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National News

GEA Releases Geothermal Power Production and Development Report

Press Release: *Industry Poised for Ascendant Growth, Continuing Regional Expansion* — Washington DC, March 30 — With new developments and pioneering technology, geothermal energy is spreading throughout the United States, as described in the yearly update on the geothermal industry from the Geothermal Energy Association (GEA). The Annual GEA U.S. Geothermal Power Production and Development Report shows that in 2011, the geothermal industry is producing clean power in nine states and developing 146 projects across 15 states, with the total number of geothermal projects and prospects under development increasing 12 percent.



The United States ranks No. 1 in geothermal energy production and continues to be one of the leading countries in geothermal growth. The total installed capacity of the U.S. is approximately 3,102 MW, enough to power over 2 million homes -- or the residential populations of San Francisco, Portland and Seattle combined. Currently, geothermal electric power generation is occurring in nine U.S. states, including: Alaska, California, Hawaii, Idaho, Nevada, New Mexico, Oregon, Utah and Wyoming. Bringing the geothermal resource capacity GEA identifies on-line would triple U.S. geothermal power production.

“The geothermal industry has an exciting year ahead, as there are numerous projects switching from development phases to full-fledged geothermal power plants,” said GEA Executive Director Karl Gawell. “And a second wave of development is on its way. This report reveals that many projects are entering the drilling and production phase, which is where the majority of geothermal job creation is.”

As the majority of the industry remains concentrated in the western U.S., pilot projects are beginning to show development potential further east. New projects are focusing on generating geothermal electricity from low temperature fluids left over as a byproduct from oil and gas production and harnessing electricity from geothermal fluids under high geological pressure along the Gulf of Mexico.

“We are building new plants in places that have never had geothermal power before, giving people in these states the clean and renewable power we need,” said Gawell.

Many projects currently undergoing advanced stages of production are located in Nevada and California, with additional projects nearing construction in Oregon, New Mexico, Idaho, and Hawaii, Alaska, Louisiana and Mississippi.

“While the government incentive programs may have given the geothermal space a lift in terms of initiating new activity, it’s going to take additional support from Private Investment that will fuel the majority of the growth in years to come,” said Saf Dhillon, Investor Relations, U.S. Geothermal Inc.

While the number of states with geothermal installed capacity and projects in development is significant, the reach of the geothermal industry is even more extensive. A total of 43 states have companies involved in geothermal development operations.

“Atlas Copco’s involvement in the geothermal industry has grown steadily over the past three decades. All three of our divisions (Industrial Technique, Compressor Technique and Construction and Mining Technique) provide machines and tools for geothermal development and power generation. From geothermal well exploration, to the Hurricane® power booster, and finally the binary cycle turbine expanders, Atlas Copco plays a key role in providing clean geothermal energy to the nation’s power grid,” commented Behrooz Ershaghi, Manager of Technology for Atlas Copco Mafi-Trench Company LLC.

For the first time, the Annual GEA U.S. Geothermal Power Production and Development Report was produced under a reporting system known as the Geothermal Reporting Terms and Definitions in order to increase the accuracy and value of the information presented. The Geothermal Reporting Terms and Definitions act as a guideline to project developers in reporting geothermal project development information to the GEA.

“The new system increases the precision of our reports,” said GEA Research Associate Dan Jennejohn. “By providing the industry and public with a lexicon of definitions and a guideline to determine phases of development, we can better assess a geothermal project’s position in the development timeline.”

Geothermal leaders will gather in Washington DC on Wednesday, May 4 for the Geothermal Energy Association (GEA) 2011 Geothermal Energy Technology and International Development Forum. The event, developed in conjunction with the U.S. Department of Energy and the U.S. Department of Commerce, will be held at The Ronald Reagan Building and International Trade Center. For more information about the event, please visit http://www.geo-energy.org/events/May2011_ShowcaseForum.aspx. The full report can be accessed at <http://www.geo-energy.org/>.

President Endorses Safe Nuclear Power, Supports Funding for Renewables in Energy Speech

President Obama gave [an address at Georgetown University on sweeping energy efforts](#) in Washington as well as ways to cut foreign oil imports by increasing domestic drilling, energy efficiency, and renewable energy development. This comes as Senate Democrats are attempting to maintain as much funding as possible for renewable energy programs, while Republican efforts would cut funding for DOE renewable energy programs.

On events in Japan and nuclear power, the President promoted ongoing nuclear energy activities with increased regard to safety:

Right now, America gets about one-fifth of our electricity from nuclear energy. And it's important to recognize that nuclear energy doesn't emit carbon dioxide in the atmosphere. So those of us who are concerned about climate change, we've got to recognize that nuclear power, if it's safe, can make a significant contribution to the climate change question.

And I'm determined to ensure that it's safe. So in light of what's happened in Japan, I've requested a comprehensive safety review by the Nuclear Regulatory Commission to make sure that all of our existing nuclear energy facilities are safe. And we're going to incorporate those conclusions and lessons from Japan in design and the building of the next generation of plants. But we can't simply take it off the table.

On supporting clean energy investments, the President disagreed with efforts to cut research and development:

"I understand we've got a tight fiscal situation, so it's fair to ask how we pay for government's investment in energy. And as we debate our national priorities and our budget in Congress, we're going to have to make some tough choices. We're going to have to cut what we don't need to invest in what we do need.

"Unfortunately, some folks want to cut critical investments in clean energy. They want to cut our research and development into new technologies. They're shortchanging the resources necessary even to promptly issue new permits for offshore drilling. These cuts would eliminate thousands of private sector jobs; it would terminate scientists and engineers; it would end fellowships for researchers, some who may be here at Georgetown, graduate students and other talent that we desperately need to get into this area in the 21st century. That doesn't make sense."

Senate May Vote This Week on EPA Amendments

The Senate plans to meet Thursday afternoon (March 31) to potentially [vote on measures to limit EPA regulation of greenhouse gases](#). Four senators have proposed amendments, though none seem expected to pass: Senate Minority Leader Mitch McConnell (R-Ky.)'s bill would permanently bar EPA climate change regulations; Sen. Jay Rockefeller (D-W.Va.) would delay greenhouse gas rules for two-years; Sen. Max Baucus (D-Mont.) would exempt small emitters and agriculture from rules; and Sen. Debbie Stabenow (D-Mich.) would delay EPA rules for two years, among other provisions. Sen. John Barrasso (R-Wyo.) has introduced a separate bill, which would bar the federal government from regulating greenhouse gas emissions.

DOE Launches "America's Next Top Energy Innovator"

Press Release [\[Full story\]](#) — March 29 — As part of the Obama Administration's [Startup America Initiative](#), U.S. Energy Secretary Steven Chu today announced the "America's Next Top Energy Innovator" challenge, which will give start-up companies the opportunity to license groundbreaking technologies developed by the national laboratories for \$1,000 and build successful businesses. As part of this effort, the Department is reducing both the cost and paperwork requirements for start-up companies to obtain an option agreement to license some of the 15,000 patents and patent applications held by our 17 national laboratories.

