



GEO THERMAL ENERGY ASSOCIATION

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National News

Expectations for Action on Climate Change Shifting

Senate Majority Leader Harry Reid has indicated that the Senate may not take up Climate legislation until next year, given the need to address both health care and financial institution reform legislation first. The announcement drew sighs of relief from some and protests from climate change activists. Later, Senator Reid tried to reassure activists that the Senate would move to climate legislation as soon as possible.

Meanwhile, the U.S. EPA was moving ahead with its climate initiatives. The White House approved EPA's rules that will create a national greenhouse gas registry, and discussions intensified about EPA moving forward with climate regulation under existing laws.

At the same time, the push towards climate legislation suffered a setback when CBS reported that a Treasury Department study concluded cap-and-trade legislation would cost the economy \$200 billion annually. Ranking Republican on the Senate Energy Committee, Lisa Murkowski (R-AK), retorted: "It's becoming apparent that the administration knew all along how much their cap-and-trade program would cost, yet they continue to claim it will cost no more than a postage stamp a day," Murkowski said

In a press release, Senator Murkowski explained more about the Treasury information. The release said, "A previously unreleased analysis prepared by the U.S. Department of Treasury says the total cost would be between \$100 billion and \$200 billion a year. At the upper end of the administration's estimate, the cost per American household would be \$1,761 a year, on top of what they already pay in taxes to the government. A second memorandum, which was prepared for President Obama's transition team after the November election, said the economic costs of climate change legislation would likely be on the order of "one percent of GDP, making them equal in scale to all existing environmental regulation."

As the Senate Energy Committee began hearings on cap-and-trade programs, Senator Bingaman stated, "We need to provide assurances that the costs of a cap-and-trade system will not go out of control, either through excessive prices or excessive volatility."

And, while action on climate legislation in the Senate seemed to be stalling, expectations for the next round of international talks on climate change appeared to be set back, as well. Sources reported that preparations for the Copenhagen talks in December appeared to be pushing back into 2010 any prospects for further international treaty action.

Largest Geothermal Gathering in the World Expected at Geothermal Expo in Reno

The Geothermal Energy Association (GEA), the geothermal industry's trade association is thrilled to be holding the Geothermal Energy Expo in tandem with the GRC's Annual Meeting, October 4th-7th. The Geothermal Energy Expo is the world's largest gathering of geothermal industry vendors exhibiting their projects, equipment, services and state of the art technology to the geothermal community. This year's Expo will host over 120 vendors.

You might see a few Stetson hats poking above the crowd, sport coats and ties, a good number of blue jeans and dusty hiking boots, and everything in between as thousands unite as geothermal enthusiasts. They will come from places as diverse as the companies they represent, and they will all be in Reno for the Geothermal Energy Expo.

At noon on Monday, October 5th the Geothermal Energy Expo officially opens, featuring over 120 exhibits from companies ranging from Ormat Technologies to Gradient Geothermal. Regular events and speakers are scheduled for the Expo Hall from Monday at noon through noon on Wednesday. The Expo hours are: Monday, noon-5pm, Tuesday, 9am-6pm and Wednesday, 9am-2pm. Admission to the Expo on a daily basis is only \$50 per person, per day.

A new addition to our annual Geothermal Energy Expo will be a FREE webcast from the Expo floor on Tuesday, October 6th from 10am-2pm PT. This will enable like-minded individuals who can't make the trip out to Reno to get the low-down on the geothermal companies presenting who will share their projects, equipment, services, and state-of-the-art technology. Registration will be FREE and can be made online at: <http://www.visualwebcaster.com/event.asp?id=61325>.

We will also be bringing back last year's popular Texas Hold 'Em Tournament on Tuesday evening, October 6th from 9pm to midnight. Also, don't miss the GEA 2009 Best in Show award presentations in the Expo Hall on Wednesday, October 7th at 11am where GEA will acknowledge the best of the best in geothermal exhibition.

Last year nearly 1800 people walked the Expo floor of the Geothermal Energy Expo, a mind-blowing 80% increase over the previous year. Our participants are expected to set records for us yet again. To learn more about exhibitors, events, sponsorship, guest information, and to register, visit <http://www.geothermalenergy2009.com/>. (Booth space is sold out).

Company News

GEA Member Feature: Geothermal Development Associates Announce New Office and Workshop Facilities in Reno, NV

On August 29 & 30, Geothermal Development Associates (GDA) moved to its new headquarters in south Reno, Nevada, USA. The newly-constructed building complex, designed to GDA's specifications, has over 6,000 sq ft (557 sq. meters) of office space and over 11000 sq ft (1,020 sq. meters) of workshop space to accommodate what is expected to be an increased level of geothermal power plant design, assembly and testing. Passive lighting techniques were used in the design of the building and the office section is heated and cooled with a geothermal heat-pump system.

