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GEA Weekly Update



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National News

House and Senate Recess—Action on Taxes and Climate Change Possible in Senate After Easter Break

The House and Senate have started a two week recess, but when they return to session the week of March 31 several key pieces of energy-related legislation are expected to be front and center.

Likely the first issue of significance to the geothermal community for the Senate to address will be to take action on H.R. 5351, the energy tax bill passed by the House. Senate Majority Leader Harry Reid (D-NV) has indicated the Senate is likely to try to bring up this bill when it returns.

If the past is prologue, the vote on this bill will be very tight. The past two votes on energy tax legislation failed to achieve the 60 votes necessary for action by a one vote margin.

Senator Barbara Boxer (D-CA) has also indicated that she expects the Senate to act on global warming legislation in the near future. Senator Boxer held a press conference on March 12 with leaders of environmental groups to “show unity and momentum in the fight for strong global warming legislation. “

“It is the job of Congress—starting now—to pass legislation to effectively reduce global warming pollution,” the Senator told reporters. “We can't duck, we can't hide, we can't evade, unless we want our children and grandchildren to blame us and disparage us for walking away from this—our sacred responsibility. We can no longer fiddle while the planet gets ready to burn. Our Senate Majority Leader, Harry Reid, has informed me that he plans to take up the Environment Committee's global warming bill after the May recess.”

USDA Accepting Renewable Energy Grant Applications

The U.S. Department of Agriculture released a statement regarding applications for renewable energy loans and grants. They are accepting \$220.9 million in applications within the Renewable Energy Systems and Energy Efficiency Improvements Program:

WASHINGTON, March 6, 2008 - Agriculture Secretary Ed Schafer announced during an international renewable energy conference that USDA will accept \$220.9 million in loan and grant applications within USDA's Renewable Energy Systems and Energy Efficiency Improvements Program.

"As demand for energy rises, these renewable energy loans and grants help farms and rural small businesses increase their investment in renewable energy initiatives," said Schafer, speaking at the Washington International Renewable Energy Conference (WIREC). "Energy efficiency wisely applies our resources, and energizes wealth-creation opportunities with more jobs throughout rural America." Loan guarantees and grants are available to agricultural producers and rural small businesses to purchase and install renewable energy systems or to make energy efficiency improvements.

Eligible applicants may seek loan guarantees to cover up to 50 percent of a project's cost, not to exceed \$10 million. Grants are available for up to 25 percent of a project's cost, not to exceed \$250,000 for energy efficiency improvements and \$500,000 for renewable energy systems. USDA Rural Development has invested \$674 million in more than 1,763 renewable energy and energy efficiency projects since 2001. These investments include ethanol, biodiesel, wind, solar, geothermal, methane gas recovery systems and biomass.

The Bush administration's Farm Bill proposal recommends a \$1.6 billion increase in renewable energy funding. Were Congress to agree, cellulosic ethanol development proposals would receive a \$2.1 billion loan guarantee program, while \$500 million would be available for bioenergy and bioproducts research programs, as well as another \$500 million for renewable energy development and energy efficiency grants.

USDA will issue one grant solicitation for two separate competitions in FY 2008. For the first competitive window, grant-only applications must be submitted no later than April 15, 2008. For the second competitive window, grant-only applications must be submitted no earlier than April 16, 2008, and no later than June 16, 2008. Applications for loan guarantees, as well as those for loan/grant combinations must be completed and submitted to the appropriate USDA Rural Development State Office no later than June 16, 2008.

<http://www.usda.gov/wps/portal/!ut/p/.s.7.0.A/7.0.1OB?contentidonly=true&contentid=2008/03/0072.xml>.

Article Discusses DOE's Interest in EGS

Scienceline.org published an article about the Department of Energy focus on renewable energy that talked mainly about enhanced geothermal systems (EGS) and their potential in regards to the 2009 Department of Energy (DOE) budget which includes \$30 million for geothermal energy exploration.

The article pointed out recent changes in renewable focus:

“Until late January, the United States’ main plan for clean baseline power was the development of clean coal technology, with the construction of a plant called FutureGen. But that project’s cancellation was just announced on Jan. 30, as was its possible price tag: \$1.8 billion for 275 MW of capacity, or over 600 times more than EGS per unit of electricity.

“In contrast, the EGS panel report called for only about \$1 billion invested over 15 years. Next to that, FutureGen would have looked like a \$300 roast beef sandwich. Yet the DOE was prepared to invest heavily in the clean coal plant, while geothermal development has received only a small budget for the next two years.”