"America's entrepreneurs and innovators are the best in the world," said Secretary Chu. "Today, we're challenging them to create new businesses based on discoveries made by our world-leading national laboratories. Because we've cut the upfront fees and reduced the paperwork, we'll make it easier for start-up companies to succeed and create the new jobs our economy needs. Our goal is simple: unleash America's innovation machine and win the global race for the clean energy jobs of the future."

Renewable Groups Urge Congress to Save DOE Loan Guarantee Program

In a letter to House and Senate Leadership, renewable energy groups urged Congress to sustain funding for DOE's Loan Guarantee Programs, which have been proposed for reductions in the House. The letter said:

"Dear Leader Reid, Speaker Boehner, Leader McConnell and Leader Pelosi,

"On behalf of the Advanced Ethanol Council (AEC), the American Wind Energy Association (AWEA), the Biomass Power Association, the Clean Economy Network (CEN), the Geothermal Energy Association (GEA), the Renewable Fuels Association (RFA), and the Solar Energy Industries Association (SEIA), we write today in support of Federal programs implemented to foster the development and expanded use of domestically-produced clean and renewable energy in the United States. Together, our industries account for over half a million jobs in the United States and counting. Existing federal programs continue to foster growth and allow U.S. businesses to

lead a worldwide effort to deploy power plants, manufacturing facilities and fuel production facilities across the country. Many of our companies are already highly invested in these programs, including the Department of Energy Loan Guarantee Program, and have projects underway that would be suspended in the event that appropriations for such programs are eliminated or curtailed. To that end, we urge Congress to preserve investments in critical renewable energy programs, including full funding for the Department of Energy Loan Guarantee Program, as it works to fund the government for the remainder of FY2011."

The House eliminated essentially all of the remaining, unobligated loan guarantee funds when it passed HR 1, the FY 2011 Continuing Appropriation bill, on February 19. But the Senate rejected the House bill and congressional leaders have not yet come to agreement on a compromise. Instead, the government is being funded under a short-term agreement which expires April 8. Negotiators are meeting now to try to hammer out a final funding bill for FY 2011, which will determine whether any funds remain for the DOE loan program.

The multi-group letter explained: "As Congress moves forward with efforts to cut federal spending, it is important to recognize and retain programs that create American jobs, leverage private sector investment and increase tax revenue. The DOE Loan Guarantee Program is one of these programs. Eliminating funding for this program will disrupt and delay dozens of projects that are seeking a DOE loan guarantee, and will have very real impacts on job creation and energy security efforts currently underway."

Company News



Gradient Resources: Construction to Begin at Nevada Patua Plant

Gradient Resources is moving forward on the first of nine potential geothermal power plants. The estimated \$270-million, [60-MW Patua plant near Fernley, Nevada](#) will be built by Benham Constructors LLC, with construction expected to begin the second quarter of this year. The Sacramento Municipal Utility District has contracted for a portion of the generation output, and commercial operations are expected to begin in the third quarter of 2017. Craig Hurlbert, chairman and CEO of TAS Energy, who is providing technology for the project, told press the plant will be the largest geothermal unit ever built.

Magma Energy: Two Geothermal Concessions Awarded in Italy

[Press Release](#), Vancouver, March 30 -- Magma Energy Corp. (TSX: MXY) is pleased to announce that its Italian subsidiary has been awarded, in a competitive bidding process, two geothermal exploration concessions in Italy, known as PR Mensano ("Mensano") and PR Roccastrada ("Roccastrada").

Both Mensano and Roccastrada are in western Tuscany near the town of Larderello, a globally renowned geothermal power production region. The world's first geothermal power plant started in the region in 1911, and currently the region has 32 operating geothermal power plants with a combined capacity of 790 MW. The 21,256

hectare Mensano concession lies to the east of Larderello, while the 27,190 hectare Roccastrada concession is to the south of the town. Both Mensano and Roccastrada exhibit the area's typical sedimentary and metamorphic rock formations and overlie a large inferred heat source that powers the major regional geothermal system.

Dr. Catherine Hickson, Magma's Vice-President Exploration and Chief Geologist, said, "Magma is very pleased to have won these concessions. This is one of the world's largest geothermal power regions and we are confident there is abundant potential for the discovery of additional resources. Italy also has excellent incentives in place for green energy, with power prices as high as €180/MWh, and I look forward to these concessions forming the basis for a successful long term geothermal exploration and development business for Magma in Tuscany."

Ram Power: NCPA Approves PPA for Geysers Geothermal Power Plant

Press Release [\[Full story\]](#), RENO, NEVADA- (March 29, 2011) – Ram Power, Corp. (TSX: RPG) ("Ram Power" or the "Company"), a renewable energy company focused on the development, production and sale of electricity from geothermal energy, is pleased to announce today that the Northern California Power Agency ("NCPA") has approved an amended and restated power purchase agreement (the "Power Purchase Agreement") with the Company's subsidiary, Western GeoPower, Inc. ("WGP"), for the purchase of all energy and available environmental attributes from WGP's geothermal power plant at The Geysers Geothermal Field in Northern California (the "Project"). The Company anticipates that the 26 MW (net) Project will be completed by the end of 2013.

The Power Purchase Agreement amends a power purchase agreement entered into in 2008. Among other things, the Power Purchase Agreement updates the milestones for completion of the Project, adjusts the expected capacity of the Project to approximately 26 MW (net), revises the purchase price per MW, and extends the term of the agreement from 20 to 25 years. NCPA's Commission approved the Power Purchase Agreement on March 24, 2011. Subject to approval by the five NCPA members which are receiving power from the Project, it is anticipated that the Power Purchase Agreement will be signed in April 2011.

"Our commitment to explore and develop innovated and effective 'green power' energy programs is reflected in this agreement," said Jim Pope, general Manager of NCPA. "By securing the geothermal power from the Western GeoPower Unit 1, our member communities in Northern and Central California will continue to benefit from what we consider to be the prime source of reliable, sustainable energy compared to the cleanest natural gas-fired sources. The inclusion of this unit to our resources now expands our geothermal production from four to five plants at The Geysers."

Ram Power: Successful Drilling Results at San Jacinto-Tizate Announced

Press Release [\[Full story\]](#) —March 24, Reno NV — Ram Power, Corp. (TSX: RPG) ("Ram Power" or the "Company"), a renewable energy company focused on the development, production and sale of electricity from geothermal energy, announced today the successful re-drill and initial evaluation of production well SJ12-1, and the successful flow test results of production well SJ12-2 at San Jacinto-Tizate.

