



# GEO THERMAL ENERGY ASSOCIATION

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## **National News**

### **Senate Energy Committee Begins Action on Energy Legislation**

Press Release—March 30, [U.S. Senate Committee on Energy and Natural Resources](#)

Senate Energy and Natural Resources Committee has been working to produce a bipartisan, comprehensive energy bill since the beginning of this Congress. As of last week, we have held 13 hearings and 30 staff briefings on topics that would comprise such a bill.

While important work remains to be done, enough progress has been made that the Committee will start pulling together this bill tomorrow at 10:00 a.m. during a mark-up in Dirksen 366. Members will consider four titles of the legislation that the Committee hopes to report as an original bill at the end of the mark-up process.

Below is an outline of key details of the text that will be marked tomorrow. Through our press releases over the past few weeks, and from the Committee's website, most of these particulars are known to you at this point. But for ease of reporting, here's a summary:

Energy Innovation and Workforce Development – Provisions to extend and expand research, development, demonstration and workforce training programs at the Department of Energy (DOE) to enable the technologies needed for our energy future.

1. Authorizes a doubling of current research and development funding levels at the DOE over the next four years. This returns the Federal government's investment in energy research and development (in real dollars) to the peak levels achieved in 1978, by fiscal year 2013.
2. Authorizes a new "Grand Challenges Research Initiative" to integrate the basic and applied energy research programs at the DOE so that industry gets the maximum benefit of cutting-edge research.
3. Authorizes a Domestic Vehicle Manufacturing Program, focused on electrification of vehicles, with the goal of enabling a domestic battery manufacturing industry for electric vehicles, similar to government-industry partnerships in Japan and Korea.
4. Develops an array of training programs for the energy workforce of the future, particularly for the skilled technician and trade workers needed to construct and maintain energy infrastructure, and for personnel expert in the geosciences needed in several major energy- and climate-related areas (i.e., oil and gas development, geothermal energy, geological storage of carbon dioxide, water development). Coordinates energy-related training programs across the Federal government.

\* \* \*

Manufacturing Leadership through Energy Efficiency – Provisions to strengthen American manufacturing through improved industrial energy efficiency, reduced dependence on carbon-based fuels and reduced greenhouse gas emissions.

1. Establishes financing mechanisms for both small and large manufacturers to adopt advanced energy efficient production technologies and processes -allowing them to be more productive and less fuel dependent, cutting costs instead of jobs.
2. Stimulates the development and widespread deployment of innovative energy efficient technologies and processes for manufacturing and industry through:
  - § Industry-led public-private R&D partnerships to identify and develop the breakthrough technologies needed to reduce energy intensity and greenhouse gas emissions.
  - § Competitive, innovation grants to industry and small businesses to encourage the development and deployment of new energy efficient technologies.
3. Supports the capture and development of high-tech manufacturing capabilities for advanced energy technologies in the United States, ensuring that the technologies invented here are also produced here, through:
  - § Linking DOE's advanced energy technology R&D programs to its Industrial Technologies Program to get early-stage technology development and manufacturing capabilities out the door into industry.
  - § Evaluating and addressing the opportunities and roadblocks to bringing the clean tech supply chain back to the United States, so the United States can better capture global markets in advanced energy technology production.

\* \* \*

Energy-Water Integration – Provisions to increase our understanding of the interdependence of energy and water and begin integrating decision-making related to both resources.

1. Requires a National Academy of Sciences Energy-Water Study to assess water use associated with developing fuels in the transportation sector, and the water consumed in different types of electricity generation.
2. Requires the Energy Information Administration to annually report on the energy consumed in water treatment and delivery activities.
3. Directs DOE to identify best available technologies and other strategies to optimize water and energy efficiency in producing electricity.
4. Directs the Secretary of Energy to develop an Energy-Water Research and Development Roadmap to address water-related challenges to sustainable energy generation and production.
5. Directs the Bureau of Reclamation to evaluate energy use in storing and delivering water, and identify ways to reduce such use through conservation, improved operations, and renewable energy integration.

\* \* \*

Improved Energy Efficiency in Appliances and Equipment -- Energy efficiency continues to be the most cost-effective strategy for enhancing economic and energy security, saving consumers money and reducing the environmental impacts of energy production.

1. Strengthens the two most successful programs in achieving energy efficiency goals: the DOE appliance standards program, and the DOE/EPA Energy Star program. It is estimated that these programs have reduced national electrical demand 10 percent below what it would otherwise be, and have saved consumers an estimated \$400 billion.
2. Establishes standards for portable light fixtures - table and floor lamps - based on standards developed in California, and with estimated savings, by 2020, of the amount of electricity needed to serve 350,000 homes.
3. Promotes better decision-making in the DOE standards program by allowing petitions from stakeholders who are seeking revisions to the program's standards and test procedures, and requiring DOE to give timely responses.
4. Directs three studies to better inform Congress, DOE and the public on: compliance with the DOE standards program; the costs and benefits of requiring direct current electricity in buildings – a possible opportunity to increase efficiency by serving computers, battery chargers and other “plug-in” products; and to assess efficiency opportunities of electric motors, one of the largest electricity consuming sectors.
5. Strengthens the Energy Star Program by requiring DOE and EPA to improve cooperative planning, management and review; require periodic review of Energy Star market share and qualifications; and require 3rd party verification of product testing.

## **Waxman, Markey Release Draft for New Clean Energy Legislation in House**

Press Release—March 31, [Chairmen Waxman, Markey Release Discussion Draft of New Clean Energy Legislation](#)

Chairman Henry A. Waxman of the House Energy and Commerce Committee and Chairman Edward J. Markey of the House Energy and Environment Subcommittee today released a draft of clean energy legislation that will create jobs, help end our dangerous dependence on foreign oil, and combat global warming. The American Clean Energy and Security Act of 2009 (ACES) is a comprehensive approach to America's energy policy that charts a new course towards a clean energy economy.

This legislation will create millions of clean energy jobs, put America on the path to energy independence, and cut global warming pollution. said Chairman Waxman. Our goal is to strengthen our economy by making America the world leader in new clean energy and energy efficiency technologies.

This legislation will create clean energy jobs that can't be shipped overseas, reduce our dependence on foreign oil, and make America the global leader in energy technology. We will create jobs by the millions, save money by the billions, and unleash energy investment by the trillions, said Chairman Markey, who held many hearings on the major issues in the bill. Chairman Waxman and I will work with our colleagues to ensure that we are protecting American consumers and that our clean energy future helps all parts of the country.

The American Clean Energy and Security Act will create millions of new clean energy jobs, save consumers hundreds of billions of dollars in energy costs, enhance America's energy independence, and cut global warming pollution. To meet these goals, the legislation has four titles:

- A clean energy title that promotes renewable sources of energy, carbon capture and sequestration technologies, low-carbon fuels, clean electric vehicles, and the smart grid and electricity transmission;
- An energy efficiency title that increases energy efficiency across all sectors of the economy, including buildings, appliances, transportation, and industry;
- A global warming title that places limits on emissions of heat-trapping pollutants; and
- A transitioning title that protects U.S. consumers and industry and promotes green jobs during the transition to a clean energy economy.