GDA is a geothermal power developer, resource consultant and equipment provider. The company has provided resource assessment, licensing/permitting, training services and power plants to the geothermal industry, government agencies and private companies worldwide since its incorporation in 1978. As its main activity, GDA designs and packages turbine generator sets. GDA also designs and fabricates associated equipment such as lube oil consoles, hydraulic power units, complete electrical control systems and other components using state-of-the-art technology.

GDA maintains a permanent professional staff of mechanical and electrical engineers, geologists, and permitting specialists experienced in project management, resource assessment, drilling management, project feasibility, engineering design, construction supervision, startup and performance testing, power sales contract negotiation, utility interconnection studies, permitting and environmental and regulatory affairs.

Contact Steve Hirsch, VP Project Development, 775 737 7804 or visit <http://www.gdareno.com/>.

Are you a GEA member? Send an email to research@geo-energy.org to get your company featured in our newsletter and on our Web site.

GTO Resources Inc., Polaris Geothermal Inc., Western GeoPower Corp. and Ram Power, Inc.: Companies Announce Entering into of Arrangement Agreement and Share Purchase Agreement

Press Release, September 9 — GTO Resources Inc. ("GTO") (NEX BOARD:GTR.H), Polaris Geothermal Inc. ("Polaris") (TSX:GEO), Western GeoPower Corp. ("Western") (TSX VENTURE:WGP) and Ram Power, Inc. ("Ram"), are pleased to announce that they have entered into an arrangement agreement (the "Arrangement Agreement"), whereby GTO has agreed to acquire all of the issued and outstanding securities of Polaris and Western by way of a plan of arrangement under the Business Corporations Act (British Columbia) (the "Arrangement"), as previously announced on July 15, 2009. In addition, GTO and Ram are pleased to announce that they have entered into a share purchase agreement (the "Share Purchase Agreement") pursuant to which GTO will acquire all of the issued and outstanding securities of Ram (the "Ram Acquisition"), as previously announced on June 30, 2009.

See http://www.marketwirecanada.com/mw/rel_ca.jsp?id=1041896&k=gto.

Magma Energy Corp.: Fourth Quarter and 2009 Year End Results Announced

Magma Energy Corp. announced Tuesday it will seek a larger stake in Icelandic geothermal company HS Orka and increase its geothermal power production worldwide.

Press Release, September 14 — Magma Energy Corp. (TSX: MXY) today reported its audited financial and operating results for the fourth quarter and fiscal year ended June 30, 2009. The Company also provided an update on its operations. This earnings release should be read in conjunction with the Company's MD&A, Financial Statements and Notes to Financial Statements for the corresponding period, which are available on the Company's website at www.magmaenergycorp.com and have been posted on SEDAR at www.sedar.com.

Commenting on today's announcement, Ross Beaty, Chairman and CEO, said: "Magma Energy had a great first full year of operations. We put together a world-class exploration and operating team, raised more than \$130 million in tough financial markets, acquired one producing asset in Nevada, built up a large land position of geothermal exploration properties in Nevada, Idaho, Oregon, Peru, Chile and Argentina and, just after year-end, entered into agreements to acquire a minority interest in another producing asset in Iceland. Magma ended the year with a successful initial public offering and listing on the Toronto Stock Exchange and is entering its second full year in healthy condition."

For more, see <http://www.magmaenergycorp.com/s/NewsReleases.asp?ReportID=363091&Type=News-Releases&Title=Magma-Energy-Corp-Announces-Release-Date-For-2009-Audited-Fourth-Quarter-An...> and http://www.upiasia.com/Energy_Resources/2009/09/15/Magma-caps-year-with-Iceland-geothermal-power-deal/UPI-37071253048110/.

Nevada Geothermal Power: Blue Mountain 'Faulkner 1' Geothermal Power Plant Completed Three Months Ahead of Schedule

Press Release, September 16 — Nevada Geothermal Power Inc. (NGP), (TSX-V: NGP, OTC-BB: NGLPF), today announced that the Blue Mountain 'Faulkner 1' project has successfully completed testing requirements under the Engineering Procurement Construction contract with Ormat Nevada Inc., a subsidiary of Ormat Technologies Inc., (NYSE:ORA), three months ahead of schedule. Power plant equipment has exceeded guaranteed output levels. The plant will continue to generate and supply electricity while remaining work items are completed. NGP expects to assume full control of the power plant in late September and will declare an "in service date" shortly thereafter.

"We are extremely pleased with the plant performance exceeding the guarantee output signaling that the plant can produce significantly greater than 49.5 MW gross output. Early completion has resulted in NGP generating cash much earlier than previously forecasted and will result in a substantial interest cost savings to NGP," stated Brian Fairbank, President & CEO, Nevada Geothermal Power Inc.

See <http://www.nevadageothermal.com/s/News.asp>.