As previously announced, to achieve production in wells SJ 12-1 and SJ 12-2, the Company had decided to re-drill both wells. The re-drills were expected to correct the problems encountered in the original drilling and reach the originally planned intersection of deep production zones. In February 2011, the Company re-appointed Sinclair Knight Merz ("SKM"), a leading global consulting firm in the geothermal industry, which has extensive experience in drilling and analyzing the resource at San Jacinto-Tizate where they successfully drilled 40MW. SKM's expertise in well targeting contributed to better definition of inclination and azimuth angles for directional wells. SKM's experience with the San Jacinto-Tizate resource field led to optimal selection of drilling fluids, flow rates, and drilling penetration rates and greater use of perforated liner which were successfully utilized in previous drilling at the resource field. In addition, SKM has a drilling engineer and a scientist on site and is actively evaluating the techniques used for drilling to reduce drilling costs and frequency of drilling incidents. Forking or side-tracking of existing wells has achieved production earlier and at less expense than drilling new wells.

Renewable Energy and Climate Change

U.S. Comes in 3rd in Clean-Energy Investment, Says Pew Report

"Who's Winning the Clean Energy Race?," a [report by the Pew Charitable Trusts](#), [showed that in clean energy investments worldwide](#), the U.S. fell one spot to third place, behind China and Germany. In 2010, U.S. investment in clean energy totaled \$34 billion last year, behind the \$54.4 billion invested by China and the \$41.2 billion invested by Germany. However, the U.S. clean energy investment was up 51% from the previous year, and it also led the world in energy efficiency investment at \$3.3 billion.

President Obama noted the global trends in his [speech on energy at Georgetown University](#) this week: "Think about this — in the 1980s, America was home to more than 80 percent of the world's wind capacity, 90 percent of the world's solar capacity. We were the leaders in wind. We were the leaders in solar. We owned the clean energy economy in the '80s. Guess what. Today, China has the most wind capacity. Germany has the most solar capacity. Both invest more in clean energy than we do, even though we are a larger economy and a substantially larger user of energy. We've fallen behind on what is going to be the key to our future."



China and Germany both have minimum clean-energy targets. Last year Germany also benefited from the prospect of reduction in feed-in tariffs, under which renewable-power generators are paid a premium price for the electricity they produce.

Geothermal Energy a Safe and Serious Approach

An [article on renewableenergyworld.com](#) explains how nuclear power plants and geothermal power plants work, explaining, in particular, the danger of nuclear power plants, and how geothermal energy power plants provide a safer and real solution. “Geothermal power plants require no fuel and produce no waste,” according to the article. “Nuclear power plants turn nature’s blessing into a potential disaster by disturbing the earth’s fine balance. Mining, concentrating and shipping uranium to population centers just to boil water is an insane approach.”

The article goes on to explain what it describes as a missed opportunity for geothermal: “If the DOE had instead channeled some of the billions budgeted for nuclear and “clean coal” to a crash program to develop EGS geothermal, we could be in a much better position today. . . The DOE is gradually waking up to this missed opportunity and just last year spent \$43 million on geothermal research. Not exactly a Manhattan Project, but a start nonetheless. Geothermal is a serious threat to coal and nuclear interests because it is the only renewable energy source that runs 24/7 and is not dependent on weather or time of day.”

State News

California: 3-Year Effort Pays Off — Legislature Passes 33% Renewable Energy Standard Legislation

By John McCaull ~ GEA’s Western States Representative

March 31, 2011. On March 29, the California State Assembly passed [SBX1 2 \(Simitian\)](#), ending a three-year effort to codify a “33% by 2020” goal for California to increase its supply and use of renewable energy resources. SBX1 2 is expected to be signed by Governor Jerry Brown shortly, and it increases California’s renewable portfolio standard (RPS) to require all retail sellers of electricity and all publicly owned utilities (POUs) to procure at least 33% of electricity delivered to their retail customers from renewable resources by 2020.

The measure passed the Assembly on a vote of 55-18, while passing in the State Senate on a vote of 26-11 in February. “This bill establishes California as the national leader in clean energy,” said Senator Joe Simitian (D, 11th District), “improving the environment and stimulating the economy, while protecting ratepayers from excessive costs.”

Specifically, the legislation requires all retail sellers of electricity and all POUs to procure renewable energy resources with the following targets: a) 20% by December 31, 2013; b) 25% by December 31, 2016; and c) 33% by December 31, 2020, and each year thereafter.



Senate Bill 2X applies to all electricity retailers in the state — investor-owned utilities (IOUs), municipal utilities, and independent sellers. The current 20% standard applies only to investor-owned utilities and independent sellers. The California Public Utilities Commission (CPUC) expects IOUs to provide 21% of their electricity from renewables in 2011. Municipal utilities have adopted renewable energy goals, which only some have met. “Fossil fuels are finite and demand for energy is growing,” said Simitian. “Fossil fuel prices are going to keep heading up. Renewable prices are headed down.”

Senate Bill 2X does not require utilities to reach the goal at any cost. The CPUC must approve renewable energy contracts, and utilities may be granted exemptions if the price of energy, or the difficulty of moving it into the state’s grid, make the cost excessive. For these reasons the bill is endorsed by the CPUC’s Division of Ratepayer Advocates and consumer watchdog The Utility Reform Network (TURN). SBX1 2 was also supported by environmental groups and renewable energy producers, Southern California Edison and San Diego Gas & Electric, many of the state’s municipal utilities, and unions representing construction and electrical workers.

SBX1 2 requires the CPUC to adopt a process for the **rank ordering and selection of least-cost and best-fit eligible** renewable energy resources. The bill authorizes it to waive enforcement and allow retail sellers to delay compliance with the renewable procurement requirement if the retail seller demonstrates that any of the following conditions are beyond its control and will prevent timely compliance: a) Inadequate transmission capacity for delivery of sufficient renewable energy; b) Unanticipated permitting, interconnection or other related delays for renewable energy projects or an insufficient supply of eligible renewable energy resources available to the retail seller; or c) Unanticipated curtailment of renewable energy necessary to address the needs of a balancing authority.

A key aspect of the RPS debate was over which “electricity products” would receive procurement preference. SBX1 2 revises eligibility conditions to allow various products from eligible renewable energy resources located within the Western Electricity Coordinating Council transmission network service territory and differentiates the products based on the following three categories:

- a) Products that **have the first point of interconnection with a California balancing authority** or other criteria primarily scheduled to serve California load at not less than the following procurement targets: i) 50% by December 31, 2013; ii) 65% by December 31, 2016; and iii) 75% thereafter.
- b) **Firmed and shaped renewable energy products providing incremental electricity** and scheduled into a California balancing authority; or,
- c) Renewable energy products that do not meet either condition above, including **unbundled renewable energy credits (RECs)** at not more than the following procurement targets: i) 25% by December 31, 2013; ii) 15% by December 31, 2016; and iii) 10% thereafter.

