Maddalena, Italy, in July 2009.

The 17 major economies are: Australia, Brazil, Canada, China, the European Union, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Russia, South Africa, the United Kingdom, and the United States. Denmark, in its capacity as the President of the December 2009 Conference of the Parties to the UN Framework Convention on Climate Change, and the United Nations have also been invited to participate in this dialogue.

See [http://www.whitehouse.gov/the\\_press\\_office/President-Obama-Announces-Launch-of-the-Major-Economies-Forum-on-Energy-and-Climate/](http://www.whitehouse.gov/the_press_office/President-Obama-Announces-Launch-of-the-Major-Economies-Forum-on-Energy-and-Climate/).

## **Congress Advances Legislation Promoting Energy Efficiency**

From Sustainable Energy Coalition/SUN DAY Campaign:

Actions in both the House of Representatives and the Senate advanced proposals to improve energy efficiency policy in the country. In the House, Representatives Henry Waxman (D-CA) and Ed Markey (D-MA) released a “discussion draft” of energy and climate change legislation that contains many energy efficiency provisions. In the Senate, the Energy Committee approved four bills with energy efficiency components, including accepting several strengthening amendments. Among other efficiency provisions, the House bill includes an energy efficiency resource standard that requires electric and natural gas distribution companies to operate programs that reduce electricity use by 15% by 2020 and natural gas use by 10%. Among their efficiency provisions, the Senate bills set new efficiency standards on portable lighting fixtures and commercial furnaces and address some problems in current appliance standards law.

See <http://www.aceee.org/press/0903eeleg.htm>.

## **State News**

### **California: New Proposed Decision on Tradable RECs Open for Comments**

The California Public Utilities Commission issued a proposed decision in October of last year on the purchase of tradable or unbundled renewable energy credits by utilities; this proposed decision in a revised form was newly issued in March, and is open for comments until April 15, according to stoel.com.

The new proposed decision imposes a new restriction on the use of the tradable RECs, limiting Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric to up to 5% of their RPS requirements through tradable RECs. Tradable RECs would be committed to use for RPS compliance within three years of the generation of the electricity associated with the Tradable RECs. Under certain conditions, Tradable RECs may be sold apart from existing contracts. The new proposed decision also retains the transitional price cap on Tradable RECs used for RPS compliance.

See [http://www.stoel.com/alerts/renewableenergy\\_April2009.html](http://www.stoel.com/alerts/renewableenergy_April2009.html).

### **California: Renewable Energy Projects Keeping Desert Hot**

Renewable energy projects such as the 340-MW Salton Sea geothermal project and a solar thermal project of 38,000 “sun catchers” are becoming the pride of Imperial Valley, according to a story on npr.org. “The Imperial Valley is very excited. We knew that we would be the hotbed of something, so it’s here now,” CalEnergy spokesman Mark Gran told press.

The article explains that California utilities are mandated to reach 20% renewable resources in the overall electricity package by the end of next year. At a current 12%, this means green energy is needed now. Geothermal has at least 2,300 MW of untapped potential in the area, Gran said. And the Bureau of Land Management has received 163 applications for solar and wind projects in California, almost all of them for projects in Imperial Valley and the desert region to the north.

An article on the wsj.com points out that while 20% by 2010 may not be quite met, the long-term goal of 33% by 2020 may be more viable.

See <http://www.npr.org/templates/story/story.php?storyId=102679730> and <http://blogs.wsj.com/environmentalcapital/2009/04/01/clean-dreams-california-moves-closer-to-33-renewables-target/>.

## **California: Report Shows Extent of Impacts from Climate Change in California**

From *EESI Climate Change News*:

On April 1, California's Climate Action Team (CAT) released a report for public comment that assesses the potential overall impacts of global warming on the state. Ordered by Governor Arnold Schwarzenegger, the document synthesizes 37 research papers that cover an array of climate related issues, such as water supply, air pollution and property loss. Tony Haymet, Director of Scripps Institution of Oceanography, said, "This report represents one of the most valuable products that the environmental research community can deliver to the people of California." By 2050, the report predicts more grim forecasts than those made just two years ago, including a reduction in water supply, resulting in \$3 billion in revenue losses, an increase in electricity demand by 55 percent, and increased susceptibility to wildfires which could add \$2 billion per year in home losses. Sea level rise is also a great concern, particularly for San Francisco, where projections for an increase peak at 1-1 ½ feet sea level rise by 2050 and as much as 4 ½ feet by the end of the century. The state is developing its first Climate Adaptation Strategy (CAS) based on the research papers used in the report. "Delay in preparing for climate change is not an option. . . . Based on the best and most current science, these new scenarios used in the CAT report will help California plan and manage against the potential impacts of a changing climate," said Energy Commission Vice Chair James Boyd.

For additional information see:

<http://www.latimes.com/news/local/la-me-climate2-2009apr02,0,1696993.story>  
<http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2009/04/01/MN9P16R25A.DTL>  
<http://www.sciencedaily.com/releases/2009/04/090401182835.htm>  
<http://uk.reuters.com/article/oilRpt/idUKN0148829820090402>

## **International News**

### **Australia: Penola Project Planned as First Grid-Connected Plant in Country**

The Panax Geothermal Penola Project is ready to spud the first production well, according to [proactiveinvestors.com.au](http://proactiveinvestors.com.au). The company seeks to become the first grid-connected geothermal power producer in Australia with this project. The project is significant in Australia as it is one of only two projects with wells in the target geothermal reservoir and the only high sedimentary aquifer (HSA) project with a measured geothermal resource, according to the article. A connected demonstration plant could be in operation by mid-2011. Panax now plans to begin drilling on the well, which will go to a maximum depth of 4,000 m.

See <http://www.proactiveinvestors.com.au/companies/news/1159/panax-geothermal-aims-to-become-first-grid-connected-geothermal-power-producer-in-australia-1159.html>.

### **Indonesia: Government Resumes Abandoned Geothermal Projects**

The Indonesian government is resuming development on several geothermal power projects that were abandoned in the 90s, according to *The Jakarta Post*. Former President B.J. Habibie halted projects around that time because of suspicions of corruption during economic crisis, the article said.

Projects being reinitiated include a 60-MW project at Patuha in Bandung, West Java, and a 30-MW plant at Karaha Bodas in Garut, West Java. Regarding the Patuha project, vice president Jusuf Kalla told press,

“This project must continue as it’s been abandoned for nearly 12 years and the government has paid around US\$400 million to the U.S.”

See <http://www.thejakartapost.com/news/2009/04/03/govt-resume-karaha-bodas-power-project.html>, <http://www.thejakartapost.com/news/2009/04/01/abandoned-geothermal-project-patuha-hots.html>, and <http://www.antara.co.id/en/arc/2009/4/7/pertamina-needs-us35-bln-to-build-geothermal-power-plants/>.