Raser Technologies: Power Generation Strategy Updated

Provo, UT, September 9, 2009 –Raser Technologies, Inc. (NYSE: RZ), an energy technology company, today provided an update to its geothermal power generation strategy, assumptions and anticipated timelines.

Based on the evaluation of its existing construction, and advances in technology, Raser has adjusted its rollout expectations. Raser now plans to add 40 megawatts of electricity available for sale in each of 2010, 2011 and 2012, bringing the total megawatts available for sale by the end of 2012 to 130. These projects are dependent on the availability of funding. If Raser does not secure adequate funding for well field

development within the next few months, it will have to adjust this plan. Raser has updated its approach to now use larger binary cycle generators, along with the smaller units currently in operation at Raser's first power plant, the Thermo No. 1 Plant (Hatch Plant). Raser expects to use anywhere from two to eight of the larger generators per plant, in some cases coupled with smaller units as Raser deems appropriate. Raser's current geothermal power plant uses 50 smaller generators. Raser projects each power plant will provide up to 20 megawatts of electricity available for sale to the utilities compared to 10 megawatts of electricity, which will be the total for sale from Raser's first power plant, once at full capacity.

For more, see <http://www.rasertech.com/news>.

U.S. Geothermal: Annual General Meeting Postponed

Press Release, September 14 — (NYSE Amex: HTM, TSX: GTH) U.S. Geothermal Inc. ("U.S. Geothermal"), a renewable energy company focused on the production and sale of electricity from geothermal energy, announced today that its board of directors has delayed the Company's Annual General Meeting of its shareholders from September 22, 2009 to December 17, 2009 because U.S. Geothermal is considering restructuring its capital platform to respond to new build initiatives at its San Emidio and Neal Hot Springs projects and to provide the company with additional financing options using a corporate capital structure that would require shareholder approval.

The record date for determining those shareholders entitled to receive notice and vote at the meeting was also postponed from August 6, 2009 to October 29, 2009. Formal notice of the meeting and a management proxy circular will be available to shareholders in due course.

See <http://usgeothermal.com/index.aspx>.

U.S. Geothermal: DOE Finalizes Award Grant for Raft River EGS Program

Press Release, September 15 — (NYSE Amex: HTM, TSX: GTH) U.S. Geothermal Inc. ("U.S. Geothermal"), a renewable energy company focused on the production of electricity from geothermal energy, announced today that the U.S. Department of Energy ("DOE") has formally awarded the Enhanced Geothermal Systems ("EGS") grant that was announced on October 14, 2008. The Raft River EGS program now totals up to \$10.21 million, with the DOE providing up to \$7.39 million as part of the cost-sharing arrangement. The program is designed to perform a staged, thermal stimulation of an existing injection well to improve permeability within the geologic horizon that hosts the Raft River geothermal reservoir.

The program team is being led by the Energy & Geoscience Institute from the University of Utah. Team members APEX Petroleum Engineering Services, and HiPoint Reservoir Imaging are providing key technical service and contributions. U.S. Geothermal is providing "in kind" contributions to the program through the use of a spare injection well, technical personnel, access to the existing Raft River wellfield and technical data.

For more, see <http://usgeothermal.com/index.aspx>.

Renewable Energy and Climate Change News

DOE Announces \$354 Million for Energy Efficiency and Conservation Projects in 22 States

The Department of Energy's Efficiency and Conservation Block Grant (EECBG) program will distribute more than \$354 million in funding from the American Recovery and Reinvestment Act to 22 states to support energy efficiency and conservation activities, Energy Secretary Steven Chu announced.

"This funding will allow states across the country to make major investments in energy solutions that will strengthen America's economy and create jobs at the local level," said Secretary Chu in the announcement. "It will also promote some of the cheapest, cleanest, and most reliable energy technologies we have—energy efficiency and conservation—which can be deployed immediately. Local communities can now make strategic investments to help meet the nation's long term clean energy and climate goals."

See http://apps1.eere.energy.gov/news/news_detail.cfm/news_id=15485.

ACEEE Analyses Jobs, Savings Improvements to Waxman-Markey

With improvements, the American Clean Energy Security Act could create over 569,000 (+48%) new jobs in 10 years and provide \$283 annual savings for every household in the U.S., according to a study by the American Council for an Energy-Efficient Economy (ACEEE).

Improvements considered in ACEEE's analysis:

- Strengthening the Energy Efficiency Resource Standard (EERS) that sets a 10% energy savings goal for electric utility companies. (ACES includes a 5% EERS with an optional 3% increase.)
- Requiring one-third of the electric utility allowances to be used for energy efficiency improvements as are the natural gas allowances in ACES.
- Extending the allocation of 9.5% of carbon allowance revenue to the State Energy and Environmental Development (SEED) fund to 2030. (ACESA ramps down SEED fund spending beginning in 2016.)

See <http://www.aceee.org/>.