Visit <http://scienceline.org/2008/03/14/env-ashford-geothermal/>.

Company News

Reicher Says Google Will Finance Enhanced Geothermal

Google.org plans to invest in enhanced geothermal energy, according to usnews.com. Dan Reicher, director of climate change and energy initiatives, talked about funding research and financing geothermal companies at a two-day energy summit sponsored by the National Academy of Sciences, according to the article.

"There's a great deal of optimism about renewable energy, great engagement of the public, and interest of the investment community," Reicher said. "There needs to be a fundamental change in the cost structure of renewables if we expect them to compete. And let's talk about the competitive landscape—first and foremost about coal. The aim has to be to make renewable energy competitive with coal and to do it in years, not decades."

Visit <http://www.usnews.com/blogs/beyond-the-barrel/2008/3/14/google-will-finance-enhanced-geothermal.html>

U.S. Geothermal Announces Updates for Raft River Project

U.S. Geothermal released a statement announcing a power purchase agreement for the planned Raft River Unit Two power plant:

BOISE, Idaho – March 12, 2008 U.S. Geothermal Inc., a renewable energy company focused on the production of electricity from geothermal energy, announced that Eugene Water and Electric Board (EWEB) of Eugene Oregon has signed a power purchase agreement (PPA) for the planned Unit Two power plant at Raft River. The PPA allows for variable electrical output up to a maximum of 16 MW with a term of 25 yr. The PPA is subject to successful drilling and resource development at Raft River. Under the terms of a related agreement entered into by U.S. Geothermal, EWEB and the Bonneville Power Administration (BPA), the power generated from Unit Two at Raft River will be delivered to BPA's customer load in Idaho. The same amount of power will be made available by BPA to serve EWEB's load.

“EWEB has been at the forefront of developing renewable energy resources to meet its increased demand and we welcome them as a potential new customer for Raft River. We extend our thanks to BPA for supporting renewable energy development at Raft River,” said Daniel Kunz, President and Chief Executive Officer of U.S. Geothermal.

A computer model of the Raft River reservoir is being developed which includes data collected from current injection and production well tests. The model will be used to help locate new wells for increasing production at Unit One, from its current production of between 9 to 9.5 MW, to the plant's full output potential of an annual average of 13 MW and for the planned development of Unit Two. A development timetable for U.S. Geothermal projects including Raft River Unit Two is being finalized and will be announced within the next calendar quarter.

<http://www.usgeothermal.com/NewsReleases/Mar-12-2008.pdf>.

Renewable and Climate Change News

New Sources Focusing on Africa's Renewable Energy

An article found on ecoworldly.com talks about Africa's current place in the renewable energy world. It addresses concerns that Africans face—many of which will be solved when access to power becomes available.

The article mentions Africa's solar energy plants. Although Africa's largest solar power plant only has a capacity of 250 KW, the author believes that Africa's climate can allow solar power use to increase to be used in “virtually any location in Africa, without the need for expensive large-scale grid level infrastructural developments.”

The article then shifts its focus to the rich geothermal potential in many parts of the continent:

“Geothermal power is mostly concentrated in eastern Africa, but there are many fragmented spots of high intensity geothermal potential spread across the continent. There is enormous potential for geothermal energy in the Great Rift Valley, which is roughly 3,700 miles in length and spans several countries in East Africa including Eritrea, Ethiopia, Djibouti, Kenya, Uganda, and Zambia.

“The potential of geothermal power in Kenya, Uganda, and Ethiopia stands at 3,000, 1,000 and 250 MW, respectively.”

The article points out that very little of this potential has been realized. The region is currently on the minds of several geothermal companies and investors, bringing more and more attention to this area of the geothermal world.

See <http://ecoworldly.com/2008/03/08/the-state-of-africas-renewable-energy/>.

Article Calls for “War on Oil”

Newsmax.com published an article calling for America to “declare war on oil before it’s too late.”

The article pointed out the alarming rate at which America spends money on foreign oil. T. Boone Pickens of BP Capital Management said that America will be spending \$5 trillion over the next 10 yr—“more than \$1 billion a day,” according to the article.

The article highlighted the benefits of several renewable energies. Regarding geothermal energy:

“You may not know this, but Iceland gets 99% of its electricity from geothermal means.

“Drill deep into the earth and you get heat. Pour water down the hole and it vaporizes to steam. Steam can turn turbines to create electricity. Advocates say that a fully developed geothermal energy program in the U.S. could provide all American energy needs 2,000 times over.