### **Indonesia: New Greearth Entity will Develop Geothermal Potential**

Greearth Energy has established an Indonesian geothermal exploration and development entity, PT Geo Power Indonesia, according to [istockanalyst.com](http://istockanalyst.com). Subsidiary Green Earth Power has partnered with International Investment Resources LLC, and Indonesia's Santini Group, with Green Earth Power holding 40% and the partner companies splitting equal parts.

"Indonesia provides Greearth Energy with a unique proposition in quite possibly the world’s most highly sought after geothermal resource landscape," managing director Mark Miller told press. "We have a significant prospect with Indonesia's geothermal potential assessed at over 27,000 MW with only just over 1,100 MW developed to date."

See <http://www.istockanalyst.com/article/viewiStockNews/articleid/3177497>.

### **Kenya: French Development Agency Financing Olkaria 2 Geothermal Plant**

Last week, KenGen signed a deal with French Development Agency (AFD) to finance a third unit extension at the Olkaria 2 geothermal plant, according to [xinhuanet.com](http://xinhuanet.com). The investment of US\$27 million is in addition to \$24 million from the World Bank and \$50 million from the European Investment Bank. The power will be added to the national grid by May 2010, KenGen Managing Director Eddy Njoroge told press.

"The attractiveness of this source is in the high potential and the low operating and maintenance costs coupled with the fact that it is a clean energy source which attracts carbon credits," Njoroge said. The company seeks to increase geothermal power generation in Kenya by 500 MW over the next five years. Current geothermal development in the country is about 163 MW, with 115 MW by KenGen and 48 MW by Orpower 4.

See [http://news.xinhuanet.com/english/2009-04/03/content\\_11122796.htm](http://news.xinhuanet.com/english/2009-04/03/content_11122796.htm).

### **Kosovo: Government Supports Investment from International Energy Group**

The International Energy Corporation Group it is willing to invest in geothermal energy in Kosovo, said Wolfgang Hertel, head of the corporation, according to [balkaninsight.com](http://balkaninsight.com). The company considers Kosovo a healthy and secure place to invest, and has received support from the Kosovo government. “We want to create an energy park from an oil field in Kosovo,” Hertel told press. The project would take about five years.

See <http://www.balkaninsight.com/en/main/news/17909/>.

## **Nicaragua: Polaris Updates Financing Progress for San Jacinto Geothermal Project**

Press Release—March 27, [Polaris Geothermal Inc. Updates Progress Regarding Project Financing and Announces US\\$10,000,000 Private Placement of Units](#)

Polaris Geothermal Inc. (TSX:GEO) is pleased to provide an update on the significant progress made with respect to financing of the Company's planned 24 MW expansion at the San Jacinto geothermal power project in Nicaragua.

### **Progress on Project Financing**

The Company has reached an agreement in principle with the Central American Bank for Economic Integration ("CABEI") to arrange, as lead bank, a US\$77 million syndicated senior project financing (the "Debt Financing").

The Company has also entered into an engagement letter with a broker in connection with a planned concurrent US\$25-30 million equity offering (the "Equity Offering" and, together with the Debt Financing, "Phase I Project Financing"). Closing of the Equity Offering will be subject to customary conditions, including satisfactory completion of due diligence and Toronto Stock Exchange ("TSX") approval.

*For the Global Investment Plan that has been presented to CABEI and is subject to final approval, visit <http://www.marketwire.com/press-release/Polaris-Geothermal-Inc-TSX-GEO-967174.html>.*

## **Philippines: Administration Pushing Geothermal and Other Renewables**

An article on [pia.gov.ph](http://pia.gov.ph) updates the progress of geothermal energy development in the Philippines. Three new geothermal contracts began operations in July 2008, contributing to the combined total of 1,958 MW being produced in the nation, the article said. Press Secretary Cerge Remonde told press the Arroyo administration is pushing exploration and development of renewable energy: geothermal, wind, solar, hydro, and biomass are all under development to reduce the country's dependence on costly fossil fuel. The country is the second largest producer of geothermal energy in the world and is the top wind power producer in Southeast Asia.

See <http://www.pia.gov.ph/default.asp?m=12&r=&y=&mo=&fi=p090403.htm&no=16>.

## **Notices**

### **FOA for EGS Component Research and Development/Analysis, DOE (April 30)**

The Department of Energy is offering a Financial Assistance Opportunity, #DE-PS36-09GO99018, for Enhanced Geothermal Systems Component Research and Development/Analysis. Application due date is April 30, 2009 at 11:59pm EST. Grant Officer is Genevieve Wozniak, phone 303-275-4942, e-mail [go.geothermal@go.doe.gov](mailto:go.geothermal@go.doe.gov).

From DOE:

Initial estimated total funding for this award is listed at \$10,000,000 in FY'2009; with additional anticipated funds of \$25,000,000 in FY'2010 and FY'2011, subject to change and Congressional appropriations. Domestic applicants are eligible to apply including institutions of higher education, non-profit entities (as described in section 501(c)(4) of the Internal Revenue Code of 1986), for-profit private entities, State/Local Governments, and Indian tribes. DOE and non-DOE Federally Funded Research and Development Centers (FFRDCs), National Laboratories, and federal agencies will be allowed only as

subrecipients to any of the previously mentioned entities. Foreign participants will be allowed as subrecipients only to a domestic applicant.

DOE is seeking advanced technology to address key aspects of engineered reservoir creation, management, and utilization identified in the GTP Multi-Year Research, Development, and Demonstration (MYRDD) plan. Projects are sought to develop innovative technology for cost-effective creation, management, and utilization of Enhanced Geothermal Systems (EGS) in reservoir environments. Projects will be evaluated based on their ability to advance technology toward ultimate, specific target specifications to drive market development of EGS. Teaming between academia, industry, and National Laboratories/Federally Funded Research and Development Centers (FFRDCs) is encouraged.

For a complete description and important information regarding this FOA, visit <https://e-center.doe.gov/iips/faopor.nsf/8373d2fc6d83b66685256452007963f5/026b964d73b0b8b88525756f005dec2a?OpenDocument>. For a PDF of the full FOA, visit [https://e-center.doe.gov/iips/faopor.nsf/UNID/026B964D73B0B8B88525756F005DEC2A/\\$file/Announcement\\_DE-PS36-09GO99018.pdf](https://e-center.doe.gov/iips/faopor.nsf/UNID/026B964D73B0B8B88525756F005DEC2A/$file/Announcement_DE-PS36-09GO99018.pdf).