Obama Administration Documents Suggest Cap and Trade Could Cost Families \$1,761 A Year

From Sustainable Energy Coalition: The Obama administration has privately concluded that a cap and trade law would cost American taxpayers up to \$200 billion a year, the equivalent of hiking personal income taxes by about 15 percent. A previously unreleased analysis prepared by the U.S. Department of Treasury says the total in new taxes would be between \$100 billion to \$200 billion a year. At the upper end of the administration's estimate, the cost per American household would be an extra \$1,761 a year. The documents were obtained under the Freedom of Information Act by the free-market Competitive Enterprise Institute.

See

http://www.cbsnews.com/blogs/2009/09/15/taking_liberties/entry5314040.shtml?tag=contentMain;contentBody.

State News

Alaska: Survey Explores Akutan for Geothermal Potential

Geothermal potential is being explored in Akutan, according to thedutchharborfisherman.com. The region is currently dependent on diesel fuel. The geophysical survey team at Hot Springs Bay Valley on Akutan Island is working with the Akutan Village Corp., the Akutan Traditional Tribal Council, the Aleut Corp., Trident Seafoods, and residents, Mayor Joe Bereskin told press. "It's an exciting, long-term project which will translate into jobs and economic activity for the community and the region," he said.

See <http://www.thedutchharborfisherman.com/news/show/7222>.

Schwarzenegger Sidesteps Legislative RPS Morass and Extends Climate Law's Sweep

By John McCaull, GEA Western States Representative

September 17, 2009. In front a 3.5 MW solar power project being constructed at one of the nation's most notorious Superfund sites, Governor Arnold Schwarzenegger announced a new tactic on Tuesday to ensure that California continues to expand its market for building and buying renewable energy. With the support of the Geothermal Energy Association, the Independent Energy Producers, the Sacramento Municipal Utility District (SMUD), Southern California Edison and a host of solar and geothermal developers, the Governor took matters into his own hands after months of legislative debate on how California should mandate that 33% of its power come from renewable energy sources by 2020.

In what had become one of the most complicated political issues of the year, Governor Schwarzenegger announced that he would be vetoing several bills sent to him in the closing hours of the 2009 regular session by the California Legislature that purported to strengthen and expand California's "renewable portfolio standard" (RPS). California law currently requires the state's three largest electrical corporations (PG&E, San Diego Gas & Electric and Southern California Edison) to procure 20% of their retail electricity sales from renewable energy sources such as geothermal, solar and wind power. At issue was a commitment made last fall through [Executive Order S-14-08](#) to expand the 20% mandate to all retail electricity sellers and to increase the scope of the mandate to 33% by 2020.

The targets of the Governor's veto pen are [SB 14](#) by Senator Joe Simitian that would have extended the deadline to meet the 20% RPS mandate until 2013, and required all retail sellers of electricity (including publicly owned utilities like SMUD) to procure at least 33 percent of electricity delivered to their retail customers from renewable resources by 2020. A companion bill, [AB 64](#) by Assemblyman Krekorian was analyzed by the Senate as containing "programmatic changes necessary to implement SB 14." Both bills were part of an intricately crafted legislative package that was being amended even in the final hours of session. What led organizations such as the Independent Energy Producers (IEP) and GEA to ask the Governor to veto these bills was a triad of proposals that threatened the viability and certainty needed for an emerging renewable energy market that stretches across the western power grid. The legislation complicated the question of meeting "deliverability" requirements of renewable energy, created a series of roadblocks for accessing out of state renewable resources and allowed for combined heat and power operations to qualify as RPS compliant. Taken together, these proposals only complicated an already complex process of trying to site, build and bring on line new renewable energy projects in California and adjacent states.

As Schwarzenegger said on Tuesday, "I... said that legislation must be crafted to protect the rate payers and to create a healthy renewable market. But last week the lawmakers passed legislation that failed to meet each of these criteria." The Governor went on to criticize the legislative product even further. "Its most objectionable provision, of course, was to limit the amount of renewable energy that can come from outside of California. Now not only would this stifle competition," said Schwarzenegger, "but it also would drive up the prices. I am totally against protectionist policies because it never works. It has never worked in California, it has never worked in America, or in any other country."

Nancy Ryan, the Deputy Executive Director of the California Public Utilities Commission (CPUC) was even more blunt. "Proponents of the bill argue that it allows unlimited use of out of state resources to meet the definition of delivery," she said. "But they don't explain that this restriction severely limits out of state renewables. It's the equivalent of saying that we can use out of state resources as long as they're not delivered Monday through Sunday. Such limits would significantly reduce the pool of resources that California utilities can choose from, making it all but impossible to meet the 33 percent goal on time and increasing the cost of compliance."