The Energy and Commerce Committee will complete consideration of the legislation by Memorial Day. The preliminary schedule follows:

Week of April 20: Energy and Environment Subcommittee Hearings  
Week of April 27: Energy and Environment Subcommittee Markup Period Begins  
Week of May 11: Full Energy and Commerce Committee Markup Period Begins

See the discussion draft summary at  
[http://energycommerce.house.gov/Press\\_111/20090331/acesa\\_summary.pdf](http://energycommerce.house.gov/Press_111/20090331/acesa_summary.pdf).

## **Cathy Zoi Nominated as DOE Energy Efficiency and Renewable Energy Assistant Secretary**

Cathy Zoi has been nominated to be Assistant Secretary for Energy Efficiency and Renewable Energy, Department of Energy, by President Barack Obama, according to the Department of Energy. “At this critical moment in our nation’s history, I am grateful that these exceptional public servants have chosen to help my administration bring the change our country needs today,” President Obama told press.

Cathy Zoi is the founding CEO of the Alliance for Climate Protection, where she has been since January 2007. Established and chaired by former Vice President Al Gore, the Alliance is a non-profit organization spearheading a multi-year, multimillion dollar effort aimed at persuading Americans of both the urgency and solvability of global warming.

Prior to joining the Alliance, Zoi served as Group Executive Director at the Bayard Group since 2003. Recently renamed Landis+Gyr Holdings, the firm has energy measurement technologies and systems operations in 30 countries and revenues of over \$1.2 billion. Zoi worked on smart metering to improving energy efficiency. Her work benefitted nations in North America, Europe, India, China, Brazil, and Australia.

Zoi has also served as Assistant Director General of the New South Wales EPA in Sydney, Australia and was founding CEO of the NSW Sustainable Energy Development Authority, a \$50 million fund to commercialize greenhouse-friendly technology. She has served on boards and advisory committees of a variety of companies in the clean technology sector and was Chief of Staff in the White House Office on Environmental Policy in the Clinton-Gore administration. She was also a manager at the U.S. Environmental Protection Agency, where she initiated the Energy Star Program. Zoi earned a B.S. in Geology from Duke University and an M.S. in Engineering from Dartmouth College.

See <http://www.energy.gov/news2009/7153.htm>.

## **White House Releases Fact Sheet on Clean Energy Future**

Press Release—March 23, [Fact Sheet: Investing In Our Clean Energy Future](#)

Today, President Obama will meet with clean energy entrepreneurs and leaders of the research community to discuss his strategy for building a clean energy economy and creating the industries and jobs of the future.

The American Reinvestment Recovery Act and his FY10 budget dramatically increase investment in cutting-edge research, the development and deployment of clean energy technologies, and incentives for private sector R&D. These investments will establish the foundation for America’s future economic prosperity, reduce our dependence on foreign oil, and help combat climate change.

The ARRA includes \$39 billion in energy investments at the Department of Energy and \$20 billion in tax incentives for clean energy, including:

- The creation of an advanced research agency for energy, modeled after the Defense Advanced Research Projects Agency which developed the Internet
- Support for Energy Frontier Research Centers, which could lead to breakthroughs in energy storage, super-efficient engines, and solar cells as cheap as paint
- Supporting U.S. manufacturing of advanced batteries needed for plug-in hybrids, renewable energy backup, and other applications
- \$1.2 billion for research infrastructure for the Department of Energy's national labs, which is being announced by Secretary of Energy Steven Chu today at Brookhaven National Laboratory.

The President's 10-year budget also proposes almost \$75 billion to make the Research and Experimentation Tax Credit permanent, stimulating private-sector investment in R&D and keeping the U.S. economy at the cutting-edge of 21st century technologies:

- Studies have shown that every dollar of tax benefit stimulates as much as an additional dollar of private R&D spending in the short run and two dollars in the long run. Every \$1 of R & D adds \$2 of benefit to our economy and society as a whole.
- Two-thirds of benefits of the credit are attributable to salaries of U.S. workers performing U.S.-based research, and the credit stimulates R&D spending by more than 11,000 small, medium and large firms.
- The credit has been extended 13 times with some extensions lasting just 6 months, and has also been allowed to lapse for almost a year - undermining its effectiveness because companies can't count on it.

Several of the technologies in the program today will be on display, highlighting the importance of R&D investment in building a clean energy economy, including:

- Orion Energy "Apollo Light Pipe": The Apollo Light Pipe collects and focuses sunlight, bringing natural light indoors without consuming electricity and replacing traditional lighting for large portions of the day. Coca-Cola and Sysco have installed this system, saving enough energy to power over 500 homes for a year.
- Solyndra Solar Panel: Solyndra is the first recipient of the DOE Loan Guarantee recovery program, announced last week. Their solar panel is a unique cylindrical design that maximizes direct sunlight and absorption.

The program will highlight success stories from R&D investments in the lab to job creation. Paul Holland, the Vice Chairman of the Board and Lead Investor for Serious Materials, will introduce the President and share the story of Serious Materials, the leading energy-saving building materials company in the U.S.

- Serious Materials has 4 plants in California, Colorado, Pennsylvania, and plans to reopen the old Republic Windows plant in Chicago this Spring.
- Earlier this month, Serious Materials re-opened a previously shuttered plant in Pennsylvania, and is hiring back over 100 union workers in the next couple of months.
- Serious Materials products exceed current Energy Star standards by up to 400 percent and can reduce heating and cooling energy costs by up to 50%. 5% of U.S. energy use is wasted through inefficient window glass.

See [http://www.whitehouse.gov/the\\_press\\_office/Fact-Sheet-Investing-in-Our-Clean-Energy-Future/](http://www.whitehouse.gov/the_press_office/Fact-Sheet-Investing-in-Our-Clean-Energy-Future/).

## **Democrats to Shelve Fast-Track Process on Climate Bill, for Now**

From Sustainable Energy Coalition/SUN DAY Campaign

Capitol Hill Democrats are expected to bypass the fast-track budget process for global warming legislation but plan to keep the option open later this year if they cannot win bipartisan support on one of President Obama's signature agenda items. Under budget reconciliation rules, Democrats could move cap and trade at any point during the legislative calendar under the expedited process that requires only 51 Senate votes. If

they take this route, however, the program may not end up looking like its authors intended. The "Byrd Rule," for one, allows the Senate parliamentarian to strip out any provision that has no budget impact. For something as big as cap and trade, Conrad has said the final product may end up looking like "Swiss cheese."

See <http://www.nytimes.com/cwire/2009/03/23/23climatewire-dems-to-shelve-fasttrack-process-on-capandtr-10245.html>.

## **Federal Stimulus Package Action Shifts to State-Level: Department of Energy Allocates Billions for State and Local Expenditure for Energy Projects**

March 28, 2009. With the February passage of the American Recovery and Reinvestment Act of 2009 (Recovery Act), President Obama and Congress delivered on a promise to make an unprecedented investment in modernizing the nation's energy programs. The Recovery Act will provide \$787 billion in economic investment nationally. The goals of Act are quite straightforward: "make supplemental appropriations for job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed and [for] State and local fiscal stabilization..."