### **FOA for Enhanced Geothermal Systems Demonstrations, DOE (May 14)**

GTP has issued a Funding Opportunity Announcement (FOA), DE-PS36-09GO99019, for up to \$10 million in FY2009 and with anticipated additional funds of up to \$39 million in FY2010, FY2011, FY2012, FY2013, and FY2014, subject to change and Congressional appropriations.

Through this FOA, GTP is seeking projects in a variety of geologic formations that will quantitatively demonstrate and validate stimulation techniques for application in that successfully sustain sufficient fluid flow and heat extraction rates for 5-7 years that produce at least 5 MWe per year per project site/geothermal reservoir. GTP will also consider projects to further characterize, stimulate, and validate underutilized geothermal resources, particularly in urban and rural regions with high electricity costs such as Alaska, Hawaii, the eastern U.S., Indian Reservations, etc.

You can find information on and requirements for responding to this Enhanced Geothermal Systems Demonstration at [http://www1.eere.energy.gov/geothermal/current\\_solicitations.html](http://www1.eere.energy.gov/geothermal/current_solicitations.html).

### **DOE Multi-Year Research, Development, and Demonstration Plan Published**

The Department of Energy has published its new multi-year plan for research. The Geothermal Technologies Program (GTP) Multi-Year Research, Development and Demonstration (MYRDD) Plan describes the planned research, development and demonstration (RD&D) activities for geothermal technologies through 2015, with additional information on potential program activities through 2025.

This is the first publishing of this document in draft form and represents months of planning, including peer reviews and comprehensive internal analysis and evaluation. On this page you will find links to the full document as well as a comments form.

The MYRDD reflects GTP's focus on advancing enhanced geothermal systems (EGS) technologies and its commitment, in partnership with geothermal energy developers, to demonstrate by 2015 that EGS is technically feasible. The MYRDD Plan describes in detail GTP's activities over the next seven years to achieve this goal and it projects longer-term RD&D activities based upon several EGS development scenarios.

The MYRDD Plan and a form for comments are available at <http://www1.eere.energy.gov/geothermal/plans.html>.

## **Resource Development Opportunity, Rosebud Sioux Tribe, Rosebud, SD**

The Native American Tribe near Mission SD has a deposit of geothermal energy under their large Rosebud Reservation in South Dakota. See U.S. News & World Report, November 7, 2007, DOE map of U.S. Geothermal Hotspots, p. 52, reference to deposit p. 50.

Leigh Bryant-Zarse, the architect, engineer, and consultant in Wisconsin who is submitting this solicitation, attended a meeting of the Tribe Council on September 16, 2008. The Tribe presented him with a resolution to approach developers with free exploration rights on their reservation, and agreed to split 1/10 of 1% of the energy profits for a period of 2 years, if found. These parties are looking for help to develop the resource. The reservation exists under a sole ownership, making it easy to deal with.

Contact: Leigh Bryant-Zarse, Architect-Engineer-Consultant, 1812 Mountain Ave., Wauwatosa, WI 53213-2336, phone and fax: 414-259-1812  
Rosebud Sioux Tribe: Chief Rodney Bordeaux, PO Box 430, Rosebud, SD 57570, phone 605-747-2381

## **Employment Opportunities**

### **Senior Director, Business Development, Major Geothermal Company**

The Senior Director, Business Development is responsible for overseeing the Business Development function in North America for geothermal market. This role could quickly grow into a VP role and will oversee a sales team currently consisting of 8 sales reps and will grow it by 50%.

Essential Functions:

- Direct and execute the business development strategy to achieve company goals and objectives.
- Identify and develop key strategic partnerships, both internally and externally.
- Responsible for negotiating PPAs and contract changes.
- Evaluate and analyze market expansion opportunities
- Build and lead a business development team that will assist the company towards completion of company goals
- Build relationships with internal departments so that all areas of the company are ready to execute when necessary.

Education, Experience, and Skills Required:

- Bachelor degree in engineering and MBA
- 10–15 years experience in Sales, Marketing, Business Development or Operations roles (preferably a mix of sales and operations in energy industry)
- Willingness to travel up to 60% nationally and internationally
- Ability to negotiate contracts with potential business affiliates
- Experience in the renewable energy field a strong plus
- Proven track record maintaining confidentiality and dealing with company proprietary information

Contact:

Paige Carratturo

Executive Recruiter

Richard Wayne & Roberts

877-236-0899 (direct)

206-855-9746 (fax)

[paige@rwr.com](mailto:paige@rwr.com)

<http://www.linkedin.com/in/paigecarratturo>

## **Geothermal Project Supervisor, Central American Bank for Economic Integration, Costa Rica**

The Central American Bank for Economic Integration (Banco Centroamericano de Integración Económica, BCIE) is looking for an expert in geothermal energy to supervise a project in Costa Rica. It is called Las Pailas and it is financed through BCIE.

Contact:

Ana Karina Rubi de Reyes, Oficial de Consultorias, BCIE-Tegucigalpa, Honduras

Tel. +504-240-2243, Ext. 5214

Fax. +504-240-2228

Visit the BCIE Web site, [www.bcie.org](http://www.bcie.org) - [www.cabei.org](http://www.cabei.org)

## **Chief Reservoir Engineer, CalEnergy**

Collects and processes information on well-field and plant performance, diagnoses well problems and designs procedures to fix them. Requires a leadership role in data collection and problem solving. Uses advanced interpretation techniques of reservoir simulation to provide essential information for the resource department's function of reservoir development and forecasting. The data is also used to support plant operations and comply with governmental reporting.

Qualifications:

Bachelor's degree or higher in engineering, preferably petroleum. At least fifteen years of related experience and/or additional resource engineering-related training. Geothermal resource engineering experience is required and some petroleum engineering experience in oil and gas is also desired.

To apply for this position and to view a complete job description, please visit our web site at [www.calenergy.com](http://www.calenergy.com).

## **Director of Geothermal Resources, CalEnergy**

This position manages and directs the geothermal resources of the company. Responsibility of all geothermal well fields in which MidAmerican Energy Holdings Company has an interest, including the operating well fields of the Salton Sea (Imperial Valley, CA) and non-operating prospects in inventory and of development projects. This position manages the drilling and resource departments, including drilling operations on a 24/7/365 basis and other well maintenance work as required. This position is also responsible for providing a broad range of technical and scientific support to power generation operations, including resource and drilling operations, environmental compliance, development and other departments as required. As the top resource oriented technical position in the company, this position represents the company for resource technical issues in manners such as testimony before legal or regulatory agencies such as the California Energy Commission or the California Department of Oil, Gas and Geothermal Resources, or discussions to partners, financial institutions, trade groups, or environmental groups on well field related issues.