In its press statement issued on September 15th, Karl Gawell, GEA's Executive Director said. "We believe that the Governor has crafted an RPS strategy that avoids the unnecessary delivery restrictions and

complexity of the bills that he has vetoed. As a result, the Governor's Executive Order works not just for California, but also for all the other western states that are trying to bring more renewable energy online in the next 10 years." Geothermal power is California's most productive renewable resource (excluding large hydropower, which the state does not categorize as renewable), providing over 40% of the state's renewable power in 2008. "There are thousands of megawatts of additional geothermal energy that can be developed in California and nearby states to help achieve or even exceed the 33% goal announced today by the Governor," Gawell added.

In many ways, what Governor Schwarzenegger signaled in his issuance of [Executive Order S-21-09](#) is that California does not have the time to wait for the Legislature to come back and try to resolve disputed issues in 2010. Instead, Governor Schwarzenegger went back to what could arguably be his greatest legislative success to try to solve RPS implementation problems: the passage of [AB 32](#) (the Global Warming Solutions Act) in 2006. This legislation gives CARB sweeping authority to regulate sources of greenhouse gas emissions that it deems "necessary to regulate" and to adopt regulations for emissions reduction measures that help achieve the objectives of the 2008 [Climate Change Scoping Plan](#).

The new Executive Order ties the underlying reasons for an RPS expansion directly to the success of California's still-fledgling climate change program. During her comments, CARB Board Chair Mary Nichols pointed out California has set a greenhouse reduction goal of getting to 1990 emission levels by 2020 and 80 percent below 1990 levels by 2050. Nichols went on to say that "The RPS is projected to reduce 21 million metric tons of greenhouse gas emissions by 2020 which is about 15 percent of the total emissions that we need statewide from all sources. It's by far the biggest and most important of the measures that are addressed specifically to the electric utility industry."

According to the new Executive Order, CARB must do the following by July 31, 2010:

- Adopt a regulation consistent with the 33 percent renewable energy target established in Executive Order S-14-08. In developing the regulation, CARB may consider different approaches that would achieve the objectives of the Executive Order and may increase the target and accelerate and expand the time frame based on a thorough assessment of such factors as technical feasibility, system reliability, cost, greenhouse gas emissions, environmental protection or other relevant factors.
- Work with the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) to ensure that a regulation adopted under authority of AB 32 to encourage the creation and use of renewable energy sources shall build upon the RPS Program and shall regulate all California load serving entities, including investor-owned utilities, publically-owned utilities, direct access providers and community choice aggregators.
- Consult with the Independent System Operator and other load balancing authorities on, among other aspects, impacts on reliability, renewable integration requirements and interactions with wholesale power markets in carrying out the provisions of this Executive Order.
- Establish the highest priority for those resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health that can be developed most quickly and that support reliable, efficient, cost-effective electricity system operations including resources and facilities located throughout the Western Interconnection.

According to John McCaull, GEA's Western States Representative, "Recent studies have shown that the most cost-effective system for achieving the renewable portfolio standards adopted by states such as California and Nevada is to recognize that project location, environmental concerns, grid reliability, cost containment, and transmission planning require that we look at all available resource options." In June 2009, several western states and the Western Governor's Association (WGA) simultaneously released long awaited studies pointing to geothermal energy as one of the nation's most cost-effective and reliable renewable energy resources that should be given priority as an expanded electricity transmission grid is planned.

For more information from GEA on how California can meet near-term RPS requirements through an increased reliance on geothermal energy see the August 2009 GEA Report entitled [*Ensuring Reliable, Baseload Renewable Energy For The West By 2015.*](#)

Colorado: BLM to Offer Geothermal Development, First Time in State

In a Nov. 12 lease sale, Bureau of Land Management will offer a parcel for geothermal development in Colorado for the first time. The parcel is 800 acres and located in Chaffee County.

See http://denver.bizjournals.com/denver/stories/2009/09/14/daily7.html?surround=etf&ana=e_article.

Nevada: BLM to Prepare EIS for One Transmission and Two Geothermal Projects

The Bureau of Land Management in Carson City will prepare a combined Environmental Impact Statement (EIS) for two Salt Wells geothermal energy developments and a right-of-way for transmission lines. The proposals were received separately and will receive separate records of decision.

Vulcan Power proposes development of up to six geothermal power plants and facilities. Ormat Technology proposes development of one geothermal power plant and facility. Sierra Pacific Power Company proposes above-ground electrical transmission lines, electrical substations, and switching facilities.

From BLM: Written comments will be accepted through the close of business on Friday, Nov. 13. Comments may be submitted at public scoping meetings, to be announced 15 days prior to the meeting, or to the BLM Carson City District Office, Attn: Salt Wells Energy Projects, 5665 Morgan Mill Road, Carson City, NV 89701; Fax: (775) 885-6147; or e-mail: saltwells_eis@blm.gov. For more information, go to: www.blm.gov/nv/st/en/fo/carson_city_field.html, or call 775-885-6000.