“Geothermal plants already provide thousands of megawatts of electricity to Northern California and Nevada.”

The article was very positive about the ability of renewables to aid our economy, as long as Congress is able to pass incentives.

http://www.newsmax.com/ruddy/oil_dependence/2008/03/13/80091.html.

State News

Idaho: Bill Would Clarify Tax on Geothermal Projects

The House Revenue and Taxation Committee of Idaho voted on February 21 to send House Bill 529 to the House, according to redorbit.com. The bill would require counties to tax geothermal projects on the basis of production revenue. Currently, wind projects are taxed in this way.

The bill would also clarify the definition of machinery and equipment for renewable energy facilities as all operating property, and it would define what equipment is exempt from sales tax.

For more information, visit

http://www.redorbit.com/news/business/1288154/bill_would_tax_geothermal_in_idaho_wind_power_the_s_ame/.

Oregon: Davenport Power Announces Updates for Newberry Project

U.S. Renewables Group and Riverstone Holdings have come to an agreement to invest in Davenport Power’s Newberry Geothermal Project, according to ecoworldly.com.

The article outlined plans for the project. Funds will initially be used for exploratory test wells. The long-term results are expected to produce energy for a 20-yr, 120 MW contract with Pacific Gas & Electric Company in California.

Thomas King, Partner at US Renewables Group told the press, “USRG is excited to partner with the Davenport team and to bring its resources to the development of what many believe to be the largest untapped geothermal resource in the U.S.”

See <http://ecoworldly.com/2008/03/08/the-state-of-africas-renewable-energy/>

and www.newberrygeothermal.com.

International News

Dominica: Ministry Prepares for Geothermal Development

Minister for Energy Charles Savarin and Paul Mondesire, representative of the Head of Delegation of the European Commission to Barbados and the Eastern Caribbean, are working on a project to bring geothermal energy to Dominica, according to caribbeannetnews.com.

According to the article, the project will:

- Measure the size of the geothermal resource and determine its chemical characteristics
- Conduct a feasibility study on supplying electricity to Martinique and Guadeloupe
- Conduct an Environmental Impact Assessment (EIA)
- Provide more information on Dominica's successful bid to the European Commission for support to a project titled "Preparation of a geothermal-based cross border electrical interconnection in the Caribbean"

The project will be funded by the European Commission's Energy Facility and supplemented by the Agence Francaise de Developpement and Fonds Francais pour L' Environment Mondial. The Ministry will establish a Project Management Unit for developing geothermal policies and ventures on Dominica.

See http://www.caribbeannetnews.com/index.php?news_id=6562.

See *RFP for Technical Assistance—"Development of Geothermal Resources" in Dominica (Due March 22) in the Requests for Proposals (RFPs) section of our GEA Weekly Update, this issue.*

Mexico: Official Visit With Icelandic President Addresses Geothermal

President of Iceland Ólafur Ragnar Grímsson and President of Mexico Felipe Calderón are discussing points of cooperation between the two countries, according to icelandreview.com. In the first-ever official visit by an Icelandic president to Mexico, last week Grímsson and Calderón had geothermal energy high on their agenda.

Calderón said Iceland could offer Mexico their technological expertise and experience in harnessing sustainable energy, the article said.

See http://www.icelandreview.com/icelandreview/daily_news/?cat_id=21123&ew_0_a_id=302587.

Northern Mariana Islands: Pagan May Produce Geothermal Energy

As previously covered here in the GEA Weekly Update, Governor Benigno R. Fitial of the Commonwealth of the Northern Mariana Islands recently toured geothermal power plants in the Philippines with Dr. James Quick, a former scientist of the U.S. Geological Survey.

Now the governor is coordinating scientists who are studying the Commonwealth's island of Pagan for geothermal potential, according to mvariety.com. The article confirms the governor's attempt to tackle the Commonwealth's unstable power supply.

Dr. Roy Mink, former program director for the geothermal technologies program of the U.S. Department of Energy, is one of three scientists who went to Pagan.

See http://www.mvariety.com/?module=displaystory&story_id=8198&format=html.

Notices and Employment Opportunities

Employment Opportunity—Terra-Gen Operating Company

Terra-Gen Operating Company is a newly formed independent power producer operating clean and reliable energy projects located in several western states. Current renewable projects include wind, geothermal, and solar. Terra-Gen is currently seeking...