Qualifications:

Minimum of a bachelor's in engineering, earth sciences or related field. Have advanced degrees, training, and certifications specific to resource related topics. Has a minimum of 10-15 years of demonstrated application of a diverse technical knowledge in all resource disciplines including reservoir engineering, drilling engineering, production engineering, reservoir modeling, geology, geophysics and geochemistry. Must have excellent skills in economics and planning. Must have shown successful managerial leadership in the fields of reservoir engineering and earth sciences, with a minimum of 10 years of management experience in this area. Must have working knowledge of geothermal power plant operations in relation to their relative effect or demands on the resource/well field operations in relation to plant operation.

Knowledge of thermodynamics and metallurgy required. Advanced spreadsheet and computer database skills a must.

To apply for this position and to view a complete job description, please visit our web site at [www.calenergy.com](http://www.calenergy.com).

### **Senior Environmental Coordinator, CalEnergy**

The senior environmental coordinator works with operating unit personnel to ensure awareness of and compliance with environmental regulations, policies and procedures and requirements of the company, assisting the operating group in the development of solutions to environmental issues. Monitors chemical, physical and biological hazards that could be present. Investigates environmental incidents and reports incidents to appropriate regulatory agencies. Assists with the development and delivery of environmental procedures and training. Implements environmental compliance self-inspections and recommends appropriate action to facility management. Recommends improvements in processes, design, procedures and operations to minimize environmental incidents. Maintains close contact with environmental health and safety, laboratory, operations and maintenance and other company departments. Assists in maintaining facilities' environmental licenses, permits and authorizations.

#### Qualifications:

Bachelor's degree in chemistry, environmental sciences or related field and 3–5 years environmental experience or equivalent work experience. (Typically six years of related, progressive work experience would be needed for candidates applying for this position who do not possess a bachelor's degree.) Five years of related experience. Background working in all environmental media. Demonstrated air, water, or waste/land use experience is required. A broad diversity of environmental work experience in private industry, governmental, and consulting is preferred.

To apply for this position and to view a complete job description, please visit our web site at [www.calenergy.com](http://www.calenergy.com).

### **Project Director, Municipal Clean Energy Project, Alliance to Save Energy**

The Alliance to Save Energy is seeking a Project Director to start-up and to lead the Municipal Clean Energy Project (MCEP). The MCEP is a new multi-year, national initiative to encourage investment in, and deployment of, energy efficiency and clean energy programs and policies by publicly owned power utilities in the U.S.

The Project Director will have oversight and responsibility for the entire MCEP program, will report to the Vice President of Programs for the Alliance as well as to the MCEP Steering Committee, and will liaise with key project partners.

The successful candidate must have at least five years of program management experience and three years of experience in one of the following areas: publicly owned utilities, municipalities and/or energy efficiency. The candidate must also demonstrate organizational, writing and communications expertise and have the ability to work with senior level executives to both design and lead multi-faceted programs and initiatives. S/he must have a demonstrated ability to build and lead partnerships and/or coalitions. The candidate will work in a fast-paced environment with highly motivated staff in a rapidly growing, energy efficiency-focused organization. The position requires a modest amount of travel, mostly within the U.S. Candidates must have at minimum a Bachelors degree, Masters preferred.

Initial funding has been secured from a major foundation for the development of this initiative and the donor has expressed their interest in the future expansion of the program. Additional proposals have already been submitted to other funding sources. The current funding cycle is through 2011.

The position responsibilities include, but are not limited to, the following:

- Manage MCEP logistics, including budgeting, communications reporting, maintenance of the project web site, and supervision of project personnel and contractors;
- Liaise with the MCEP Steering Committee and project partners;
- Compile, field test and produce “best practice” tool kits for use by MCEP participants;
- Coordinate with project partners in the delivery of MCEP workshops and the tracking of workshop outcomes;
- Manage special events, including a project launch and Municipal Clean Energy Summits;
- Integrate the activities of the MCEP with other leading clean energy policy initiatives.

Salary is competitive based upon experience. The Alliance to Save Energy offers a generous benefits package and a comfortable work environment in downtown Washington DC convenient to Metro. Consideration of candidates will begin immediately and continue until the position is filled. The Alliance is an equal opportunity employer.

Applicants should send a cover letter, resume, salary history and references no later than December 1, 2008 by mail to Dianne Streat, Director of Administration, Alliance to Save Energy, 1850 M Street, N.W, Suite 600, Washington, DC 20036, or via email to [dstreat@ase.org](mailto:dstreat@ase.org). No calls please.

### **Research Associate II, SMU Geothermal Laboratory**

Position: The SMU Geothermal Laboratory, Dallas, Texas, has an opening for a Research Associate II for an appointment of 2 years. The research is supported in part by a grant from GOOGLE.org to SMU. The activities associated with the position relate to the temperature field of the U.S. lithosphere. The outcome is the ability to make sound resource related renewable energy decisions. This research will build on the extensive thermal data sets used to produce the 2004 Geothermal Map of North America by collecting new data and modeling the regional thermal structure.

Qualifications: A PhD in geosciences is strongly preferred or an MS in geophysics and 3 years of work experience. Candidates must demonstrate strong analytical/critical thinking skills to identify issues and information requirements, apply appropriate research and analytical procedures, and review data with a strong focus on attention to detail and accuracy.

Apply online at <http://smu.edu/hr/recruit/> search for “geothermal”  
Contact: Dr. David Blackwell, [blackwel@smu.edu](mailto:blackwel@smu.edu), 214-768-2745

### **Geothermal Engineering Analyst, National Renewable Energy Laboratory**

Geothermal Engineering Analyst—Requisition #114BR or 115BR—Washington, D.C.

Job/Research Summary: This position performs technology, market and economic analysis, with an emphasis on geothermal energy technology, systems, and infrastructure. Work carried out will support R&D and decision-maker support activities within the Geothermal program through the use of analysis methodologies such as economic feasibility, market transformation, risk, portfolio balance, and cost-versus-benefit. Design novel approaches for systems and infrastructure analysis. Deliver quality products that synthesize the inputs of team members, researchers, market players, and other analysts. Innovate new methods, tools, and approaches that enable greater understanding of geothermal systems.

Job Duties: Combines broad, in-depth knowledge of chemical and/or mechanical engineering with an emphasis on process, heat transfer, and fluids engineering with strong economic analysis capabilities. Performs engineering/economic analyses of geothermal systems and electric transmission in cooperation with research community to gather and understand field data. Documents work in detailed technical memos and internal milestone reports; publishes and presents key results in peer-reviewed journals and at regional, national, and international scientific meetings and conferences. Supports the development of annual operating plans and assists with strategic planning efforts. Works with Department of Energy on technology goals and opportunities.

Minimum Qualifications: Bachelor's Degree in science and/or engineering, or equivalent/relevant education/experience. 3 years of relevant R&D experience.