Other key provisions of the bill include:

- A set-aside 25% of the 33% renewable market for generation owned and operated by California's independently owned utilities (IOUs). The CPUC is required under the bill to approve an application by an IOU to construct, own and operate a renewable energy facility until the facilities equal 8.25% of the IOU's anticipated 2020 retail sales.
- Prescribing factors that CPUC must consider when establishing a feed-in tariff for electricity generated from a renewable generating facility that is less than three megawatts (MW).
- Requirements that the CPUC determine the effective load carrying capacity of wind and solar energy resources on the grid and use those values in establishing the contribution of wind and solar energy toward meeting resource adequacy requirements.
- Appropriates \$322,000 from CPUC Utilities Reimbursement Account (PURA) to CPUC for additional staffing related to transmission line planning and permitting.



John McCaull is the GEA's Western States Representative. He can be reached at john@geo-energy.org.

California: Court Enjoins Implementation of Cap-and-Trade

Press Release [[Full story](#)], March 23 — San Francisco Superior Court has issued a final decision in Association of Irrigated Residents v. California Air Resources Board. For the moment, the California Air Resources Board (CARB) is enjoined from further rulemaking to implement the California Global Warming Solutions Act (A.B. 32), including for the cap-and-trade program. The Court upheld the validity of CARB's Scoping Plan for implementation of A.B. 32, saving CARB from having to revise the Plan. But, the Court found flaws with CARB's environmental review of the Scoping Plan under the California Environmental Quality Act (CEQA), in particular its analysis of alternatives to the Plan's recommended greenhouse gas (GHG) reduction measures, such as cap and trade. CARB is enjoined from further rulemaking until the agency has come into compliance with CEQA by amending its environmental review of the Scoping Plan.

For entities facing regulation under A.B. 32, this decision has important implications. Scoping Plan GHG reduction measures that have already made their way through the rulemaking process appear unaffected. But CARB's cap-and-trade program never made it out of the formal rulemaking process. While the Board members of CARB approved the cap-and-trade program in December 2010, it left it to the Executive Officer to take final action to adopt the proposed regulation (or bring it back to the Board) after more details were finalized. CARB had a packed schedule this year to finalize cap and trade prior to its January 1, 2012 start date. Under the Court's final decision, these activities will have to be shelved if they fall within the rubric of further rulemaking or implementation. Regulated entities may thus have a temporary reprieve from the onset of cap and trade in 2012.

But continued uncertainty over the details of CARB's planned GHG regulation of stationary sources is a less than ideal situation for regulated sources.

Nevada: BLM Office Looks at Mining Claims Locations with Geothermal Potential

BLM Nevada has received a "half dozen or more" applications for noncompetitive geothermal leasing on locations that are subject to mining claims under the Energy Act (2005). The mining claims can be converted to leases if they meet certain requirements, which the Nevada office has been tasked with assessing. According to officials at BLM, one application that was submitted has met all the requirements—Chemetall.

Locations of mining claims are not defined the same as geothermal under the public land claim system. Survey standards are that for BLM to survey the lands, the applicant must be the claim owner, as well as have an approved plan of operations.

International News



Americas

Chile: EDC Files for Geothermal Concessions

Energy Development Corp, of the Philippines, is [filing for bids on six to 10 geothermal concession areas](#) being offered by Chile. The geothermal energy producer has also put up EDC Chile Ltd., a limited liability company in Santiago. "We are focusing on countries that have sufficient geothermal resources to justify our presence and we prefer these to one-off opportunities that have no potential to achieve scale," EDC president and COO Richard B. Tantoco told press. "We are planting the seeds for this now given that it takes five to seven years to develop geothermal projects."

Nevis: EX-IM Team Visits WIP Geothermal Site

A team of the Export–Import Bank of the United States visited the island of Nevis last week to conduct the final site evaluation of the West Indies Power geothermal project. The bank plans to fund the US\$57mil project, with a recommendation of loan approval expected by the Ex-Im Board of Directors in April. [In a release](#), Kerry McDonald, CEO of WIP, said: "The Ex-Im group was very impressed with the Nevis Geothermal Project and stated their intent to support the recommendation to the Ex-Im Board of Directors to finance the Project. This will be the first loan ever given by Ex-Im to a project on Nevis and will be the largest that it has ever given to a project in the Federation of St Kitts and Nevis. WIP is pleased to have the support of the official export credit agency of the US Government in the development of the Nevis Geothermal Project."

Nicaragua: IDB Contributes \$30 mil to San Jacinto Geothermal Expansion

The Inter-American Development Bank (IDB) has allotted over \$30 million to Polaris Energy Nicaragua toward their work on the [expansion of the San Jacinto geothermal power plant from 10 MW to a total generation of 72 MW](#). "This project is not just about expanding access to electricity," Hans Schulz, General Manager of the Structured and Corporate Finance Department of the IDB, said in a press release. "It is also about transforming the country's energy matrix to reduce its dependence on fossil fuel imports and boost its long term competitiveness."

Europe

Iceland: Magma in IDDP-1 Well Could Triple Energy Output

As covered in the [February 24 issue of GEW](#), the government-industry Iceland Deep Drilling Project published findings from the 2009 observations of molten rock unexpectedly seeped into their geothermal well. Now it seems the magma well could serve as a model for more energy efficient geothermal power plants. Tests showed the well, IDDP-1, could produce enough energy to power between 25,000 and 30,000 homes. "It is producing super-heated steam at about 400 degrees Celsius (750 degrees Fahrenheit), [and it has about three times the energy content of traditional wells](#)," Peter Schiffman, UC Davis geology professor and researcher on the project, told press. Landsvirkjun's head of power projects Bjarni Pálsson added the company plans to build a new power plant to tap into the IDDP-1 well's energy. "Landsvirkjun and the Iceland Deep Drilling Project will continue experiments this year with the aim of finding an optimum way of utilizing the potentially erosive and corrosive steam," he said.

Macedonia: Conference Highlights Geothermal Potential

Officials, professors, scientists, and foreign investors participated in a [conference this week called "Geothermal Energy in the Republic of Macedonia - Kocani Depression."](#) Attendees learned that the Kocani geothermal basin is the most abundant on the Balkans: annual exploitation about one billion m³, temperature 76°Celsius, and representing savings of up to 4,000 tonnes of crude oil. "There are over 25 registered natural sources of geothermal waters in Macedonia, with temperatures exceeding 21 degrees Celsius. Macedonia's geothermal potential increases the interest over its use for electricity output," said President Gjorge Ivanov at the conference. He added that the government has invested EUR 60 million in geothermal.

Serbia: Reservoir Minerals Formed for Geothermal Exploration Permits

The Canadian company Reservoir Capital, which holds [four geothermal exploration licenses in Serbia](#), as well as other minerals permits, plans to spin these into a new company to focus on renewable energy projects. Shareholders of Reservoir Capital will be entitled to 9 million shares of Reservoir Minerals, the new company, on a pro rata basis. The company said it will raise about C\$7 million in a non-brokered private placement to finance the move.