See <http://www.mesquitelocalnews.com/viewnews.php?newsid=3741&id=11>.

International News

Hungary: PannErgy Drills First Successful Geothermal Well

PannErgy has drilled its first successful geothermal well, its stock immediately soaring, according to Bloomberg.com. Located in the city of Szentlőrinc, it is the results of explorations begun in April. PannErgy now has contracts with dozens of local councils along with partner company Mannvit.

See <http://bbjonline.hu/index.php?col=1004&id=50138> and <http://www.bloomberg.com/apps/news?pid=20601095&sid=aHhubakBWLpw>.

Kenya: Firm Emphasizes Importance of Geothermal Development

Geothermal energy is Kenya's answer to currently unreliable and expensive energy, Stanbic Investment Management Services chief investment officer Anthony Mwithiga told press. "We need to keep away from thermal power generation and invest more in geothermal power because we believe it will be the next frontier for energy generation," he said. Kenya's geothermal potential is estimated at over 7,000 MW, with only 1,100 MW currently on line.

See <http://www.nation.co.ke/business/news/-/1006/655398/-/iggks0z/-/>.

Philippines: DOE Prepares Contracting Round; Expects Eight Geothermal Sites

The fourth Philippine Energy Contracting Round 2009 will offer about eight prospective sites for geothermal development, according to business.inquirer.net. Two of these have been validated, Energy Assistant Secretary Mario Marasigan told press. One is in extending the Makiling-Banahaw (Mak-Ban) geothermal field, the other in Camarines; the two could generate a combined 50 MW of power. The DOE will publish rules and invitations within the next six weeks.

See <http://business.inquirer.net/money/topstories/view/20090917-225706/DOE-eyes-eight-geothermal-sites>.

Philippines: Foreign Investors Request Clarity in Reclassification of Geothermal

With the passing of Republic Act 9513 geothermal energy has been reclassified as renewable energy, raising questions about foreign ownership on companies, according to mb.com. A previous decision by the Department of Justice allowed 100% foreign ownership on geothermal power plants, though exploitation and development of resources was limited to corporations with Filipino partners owning 60%.

“One may interpret that since the RE Law classified geothermal as minerals, then 100% ownership may be allowed...but then again, that raises a Constitutional issue,” foreign investors noted in a position paper. “When a geothermal power plant utilizes steam to generate power, the act of converting the steam to geothermal energy could not be considered as falling within the Constitutional inhibition since the steam has to pass man-made structures, such as scrubbers and pipelines, before it is utilized by the geothermal power plant.”

See <http://www.mb.com.ph/articles/219832/foreign-investors-bat-clarity-reclassification-geothermal-resource>.

Notices

Closing This Week

Call for Papers, Materials Challenge 2010 (September 21)

EPA Extends Comment Period for Renewable Fuel Standard Program (September 25)

New This Week

GEA Seeks Panelists for February Conference

GEA is on the planning committee for the Renewable Energy World North America Conference and Expo 2010, to be held in Austin, TX, February 23–25 2010. There will be three geothermal sessions on the following topics: Policies, Markets, and Trends; Development and Investment; and Technology and Applications. We are seeking participants, especially for the first two listed. Panelists will receive complimentary entry to the conference and expo but must make their own travel plans. If you are interested, please contact Leslie Blodgett at leslie@geo-energy.org or 202-454-5241. Please specify what focus you are interested in taking with the topic, as each panelist will approach the topic from a different angle. Thanks!

New Online Geothermal Discovery Guide Available

The Geothermal Discovery Guide, part of a series on alternative energy, is posted at <http://www.csa.com/discoveryguides/geothermal/review.php>. GEA is cited extensively in this guide.

New Article on Distributed Temperature Sensing in Geothermal Energy Applications

Mikko Jaaskelainen, Chief Technical Officer at SensorTran has written a new article on distributed temperature sensing in enhanced geothermal system power plants. Jaaskelainen's introduction to the article:

Geothermal power shows promise as an environmentally friendly source for electricity generation not least because fossil fuel alternatives produce at least an order of magnitude more carbon dioxide and consume a hundred times more water per kWh of energy produced. Geothermal energy plants have traditionally been limited to the edges of the tectonic plates but recent advances in enhanced geothermal systems (EGS) should greatly expand its geographical range [1].

Critical to successful and reliable EGS operations [2] is improved subsurface visualization. Fiber-optic distributed temperature sensing (DTS) enables both subsurface visualization and understanding of fracture distribution during both fracturing operations and production. The same DTS system can be used for reservoir characterization and management, production optimization, surface and subsurface integrity monitoring, fluid injection and short-circuit monitoring.

This article provides summaries of geothermal energy technology and DTS technology, followed by a discussion of the many applications of DTS to geothermal electricity production.

The article is available at <http://www.sensorsmag.com/sensors/article/articleDetail.jsp?id=625162>.