The federal Recovery Act investment through the Department of Energy is over \$45 billion in programs, grants, and loans. Over the last few weeks, Vice President Biden and Energy Secretary Chu have been holding daily press events announcing disbursement of billions of Recovery Act dollars to federal, state, and local efforts to increase energy independence, deploy energy conservation programs, and boost renewable energy production.

When President Obama signed the American Recovery and Reinvestment Act into law on February 17, 2009, it marked the beginning of a 45-day window for each state to claim the funds allocated to it by the act. All states but four have already sent in their certifications, which you can view at: <http://www.recovery.gov/?q=content/state-certifications>.

One of the key parts of the Act's implementation strategy for the nation's energy policy is to put money in the hands of state and local agencies at unprecedented levels. This creates new opportunities for renewable energy programs and projects that could be administered and funded by states whose budgets have suddenly doubled or tripled with "one time only" funds. The Department of Energy has set up an interactive map that allows you to view state-by-state Recovery Act energy funding allocations for the first round of stimulus money going out in 2009.

The Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) works to enhance energy efficiency and productivity; bring clean, reliable and affordable energy technologies to the marketplace; and enhance energy choices for all Americans. The Recovery Act appropriates \$16.8 billion designated for EERE across several programs. The final appropriations include:

- \$5 billion for the Weatherization Assistance Program
- \$3.1 billion for the State Energy Program
- \$3.2 billion for Energy Efficiency and Conservation Block Grants
- \$2.5 billion for Applied Research, Development, Demonstration and Deployment including:
  - \$800 million for the Biomass Program
  - \$400 million for the Geothermal Technologies Program
  - \$50 million for Information and Communications technology

Pursuant to this funding, the EERE Office is in the process of distributing the following funds to state and local government agencies:

- \$3 billion for State Energy Programs

The State Energy Program (SEP) provides block grants to states and directs funding to state energy offices from technology programs administered by EERE. States use grants to address their energy priorities and to encourage adoption of emerging renewable energy and energy efficiency technologies.

- \$5 billion is allocated for The Weatherization Assistance Program

This program enables low-income families to permanently reduce their energy bills by making their homes more energy efficient. About 38 million households are currently eligible for weatherization services. Any household at or below 200% of poverty, per the Recovery Act, is considered low-income, and the President has set a goal of weatherizing 1 million homes per year. For more information on distribution of funds (including allocation of funds on a state by state basis, go to:

[http://apps1.eere.energy.gov/weatherization/pdfs/wx\\_recovery\\_fact\\_sheet.pdf](http://apps1.eere.energy.gov/weatherization/pdfs/wx_recovery_fact_sheet.pdf).

- \$3.2 billion for Energy Efficiency and Conservation Assistance Block Grant Program

On March 26, 2009 Vice President Joe Biden and Energy Secretary Steven Chu announced plans to invest \$3.2 billion in energy efficiency and conservation projects in U.S. cities, counties, states, territories, and Native American tribes. The Energy Efficiency and Conservation Block Grant program will provide formula grants for projects that reduce total energy use and fossil fuel emissions, and improve energy efficiency nationwide.

This Block Grant Program was authorized by the Energy Independence and Security Act of 2007. The Act states that this program “shall assist eligible entities in implementing strategies to reduce fossil fuel emissions, reduce the total energy use of the eligible entities; and to improve energy efficiency in the transportation sector, the building sector, and other appropriate sectors.” This is the first appropriation under this Program, and DOE has created an interactive map that shows the formula allocations to states and local government entities.

Cities and counties will receive nearly \$1.9 billion under the Block Grant Program, and states and territories will receive nearly \$770 million. States will receive and administer funds for those counties and cities that are not large enough to qualify for direct DOE funding. More than \$54 million will flow directly to Tribal governments. Up to \$456 million of this funding is planned to be made available under a separate competitive solicitation for local energy efficiency projects. That solicitation will be released at a later date. There are application materials for the current round of formula funding that must be completed by states, local government agencies, and tribes by late May, 2009.

Case Studies in Administering the Funds: California, Nevada and Washington

As mentioned, the allocations on a state-by-state basis have already occurred for the above-mentioned programs. The Department of Energy has made all this information easily available at: State Recovery Sites, <http://www.energy.gov/recovery/>.

#### California

The California Energy Commission has detailed information available on their share of ARRA funds. The state was allocated \$275.6 million for energy efficiency and renewable energy programs. The Energy Commission's two main areas of responsibility are the State Energy Program and the Energy Efficiency and Conservation Block Grant Program.

In addition, there is an estimated \$36 billion available nationwide that the U.S. Department of Energy (DOE) will administer through competitive grants and other financing for energy- and climate change-related programs. The Energy Commission will coordinate with other state agencies and departments and other entities to identify ways to leverage these funds.

Under the EERE Block Grant Program, California was allocated \$351.5 million for local governments to use for projects and programs to reduce total energy use. About \$302 million goes directly to large cities and counties. The California Energy Commission (CEC) has released an allocations chart for the state's share (\$50 million) and county and city funding levels.

Under the State Energy Program funding, the CEC is directed to fund energy efficiency retrofits of buildings and industrial facilities, and to support renewable energy projects. The Act also encourages using the funding for cooperative and joint activities between states to support these activities. The DOE will be developing the specific rules and criteria for the SEP and will oversee the distribution of the funds to each state.

#### Nevada

Another excellent resource for information on Dept. of Energy funding partnerships with states is the EERE State Activities and Partnerships website. However, Nevada's Office of Energy has very limited information on ARRA fund availability and distribution. The EERE website notes that Nevada will receive \$37 million for the Weatherization Program, and over \$34 million for the State Energy Program. The Nevada Office of Energy and the "Nevada Recovery" sites had little to no readily accessible information similar to California's detailed information about when and how dollars will be disbursed to eligible entities and programs.

#### Washington

The State of Washington's online ARRA funds distribution information was up to date and very easy to access. From the recovery.wa.gov site, a person, organization or local agency is routed to the appropriate funding program area, relevant state agency, with direct staff contact information provided. For instance, the State Energy Program is receiving \$61 million through ARRA, and another \$60 for their Weatherization Program. The Washington State Energy Efficiency and Conservation Block Grant amount is \$56 million with a breakdown of funding allocations between the State Energy Program, local government agencies and tribal governments.

### **Over 4,000 Visitors from 75 Countries Attended Renewable Energy World Conference & Expo**

Press Release—March 30, [Renewable Energy World Conference & Expo Exceeded Growth and Attendance Expectations; Continued Strong Growth in 2010 is Expected](#)

TULSA, Okla. ----More than 4,000 renewable energy professionals from 75 different countries gathered in Las Vegas, Nevada for the sixth annual Renewable Energy World North America conference and expo March 10-12. With more than 225 companies exhibiting, both the exhibit and attendance numbers reflected significant increases over a year ago. Next year's numbers are again expected to increase. A total of over 5,000 attendees and 300 exhibitors are expected at the Renewable Energy World North America conference and expo in Austin, Texas, February 23-25, 2010.