Preferred Qualifications: Multidisciplinary research exposure to both chemical and mechanical engineering systems, especially those related to the development of cost-effective geothermal systems for utility-scale applications. Familiarity with value chain analysis, risk analysis, and dynamic modeling. Experience in the development and evaluation of applied technology aimed at entering the marketplace. Previous industry experience in renewable energy and geothermal technologies, with experience in related analysis. Established base of contacts with individuals and institutions relevant to energy analysis. Experience working with the federal government. Some experience with computer modeling of energy markets.

Pre-employment drug testing required.

Please visit our website for more information and to apply online: [www.nrel.gov/employment/](http://www.nrel.gov/employment/)  
NREL is an equal opportunity employer committed to diversity and a drug-free workplace.

### **Sales Manager, Ormat Technologies**

Ormat Technologies has an immediate opening for a full time Sales Manager located in our Reno, NV. The ideal candidate will 10+ years in related Sales experience in the energy/renewables industry.

Position Title: Manager of Sales, Geothermal Development; Department: Business Development; Location: Corporate Office Reno, NV; Reports to: Director, Geothermal Development; Position Summary: The Manager of Sales, Geothermal Business Development, will be responsible for the sales and marketing of renewable energy products. The selected candidate will help lead the commercialization and sales efforts for Ormat's latest geothermal supply of geothermal plant equipment, electrical power generation projects, as well as the supply of engineering and construction services for 3rd Party power projects.

Essential Functions: Develop detailed sales and marketing strategies to grow sales within the power generation industry; Conduct market segmentation research, identify lead databases and determine sales channels to establish customer opportunities and spearhead direct sales efforts; Manage customer relationship from initial feasibility trials through to field deployment.

Other Responsibilities: Work flexibly within a dynamic, multidisciplinary team.

Education, Experience and Skills Required: Minimum of 10 years experience in a similar position; Bachelor's degree in Marketing or related field or equivalent experience and/or technical qualifications relevant to the geothermal applications, as well as Engineering and Construction; Experience in marketing or application engineering; Experience working directly with customers in a sales organization with strong communication and interpersonal skills.

Physical Requirements: Must be able to travel regularly

To apply for the position please send a resume to [Chris@redfishtech.com](mailto:Chris@redfishtech.com).

### **Engineer V, Geothermal Experience Preferred, Northern California Power Agency**

Performs engineering tasks relating to plant reliability/ performance efficiency, primary technical resource for CMMS, supervises implementation of system/equipment repairs/upgrades, PM for plant efficiency upgrade/retrofit projects, construction mgr for public works projects, supervises plant chemical lab & environ, health/safety staff. First 4–6 months, position assigned to NCPA HQ office/Roseville, then GEO Plant, Middletown, CA thereafter. During initial period in Roseville, temp housing provided if required.

Requires BA in electrical/mechanical engineering; MA preferred; and min 10 yrs exp plant/production engineering, preferably within geothermal industry; 2 yrs experience plant reliability/ maintenance

engineering & 2 yrs mgmt. exp preferred. Requires knowledge/experience in industry codes/standards; CMMS, Root Cause Failure Analysis, Reliability Centered Condition Based/Mntc, CBM equip; steam turbine plant monitoring & power plant electrical sys; writing, analyzing/interpreting scientific/tech info.; making presentations and some travel in CA. Starting salary: \$96 to \$121K plus exc employer benefits inc CalPERs retirement/medical.

Application at [www.ncpa.com](http://www.ncpa.com)

### **Requests for Proposals (RFPs)**

#### **RFP for Tribal Land Feasibility Studies for Efficiency and Renewables, DOE (April 16)**

The U.S. Department of Energy requests proposals for Assessing the Feasibility of Renewable Energy Development and Energy Efficiency Deployment on Tribal Lands. Through this initiative, DOE will support feasibility studies in these areas: 1) Implementation of building efficiency measures, including energy efficiency improvements and renewable energy systems for heating or cooling loads, and 2) Development of economically sustainable renewable energy installations. The lead applicant must be an Indian Tribe, Alaska Native villages, Alaska Regional Corporation, Tribal Energy Resource Development Organization, or Tribal Consortia. \$1 million expected to be available, up to 4 awards anticipated. Responses due 4/16/09. For more info, contact Pamela Brodie at [pamela.brodie@go.doe.gov](mailto:pamela.brodie@go.doe.gov) or go to: <https://e-center.doe.gov/iips/faopor.nsf/UNID/A99DF3C019E1EEE285257578006E7EA5?OpenDocument>. Refer to Sol# DE-PS36-09GO99024. (Grants.gov 3/13/09)

#### **RFP for Pollution Prevention Grant Program, EPA (April 17)**

The U.S. Environmental Protection Agency requests proposals for the Pollution Prevention Grant Program (P2). P2 supports projects that help businesses identify better environmental strategies and solutions for reducing or eliminating waste at the source. National focus areas include: Greenhouse gas reduction, toxic and hazardous materials reduction, and resource conservation. \$4.1 million expected to be available, individual awards NTE \$180K. Responses due 4/17/09. For more information, including Region-specific priorities and contacts, go to: <http://www.epa.gov/p2/pubs/grants/ppis/2009rfpp2grant.html>. Refer to Sol# EPA-HQ-OPPT-09-01. (Grants.gov 3/12/09)

#### **RFP for Environmental Symposiums, EPA (April 22)**

The U.S. Environmental Protection Agency requests proposals for Partnerships to Promote Innovation in Environmental Practice. This initiative will support institutions interested in organizing two symposia over four years to promote sharing and transfer of innovative environmental protection approaches among States, EPA, and other primarily governmental representatives. \$750K expected to be available, 1 award anticipated. Responses due 4/22/09. For more info, contact Scott Fontenot at [fontenot.scott@epa.gov](mailto:fontenot.scott@epa.gov) or go to: <http://www.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=45673>. Refer to Sol# EPA-OPEI-NCEI-09-02. (Grants.gov 3/4/09)

#### **RFP for Geothermal Component R&D, DOE (April 30)**

The U.S. Department of Energy requests proposals for Enhanced Geothermal Systems Component Research and Development/Analysis. Through this initiative, DOE seeks project to develop innovative technology for cost-effective creation, management, and utilization of Enhanced Geothermal Systems (EGS) in reservoir environments. \$35 million expected to be available, up to 30 awards anticipated. Responses due 4/30/09. For more info, contact Pete Simon at [FY09EGSResearch@go.doe.gov](mailto:FY09EGSResearch@go.doe.gov) or go to: <https://e-center.doe.gov/iips/faopor.nsf/UNID/4EDA21A799697B508525756F0061D4FF?OpenDocument>.