Other Notices Available on GEA Web Site

Notices from past weeks are now available on GEA's Web site:

9 Billion Dollar Energy Investment Fund

GEA Annual Meeting Agenda Being Prepared, GEA Board Approves Nominees for Election to the Board of Directors

GEA Preparing New Industry Update to be Released Fall 2009

GEA Members: GEA Board Nominations and Annual Meeting

Labor Department Offers \$500 Million for Clean Energy Job Training (August–October)

For details, see <http://geo-energy.org/publications/updates.asp#Notices>.

Employment Opportunities

Employment Opportunities Available on GEA Web Site

Open Employment Opportunities are now available on GEA's Web site:

Drilling Program Manager, Major Geothermal Power Company in CA

Senior Director, Business Development, Major Geothermal Company

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

For details, see <http://geo-energy.org/publications/updates.asp#Employment>.

Requests for Proposals (RFPs)

Closing This Week

Rural Community Development Initiative (September 24)

Other RFPs Available on GEA Web Site

RFP for State Energy Program, DOE (Due Dates Vary)

RFP for Contribution of Cost Share for Transportation Related Recovery Act RFPs, CEC (Due Dates Vary)

RFP for Technology and National Research Priorities, Recovery Act (Ongoing)

RFP for Renewable Energy Resources, NV Energy (October 2)

Local Energy Assurance Plans, Recovery Act (October 8)

Brownfields Assessment Grants (October 16)

Brownfields Cleanup Grants (October 16)

Brownfields Revolving Loan Funds (October 16)

Fellowships for Graduate Environmental Study (October 22)

RFP for National Lab Partnerships for Energy Research, DOE (November 9)

Environmental Information Exchange Network (November 20)

Clean Energy Deployment, Recovery Act, New York (February 16, 2010)

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

Emerging Frontiers in Research and Innovation (March 31, 2010)

RFP for Smart Grid Investments, DOE, American Recovery and Reinvestment Act (March 31, 2010)

For details, see <http://geo-energy.org/publications/updates.asp#RFPs>.

Upcoming Events

Happening This Week

Geothermal Symposium, Trinity University, September 19 (San Antonio, TX)

Added This Week

Update on SMU Geothermal Conference, November 3–4 (Dallas, TX)

It's time to register for Southern Methodist University's conference on Geothermal Energy Utilization Associated with Oil and Gas Development, November 3–4 in Dallas, Texas

This international geothermal energy conference specializing in the enhancement of existing oil and gas wells for electrical production from the Earth's heat. Geothermal energy produces clean, renewable electrical power that is considered a base load source since it produces 24 hours a day, 365 days a year. The energy is extracted from well fluids using compact turbines with binary fluids. Learn how to take wells and instead of abandoning them, energize them with geothermal power. A high water flow geopressure well becomes an immediate revenue path if converted to electrical production. With systems installed in Chena Hot Springs, Alaska and the Wyoming Rocky Mountain Oil Field Testing Center, and the soon to be completed Florida Jay Field and in Mississippi, the ability to use low temperature fluids is no longer just a concept, it's a reality. This "how-to" conference will provide you with the information necessary to develop a geothermal energy portfolio.

Go to http://smu.edu/geothermal/Oil&Gas/2009/Geothermal_Energy_Utilization.htm. Contact Maria Richards 214-768-1975 or Gillian McWhirt at 214-768-2749.

2nd Annual Australian Geothermal Energy Conference, November 10-13 (Brisbane, QLD)

The 2nd Annual Australian Geothermal Energy Conference will be held at the Hilton Hotel in Brisbane, QLD, on 10-13 November 2009

This conference will bring together representatives of Australia's entire multidisciplinary geothermal community to address key science, technology, policy and commercial issues facing the commercial development of the industry. This is the official conference of the Australian geothermal industry, and the only one supported by the Australian Geothermal Energy Association, the Australian Geothermal Energy Group and the majority of Australian geothermal energy companies.

Features of the conference:

- Three full days of conference sessions with over 80 speakers!
- Comprehensive Trade Show of over 30 leading companies!
- Pre-conference Seminar: Joint geophysical methods for geothermal exploration
- Low-cost registration

- Great networking opportunities
- Convenient location and high-quality venue

Register Online at www.ausgeothermal.com.