Renewable Energy World North America is owned and managed by PennWell Corporation and is the largest all-renewable conference and exhibition in the world. Conference sessions covered issues related to wind, solar, biomass, hydroelectricity, geothermal and hydrogen technologies, projects and finance.

"Renewable Energy World North America has shown exceptional growth in recent years and 2009 was no exception," said Richard Baker, senior vice president of power for PennWell. "Our association partners, corporate sponsors and growing number of exhibitors are instrumental in making this the premiere all-renewable event in the world. Our host utility, NV Energy, exceeded expectations when it came to their support and involvement."

Exhibitors also reported results that exceeded expectations. "Following our successful launch to the utility industry at DistribuTech, we were excited to keep the momentum going with our debut presence at Renewable Energy World 2009 in Las Vegas," said Therese Wells, Director of Marketing for Ice Energy. "The visibility and exposure we generated there among key influencers has been invaluable for us as we establish the importance of energy storage as a key enabling technology for the renewable industry. We are excited to be back again in 2010. From DistribuTech to PowerGen to Renewable Energy World, PennWell's global energy conferences are a fundamental cornerstone of our event strategy."

"Renewable Energy World and Power-Gen are the premier power industry trade shows in the United States," said Chris Huntington, Vice President of Business Development for SkyFuel. "For SkyFuel, these are the crucial venues in which to meet the customers, suppliers and developers with whom we hope to create a new paradigm in the power industry; one in which utility scale solar power is no longer a marginal alternative but a mainstream option.

The Keynote Session on March 10 featured Roberto Denis, Senior Vice President of Energy Supply for NV Energy. Following his remarks he was joined on stage by the executive directors of each of the leading renewable industry trade associations for a lively roundtable discussion on the economic stimulus, federal and state policy initiatives and technological breakthroughs. Roundtable participants included Denise Bode, CEO of the American Wind Energy Association; Douglas Durante, Executive Director of the Clean Fuels Development Coalition; Karl Gawell, Executive Director of the Geothermal Energy Association; Linda Church-Ciocci, Executive Director of the National Hydropower Association; Julia Hamm, Executive Director of the Solar Electric Power Association; and Rhone Resch, President & CEO of the Solar Energy Industries Association. Edwin F. Feo, Partner in the law firm Milbank Tweed Hadley & McCloy LLP also took part.

Archived video coverage of the event is available by visiting Renewable Energy World.com, the event's flagship media sponsor.

The 2010 event is scheduled for February 23-25 in Austin, Texas. For more information, visit the Renewable Energy World North America web site at [www.renewableenergyworld-events.com](http://www.renewableenergyworld-events.com).

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See <http://www.foxbusiness.com/story/markets/industries/health-care/renewable-energy-world-conference-expo-exceeded-growth-attendance-expectations/>.

## **Company News**

### **Nevada Geothermal Power: Blue Mountain Plant Drilling Completed**

Press Release—March 25, [Nevada Geothermal Power Inc. Completes Successful Production Well Drilling for Blue Mountain 'Faulkner 1' Geothermal Power Plant](#)

Nevada Geothermal Power Inc. (NGP) (TSX VENTURE: NGP)(OTCBB: NGLPF) today announced that production drilling is complete for the Blue Mountain 'Faulkner 1', 49.5 MW (gross) binary cycle geothermal power plant. The latest three production wells (14-14, 15-14 and 17-14) based on initial testing, have similar production capacities (7.0 - 7.5 MW (net) each) to the original three wells (23-14, 25-14 and 26A-14).

NGP has two completed injector wells (58-15 and 58A-15) and is currently drilling two additional injector wells (57-15 and 61-22).

The power plant construction under the fixed price, date certain Engineering Procurement Construction (EPC) contract with Ormat Inc., a subsidiary of Ormat Technologies Inc. (NYSE: ORA), has made great strides over the last six weeks, and NGP is delighted to provide you with the following status report:

- Control, administration and maintenance building nearing completion;
- Vaporizers, diffusers, and condensers are installed;
- Three generators delivered and installed on foundations;
- Cooling tower frame erection commenced;
- Ormat to deliver first set of power turbines by the end of March;
- Switchyard structure has advanced to construction;
- 'Faulkner 1' substation construction commenced;
- Wilson Utility has commenced construction of the 21-mile power transmission line (T-line) that connects the 'Faulkner 1' T-line to the NV Energy switching station at Mill City with completion expected at the end of May 2009.

To view progress at Blue Mountain, please click on the link to view slide show:  
<http://www.nevadageothermal.com/i/PhotoGallery/BMMar2009/Slideshow.html> or go to our website:  
[www.nevadageothermal.com](http://www.nevadageothermal.com) and click on Gallery section.

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

## **Ormat: Recovered Energy Generation Plant Begins Operations**

Press Release—March 23, [Ormat Technologies Commissions the OREG-4 Peetz Project](#)

RENO, Nev. -- Ormat Technologies, Inc. (NYSE: ORA), today announced that its Peetz Recovered Energy Generation (REG) project reached commercial operation.

The project consists of a 4-MW REG power plant that converts recovered waste heat from the exhaust of existing gas turbine at a compressor station located along a natural gas pipeline near Denver, Colorado. The electricity produced by the power plant is sold under a 20-year power purchase agreement to Highline Electric Association Inc. (HEA), a consumer owned cooperative in Colorado and Nebraska.

"This plant marks the seventh REG project that Ormat owns and operates in the United States and the first REG project in Colorado. With the completion of this project, our total REG operating capacity in the U.S. stands at more than 37 MW and by the end of 2009 we expect to add 16 MW to that total," said Dita Bronicki, Chief Executive Officer of Ormat. "Our REG units contribute to the important goal of emission reduction and promotion of energy efficiency. We look forward to the opportunities related to the need for energy efficiency that the current legislation will create for our REG business in the United States."

The ORMAT(R) REG facilities consist of ORMAT(R) Energy Converters (OEC) based on Organic Rankine Cycle technology, which converts recovered heat to electric power without the need for any additional fuel or water. The OEC units are environmentally benign, as they have no emissions of CO<sub>2</sub> or NO<sub>x</sub>.

See <http://www.ormat.com/relation.php?did=84>.

## **Raser Technologies: Agreement Adds to Geothermal Holdings in Utah**

Press Release—March 25, [Raser Technologies and Copper King Mining Sign Geothermal Lease Agreement for up to 75,000 Acres](#)

PROVO, Utah ----Raser Technologies, Inc. (NYSE: RZ: 4.085, -0.015, -0.37%) and Copper King Mining Corporation (Pink Sheets: CPRK) announced today that they have entered into a geothermal lease

agreement covering interests in certain private, state and federal lands in southwestern Utah. The terms of the lease agreement were not specified.

The lease covers properties in Copper King's mining holdings, totaling approximately 75,000 acres in various locations throughout Utah. The bulk of the properties are located in Beaver County, Utah, approximately 20 miles north of Raser's Thermo No. 1 geothermal project, and west of the long-running Blundell geothermal power plant near Milford, Utah. The Copper King properties demonstrate many of the key factors considered by Raser in preliminary evaluation of geothermal resources.