Asia and Pacific

Indonesia: Officials Look to Recategorize Geothermal as a Water Service; USAID Program Awarded to Tetra Tech

This week, Director General for Renewable Energy and Energy Conservation Luluk Sumiarso told press in Jakarta that [geothermal development would not harm protected forests](#). "Producing geothermal steam requires water and therefore needs forests that can preserve water in the soil. That is why geothermal steam producers have a big interest in conserving forests," Luluk said, adding that above-ground pipes would take up minimal space. Indonesian policy categorizes geothermal resource development as a mining activity, but four related ministers have agreed to revise geothermal regulation as a water service so development could be done in protected forests. Agreement from the environment minister was still needed.

Meanwhile, Tetra Tech, Inc. has been [awarded a \\$16.2 million, 3.5-year program](#) to help the Indonesian Ministry of Energy and Mineral Resources meet its energy security and greenhouse gas emissions (GHG) reduction goals to provide electrical coverage to 90% of its population by 2025. The program, through the U.S. Agency for International Development, will focus on renewable energy investment and policy improvements.

Malaysia: Study Shows Geothermal Resources in Tawau

A study by the Mineral and Geosciences Department showed [up to 67 MW from geothermal resources discovered at a geothermal site in Apas](#) are available to generate enough electricity for the Tawau people. A reservoir about 2,000 to 3,000m below the earth's surface was identified with water at temperatures of 220°C to 236°C. "We have conducted a study and will make recommendations to the state government. It is up to the state government to find the experts to develop the site," said deputy Natural Resources and Environment Minister Tan Sri Joseph Kurup.

Philippines: Studies Underway at Mabini, Batangas Geothermal Site

Basic Energy Corp. is moving forward with its planned [20-MW Mabini geothermal energy project](#). Through Filtech Energy Drilling Corp., a prefeasibility study will assess technical, environmental, social, financial, and risk aspects. It is expected to validate a Controlled Magneto-Telluric (CSMT) survey conducted last year. The project is located in Batangas. Basic Energy was awarded the service contract by the Department of Energy in 2008.

Africa

Kenya: KenGen to Acquire Two Drilling Rigs

[Two drilling rigs at a cost of Sh3.2 billion will arrive in the country in September this year](#), KenGen Managing Director Eddy Njoroge said, speaking in Eburru Naivasha during the ground-breaking ceremony of the new Eburru power plant. Naivasha MP John Mututho added, "We fear the side effects of nuclear power which are now evident in Japan and we should focus on generating more geothermal power instead."

Geothermal Heat Pumps and Direct Use



Reno's VA Hospital Plans Geothermal Heating Project

The VA Sierra Nevada Health Care System in Reno, Nevada, which has been earning a name as a geothermal center, plans to drill [for geothermal power to heat sections of the hospital](#). This is one of three green energy projects underway or completed at the facility. The other two projects are one to cut our water use down by 80 or 90 percent, and the other, silicon solar panels, with one section completed and expected to go online soon. Additional solar panels will be added to the hospital's parking garage. The projects "lower our operating costs for this facility, which makes us more responsible government and allows more to go back into our services for veterans," spokesperson Darin Farr told press.



<http://www.geo-energy.org/updates.aspx>

Notices

New This Week

Global Geothermal Installed Capacity Could Double, Says Pike Report

Press Release [\[Full story\]](#), March 7 — As global energy demand increases and efforts to curb greenhouse gas emissions intensify, an increasing number of countries throughout the world are looking to tap geothermal resources to drive low carbon development. A clean, base load source of power, geothermal offers consistent electricity production nearly 24 hours a day with little to no emissions. According to a new report from Pike Research, escalating investment in geothermal power could result in a 134% increase in total geothermal capacity between 2010 and 2020, from 10.7 GW to 25.1 GW, under a high-growth forecast scenario. Under a more conservative business-as-usual forecast scenario, the cleantech market intelligence firm estimates that geothermal power capacity would increase 34% to 14.3 GW by 2020.



“Worldwide potential for geothermal energy is immense,” says senior analyst Peter Asmus, “but geothermal remains an underutilized resource and represents only a small fraction of the global renewable energy portfolio. Improved access to resource data, more efficient drilling processes, increased understanding about the industry’s potential, and improving access to financing are driving expanding interest in the sector.”

Asmus adds that the current installed capacity of 10.7 GW is spread across 26 countries with a combined output of approximately 67 terawatt hours (TWh) of electricity. Currently, the United States is the global geothermal leader with 3.1 GW of installed capacity, and seven countries represent 88% of the world market. While conventional geothermal resources account for nearly all online capacity today, enhanced geothermal systems (EGS) and co-produced wells both offer opportunities for expansion outside of rift zones or volcanically active regions throughout the world.

Current Notices

Watch Event Broadcast from 2011 Renewable Energy World North America Conference & Expo

In early March, the GEA and many experts in the geothermal industry participated in aspects of the Renewable Energy World North America Conference & Expo (see story on [GEA blog](#) or in [March 17 edition of GEW \(PDF\)](#)). Now you can [watch the Event Broadcast](#) from renewableenergyworld.com to view event coverage in Tampa, Florida from all facets of renewable energy.

For Students! Princeton Review and Entrepreneur Magazine Rank Top 16 Green MBA Programs

Princeton Review and Entrepreneur Magazine have [released their first rankings of the top 16 green MBA programs in the U.S.](#) Columbia University, Duke University, Stanford University, and New York University were not surprising to see on the list, but some of the lesser-knowns include Portland State, Babson College, and Bentley University. The rankings considered green curriculum, local impact, and faculty and student rankings.

First-Ever GEA Honors Award Program—Call for Entries

Recently the Geothermal Energy Association (GEA) announced the call for entries for the first-ever GEA Honors award program. “We are excited about the awards and the opportunity to recognize the geothermal industry’s most innovative and inspiring developments from the past year,” said Karl Gawell, Geothermal Energy Association Executive Director. “The GEA Honors will shine a light on the contributions being made by the individuals and companies who are doing an exemplary job of promoting and growing geothermal power.” Nominations are currently being accepted for the awards program. In this inaugural year, awards will be given to GEA member companies in the following categories:

- Technological Advancement – Awarded to an individual or company that has developed a new, innovative, and/or pioneering technology to further development

- Environmental Stewardship – Awarded to an individual or company that has fostered outstanding environmental stewardship through the use of geothermal systems. Award to be presented in conjunction with the environmental and Energy Study Institute (EESI)
- Economic Development – Awarded to an individual or company that has made a substantial contribution to the development of local, regional, or national markets through the development of geothermal systems

Additionally, the GEA Honors will be accepting nominations for special recognition of those individuals and companies who have made outstanding achievements in the geothermal industry. These awards are open to GEA members as well as non-member companies and individuals. To place nominations for GEA Honors 2011 please go to: <http://www.geo-energy.org/GEAHonors.aspx>.