GeoPower Europe 2009, December 3-4 (Munich, Germany)

Over 2 intensive conference days, GeoPower Europe 2009 features presentations and discussions led by 35 speakers from 13 countries including:

- Ásgeir Margeirsson, Chief Executive Officer, Geysir Green Energy, ICELAND
- Luis Martin-Oar, Head of Unit, ITRE Committee Secretariat, European Parliament, BELGIUM
- Charles Baron, Geothermal Program Lead, Google.org, USA
- Roberto Deambrogio, Head of Business Development, Enel Green Power, ITALY
- Attila Kujbus, Chief Technology Officer, Central European Geothermal Energy (CEGE), HUNGARY
- Raul Hidalgo, Director of Operations, Petratherm, SPAIN
- Otto Halas, Director General, Slovgeoterm, SLOVAK REPUBLIC
- Guy McPherson-Grant, Managing Director, EGS Energy, UK

Germany is the perfect host for the European leg of the series, with feed-in tariffs and other incentives actively encouraging the development of the domestic geothermal industry. Attend this widely anticipated event to:

- Learn how to access new business opportunities in Europe
- Discover new sources of finance for projects
- Determine which new technologies have the greatest potential in the European market
- Meet and network with potential project partners

Web site: <http://greenpower.msgfocus.com/c/1sNnEZMBnIHBXfaU>.

GEA Events

GEA Annual Members Meeting and Policy Workshop, October 3, Noon-4pm (Reno, NV)

GEA opened registration for its 2009 Annual Members Meeting and Policy Workshop, to be held at the Peppermill in Reno on Saturday, October 3, from Noon-4pm. The event brings together elements of the two separate events held in 2008. Employees of GEA Members companies and all companies exhibiting at the 2009 GEA Geothermal Energy Expo are encouraged to participate, and while there is no registration fee GEA asks that participants register in advance to facilitate planning for the event. Registration is available at: Register at: http://www.geo-energy.org/new_expo/events.asp.

A number of keynote speakers have been invited to address the geothermal industry at the meeting, including key federal and state policy leaders. Confirmed speakers include Ed Wall, DOE's Geothermal Program Director, and Carl Zichella, Director of Western Renewables Programs of the Sierra Club. Also, there will be a Panel: Expert Presentations presenting updates on federal and state regulatory issues that will include:

- Karl Gawell, GEA, Status of Federal Stimulus Legislation Implementation
- John McCaull, GEA, Status of Western Transmission Initiatives, California RPS Legislation
- John McKinsey and associates, Stoel Rives LLP, power purchase agreements and utility RFO's, federal and state regulatory developments, and leasing and steam field development
- Fred Schmidt, Holland & Hart, LLP, recent Nevada legislative and PUC developments

GEA will provide an overview of its outreach and other efforts during 2009, and the meeting will conclude with elections for open seats on the GEA Board of Directors.

Again, employees of GEA Members companies and all companies exhibiting at the 2009 GEA Geothermal Energy Expo are encouraged to participate. The meeting is open to the public on a space available basis. Registration is available at: Register at: http://www.geo-energy.org/new_expo/events.asp.

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

Every year, the Geothermal Energy Expo hosts the world's largest gathering of vendors providing support for geothermal resource exploration, characterization, development, production and management. It provides a unique opportunity for exhibitors to showcase their projects, equipment, services and state of the art technology to the geothermal community.

The Geothermal Energy Expo 2009 will be held at the Peppermill, Reno's premiere hotel and casino in Reno, Nevada. The Geothermal Energy Expo hosts the world's largest gathering of vendors providing support for geothermal resource exploration, characterization, development, production, and management. It provides a unique opportunity for exhibitors to showcase their projects, equipment, services, and state of the art technology to the geothermal community.

Booth space at the Geothermal Energy Expo is sold out. Speaking opportunities in the Expo Hall are still available through our first Geothermal Energy Webcast live from the Expo Hall on Tuesday, October 6th from 10am-1pm PT. This option is available for those unable to attend in person, those who were unable to secure booth space, or anyone interested. This Webcast is expected to reach an audience of a thousand or more. We will post a schedule of speakers in our Expo Guide, on GEA's website and on signage on site. Presentations are available in 15 minute slots. If interested, please contact Kathy Kent at kathy@geo-energy.org at your earliest convenience.

GEA is grateful to our Geothermal Energy Expo 2009 sponsors to date: Halliburton, Stoel Rives, LLP, GeoTek Energy, The Shaw Group, Geothermal Development Associates, Islandsbanki, Vulcan Power Company, TNG Energy Services, Geothermal Resource Group, Ormat Technologies, Tranter, Inc., DHI Services, NV Energy, Enel North America. We would also like to thank our media partners: altenergymag.com, New Energy Finance, Recharge, RenewableEnergyWorld.com, and NA Clean Energy. For more information about the Geothermal Energy Expo, visit: <http://www.geo-energy.org>.

Other Events Available on GEA Web Site

Upcoming Events listed in past weeks are now available on GEA's Web site.

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

SMU Geothermal Conference, November 3–4 (Dallas, TX)

XVII Annual Congress and Annual Assembly, Mexican Geothermal Association, November 13 (Mexico)

31st New Zealand Geothermal Workshop 2009, November 16–18 (Rotorua, New Zealand)

For details, see <http://geo-energy.org/publications/updates.asp#Events>.



GEA Weekly Update

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