Geothermal Resource Manager:

Manage/develop the geothermal resource company wide. Maintain departmental budget. Direct/support geological/resource needs i.e., on-going geologic model, temperature model, reservoir and well performance evaluation. Evaluate geothermal reservoirs, provides recommendations for well field operations. Target drilling for production and injection wells. Provide technical support for well maintenance i.e., workovers, acid jobs, caustic jobs, surveys, etc. Desired qualification: Relevant BS from 4 yr college or university; or 10 yrs related exp and/or training; or equal education and experience. Geological and temperature modeling knowledge.

Environmental Manager:

Supervise the Environmental Compliance Dept personnel. Oversee departmental budget integrated into plant budgets. Document, review and track department activities, reports, compliance documents, audits, and investigations. Ensure company operations comply with environmental permit requirements and federal, state and county/district regulations. Maintain an effective relationship with regulatory agencies. Prepare and update company programs, policies, and procedures for safety and environmental compliance. Organize, develop, implement and administer the company's safety program. Desired qualifications: Bachelor's Degree from a 4-yr college or university; and 8+ yrs related experience and/or training; or equal education and experience. Environmental and safety regulation knowledge.

To apply for either position, send a resume to Terra-Gen Operating Company, Attn: Human Resources, P.O. Box 1690, Inyokern, CA 93527, fax to 760-764-1318, or email to djackson@tgpnyc.com. Terra-Gen Operating Company is an Equal Opportunity Employer.

Employment Opportunities—Mighty River Power

Mighty River Power's diverse generation portfolio helps New Zealand ensure its ability to meet future energy needs. Mighty River Power is an integrated energy generation and retail business with a diverse and expanding portfolio of generation assets throughout the North Island of New Zealand. That portfolio includes rapidly growing geothermal interests including those at Mokai, Rotokawa, Kawerau, and throughout the Taupo Volcanic Region. Mighty River Power's geothermal team performs to world class standards and is focused on implementing cutting-edge technology to the development of these renewable and greenhouse friendly energy resources. Rapid growth in our geothermal business has increased their need for engineers to join the geothermal team. They're looking for motivated engineers with good written and verbal English skill. They offer a stimulating environment for those who want to apply their geothermal expertise, whilst enjoying New Zealand's extensive lifestyle opportunities.

Reservoir Engineer:

As a reservoir engineer you will:

- Design and supervise well tests, and collect and interpret results
- Propose and oversee field monitoring projects
- Characterize resource behavior using sophisticated computer modeling software.
- Provide valuable technical support to high-dollar energy resource projects.

An engineering, hydrology or applied maths degree are relevant qualifications. An interest in real-world applications in a mixed office and outdoor environment is essential, as well as interests in geology, civil

engineering, hydrology and computer modeling. Specialized knowledge and skills in geothermal field management, resource monitoring and well testing will be developed over time. This position reports to the Geoscience Manager and is located in Hamilton.

Senior Mechanical Engineer:

As a senior mechanical engineer you will:

- provide vital strategic support to both operations and new generation development
- provide engineering and economic evaluation for enhancement opportunities of existing assets and new developments
- oversee and provide leadership for a multi-disciplined team of engineers.
- ensure that the company's strategic goals are achieved through assurance of plant performance in consideration of life cycle costs

The ideal person for this role will hold a relevant engineering qualification and have more than 10 yr experience in geothermal projects. This position reports to the Geothermal Engineering Manager and is located in Hamilton.

Plant Chemical Engineer:

As plant chemical engineer you will:

- be responsible for determining appropriate treatment processes throughout the different geothermal power generation cycles
- oversee various specialist service providers
- review industry trends to ensure best practice principles are being applied
- specify and review the design of new installations
- supervise investigations

The ideal person for this role will hold a relevant engineering qualification and have more than 5 yr experience in geothermal power plant operation. This position reports to the Operations Manager and is located in Taupo.

Maintenance Manager:

As maintenance manager, responsible for a portfolio of power generation plant currently totaling 150MW and expanding to 500MW in the near future, you will:

- proactively improve and implement systems to enhance plant availability
- oversee and provide leadership for a multi-disciplined team of engineers.
- remain aware and trained on all technical advancements in the area of responsibility
- manage plant level capital projects in conjunction with the engineering team

This role will require a relevant engineering qualification and have more than 10 yr experience in geothermal power plant operation, including demonstrated line management skills. This position reports to the Operations Manager and is located in Taupo.

Drilling Engineer:

As a drilling engineer you will:

- Write drilling programs and monitor drilling progress
- Assist the onsite drilling supervisor with implementation of high profile drilling operations
- Review operations for process improvements
- Provide technical support to field managers and reservoir groups for well maintenance.