"With this lease, Raser continues to expand its holdings in this geothermally active part of the State," stated Richard Clayton, Raser's Executive Vice President. "We are pleased to be working with Copper King, and obtaining access to their extensive land portfolio and geological data on their large land holdings. We look forward to working closely with Copper King to develop the full geothermal potential of their land holdings."

Copper King CEO Mark Dotson commented: "Since Copper King is a mining and mineral exploration company, we felt it was wise to let Raser explore our lands for the geothermal resources that we believe may be present. Copper King believes that Raser is a cutting-edge company, and we are excited to work with them."

See <http://www.foxbusiness.com/story/markets/industries/industrials/raser-technologies-copper-king-mining-sign-geothermal-lease-agreement--acres/>.

## **Renewable and Climate Change News**

### **GEA U.S. Technology, Finance, and Development Workshop Agenda Released**

GEA is holding its next national geothermal finance and development workshop in Seattle, Washington on June 3, 2009. Registration for the workshop is expected to open in the near future. A draft agenda was released this week by GEA, as follows:

#### Draft Agenda

8:00 am Opening Keynote presentations, Karl Gawell, GEA, Moderator

Greg Nickels, Mayor of Seattle, WA, confirmed

Senator Adam Kline, State of Washington, confirmed

Representatives of Federal and State officials, invited

8:25 am Geothermal 101: Understanding geothermal resources and technology

Susan Petty, AltaRock Energy, confirmed

8:45 am Washington State Geothermal Status and Roadmap

Dave Norman, Washington State Geologist, confirmed

Dave Sjoding, Washington State University, confirmed

9:15 am *BREAK*

9:30 am Ormat, Gold Level Sponsor, Morning Keynote

9:45 am New Geothermal Projects Under Development: Leading Project Developers Discuss the Status of Their New Geothermal Projects and Keys to Successful Project Development

Ken MacLeod, Western GeoPower, confirmed

Michael Hayter, Raser Technologies, confirmed

Dan Schochet, Ram Power, confirmed

Hank Sennott, Enel NA, tentative

Phil Messer, PBS&J, tentative

Saf Dhilon, U.S Geothermal, tentative

10:45 am New Geothermal Technology Panel: New and future developments in geothermal technology are described and discussed

Ed Wall, DOE, Panel Chair:

Paul Thomsen, Ormat, confirmed  
Halley Dickey, TAS, confirmed  
Lou Capuano, ThermaSource, confirmed  
Charles Baron, Google, confirmed  
Kevin Wallace, Power Engineers, confirmed  
David Paul, UTC power, tentative

*11:45 LUNCH*

12:30 pm Community/Environmental/Tribal: Invite environmental leader to speak on role of geothermal and environmental issues; invite community official where geothermal is used or being developed to discuss local issues/benefits

Panel Chair: Karl Gawell, GEA  
Ross Macfarlane, Climate Solutions, confirmed  
Laurie McClenahan Hietter, RMT, confirmed  
Roger Taylor, State, Local & Tribal Deployment, National Renewable Energy Laboratory, confirmed  
Michael O'Connell, Stoel Rives, LLP, confirmed  
Additional environmental, community or tribal views (Rachel Shimshak, Renewable NW Projects, Nancy Hirsch, NW Energy Coalition, Tony Usibelli, WA State Energy Office, Dan Ritzman, Sierra Club, Becky Kelly, Washington Environmental Council, Diana Enright, Oregon Department of Energy, Shoshone Tribe, invited)

1:20 pm Transmission: Status and Outlook for Federal and State Actions to Ensure Adequate Transmission for New Renewable Power Projects

Jonathan Weisgall, MidAmerican Energy Holdings Company, confirmed

1:40 pm Federal Stimulus and Other Support

Ed Wall, Geothermal Technologies Program Director, U.S Department of Energy, confirmed

2:00 pm UTC Power, Gold Level Sponsor, Afternoon Keynote

*2:15 pm BREAK*

2:30 pm Financing Geothermal Projects: Status of Federal and State Incentives, Approaches to Project Financing, and More...

Mark Taylor, New Energy Finance, confirmed  
Tom King, U.S Renewables Group, confirmed  
CJ Arrigo, Glacier Capital Partners, confirmed  
John McIlveen, Jacobs and Company Securities, Inc., confirmed

3:30 pm Overcoming the legal/regulatory hurdles to new geothermal development

Jerry Fish, Stoel Rives, confirmed  
John Pierce, Wilson Sonsini Goodrich Rosati, confirmed  
Kermit Witherbee, BLM Geothermal Program Manager, confirmed  
Bob Fujimoto, U.S Forest Service, to be invited

4:30pm Geothermal Energy from a Utility/Power Company Perspective

Chad Teply or Mark Tallman, PacifiCorp, confirmed  
Craig Collar, Snohomish PUD, confirmed  
Steve Ponder, NV Energy, confirmed  
Additional Representative (Ben Farrow, Puget Sound Energy, Murray Grande, NCPA, and John Pease, Bonneville Power Administration, invited)

5:30 pm Wrap up and Adjourn

For more information, or to sign up for notification when registration opens, visit: <http://www.geo-energy.org/>

## **U.S. States Anxious As Obama Shapes Climate Policy**

From Sustainable Energy Coalition/SUN DAY Campaign:

U.S. states have spearheaded moves to curb global warming and are not ready to pass the leadership baton to President Barack Obama. Ten Eastern U.S. states in January set emissions limits that get tougher over time. The program requires power companies to obtain permits to pollute and allows them to sell excess permits to companies that lag their own targets. In the Western Climate Initiative, a group of 11 U.S. states and Canadian provinces that plan to start trading in 2012. The regions differ on specific reduction targets, how many greenhouse gases they track and whether to regulate transportation as well as industry. Some systems give credits for cutting pollution outside the region -- by saving endangered rainforest, for example -- while others limit such so-called offsets. And the Western plan includes Canadian, and potentially Mexican, provincial and state governments. The Western group may give away a substantial number of credits to polluters. The Eastern plan's biggest gift to global carbon markets has been proving that polluters, speculators and environmentalists will buy tradable permits in auctions.

See <http://planetark.org/wen/52131>.

## **DOE, Google.org, Others Expand Geothermal Industry**

An article on Greentech Media talks about the growing presence of geothermal energy from a national standpoint. The U.S. Department of Energy Geothermal Technologies Program office has doubled in size since last July, the article said, and the federal stimulus plan signed by President Obama last month set aside \$400 million for geothermal energy. For this fiscal year, Congress has allocated an additional \$45 million, geothermal program manager Ed Wall told press, as opposed to two years ago when no money was even requested. Support is also coming from other sources — such as Google.org, which gave \$10.25 million to AltaRock Energy and Potter Drilling last year.

Wall hopes more oil and gas companies enter the industry, since they already have drilling and production technologies that could be an easy fit, he told press. Also, AltaRock has an enhanced geothermal systems (EGS) pilot project at The Geysers field, north of San Francisco.

See <http://greenlight.greentechmedia.com/2009/03/24/does-got-money-for-you-to-dig-for-energy-1271/>.