Refer to Sol# DE-PS36-09GO99018. (Grants.gov 3/4/09)

### **RFP for Smart Grid, California Energy Commission (April 30)**

The California Energy Commission requests proposals for Defining the Pathway to the California Smart Grid of 2020, to conduct Smart Grid research. Through this RFP, the CEC anticipates one award to a team with a utility perspective, another award to a team with a technology vendor or manufacturer perspective. \$1 million expected to be available. Responses due 4/30/09. For more info, contact Tammy Parkison at [tparkiso@energy.state.ca.us](mailto:tparkiso@energy.state.ca.us) or go to: [http://www.energy.ca.gov/contracts/RFP\\_500-08-502/](http://www.energy.ca.gov/contracts/RFP_500-08-502/). Refer to Sol# 500-08-502.

### **RFP for State Energy Program Formula Grants, DOE (May 12)**

The U.S. Department of Energy requests proposals for the State Energy Program Formula Grant. SEP goals include, but are not limited to, increasing energy efficiency, reducing reliance on imported energy, improving power reliability, and reducing the impacts of energy production on the environment. Lead applicants must be State, Territorial and D.C. Energy Offices that administer the SEP. \$3.1 billion is expected to be available, 56 awards anticipated. Pre-applications due 3/23/09, final proposals due 5/12/09. For more info, contact Sheldon Funk at [sheldon.funk@netl.doe.gov](mailto:sheldon.funk@netl.doe.gov) or go to: <http://www.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=45986>. Refer to Sol# DE-FOA-000052. (Grants.gov 3/12/09)

### **RFP for Enhanced Geothermal Systems Demonstration, DOE (May 14)**

The U.S. Department of Energy requests proposals for Enhanced Geothermal Systems Demonstration. Through this initiative, DOE seeks projects in a variety of geologic formations that will quantitatively demonstrate and validate stimulation techniques that successfully sustain sufficient fluid flow and heat extraction rates for 5-7 years that produce at least 5 MWe per year per project site/geothermal reservoir. \$49 million expected to be available, up to 10 awards anticipated. Responses due 5/14/09. For more info, contact Pete Simon at [FY09EGSDemos@go.doe.gov](mailto:FY09EGSDemos@go.doe.gov) or go to: <https://e-center.doe.gov/iips/faopor.nsf/UNID/528FF32A5FE2358D8525756F0069DEC3?OpenDocument>. Refer to Sol# DE-PS36-09GO99019. (Grants.gov 3/4/09)

### **RFP for Western and Territorial Water Marketing and Efficiency Grants, Bureau of Reclamation (May 19)**

The U.S. Bureau of Reclamation, Denver Office, announces its intent to request proposals for Challenge Grants: Water Marketing and Efficiency Grants for the American Recovery Reinvestment Act of 2009. This initiative will support projects that bank water, market water, conserve water, or generally make more efficient use of existing water supplies. Projects must take place in AZ, CA, CO, ID, KS, MT, NE, NV, NM, ND, OK, OR, SD, TX, UT, WA, WY, AS, GU, CNMI, or the VI. As of 3/14/09, the anticipated RFP release date or funding amounts had not been posted. Proposals due 5/19/09. For more info, contact Stephanie Bartlett at [sbartlett@usbr.gov](mailto:sbartlett@usbr.gov) or go to: <http://www.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=45930>. Refer to Sol# 09SF811499. (Grants.gov 3/10/09)

### **RFP for Community Economic Development, Department of Health and Human Services (May 28)**

The U.S. Department of Health and Human Services requests proposals for Community Economic Development (CED) Projects. CED supports Community Development Corporation efforts to assist community economic development activities designed to address the economic needs of low-income individuals and families through the creation of employment and business opportunities in low-income

communities. CED focuses on industries that have viable short and long term job outlooks and present no obvious long term risks. One recommended strategy for sustaining growth is creating jobs in high growth sectors which include, but are not limited to, Recycling, Renewable or Alternative Energy, Transportation or Advanced Manufacturing. \$29.1 million expected to be available, up to 47 awards anticipated. Responses due 5/28/09. For more info, contact Rafael Elizalde at [OCSGRANTS@acf.hhs.gov](mailto:OCSGRANTS@acf.hhs.gov) or go to: <http://www.acf.hhs.gov/grants/open/HHS-2009-ACF-OCS-EE-0034.html>. Refer to Sol# HHS-2009-ACF-OCS-EE-0034. (Grants.gov 3/9/08)

### **RFP for American Recovery Program, Department of Commerce (June 30)**

The U.S. Department of Commerce, Economic Development Administration (EDA) requests proposals for the EDA American Recovery Program, for projects that advance economic growth by assisting communities and regions experiencing chronic high unemployment and low per capita income to create an environment that fosters innovation, promotes entrepreneurship, and attracts increased private capital investment. Priority consideration will be given to regions that have experienced sudden and severe economic dislocation and job loss due to corporate restructuring. Applicants may apply for the following programs: 1) Public Works and Economic Development Facilities Program, and 2) Economic Adjustment Assistance Program. Responses due 6/30/10. For more info, including Region-specific contacts, go to: <http://www.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=45786>. Refer to Sol# DA03102009RECOVERYACT. (Grants.gov 3/5/09)

### **RFP for Energy for Sustainability, National Science Foundation (September 15)**

The National Science Foundation requests proposals for the Energy for Sustainability Program. This program supports research and education in energy production, conversion, and storage, and is focused on energy sources that are environmentally friendly and renewable, including solar, wind and biomass. Average individual awards \$100K. Responses due 9/15/09. For more info, contact Trung Nguyen at [tnguyen@nsf.gov](mailto:tnguyen@nsf.gov) or go to: [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=501026](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501026). Refer to Sol# PD-09-7644. (Grants.gov 3/6/09)

### **RFP for Thermal Transport Processes, National Science Foundation (September 15)**

The National Science Foundation requests proposals for the Thermal Transport Processes Program, for engineering research aimed at gaining a basic understanding of the microscopic and macroscopic levels of thermal transport phenomena (heat and mass transfer) underlying energy conversion and conservation, the synthesis and processing of materials, cooling and heating of infrastructure and equipment, and more. An active understanding of thermal transport in energy conversion and conservation processes is vital to reduce the nation's dependence on petroleum. Awards NTE \$100K. Responses due 9/15/09. For more info, contact Theodore Bergman at [tbergman@nsf.gov](mailto:tbergman@nsf.gov) or go to: [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=13367](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13367). Refer to Sol# PD-09-1406. (Grants.gov 3/9/09)

### **RFP for Renewable Energy Resources, Los Angeles (March 11, 2010)**

The Los Angeles Department of Water and Power (LADWP) has issued a rolling request for proposals (RFP) designed to seek renewable energy proposals on a continuous basis throughout the year. The rolling RFP calls for proposals for approximately 1,000 GWh per year of renewable energy resources such as solar, wind and geothermal power. This amount represents nearly 4% of LADWP's power sales.