An engineering degree with computer skills and good written and spoken English communications skills are required. Specialized knowledge and skills in geothermal drilling are important and additional experienced can be developed over time where needed. This position reports to the Drilling Manager— Geothermal and is located in Hamilton.

If you would like more information about Mighty River Power please see the company Web site at www.mightyriver.co.nz. If you would like more information about any of these vacancies or wish to apply then email careers@mightyriver.co.nz, or phone +64 9 5803612, or post your application to Human Resources, Private Bag 92008, Auckland Mail Centre.

Employment Opportunity—Nevada Geothermal Power Inc.

Nevada Geothermal Power Inc. is seeking an experienced Geothermal Resource Exploration and Development Manager. Nevada Geothermal Power's 30 MW geothermal power development at Blue Mountain near Winnemucca is financed to production (\$120 million). This dynamic company seeks to significantly expand the resource base at Blue Mountain and is actively developing other geothermal power projects to meet the increasing demand for clean energy. The Company is well financed and expects significant growth through the next decade.

Geothermal Resource Exploration and Development Manager:

This is a senior management position that requires a MS in Geological Sciences, Geological Engineering or Hydrology with 10+ yr experience with geothermal field development. The successful candidate will plan and implement exploration and geothermal reservoir evaluation programs using a multi-disciplined approach involving geology, geochemistry, geophysics, and drilling up to and including large scale development wells, helping to achieve the Company's objective for growth. The position is based in Reno and/or Winnemucca and will involve supervision of resource technical staff and consultants. Excellent communication and interpersonal skills are required as is a familiarity with budgets and cost controls.

The Company offers excellent health benefits, competitive remuneration, opportunities for career advancement in an exciting field.

To apply, fax resumes to 604-688-5926 or email resumes to careers@nevadageothermal.com.

Requests for Proposals (RFPs)

RFP for Technical Assistance—“Development of Geothermal Resources” in Dominica (Due March 22)

Dominica is a Caribbean volcanic island that has exhibited strong potential for significant geothermal power generation. According to the studies carried out over a twenty (20) year period, the exploitable potential would reach several tens of MW, probably a value superior to 100 MW. Moreover, its geographic position between other Caribbean islands allows for cross-border interconnection (with Guadeloupe and Martinique). The combination of these two factors should lead to the development of a geothermal electricity production plant of 90 MW on the site of Wotten Waven (probably implemented in several stages). A feasibility study carried out in 2005 on this power plant project concluded that it was technically feasible and economically relevant.

In order to contribute to the implementation of this power plant project, AFD, FFEM, and EU (probably joined by BEI) will finance the following tasks (called “the project” thereafter):

- additional surface exploration in Dominica
- complementary studies needed to inform the implementation of the power plant project (interconnection feasibility; environmental impact assessment; economic and financial profitability; legal and institutional framework; appropriate plant design technologies)
- exploratory drillings at various sites to determine the resource's characterization.
- identification and evaluation of a short list of private partners who could be considered for a public-private partnership with the Government of Dominica and/or the project partners.

This project has a minimum cost of 5 million Euro.

The project will be hosted and implemented by the Ministry of Energy of Dominica, for a three year period. It includes a budget for technical assistance. A consulting firm (thereafter called “the Consultant”) will therefore be hired to support the Ministry in implementing the project.

Organization of Technical Assistance

The Consultant required for the assistance should have proven experience and expertise in developing and managing geothermal projects and international cooperation in developing countries. It should be able to provide evidence of its experience in the following fields:

- project management of geothermal resources characterization and development of power plants;
- financial set up of projects or investment programs in developing countries;
- implementation of public-private partnerships (PPP)

The Consultant will be required to work in English, but knowledge of French will be an asset, as it would facilitate communication with the French partners of the project, such as the regions of Martinique and Guadeloupe, and other French-speaking stakeholders.

The general knowledge about the area of intervention will also be taken into account.

The technical assistance/support would include:

- initially (for a period of 3 to 6 months): missions of international experts to Dominica on a regular basis;
- then a resident advisor, based in Dominica, working full time for the Ministry of Energy on the project, supported by international experts on specific issues related to implementation of the project. The Consultant would hire this advisor for 2 yr and would follow up his work.

The budget for this technical assistance, including all fees of international experts, has been assessed at 500,000 for 3 yr.