## **U.S. Use of Renewable Energy Sources Sees Dramatic Increase in 2008**

Use of renewable energy sources in the U.S. increased by 5.9% in 2008 compared to 2007, according to the U.S. Energy Information Administration (EIA) in its "Electric Power Monthly" March 24 report. Conventional hydropower increased by 0.9%, while other renewable sources enjoyed a combined 17.6% increase.

Geothermal energy increased 2.5%, the report showed. Wind led the way with a 51% increase, while solar added 36.1% to its growth. Biomass sources added a 0.6% generation increase.

Net electricity generation in the U.S. dropped by 1.0 percent from during 2008. Coal-fired generation was down by 1.1%, natural gas by 2.2%, and petroleum liquids by 37.1%. Nuclear generation increased by only 0.3% compared to the prior year.

See [http://www.eia.doe.gov/cneaf/electricity/epm/epm\\_sum.html](http://www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html).

## **Bus-Sized Batteries Back Up Intermittent Renewables Industries**

A feature article from the Christian Science Monitor discusses how renewable energy sources that are intermittent, such as solar and wind, require backup to prevent blackouts. When wind and solar become unavailable, utilities often turn to natural gas turbines.

“Little attention has been given to massive electricity storage that is a key to making the use of renewable energy possible on a broad scale,” wrote the authors of an American Institute of Chemical Engineers (AICE) report on mass power storage for the grid last year. “In America today, there is an almost total absence of public awareness of the need.”

Recently, the problem is being recognized and dealt with by researchers and individual companies, the article said. Venture investing in utility energy storage rose from about \$300 million in 2004 to almost \$700 million in 2007. Researchers are looking into sodium-sulfur and lithium-ion chemical combinations, which are less expensive and have stronger durability than conventional lead-acid batteries. A123 is a company that is now producing lithium-ion batteries, while Beacon Power is developing flywheel-based systems. American Electrical Power is using sodium-sulfur battery systems.

“What I’m talking about are batteries the size of a double-decker bus,” David Bradwell, who works on grid-scale batteries at the Massachusetts Institute of Technology, told press. “These batteries could be deployed in a large-scale system over several square miles – or individually, maybe at the base of a wind turbine or at a wind farm,” he said.

See <http://features.csmonitor.com/innovation/2009/03/22/how-enormous-batteries-could-safeguard-the-power-grid/>.

## **State News**

### **California: Cooling Tower Catches Fire at Leathers Plant**

A cooling tower at CalEnergy’s Leathers geothermal plant caught fire after a torch cutting a length of pipe created a spark, according to [ivpressonline.com](http://www.ivpressonline.com); no one was hurt and workers followed protocol. If the cooling tower is not fixed by the time the plant comes back on line shortly, the other three cooling towers are sufficient to produce power normally, the article said.

See <http://www.ivpressonline.com/articles/2009/03/29/probe/probe20090327.txt>.

## **International News**

### **New Report Predicts Renewable Geothermal Energy Trends Worldwide**

"Geothermal Energy Markets: Technologies and Products Worldwide," a new report from SBI, discusses how geothermal energy markets are ready to benefit countries worldwide, according to [foxbusiness.com](http://www.foxbusiness.com). The report covers both geothermal electricity production and geothermal heat pump markets. The global installed capacity of geothermal power plants grew by over 3.3% per year from 8.7 gigawatts in 2004 to nearly 10 gigawatts in 2008 and almost 61 billion kilowatts of electricity were generated from global geothermal electric power plants in 2008.

The report predicts modest increase in generation of 2% per year from 60,928 million kilowatt hours (M kWh) in 2008 to 67,120 M kWh in 2013. This is because of current economic conditions and current lack

of availability of investments. However, factors that will aid future growth are increased world population and demand from developing nations.

"Demand for electrical energy is expanding not only due to global population growth, but also due to significant increases in per capita consumption of electricity in many countries around the world as they transition into developed economies. Global electric demand continues to grow about 1% per year overall. At the same time, most conventional power plants depend on depleting fossil fuels, limiting their ability to power growing energy demands in the long run. Unsurprisingly, renewable energy sources such as geothermal, wind, and solar are expected to play an increasingly important role in meeting current and future global energy demands," SBI Associate Publisher Shelley Carr told press.

See <http://www.foxbusiness.com/story/demand-cleaner-energy-sources-equals-coup-renewable-geothermal-energy-markets/>.

### **Australia: Greenerth Energy Studies Geothermal Sources in Geelong Area**

Greenerth Energy and Hot Dry Rocks Pty Ltd have developed a Hot Sedimentary Aquifer (HSA) commercial model for geothermal electricity in Victoria, according to [proactiveinvestors.com](http://proactiveinvestors.com). The study shows that over a 20-year life for the proposed plant, the levelized cost of electricity would be \$96–114 per MW hour; pre-tax revenue and discounted cash flows would be generated; and 1.2 million tonnes and up to 7.3 million tonnes of CO<sub>2</sub> emissions would be displaced.

Greenerth Energy Managing Director Mark Miller told press, "We are pleased to have this roadmap study from HDRPL on the possible economics of establishing a commercial geothermal power plant in the Geelong area, close to the existing electricity power and adjoining industrial markets."

"If further drilling continues to confirm the positive geothermal characteristics of the site chosen for a future geothermal power station, then we are very excited about the plans for a future geothermal power plant in the permit, in close proximity to major industrial and urban centers in the Geelong area."

See <http://www.proactiveinvestors.com.au/companies/news/1075/greenerth-energy-to-develop-geothermal-power-plant-in-geelong-area-1075.html>.

### **Chile: Geothermal Sites Could Aid Energy Crisis**

Miners in northern Chile have identified 115 sites that could produce geothermal energy, according to *Reuters*, reporting on studies by the National Mining and Geology Service. Chile is looking for answers to its energy crisis, which has gotten worse due to Argentina cutting natural gas exports. GDN, a joint venture between Chilean and Italian investors, is developing a project in Quebrada del Zoquete that could generate 40 MW of power.

"Positive results in the exploration phase would be good news for Chile," Oscar Valenzuela, chief executive at GDN, told press. "It would open a new opportunity for our country's geothermal potential, bringing clean energy to the power grid."

See <http://www.reuters.com/article/rbssIndustryMaterialsUtilitiesNews/idUSN2727639020090327>.

### **Dominica: Geothermal Energy Production On Its Way**

Results of geothermal exploration in Soufriere are to be submitted by April of this year, says Minister for Energy Charles Savarin, according to [dominicanewsonline.com](http://dominicanewsonline.com), following a permit issued to West Indies Power Dominica Limited for the exploitation and exploration of geothermal resources in Soufriere in July 2008.

“Since then, the company has undertaken the necessary land surveys and identified ownership of the subject lands with support from government. They’ve also moved to undertake the necessary geological, geochemical and geophysical investigations and evaluations. Results to date are sufficiently favorable, to encourage the company to pursue the development of its proposed geothermal energy investment project. Full reports of all such analysis are to be submitted by the end of April 2009 in accordance with the provisions of a license issued to the company,” Savarin told press.