LADWP is looking to acquire renewable energy resources through either immediate ownership of power generation facilities or through long-term power purchase agreements. Under the terms of the new RFP, green power providers can submit their proposal anytime throughout the year. LADWP will open and consider the proposals on a monthly basis, and could then begin evaluation and negotiation of a particular project right away.

LADWP says it will give preference to proposals that offer immediate facility ownership or to long-term PPAs that have an ownership option. Additionally, LADWP is targeting solar projects located in the high deserts of California, close to LADWP's existing transmission system. The application deadline is March 11, 2010.

## **Upcoming Events**

### **Texas Geothermal Lease Sale, April 7 (Austin, TX)**

There is a new Texas Geothermal Lease Sale open. Anyone can bid on these tracts of land, and the deadline is April 7. The GLO Oil and Gas Lease Sale will be held on Tuesday, April 7, 2009, at 10:00 a.m. To learn more, call (512) 475-1512. Information on the Lease Sale Reception, Notice for Bids, Gulf Resource Management Code Updates, Bay Resource Management Code Updates, and Geothermal Lease Tract Maps available at <http://www.glo.state.tx.us/energy/leasesales/oag/2009-Apr-7/index.html>.

### **Trainings for Geothermal Leasing on Federal Lands, BLM and U.S. Forest Service, April 9 – June 11**

The Bureau of Land Management and the U.S Forest Service will be holding seven regional trainings for geothermal industry members across the Western U.S through April, May, and June 2009. The trainings will provide an understanding of the process involved in leasing geothermal resources on Federal lands and will describe the implications of the recently completed Programmatic Environmental Impact Statement ([www.blm.gov/geothermal\\_eis](http://www.blm.gov/geothermal_eis)). Each training session will be three hours in length. Staff from the PEIS team will be present at all meetings. The trainings are free of charge and do not require registration.

Dates, times and locations of the trainings are as follows:

Denver, CO. Thu Apr 9. 9 am – noon. Golden Community Center, Bear Creek Room, 1470 10th Street, Golden, CO 80401

Portland, OR. Tue Apr 21. 9 am – noon. Scottish Rite Center, Candidates Room, 1512 SW Morrison, Portland, OR 97205

Boise, ID. Wed Apr 29. 1 pm – 4 pm. Residence Inn Boise West, Conference Room, 7303 West Denton St, Boise, ID 83704

Reno, NV. Tue May 5. 1 pm – 4 pm. Evelyn Mount Northeast Community Center, Tuscarora Room, 2nd Floor, 1301 Valley Road, Reno, NV

Sacramento, CA. Wed May 13. 1 pm – 4 pm. California Energy Commission, Hearing Room A, 1516 Ninth Street, Sacramento, CA 95814

Anchorage, AK. Wed Jun 3. 1 pm – 4 pm. Alaska Energy Authority, Boardroom, 3rd Floor, 813 W Northern Lights Blvd, Anchorage, AK 99503

Salt Lake City, UT. Thu Jun 11. 1 pm – 4 pm. Sheraton, Executive B Room, 150 West 500 South, Salt Lake City, UT 84101

For further information on the trainings, please contact [Andrew.gentile@empci.com](mailto:Andrew.gentile@empci.com) or 415.544.0440.

## **Federal Grant Workshop, April 14 (Reno, NV)**

Senator John Ensign is hosting a federal grant workshop on renewable energy funding opportunities available through the U.S. DOE for firms, non-profits, academicians, and local governments interested in developing renewable energy sources. A representative from DOE's Energy Efficiency and Renewable Energy Office will present information on grant and loan funding opportunities.

The workshop will be held on April 14, 2009 from 9:00 a.m. to 12:00 p.m. at the University of Nevada Reno, Joe Crowley Student Union – Ballrooms B&C.

RSVP at [Samantha\\_hudson@ensign.senate.gov](mailto:Samantha_hudson@ensign.senate.gov) by April 8, 2009. Contact Sam Hudson at 775-686-5770 with further questions.

## **Seminar on Engineered Geothermal Energy, EGS Energy, April 21 (London)**

In association with the Engineering Group of The Geological Society, EGS Energy invites you to attend an evening Seminar on engineered geothermal systems ("EGS").

The electricity and heat produced by an EGS can be on a large scale, base-load available, renewable, virtually emissions free, and will have a small physical and environmental footprint. The technology is proven and is ready for application in several parts of the world.

The UK did pioneering work in 1980s, and the resulting study indicated that the UK has the potential for producing a significant amount of energy using this technology. In view of the availability of this technology, the current status of increasing energy demand and the vast potential for the UK, it was felt that a seminar was necessary to inform the general public and the industry of the advantages of exploiting this source of renewable energy.

The Seminar will involve:

- a review of the economics of EGS by Professor Jefferson Tester, author of the 2007 industry defining MIT Study on EGS for the U.S. Government;
- the current status of the technology by Roy Baria who has over thirty years' experience of operating EGS;
- commercially developed EGS plant in Germany by Dr Joerg Baumgaertner; the only commercial EGS power plant in the world;
- the effect of the MIT report and the take up of EGS by commercial companies in the U.S. by Susan Petty who is President of AltaRock, Inc.; and
- the technology from the Industrial perspective by Lucien Bronicki, CEO of ORMAT Technologies, Inc., the geothermal power business.

The Date and Time: Tuesday 21 April 2009 at 5.30pm.

The Venue: The Geological Society, Burlington House, Piccadilly, London SW1V 0JU.

The Seminar is free. Places are limited and there is likely to be considerable interest, so please register you wish to attend by sending an email with your details to the Convenor of the Seminar, Guy Cassidy – [guy.cassidy@jacobs.com](mailto:guy.cassidy@jacobs.com).

## **2009 Canadian Geothermal Energy Association AGM and Conference, April 22-24 (Vancouver, British Columbia, Canada)**

The Canadian Geothermal Energy Association (CanGEA) extends a cordial invitation to register for the 2009 CanGEA AGM and Conference in Vancouver, British Columbia running April 22–24.

Discover the benefits of a 2009 CanGEA membership and put yourself on the frontier of North American geothermal exploration. CanGEA corporate members receive extensive benefits and exposure through one of the world's most visited geothermal websites.

For more information, please visit <http://www.cangea.ca>.

## **Geothermal Heat Pump Workshop, April 29–30 (Salt Lake City, UT)**

The Utah Geothermal Working Group, the Utah State Energy Program and SoundGT are sponsoring a Geothermal Heat Pump Workshop April 29-30 in Salt Lake City. This workshop is part of the Geothermal Resources Council's (GRC) Educational Series.