Submission of the Expression of Interest

The Consultant will submit its letter of interest including:

- a presentation of its experience/qualifications/competences regarding project management of geothermal plants;
- a description of the complementary expertise that could be called upon on specific issues such as PPP's;
- CV's of possible resident advisors for the second stage of the project

Dominica's Ministry of Energy in collaboration with AFD and the other partners will then establish a short-list of candidates, to whom the complete terms of reference of the mission will be sent.

Submit to mtpe@cwdom.dm, edf@cwdom.dm, or ass_tech_energie@afd.fr.

RFP for Enhanced Geothermal Systems—U.S. Department of Energy

The U.S. Department of Energy announces its intent to request proposals for Enhanced Geothermal Systems, to demonstrate reservoir stimulation techniques at existing geothermal fields; establish an EGS field validation site where DOE and its partners can perform high-risk experiments under actual field conditions; develop new sensors, down-hole tools, and mapping capabilities able to operate at greater depths and higher reservoir temperatures; and provide outreach to the geothermal community to convey the benefits and potential opportunities of EGS technologies.

Funding amount and number of awards anticipated was not posted at this time.

For more info, contact James Damm at james.damm@go.doe.gov or go to: <http://e-center.doe.gov/doebiz.nsf/UNID/5E8F90C7ED4B98848525740400568EF1?OpenDocument>.

SMUD to Release 2008 Renewable Energy RFO (Due April)

On January 4, The Sacramento Municipal Utility District (SMUD) will release a Request for Offers (RFO) of renewable energy for power purchase agreements (PPA). Proposals will be due early April.

SMUD has a goal to meet 23% of its retail electricity sales with renewable energy by 2011 and beyond. The utility's need for renewable energy continues to increase due to its commitment to expand the amount of power from renewable sources in its power mix and a need to replace current contracts that expire in the coming years.

The 2008 solicitation is for PPA offers of California RPS eligible conventional renewables, which include resources such as wind, geothermal, small hydroelectric, landfill gas, biomass and biodiesel. A separate RFO for emerging renewable technologies is planned for mid-2008.

Interested parties can download the RFO documents from SMUD's Electronic Bid Solicitation System (EBSS) Web site at www.bids.smud.org when it becomes available. Registration to the EBSS site is required to access the documents.

SMUD recommends that those interested in this and future solicitations list their company name in the "Renewable Power" category as well as in one or more of the following Renewable Power subcategories: Generation Energy, Geothermal Power, Landfill Gas Power, Renewable Power-Other, Small Hydro Power, and Wind Power.

Registered individuals will also receive updated information regarding this RFO and will also receive notification of future solicitations for purchase of renewable energy resources.

For additional information, contact Cesar J. Beltran at (916) 732-6925 or cbeltra@smud.org.

RFO for Supply of Renewable Energy Resources— San Diego Gas & Electric (Due April 30)

San Diego Gas & Electric (SDG&E) today announced it has issued a competitive solicitation seeking supply of renewable-energy resources to help the utility meet California's mandate to derive 20% of its energy from renewable sources starting in 2010. This latest solicitation, also known as a "request for offers" (RFO), will help to further increase SDG&E's supplies of clean, renewable power for the region's energy portfolio.

"For the last five years, SDG&E has aggressively pursued renewable energy from developers whose projects deliver clean energy to our customers in San Diego and South Orange Counties," said Matt Burkhart, vice president electric and gas procurement for SDG&E. "For this year's solicitation, SDG&E seeks both long-term and short-term contracts that will build on our existing clean, 'green' energy resources and will aid us in our effort to secure 20% of our energy from renewables by 2010."

Through the bidding process, or RFO, SDG&E is seeking energy that comes from solar, wind, geothermal, biomass and any other clean, renewable resource that qualifies under the state's Renewable Portfolio Standard program. The plants that produce the power can be inside or outside the SDG&E service territory. Bids are due April 30, 2008.

The evaluation and selection of offers includes active participation by SDG&E's Procurement Review Group, comprised of California Public Utilities Commission (CPUC) staff, consumer advocates and other non-market participants, as well as an independent evaluator. These entities are involved at all stages of the process, including the preparation of the RFO, bid evaluation and determination of the final "short list" of bidders. Once the evaluation process is completed, all proposed contracts are subject to CPUC review and approval.

More information about this latest RFO for renewable energy is available at <http://www.sdge.com/renewablerfo2008>.

RFP for Renewable Power Projects—Southern California Edison (Due May)

Southern California Edison is looking for both short-term and long-term contracts for projects that produce solar, wind, biomass, and geothermal energy, according to a release. All proposals are welcome, but the company is especially interested in the Tehachapi area of Kern County.