See [http://www.dominicanewsonline.com/all\\_news/environment/4666.html](http://www.dominicanewsonline.com/all_news/environment/4666.html).

## **El Salvador: First Icelandic Geothermal Power Plant Abroad Operating**

A geothermal binary power plant, engineered and constructed under an EPCM contract by Icelandic geothermal company Enex for LaGeo in El Salvador is operating at full capacity. The power plant generates 9.3 MW of renewable energy and is the first geothermal power plant fully engineered and constructed by an Icelandic company outside of Iceland.

The power plant generates 9.3 MW of electricity at full capacity. All tests have been completed and the plant has entered a one year service guarantee period. The contract with LaGeo, worth over 13 million U.S.D (1.6 billion ISK), was performed in close cooperation with LaGeo, which undertook a large portion of the civil works.

The power plant is located at the Berlin geothermal area in El Salvador, where two existing flash-steam power plants are producing close to 100 MW. The binary power plant uses conventional ORC (Organic Rankine Cycle) technology that alternately vaporizes and condenses a working fluid.

“This is a real milestone for the export of Icelandic geothermal know-how, which clearly demonstrates the geothermal industry is something to build upon. Active geothermal project development in Iceland for the last 10 years and the coinciding development of new and improved technology has created a solid base for export of know-how that has become a valuable asset, especially since geothermal energy is a recognized part of the renewable energy mix.” says Thor Gislason, CEO of Enex.

Geysir Green Energy holds 96% of shares in Enex. For more information, see: <http://www.geysirgreenenergy.com/news/nr/93>

## **Indonesia: Government Merge of Three Geothermal Companies to Ease Subsidy**

The government may merge three geothermal companies, PT PLN Geothermal, PT Pertamina Geothermal Energy, and National Gas Company (PGN), according to *The Jakarta Post*. State Minister of State Enterprise Sofyan Djalil has approved of the merge, the article said.

"Indonesia's geothermal potential is the best in the world," Deputy for Mining, Strategic Industry, Energy and Telecommunication at the State Ministry for State Enterprises Sahal Lumban Gaol told press.

"The presence of state-owned geothermal sector carries the potential to ease government energy subsidy that can be transferred elsewhere," Djalil said.

See <http://www.thejakartapost.com/news/2009/03/25/govt-merge-three-geothermal-companies.html>.

## **Netherlands Antilles: West Indies Power Begins Geothermal Exploration**

West Indies Power is beginning geothermal exploration in Saba, according to caribbeanetnews.com. Kerry McDonald, the company CEO told press, “West Indies Power is excited about starting its geothermal exploration work on Saba. This geophysical work will show us where to drill so that it can take the first steps to develop geothermal power on the island of Saba.”

See <http://www.caribbeannetnews.com/news-15120--11-11--.html>.

## **Notices**

### **Notice of Availability of Request for Interest, Western Area Power Administration, DOE (April 3)**

Agency: Western Area Power Administration, Department of Energy.

Action: Notice of Availability of Request for Interest.

Summary: The Western Area Power Administration (Western), a power marketing administration within the U.S. Department of Energy, announces the availability of a Request for Interest (RFI). Western is seeking interest from any entity or entities interested in identifying a proposed transmission project, primarily in Western's service area, and/or desiring to participate with Western and possibly others by constructing, financing, owning, operating or maintaining transmission facilities or acquiring transmission rights or entering into long-term transmission service agreements on that project.

Dates: To be assured consideration, all Statements of Interest should be received by Western April 3, 2009.

For Further Information Contact: For further information or to obtain a copy of this RFI, please contact Transmission Infrastructure Program, Western Area Power Administration, P.O. Box 281213, Lakewood, CO 80228-8213, e-mail [txrfi@wapa.gov](mailto:txrfi@wapa.gov). The RFI is also available on Western's Web site at <http://www.wapa.gov>.

### **Notice of Proposed Program and Request for Public Comments, Western Area Power Administration, DOE (April 3)**

Agency: Western Area Power Administration, DOE.

Action: Notice of Proposed Program and Request for Public Comments.

Summary: The Western Area Power Administration (Western) proposes to adopt a Transmission Infrastructure Program. The Program is being proposed to implement section 402 of the American Recovery and Reinvestment Act of 2009 (Recovery Act) for the purpose of constructing, financing, facilitating, planning, operating, maintaining, or studying construction of new or upgraded electric power transmission lines and related facilities with at least one terminus within the area served by Western and for delivering or facilitating the delivery of power generated by renewable energy resources constructed or reasonably expected to be constructed. The proposed Program would use authority granted under this section to borrow funds from the U.S. Treasury to accomplish these purposes. The Recovery Act also calls for Western to use a public process to develop practices and policies that implement the authority granted by this section. To expedite the development process, Western is offering this initial proposal. This Federal Register notice (FRN) seeks public comment on these proposed principles, policies and practices.

Dates: The consultation and comment period begins today and ends April 3, 2009. Western will present an explanation of the proposed program and accept oral and written comments at a public meeting on March 23, 2009, beginning at 1 p.m. MDT, in Lakewood, Colorado. The meeting will also be Webcast. Western will accept written comments any time during the consultation and comment period. Written comments on the proposed Program should be submitted to Western by April 3, 2009.

Addresses: The public meeting will be held at Western's Corporate Services Office, 12155 West Alameda Parkway, Lakewood, CO 80228 on the date listed above. Send written comments to: Transmission

Infrastructure Program, Western Area Power Administration, P.O. Box 281213, Lakewood, CO 80228–8213, e-mail [txprogram@wapa.gov](mailto:txprogram@wapa.gov). Western will post information about the program development on its Web site at <http://www.wapa.gov>, including written comments received in response to this notice after the close of the comment period. Western must receive written comments by the end of the consultation and comment period to ensure they are considered in Western’s decision process.

As access to Western facilities is controlled, any U.S. citizen wishing to attend any meetings at Western must present a government-issued form of picture identification, such as a U.S. driver’s license, U.S. passport, U.S. government ID, or U.S. military ID, at the time of the meeting. Foreign nationals should contact Western at least 15 days in advance of this meeting to obtain the necessary form for admittance to the meeting.

For Further Information Contact: Please contact Transmission Infrastructure Program, Western Area Power Administration, P.O. Box 281213, Lakewood, CO 80228–8213, e-mail [txprogram@wapa.gov](mailto:txprogram@wapa.gov). This proposal is also available on Western’s Web site at <http://www.wapa.gov>.

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

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

From DOE:

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

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

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

### **Frontier Development Opportunity, Pilgrim Hot Springs, AK (March 25)**

Pilgrim Hot Springs, Alaska: A Frontier Development Opportunity

Introduction - Pilgrim Hot Springs (Pilgrim) is a verdant 320 acre enclave of fee land owned by Catholic Bishop of Northern Alaska (CBNA) and located in western Alaska, about 46 miles (75 km) north of Nome.

CBNA, which is in Chapter 11 reorganization proceedings under supervision of the U.S. Bankruptcy Court, will make Pilgrim available to a financially and technically qualified entity to explore, characterize, and develop the geothermal resources underlying the property.