Obama Administration Announces Launch of i6 Green Challenge to Promote Clean Energy Innovation and Economic Growth

Press Release [[Full story](#)], March 10 — The U.S. Department of Energy joined with the U.S. Commerce Department's Economic Development Administration (EDA) and its Office of Innovation and Entrepreneurship today to announce the opening of the \$12 million i6 Green Challenge, which will also be conducted in partnership with the U.S. Department of Agriculture, the U.S. Environmental Protection Agency, the National Science Foundation, and Commerce's National Institute of Standards and Technology and U.S. Patent and Trademark Office.

The funding will support awards for six teams around the country with the most innovative ideas to drive technology commercialization and entrepreneurship in support of a green innovation economy, increased U.S. competitiveness and new jobs. The Department of Energy will invest up to \$2 million to support the \$12 million multi-agency i6 Green Challenge, which will establish or expand Proof of Concept Centers across the U.S. In order to be eligible for DOE funding, applicants will be required to demonstrate innovation in the areas of renewable energy, energy efficiency, or green building technology.



Employment

Employment Opportunities

Only basic information and contact is given below—more detail on all opportunities listed here is available at http://geo-energy.org/empl_opport.aspx.

Reservoir Engineering Manager – Geothermal, Chevron, Jakarta, Indonesia

Chevron Asia Pacific Exploration and Production is accepting online applications for the position of Reservoir Engineering Manager located in Jakarta, Indonesia. To learn more about this exciting position and to apply visit www.chevron.apply2jobs.com and search by requisition 081116435. All applicants must apply via the Chevron online application process.

For Students! EPA Summer Employment Program Application Underway

From EPA: The U.S. Environmental Protection Agency is looking for energetic and highly motivated students for summer employment. [More information and application information is available on the EPA web site.](#)

Sr. Applications Engineer, ElectraTherm

Start date: Immediate, Posting Date: 3/9/2011

Contact: Jan Petersen – jpetersen@electratherm.com, 775-398-4680

Associate Director, California Geothermal Energy Collaborative, UC Davis Energy Institute

For more information on the position, go to the UC Davis staff web page

<https://www.employment.ucdavis.edu/applicants/jsp/shared/frameset/Frameset.jsp?time=1297906619426>

Click on search button and scroll down to the listing. The Quick link to apply will take you directly to the posting - www.employment.ucdavis.edu/applicants/Central?quickFind=58431

Sr. Engineer, McHale & Associates, Arvada, CO

McHale is seeking a Sr. Engineer to conceive, develop and implement projects of major significance to the business plan.

Consultant to Assess the Geothermal Market in Turkey, EBRD

The European Bank for Reconstruction and Development is considering a wide range of renewable energy proposals in Turkey, some of which are in the geothermal sector, and as such requires a consultant to provide an assessment of the Geothermal Market in Turkey. See <http://www.ebrd.com/pages/homepage.shtml> and <http://www.balkans.com/open-news.php?uniquenumber=91332>

General Manager, Geothermal Exploration, Origin Energy (Indonesia)

Jakarta based with domestic and international travel. If you are interested in this opportunity or other geothermal opportunities please contact: Jennifer Blake on +617 3867 0022 or email jennifer.blake@originenergy.com.au.

NREL Seeking Applicants for Geothermal Analysis Group

We're looking for applicants with geothermal or related technical backgrounds that have strong analytical skills and good writing/communication skills. If you have any graduate students, post-docs, former undergrads with some experience, or other contacts that are looking for employment and would be good fits for any of these positions, please forward them the information. They can also apply for the positions online at http://www.nrel.gov/employment/job_openings.html.

Senior Level Assistant Site Manager, Operations and Maintenance

Contact: Richard@mrspokane.com or call 509-340-2852 Ext. 18

Senior Principal Geothermal Geologist – Brisbane, Australia

Shane Stevens / Talent Search Team Manager, Origin

Email: Shane.stevens@originenergy.com.au Phone: +61 00 11 73858 0237

Vice President Geology, Western US

Please send resumes to Bstevens@stmassociates.com

Geothermal Openings, NREL, Boulder, CO

Go to http://www.nrel.gov/employment/job_openings.html and search "geothermal"

Drilling Manager, NV

Contact: Andrew Matkovic / Vice President Clean Tech & Energy
(216) 539-7668 or andrewmatkovic@carmongroup.com

Geophysicist, Calpine, The Geysers, CA

To apply online, see

https://www.hrapply.com/calpine/AppJobView.jsp?link=3645&page=AppJobList.jsp&skimSessionName=com.hrlogix.view.cont.app.JobListTable&skimName=requisition.requisition_id&skimNdx=4&op=reset.

Renewable Energy Mechanical/Systems Engineer, Idaho National Laboratory, ID

Please contact: Vanessa Van Dyk at Idaho National Laboratory: Vanessa.VanDyk@inl.gov, 208-526-6325
OR apply on line at: www.inl.gov/careers

Project Manager

Contact: Andrew Matkovic, Vice President, The Carmon Group Inc.

andrewmatkovic@carmongroup.com or (216) 539-7668

(updated 8/20/10)

Development Manager

Contact: Andrew Matkovic, Vice President, The Carmon Group Inc.

andrewmatkovic@carmongroup.com or (216) 539-7668

(updated 8/20/10)

Project Manager Geothermal Exploration, Europe

Contact: drobot@penderfinancial.com

Requests for Proposals**New This Week****Nevada Accepting Land Nominations for January 2012 Geothermal Lease Sale**

The Nevada State Office is now accepting nominations of lands for competitive geothermal leasing for the next [geothermal lease sale that is tentatively scheduled for January 24, 2012](#). Land nominations must be submitted on Department of the Interior (DOI), Bureau of Land Management (BLM) Form 3203-1, and comply with 43 CFR 3203 (72 FR 24406, May 2, 2007). Please refer to these regulations for nomination requirements regarding maximum acreage, acceptable land descriptions, and nominating parcels as a block. These regulations may be found at: <http://ecfr.gpoaccess.gov/> under Title 43, Volume 2, Chapter II, Part 3200. All land nominations must be received by the Nevada State Office no later than June 24, 2011, in order to be considered for the January 2012 Geothermal Lease Sale. Nominations received after June 24, 2011, will be processed for future sales. Questions, please call Irene Hoiby at (775) 861-66641; facsimile at 775-861-6710; ihoiby@nv.blm.gov.

Proposal Announcements**Comments Sought on Senate CES White Paper (April 11)**

Senator Jeff Bingaman, D-New Mexico and Senator Lisa Murkowski, R-Alaska, Chairman and Ranking Member, respectively, of the US Senate Committee on Energy and Natural Resources released a white paper on questions and design elements of a Clean Energy Standard (CES). The purpose of the white paper is to solicit comments from parties interested and affected by a CES, with responses due by 5pm on Monday, April 11. Submittals must be e-mailed to Clean_Energy_Standard@energy.senate.gov no later than 5 p.m. (EST) on April 11th, 2011. For further instruction on submitting a response, see related documents [on the Committee web site](#).