Proposals are due in May 2008. SCE hopes to submit completed contracts to the California Public Utilities Commission by December.

Contact vanessa.mcgrady@sce.com. Visit the Southern California Edison Web site at <http://www.sce.com/>.

RFP Climate Change and Sustainability Conferences (Due June 5 and December 9)

The U.S. Environmental Protection Agency has issued a Broad Agency Announcement for Conferences, Workshops, and/or Meetings. EPA seeks applicants for the planning, arranging, administering and/or conducting of conferences and workshops in areas including, but not limited to: Economics and sustainability; air and global climate change; and technology. \$500K expected to be available, up to 15 awards anticipated. Proposals due 1/7/08, 6/5/08 and 12/9/08.

For more information, contact Bernice Smith at smith.bernicel@epa.gov or go to http://es.epa.gov/ncer/rfa/2008/2008_baa.html. Refer to Sol# EPA-C2008-BAA. (Grants.gov 12/6/07)

Upcoming Events

Geothermal Working Group Meeting, April 8, Denver, CO

The Colorado Governor's Energy Office is sponsoring a Geothermal Working Group Meeting in Denver on April 8th. The agenda includes sessions on geothermal electricity development in Colorado and ground source heat pump applications.

Persons interested in this event are invited to contact John Gitchell at John@SustainableConferences.com.

MIT Energy Conference, April 11–12, Cambridge, MA

Registration is now open for the MIT Energy Conference, which brings together leaders in technology, policy, entrepreneurship, and finance to discuss multidisciplinary solutions to our global energy challenges. Based on the 2008 theme of "Solutions that Scale," panel sessions will cover: Nuclear Power, End-Use Efficiency, Carbon Capture and Sequestration, Geothermal Energy, Transmission Infrastructure, Vehicles, and the all-conference session Renewables at Scale. Many of these panels will be moderated by MIT faculty who are leading researchers in these fields.

For more information and to register, visit <http://mitenergyconference.com/>.

Geothermal Working Group Meeting, April 22–23, Cedar City, UT

The next Geothermal Working Group Meeting will be at Southern Utah University. The theme will be "Geothermal Activities and Potential in Southwestern Utah: Ground Source Heat-Pumps to Electrical Generation.

Day one will offer presentations from private geothermal developers, utilities, and other industry members.

Day two will consist of an all day field trip to Blundell Geothermal Power Plant and Milgro Nursery in Newcastle, Utah.

Further event details will be announced soon.

If you have any questions or comments, please contact Jason Berry at jasonberry@utah.gov or 801-538-5413.

4th International Geothermal Conference, April 24, Freiburg, Germany

The International Geothermal Conference is one of the leading event for geothermal developers, finance providers and policymakers in Germany. The conference provides profound information about geothermal projects and creates ideal conditions to network with international business partners. The event will bring high level representatives such as Karl Gawell, director of the Geothermal Energy Association (GEA), who will report on the state of US geothermal activities. Michael Kraml, consultant at the Federal Institute of Geosciences and Natural Resources (BGR) will offer high-quality information about current developments in South America and East Africa. A speech on the political frameworks, especially the „Erneuerbare-Energie-Gesetz“ (Renewable Energy Sources Act) and its essential effect on market developments in Germany will be given by Cornelia Viertl, consultant at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Following the lectures four workshops will take place and provide opportunity to exchange information about technical demands, project financing instruments and the legal framework situation. After keynote speeches and the presentation of a case study, representatives of banks, public authorities, drilling and insurance companies will offer sufficient time to share experiences and informations during the following panel discussions. Speeches and workshops will be translated simultaneous into English and German in parts.

As last year, the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU) oversees the International Geothermal Conference 2008. We are also happy to present one of the leading magazines for renewable energy, Sun & Wind, and vdi-nachrichten as the new media partners of the conference. Cooperation partners are amongst others the German Energy Agency dena as well as the International Geothermal Association (IGA). The conference invites investors, insurances, insurance companies, project developers, technology experts, consultants, energy providers, local authorities, political stakeholders and associations. The application fee is 300 Euro plus VAT.

For further information please visit: www.geothermiekonferenz.de.