Geothermal Exploration – In 1979 and 1982, State entities mapped the surface and bedrock, and conducted helium, mercury, gravity, seismic refraction, and electrical resistivity surveys, and undertook geochemical sampling and analyses. They also drilled and logged 8 test wells. The studies found:

- 1979 surface thermal spring discharge was about 67 gpm of alkali-chloride water at a temperature of about 178°F (81°C).
- Preliminary Na-K-Ca geothermometry suggests that a deep underlying geothermal reservoir may be as hot as 302°F (150°C)
- Springs likely located near intersection of two orthogonal fault zones that form a corner of a graben.
- Gravity studies suggest that bedrock is 1,500 feet (458 m) below property.
- Resistivity studies suggest Pilgrim Spring reservoir is pancake shaped and about 160 ft. (50 m) thick over a ~ 0.58 sq. mi. (1.5 sq. km.) thawed area.
- Artesian aquifers encountered in a 66-100 ft. (20-30m.) depth interval with flow rates estimated at 200 and 300-400 gpm respectively, at a temperature of 194°F (90°C).
- In 1982, 6 new wells produced artesian flows of 30 to 250 gpm with about 6 ft. (1.8 m.) of head. Maximum temperature was 194°F (90°C).
- The thermal gradient in the two deepest wells was ~4.0°F per 100 ft. suggesting that 302°F (150°C) might be reached at depth of about 4,800 feet (1,463 m).

Studies did not determine location and nature of upflow zone or location, depth, and nature of possible “deep” hot reservoir.

Market Comments – Nome currently requires 5 MW power at a cost of approximately \$0.35 per kwh for residential customers. Using a modern (UTC-type) binary power cycle generation, Pilgrim could be a viable power supplier. Power transmission to Nome must be considered in determining economic viability.

Development Rights – CBNA will consider plans from potential developers that optimize use of the geothermal resource at Pilgrim Hot Springs and maximize revenue to CBNA. Contact Tom Buzek, 907-374-9528 ([tom@cbna.org](mailto:tom@cbna.org)) by March 25, 2009.

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

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

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

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

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

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

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

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

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

## **Employment Opportunities**

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

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

Essential Functions:

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

Education, Experience, and Skills Required:

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

Contact:

Paige Carratturo

Executive Recruiter

Richard Wayne & Roberts

877-236-0899 (direct)

206-855-9746 (fax)

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

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

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

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

Contact:

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

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

Fax. +504-240-2228

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

## **Chief Reservoir Engineer, CalEnergy**

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

Qualifications:

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

To apply for this position and to view a complete job description, please visit our web site at

[www.calenergy.com](http://www.calenergy.com).

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

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

Qualifications:

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

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

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

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

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

#### Qualifications:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Pre-employment drug testing required.

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

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

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

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

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

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

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

Physical Requirements: Must be able to travel regularly

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

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

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

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

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

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

### **Research Intern, Geothermal Energy Association**

GEA is seeking to hire a full-time research associate to work with GEA staff in conducting research and data development and assisting with outreach and communications activities. Experience with research in technical and environmental areas and effective writing are highly desired. The position is available immediately, and is a temporary position through June but possibly could be extended through August 2009. Interested applicants should send an email and resume to [Geointernship@aol.com](mailto:Geointernship@aol.com), or fax a cover letter and resume to 202-454-5265. NO PHONE CALLS PLEASE.

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

#### **RFP for Industrial Energy Efficiency, DOE (April 2)**

The U.S. Department of Energy requests proposals for the Industrial Technologies Program Save Energy Now (SEN) Technical Assistance and Plant Assessment Program. SEN focuses on reducing industrial energy intensity by 25% in ten years while enhancing U.S. competitiveness. Through this initiative, DOE seeks projects in the following areas: 1) Technical assistance and plant assessment development and delivery, and 2) Enhanced project implementation support and technology deployment. \$50 million expected to be available, up to 3 awards anticipated. Responses due 4/2/09. For more info, contact Annie Elkins at [ITP\\_SEN@go.doe.gov](mailto:ITP_SEN@go.doe.gov) or go to: <https://e-center.doe.gov/iips/faopor.nsf/UNID/E685B90D4F92B2E685257561006C52E3?OpenDocument>. Refer to Sol# DE-PS36-09GO99015. (Grants.gov 2/18/09)

#### **RFP for Smart Grid Information Clearinghouse, DOE (April 6)**

The U.S. Department of Energy requests proposals for the Smart Grid Information Clearinghouse, for work to develop, populate, manage, and maintain a Smart Grid Information Clearinghouse website. The Clearinghouse is envisioned as the first-stop shop for public Smart Grid information. \$1.25 million expected to be available, 1 award anticipated. Responses due 4/6/09. For more info, contact Janet Spaulding at [Janet.spaulding@netl.doe.gov](mailto:Janet.spaulding@netl.doe.gov) or go to: <http://www.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=45833>. Refer to Sol# DE-FOA-0000020. (Grants.gov 3/6/09)

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

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

<https://e-center.doe.gov/iips/faopor.nsf/UNID/A99DF3C019E1EEE285257578006E7EA5?OpenDocument>. Refer to Sol# DE-PS36-09GO99024. (Grants.gov 3/13/09)

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

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

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

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

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

The U.S. Department of Energy requests proposals for Enhanced Geothermal Systems Component Research and Development/Analysis. Through this initiative, DOE seeks project to develop innovative technology for cost-effective creation, management, and utilization of Enhanced Geothermal Systems (EGS) in reservoir environments. \$35 million expected to be available, up to 30 awards anticipated. Responses due 4/30/09. For more info, contact Pete Simon at [FY09EGSResearch@go.doe.gov](mailto:FY09EGSResearch@go.doe.gov) or go to: <https://e-center.doe.gov/iips/faopor.nsf/UNID/4EDA21A799697B508525756F0061D4FF?OpenDocument>. Refer to Sol# DE-PS36-09GO99018. (Grants.gov 3/4/09)

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

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

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

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

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

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

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

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

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

The U.S. Department of Health and Human Services requests proposals for Community Economic Development (CED) Projects. CED supports Community Development Corporation efforts to assist community economic development activities designed to address the economic needs of low-income individuals and families through the creation of employment and business opportunities in low-income communities. CED focuses on industries that have viable short and long term job outlooks and present no obvious long term risks. One recommended strategy for sustaining growth is creating jobs in high growth sectors which include, but are not limited to, Recycling, Renewable or Alternative Energy, Transportation or Advanced Manufacturing. \$29.1 million expected to be available, up to 47 awards anticipated. Responses due 5/28/09. For more info, contact Rafael Elizalde at [OCSGRANTS@acf.hhs.gov](mailto:OCSGRANTS@acf.hhs.gov) or go to: <http://www.acf.hhs.gov/grants/open/HHS-2009-ACF-OCS-EE-0034.html>. Refer to Sol# HHS-2009-ACF-OCS-EE-0034. (Grants.gov 3/9/08)

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

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

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

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

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

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

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

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

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

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

### **Upcoming Events**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Seminar will involve:

- a review of the economics of EGS by Professor Jefferson Tester, author of the 2007 industry defining MIT Study on EGS for the U.S. Government;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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