Immediate Drilling Rig & Crew Availability (March–April 2011)

Rig 77 - 2007 Model 200,000 lb. capacity rig & crew. Depth capacity +/- 5000' + with 4 1/2" drill pipe; square set derrick, double drum table drive unit (18" flip up hydraulic table), & pipe handling system. Conventional drilling with (2) 600 HP Mud pumps (2008 with Tier 3 Engines). Approximately 15' Clearance KB. You can view pictures, footprint and rig inventory at: <http://www.barbourwell.com/rigs1.html>.

Contact for rates and scheduling:

Steve Zarcone, Director of Business Development, Barbour Well, Inc.

260 Sunpac Ave. Henderson, NV 89011, 805-207-6407

www.barbourwell.com

Renewable Energy Certificates, U.S. Air Force and Federal Civilians (March 28)

Issuance of REC solicitation SP0600-R-11-0418 -- A Renewable Energy Certificates (REC) solicitation for U.S. Air Force and various Federal Civilian customers, with total contract quantity of 243,266,000 kWh. Proposals are due March 28, 2011.

Link to Defense Logistics Agency DLA-Energy's current REC solicitation;

https://www.fbo.gov/?s=opportunity&mode=form&id=feae20a86e2041a27bcd24b7b06d7897&tab=core&_cview=0

Questions:

Ashleigh N. Johnson, Contract Specialist, Energy Electricity/Renewables Branch, Ashleigh.Johnson@dla.mil

Chris Boeding, Christopher.Boeding@dla.mil, PH: 703-767-8561 FAX: 703-767-8757

Refurbished 27-MW Marine Turbine, Ram Power

This turbine, originally designed by Westinghouse for aircraft carrier service, has been completely refurbished for geothermal service. It has been re-rated to 27,350 kW at design inlet conditions of 469,875 lb/h 60 psig, 307F inlet conditions; 3.0" HgA exhaust. At a steam flow of 431,215 lb/h, it is expected that the turbine will produce 25,100 kW.

New engineering performed for this machine includes: New steam path engineering and all new manufacturing/performance drawings are available, including interstage and inner gland steam sealing manufacturing drawings, turbine clearance diagrams, rotor lifting diagrams, and new flow path performance curves at the anticipated steam flow rates.

Hardware includes: New 5 stage rotor, new diaphragms, generator and governor end gland steam packing sets, interstage packing sets, T1 and T2 axial aligning journal bearings, one high capacity active thrust bearing and one

high capacity inactive thrust bearing, with directed lubrication and temperature sensors. The machine is set up for mounting five Bently Nevada XL-8mm proximity probes. Also included in the sale package are: turbine casing testing, final turbine assembly check, preparation and compilation of all material certifications, test reports and QA documents. The complete package (rotor, diaphragms, seals, and casings) can be prepared for ocean transport with appropriate preservation for short-term storage.

Turbine current delivery date is 3-4 months after a purchase agreement is established, ex-works Houston, TX, USA. Please contact info@ram-power.com for further information.

Alaska Fairbanks North Star Borough Offers \$1M Matched-Funds Grant

Alaska's Fairbanks North Star Borough is putting out a \$1 million grant through the Department of Energy for geothermal energy exploration for the proposal venture that can provide matching funds. Former Mayor Jim Whitaker initiated the request based on positive results of deep well testing 50 years ago. Luke Hopkins, Mayor of Fairbanks North Star Borough said researchers at the University of Alaska Fairbanks have shown interest. The goal is to find out whether the university's existing power plant could be replaced with a geothermal power plant.

See <http://www.azocleantech.com/details.asp?newsID=12786>, Fairbanks North Star Borough

<http://www.co.fairbanks.ak.us/>, PDF: <http://co.fairbanks.ak.us/Meetings/Ordinances/2010/2010-20-1o.pdf>

Partner Sought for Hot Oil and Gas Wells, Mississippi

Rich McAdoo (rlmcadoo@continentalenergy.com) is seeking local operators or parties with access to properties with hot oil or gas wells (shut-in or production) located in Mississippi. If you are looking for a financial and technical partner to develop coproduction of geothermal fluids with oil and gas in Mississippi, send him an email.

Events

GEA Events

Calendar of 2011 GEA and GEA-Sponsored Events

Look for more information on these upcoming events at <http://geo-energy.org/events.aspx>. For sponsorship and speaking opportunities, contact Kathy Kent at Kathy@geo-energy.org.

- May 4: GEA Geothermal Energy Showcase and International Forum, Washington, DC
- May 13–17: Climate Ride, with GEA's bicycle team the Geothermal Rock and Rollers, NYC to DC
- August 16–17: GEA National Geothermal Summit, Reno, NV
- October 23–26: GEA Geothermal Energy Expo® and GRC Annual Meeting 2011, San Diego, CA



Geothermal Energy Technology and International Development Forum, Washington, DC (May 4)

This event will be held Wednesday, May 4, 2011, at the Ronald Reagan Building and International Trade Center, Washington, DC, and is developed in conjunction with supporting agencies; U.S. Department of Energy and U.S. Department of Commerce. For more information, including the preliminary agenda and registration, visit:

http://www.geo-energy.org/events/May2011_ShowcaseForum.aspx.

GEA will be holding a one-day “Geothermal Energy Technology and International Development Forum” in Washington, DC on Wednesday, May 4, 2011 at the Ronald Reagan Building and International Trade Center. The program seeks to showcase geothermal projects, trends, and governmental policies in the U.S. and around the world. Topics covered will include; the geothermal market today, projects under development in the U.S. and internationally, outlook for the future of the geothermal market , jobs and money, new technologies, and federal agency support at home and abroad.

There will also be a small exhibition area featuring leading companies in the geothermal energy industry.

This event has been developed in conjunction with the U.S. Department of Energy and the U.S. Department of Commerce and is open to the geothermal industry. The “Geothermal Energy Technology and International Development Forum” will be widely attended with over two-hundred industry leaders, foreign diplomats, financiers and government officials expected to participate.

Confirmed speakers to date include:

- **Allyson Anderson**, Professional Staff, Senate Committee on Energy and Natural Resources
- **Karl Gawell**, Executive Director, Geothermal Energy Association
- **Halley Dickey**, Director of Geothermal Business Development, TAS
- **Jonathan Weisgall**, VP, Legislative and Regulatory Affairs, MidAmerican Energy Holdings Co.
- **Josh Nordquist**, Project Manager, Ormat Technologies
- **Mark Taylor**, Lead Analyst, CCS and Geothermal, Bloomberg New Energy Finance
- **Mike Ronzello**, Geothermal Business Development Manager, Pratt & Whitney Power Systems
- **Dan Jennejohn**, Research Associate, Geothermal Energy Association
- **Craig Mataczynski**, CEO, Gradient Resources
- **Kevin Wallace**, Senior Project Manager and Renewables Market Manager, POWER Engineers
- **Bob Manasse**, Enel Green Power North America, Inc.
- **U.S. Department of Energy, Geothermal Technology Program**
- **Thomas Zich**, Emabond Solutions
- **Robert Hunt**, Linear Power

- **Jamie Merriman**, U.S. Trade and Development Agency
- **Doug Dougherty**, President, Geothermal Exchange Organization
- **Noam Ayali**, Partner, Chadbourne and Parke LLP

Wednesday, May 4, 2011

7:30 am Registration

9:00 am – 12:15 pm Morning Session

12:15 – 1:15 pm Luncheon

1:15 – 5:00 pm Afternoon Session

This event will be located at the Ronald Reagan Building and International Trade Center, Atrium Hall, 1300 Pennsylvania Ave., NW, Washington, DC, USA.