SMU Geothermal Conference, June 17–18, Dallas, Texas

Southern Methodist University will put on a Geothermal Conference June 17–18. This international conference specializes in the enhancement of existing oil & gas wells for electrical production. According to SMU, “Geothermal energy can be extracted from the well fluids using newly designed compact turbines with binary fluids. These systems are now sized to fit single wells or multiple wells with an approximate fluid temperature differential of 120°F+ between produced and cooling temperatures. Thus, in the Gulf Coast temperatures of 225°F or higher are eligible. This electrical production (geothermal energy) is renewable and considered a baseload source and is capable of producing 24 hours a day. This capability gives new life to low yield producers with high water volume and a reason to keep them pumping. Undesirable high water flow geopressure wells become an immediate revenue path if converted to electrical production. With a system installed in Chena Hot Springs, Alaska and another installation going into the Wyoming Rocky Mountain Oil Field Testing Center, the ability to use low temperature fluids is no

longer just a concept, rather it's a reality. New technology, data, and economics will be presented to assist you in developing your company's renewable energy portfolio using existing wells.

Topics Presented To Include:

- Power Generation Technology Advancements
- Geothermal Resource Exploration and Assessment
- Reservoir Engineering
- Fracturing
- Geopressure Development
- Tight Gas Sands Development
- Well Longevity—Corrosion and Scaling Management
- Enhanced Geothermal Systems – International
- Green Power for Utilities (RECs)
- Economics and Business Plan
- Transmission needs
- Regulations and Leasing
- Financing
- Demonstration Sites

For more information and to read the Call for Papers, visit

http://smu.edu/geothermal/Oil&Gas/2008/Geothermal_Energy_Utilization.htm.

GEA Trade Show/GRC Annual Meeting, October 5–8, Reno, Nevada

The GEA Trade Show and GRC Annual Meeting will take place October 5-8 Peppermill in Reno, Nevada. Annually, Geothermal Energy Association hosts a wide range of companies working in the U.S. and abroad within the geothermal power industry at its Trade Show. Last year in Reno/Sparks, Nevada, 71 booths were visited by over 1000 visitors. With dramatic growth underway in geothermal power projects in the U.S. and internationally, we expect the 2008 trade show in Reno to be our largest event yet!

For more information about the GEA Trade Show, visit http://www.geo-energy.org/2008_ts/index.htm.

For information about the GRC Annual Meeting, go to <http://www.geothermal.org>.

2nd African Rift Geothermal Conference, November 25–29, Entebbe, Uganda

The second International Geothermal Conference on the African Rift will be held in Entebbe, Uganda. The conference is designed as a forum for the exchange of information on the African Rift Geothermal Resources and for discussion of the current state of scientific knowledge and understanding of all aspects of exploration and development of geothermal resources, including exploration, field and conversion technology, design and construction, environmental considerations, financial, marketing, and operational aspects.

Scientific Program

The Scientific Program of the conference consists of Plenary Lectures, Poster presentations, Workshop and Field Trips. The structure and the list of sessions below are preliminary.

A number of Keynote addresses will be given by eminent scientists, on subjects relevant to the main themes of the conference (as indicated in this circular). Lectures will be open to all participants and will take place in a large conference hall.

Sessions

The following will be the themes for oral and poster sessions:

- Session 1: Exploration: Geology, Geophysics, Geochemistry, and Hydrology
- Session 2: Drilling and well design: Shallow and deep, Production and Injection
- Session 3: Field development, Production Technology, Power generation & Operation.
- Session 4: Reservoir Engineering: Well Testing, Injection, and Modeling

- Session 5: Case Histories
- Session 6: Economics and Financing
- Session 7: Environmental, Social, Legal and Institutional Aspects
- Session 8: Direct Use: Agri-and aquaculture, Mineral extraction, Manufacturing, Air conditioning etc.

Contributions

The organizers of ARGeoC2 welcome submission of titles/extended abstracts for oral and poster presentations from all geoscientists, engineers and others involved in geothermal resources exploration and development. Authors may submit papers for publication only, or for presentation and publication in “The Conference Proceedings”. Papers may be selected for presentation in a technical session, or poster session. Selection of papers for presentation will be based on subject material suitability, professional standards of writing, and quality of the illustrations. Time allotted for oral presentations will be 15 minutes each, with an additional 5 minutes for discussion. Oral presentations will be illustrated with LCD Projector in PowerPoint.

For more information and to register, contact Department of Geological Survey and Mines, Plot 21–29, Johnstone Road, P.O Box 9, Entebbe, Uganda. Phone: +256 712 812231, +256 712 835843, +256 773 129941. Fax: +256 414 320364. E-mail: argeoC2@minerals.go.ug or bahati@minerals.go.ug.



GEA Update

A newsletter for GEA Members written by Leslie Blodgett and Karl Gawell.

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