The workshop is also sponsored by the American Public Power Association (APPA), the Great Basin Center for Geothermal Technology, the National Rural Electric Cooperative Association (NRECA), the SMU Geothermal Laboratory, the U.S. DOE's Geothermal Technologies Program, and Western Area Power Administration (WAPA).

The target audiences for the workshop are interested parties and utility staff who want to learn about geothermal heat pumps, to compare them with other resource options, or to learn how to improve on existing programs. Through presentations, panel discussions, case histories, and demonstrations, attendees will learn about:

- Cost effectiveness tests
- Case histories of GHP systems
- New drilling and installation techniques
- Loop leasing and other business services
- Products and services available
- Permitting requirements and other issues

For the agenda, registration, and other information, visit [www.geothermal.org](http://www.geothermal.org).

## **Colorado Geothermal Working Group Meeting, April 30 (Salida, CO)**

From Colorado Geothermal Working Group:

April 30, 2009 at the SteamPlant Event Center in Salida, Colorado ([www.salidasteamplant.com](http://www.salidasteamplant.com)). The Colorado Geothermal Working Group maintains a focus on all categories of geothermal energy including electricity production, direct use and district heating, and ground source heat pumps/geo-exchange. The intent of our meeting on April 30 is to review projects already underway, and explore opportunities for new project development.

Morning sessions on Thursday April 30 will explore how hot waters (i.e. hot springs) are being used to heat buildings, spas and greenhouses in the region. Afternoon sessions will discuss what is known about the geothermal basins, and current efforts to produce electric power or expand uses of hot water. An evening presentation by recognized expert John Lund of the Geo-Heat Center, Oregon Institute of Technology, will describe a range of geothermal direct use and district heating systems throughout the U.S.

Potential Exhibitors - we've arranged for ten 6' tables around the perimeter of the meeting room for you to share information about geothermal products and services. Please let me know if you'd like to reserve a table.

On Friday May 1, Fred Henderson will lead a tour of Mt. Princeton for those interested in learning about plans for Colorado's first geothermal electric generation project. Mt. Princeton Geothermal LLC plans to begin thermal gradient drilling over the next month - the first drilling of this type in the Arkansas River valley since 1975. The tour will begin with breakfast at Mt. Princeton Hot Springs, Friday morning at 8am, followed by a carpool tour.

Our meeting location, snacks and lunch on April 30 are sponsored through the U.S. Department of Energy grant to support development of our geothermal resources in the state. Please arrange for your own travel and lodging. We've secured a reduced \$79 room rate at the Holiday Inn Express in Salida; call 1-800-823-8753 (<http://hiesalida.com>) and let them know you are with the Colorado Geothermal Working Group.

Please RSVP to John Gitchell, [John@SustainableBusinessSolutions.net](mailto:John@SustainableBusinessSolutions.net) for both April 30 and May 1 Mt. Princeton Tour if you are planning to attend.

### **GEA: Geothermal Project Showcase, Newseum, May 6 (Washington, DC)**

The Geothermal Energy Association's "Geothermal Showcase" will be held at the Newseum, May 6, in Washington, DC, from Noon until 5pm. Leading companies will take you to visit their geothermal power projects under development in the U.S around the world. Ormat, UTC Power, Enel North America, ThermaSource, Western GeoPower, Nevada Geothermal Power, Google, Raser Technologies, Chena Hot Spring Resort, and others will be presenting visual and video footage of new geothermal power projects.

Also, as part of this half-day event, top experts from Southern Methodist University, MIT, and the University of Nevada Reno will join in a discussion moderated by the U.S Department of Energy discussing the potential for geothermal energy to meet future U.S energy needs.

For more information, visit: <http://www.geo-energy.org>.

### **GEA: U.S. Geothermal Finance and Development Workshop, Washington Convention and Trade Center, June 3 (Seattle, WA)**

GEA will hold its next in a highly successful series of Finance and Development Workshops in Seattle, WA on June 3. The draft agenda is listed above under the Renewable and Climate Change News section of this update. For more information please go to [www.geo-energy.org](http://www.geo-energy.org) or contact Kathy Kent at GEA by emailing [kathy@geo-energy.org](mailto:kathy@geo-energy.org).

### **Geothermal Energy Utilization Associated with Oil and Gas Development, Southern Methodist University Campus, June 18–19 (Dallas, TX)**

SMU Geothermal Laboratory and Huffington Department of Earth Sciences will be hosting Geothermal Energy Utilization Associated with Oil and Gas Development, June 18–19 at the Southern Methodist University Campus in Dallas, Texas.

This conference specializes in the use of oil and gas fields for geothermal electrical development. Existing oil and gas field data can be used for the initial exploration phase and in some cases the wells themselves can be directly put into production. The end user of the electricity can be as close as the field itself, or sold through power agreements. The technology for this lower temperature resource can highly vary and is still considered cutting edge, so are one highlight of the conference. Technology, Resources, Finance, Engineering, ... all aspects of power development are covered.

Interested in being a conference presenter? Please contact David Blackwell: 214-768-2745 or [blackwel@smu.edu](mailto:blackwel@smu.edu).

Details at: [http://smu.edu/geothermal/Oil&Gas/2009/Geothermal\\_Energy\\_Utilization.htm](http://smu.edu/geothermal/Oil&Gas/2009/Geothermal_Energy_Utilization.htm)

### **GEA: Direct Use/Small Power Finance Workshop, Oregon Institute of Technology (OIT), August 12-13 (Klamath Falls, OR)**

GEA in cooperation with OIT will host a geothermal direct-use and small power workshop in Klamath Falls, Oregon in the summer of 2009. The format would be an all day workshop with a site tour the following day. Included in the workshop agenda will be the how-to's of financing a small power/direct use project, direct use technology, presentations of small projects and direct use projects today and information about drilling and exploration for such projects. For more information contact Kathy Kent at [kathy@geo-energy.org](mailto:kathy@geo-energy.org).

### **GEA: Geothermal Energy Expo/GRC Annual Meeting, October 4-7 (Reno, NV)**

The 2009 Geothermal Energy Expo and GRC Annual Meeting will be held October 4-7 at the Peppermill in Reno, Nevada. For more information about the Geothermal Energy Expo, visit: <http://www.geo-energy.org>.

### **Renewable Energy Indonesia 2009 Trade Show, October 14–17 (Jakarta, Indonesia)**

Indonesia has 45% of the world's geothermal energy resources. Renewable Energy Indonesia 2009 is the 5th international exhibition for all renewable energy technologies. It will be held at the International Exhibition Centre at Kemayoran, October 14–17, 2009.

For more information: [www.pamerindo.com](http://www.pamerindo.com)



#### ***GEA Weekly Update***

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