For more information, including the full agenda, visit: For more information, including the preliminary agenda and registration, visit: http://www.geo-energy.org/events/May2011_ShowcaseForum.aspx. With any questions, please feel free to email Kathy Kent at kathy@geo-energy.org. For media credentials, please contact Garret Drexler at 646-695-7042 or garret@rosengrouppr.com.

GEA Team to Power Brita Climate Ride—Your Contributions Needed (May 13-17)

GEA has assembled a team to participate in the Brita Climate Ride from New York City to Washington, DC, May 13–17. The 5-day ride begins in Manhattan and passes through Princeton, Pennsylvania Amish Country, and Maryland horse country. The ride ends at the US Capitol where riders will have a chance to meet with Congressional representatives.

Climate Ride is a non-profit organization that puts on fully supported, charitable bike rides to support sustainable solutions and environmental causes. Participation in the event helps provide finances and awareness to renewable energy and environmental causes. You can join our team or contribute to help us reach the donation goal at: <http://climateride.donordrive.com/index.cfm?fuseaction=donorDrive.team&eventID=501&teamID=5027>

GEA Geothermal Energy Expo® and GRC Annual Meeting 2011, San Diego, CA (October 23–26)

The GEA Geothermal Energy Expo is 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 2011 Expo is certain to be the largest-ever gathering of the geothermal community," said GEA Marketing and Events Director Kathy Kent. "Each year the growing geothermal industry comes together for this event and it has become the most vital gathering for companies and leaders developing geothermal resources around the world." The 2010 Expo in Sacramento featured more than 2,500 attendees from 42

different states and 13 different countries. The sold out Expo Hall featured 162 exhibitors coming from 34 different states and 10 different countries. Please contact Kathy Kent, Kathy@geo-energy.org for information, registration, sponsorship opportunities, etc.

Exhibitor Registration Open for GEA Geothermal Expo

Washington, DC (March 11, 2011) – Registration for exhibitors at the 2011 GEA Geothermal Expo in San Diego, Calif. from Oct 23-26 has opened at <http://www.geothermalenergy2011.com/>.

Sponsorship Opportunities Available for GEA Events

Your company has the opportunity for high visibility at GEA's 2011 events. In addition to providing the financial support needed for GEA to undertake successful events, GEA events feature media availabilities with sponsors which garner extensive coverage in mainstream press outlets. Sponsorship details are posted online:

<http://www.geo-energy.org/images/GEA2011SponsorshipOpps9.pdf>.

Why Should You Attend GEA Events?

As the national trade association for the geothermal industry, the Geothermal Energy Association (GEA) strives to create and deliver educational events involving the full range of the geothermal industry, reflecting the dynamic growth of the geothermal market, and communicating the benefits of geothermal energy to all. GEA events offer important opportunities to learn and network within the geothermal community, and to inform and educate companies and organizations outside today's industry that are interested in learning more about geothermal energy. The revenue generated from GEA events is used to advance the goal of the GEA, "to expand the production and use of geothermal energy in the United States and around the world." The revenue supports GEA's workshops and events, communications activities, outreach efforts, policy related activities and analysis, internet publications, and other initiatives designed to help achieve this goal. ONLY GEA puts your dollars to work in all of these ways to advance the future of the geothermal energy industry. And, GEA does not sell your email or postal address to junk mailers or spammers. To keep track of new events and changes to this calendar go to: www.geo-energy.org.

Other Events

An Overview of Geothermal Energy, AAPG 2011 Annual Convention & Exhibition, Houston, Texas (April 10)

This year the Energy & Minerals Division of the American Association Petroleum Geologists will hold a Pre-Convention Short Course on geothermal energy at the AAPG 2011 Annual Convention & Exhibition. The course is focused on geothermal in the oil/gas producing states and the O&G industry in general. Date: Sunday, 10 April. Time: 8:00 a.m. –5:00 p.m. Fee: Professionals \$200, students \$100 (limited). Information and updates at:

www.AAPG.org/Houston2011

CGEC Events Announced for Spring 2011

April 7, 2011: California Geothermal Energy Collaborative, Education and Outreach Workshop for the public, Davis, CA

May 26-27, 2011: California Geothermal Energy Collaborative Summit, Mammoth Lakes, CA

See <http://cgec.ucdavis.edu/>

Geothermal Reporter Training, ONRR, Reno NV (May 10-12, tentative)

ONRR (formerly MMS) is planning a Geothermal Reporter Training, possibly for Reno, later this spring.

Contact Leona Reilly, Minerals Revenue Analyst, Office of Natural Resource Revenue

303.231.3024 Fax 303.445.4245

leona.reilly@onrr.gov

National Geothermal Academy, University of Nevada, Reno (June 20 to August 12)

This summer the [National Geothermal Academy will hold its inaugural summer session at the University of Nevada, Reno](#). Forty students will be involved in an 8-week geothermal energy education program. Cornell University, Stanford University, Southern Methodist University, West Virginia University, the Oregon Institute of Technology, the University of Utah and Dartmouth will all participate. The Department of Energy awarded UNR a \$995,000 grant for the academy. "Indonesia, New Zealand and Iceland have held similar academies, but this academy is the first in our country," Wendy Calvin, coordinator of the academy and director of the University of Nevada Great Basin Center for Geothermal Energy, said in a statement. "Nevada has great local resources for the academy. The consortium selected our school because of its proximity to drilling sites, power plants and heat sources, as well as for its leadership in multidisciplinary research that has led to discovering new technologies for exploration, production and development of geothermal resources." For more information go to

<http://www.unr.edu/geothermal/NGA.htm>

Geothermal Energy Utilization Associated with Oil and Gas Development, SMU Geothermal Laboratory, Dallas, TX (June 13–15)

<http://smu.edu/geothermal/>

CanGEA Events (September and November)

September 14th, 2011 - Toronto, ON, Geothermal Investment Forum and Networking Event

November 9th, 2011 – Calgary, AB, Geothermal Power Forum and Networking Event

GEOHERMAL ENERGY WEEKLY

A newsletter for the geothermal industry written by Leslie Blodgett and Karl Gawell

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