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GEA Weekly Update July 22, 2008

National News.....	2
Gore Proposes Carbon-Free Nation by 2018.....	2
2008's SMU Conference Receives Wide Attendance, Excitement for Geothermal Possibilities	2
Company News	3
Nevada Geothermal Power: Stock Options Announced at \$1.02 per Share.....	3
Polaris Geothermal: 22.8-MW Production Well Completed in Nicaragua.....	4
Raser Technologies: Geothermal Leases Signed in Utah, Nevada	4
Raser Technologies: Merrill Lynch to Fund New Mexico Plant	5
U.S. Geothermal: Nevada Grants Project Permit for San Emidio.....	6
Renewable and Climate Change News	6
DOE Headquarters Ranked as an Energy Star Building	6
Expensive Oil Prices Causing Americans to Drive Less.....	6
State News	7
California: Utility May Bury Transmission Lines for Salton Sea Project	7
California: RETI Needs Accelerated Timeline to Aid Energy Mandate	7
California: AB 32 Draft Scoping Plan Impacts Geothermal Technologies	8
Colorado: Aspen Announces Geothermal Drilling.....	10
Hawaii: Geothermal Plant Providing Power, Jobs.....	10
Utah: Raser to Develop Iron County's First Geothermal Plant	10
Vermont: Bellows Falls Raising Funds for Widespread Geothermal Heating.....	10
International News.....	11
Australia: Queensland Government Finds Geothermal Resource.....	11
Australia: Cooper Basin Test Complete; Origin Energy Adds Funding.....	11
Dominica: WIPD to Develop Geothermal Resources	11
Iceland: <i>New York Times</i> Blogger Notes Geothermal Use	11
Nevis: Reformation Party Says Geothermal Bill a Key Advancement	12
Philippines: Zayco Signs MOA to Allow Exploration at Mt. Kanlaon	12
Philippines: Envent to Develop Geothermal Plant on Biliran Island.....	12
Philippines: DOE Seeks to Become World's #1 Geothermal Producer	12
Notices and Employment Opportunities	13
Department of Energy Invites Participation in July 25 Conference Call to Discuss Geothermal FOA....	13
Nicaraguan Energy Ministry Seeks Offers to Develop San Cristobal Volcano (Bids Due July 31)	14
Release of Forseo's "Investor's Guide to Geothermal Energy" (August).....	14
FOA, U.S. DOE, Enhanced Geothermal Systems Research, Development, and Demonstration (Applications Due August 12).....	15
Rio Tinto Alcan and the International Business Leaders Forum, Prize for Sustainability (Responses Due September 12)	16
Federal Loan Guarantees for Projects that Employ Innovative Energy Efficiency, Renewable Energy, and Advanced Transmission and Distribution Technologies (Applications Due December 31).....	16
Engineering Manager, Western GeoPower, Inc.....	17
Requests for Proposals (RFPs).....	17
RFP for Renewable Energy Certificates, Defense Energy Support Center (August 4).....	17
RFP for Renewable Energy, Arizona Public Service (August 13).....	18
RFP for Renewable Energy, Tucson Electric Power Co. and UNS Electric (September 5).....	18
RFP for Energy Frontier Research Centers, U.S. DOE (October 1)	18

RFP for Renewable Energy Resources, Public Service Company of New Mexico (October 15).....	18
RFP for Climate Change and Sustainability Conferences, U.S. EPA (December 9)	19
Upcoming Events	19
GEA “Geothermal 101” Workshop, July 23 (Ritz-Carlton @ Battery Park, New York City)	19
FREE Geothermal Energy Webcast Featuring Prominent Keynote Speakers, July 23	20
Public Hearing on PEIS, BLM and the U.S Forest Service, July 24 (Denver, Co).....	20
California Geothermal Summit, California Geothermal Energy Collaborative, July 30 (Embassy Suites Hotel, Sacramento, CA).....	21
11th Annual Congressional Renewable Energy, Energy Efficiency EXPO, and Forum, Sustainable Energy Coalition, July 31 (Washington, DC).....	22
Royalty Conversion Workshop for Producing Geothermal Leases, July 31 (Reno, NV).....	23
Geothermal Technologies Workshop, Western Area Power Administration, August 11-12 (Everett, WA)	23
High Sierra Energy Summit, August 11-15 (Mammoth Lakes, CA)	24
Renewable Energy Philippines 2008, August 28–30 (Manila, Philippines).....	24
GEA Trade Show/GRC Annual Meeting, October 5–8 (Reno, NV)	25
NZ Geothermal Workshop & NZGA Seminar 2008, November 11-13 (Taupo, New Zealand).....	25
XVI Annual Congress of the Mexican Geothermal Association, November 14 (Morelia, Mexico).....	25
2nd African Rift Geothermal Conference, November 25–29 (Entebbe, Uganda).....	26

National News

Gore Proposes Carbon-Free Nation by 2018

On July 17, former Vice President Al Gore challenged the nation to make the United States carbon-free by 2018, according to an article in the *New York Times*. He acknowledged the goal was drastic and would face an array of challenges, but compared his vision to the quest for the Moon in the 1960s.

Gore called on the nation to invest trillions of dollars towards saving the environment from global warming by abandoning coal-fired power plants and restructuring the electricity grid. His approach also includes advocating a tax on CO₂ pollution.

“I see my role as enlarging the political space in which Senator Obama or Senator McCain can confront this issue as president next year,” Gore said, according to the article.

See

http://www.nytimes.com/2008/07/18/washington/18gore.html?_r=3&hp&oref=slogin&oref=slogin&oref=slogin

2008’s SMU Conference Receives Wide Attendance, Excitement for Geothermal Possibilities

Geothermal Energy Utilization Associated with Oil and Gas Development
~ by Maria Richards, SMU Geothermal Lab Coordinator

On June 17-18 of this year, Southern Methodist University’s Geothermal Laboratory hosted its third annual Geothermal Conference. Over 220 people from around the world attended to learn more about ways to develop geothermal energy in sedimentary basins from moderate temperatures. The attendance of people from industry, manufacturing, financing, investment, government, academia, and even real estate, not only made the conference enjoyable, but very productive. “The broad range of backgrounds fills a very important need in the geothermal industry and shifts us into new areas for development,” stated one conference attendee.

During his dynamic talk, headlining speaker Bernie Karl of Chena Hot Springs Resort in Alaska issued a challenge to SMU to drill a well on campus to start development of geothermal resources at SMU and in Texas. Everyone who attended will remember Bernie Karl handing \$1,000 cash to David Blackwell to start making it happen. This type of showmanship and marketing is what was emphasized by Victor Liu of Hunt Energy Enterprises in his presentation, discussing the importance of marketing and creative packaging of geothermal energy being as necessary as research and development.

Viewing geothermal through a different lens, Ben Russo, Director of Development, Contracts, and Regulation for Cleco Power, LLC, pointed out that during natural disasters, a small geothermal power plant has the ability to come back online faster than any other type of power plant, making it a perfect fit for niche markets, such as high security locations. These mini power plants are able to serve as a back up source that other alternative and fossil fuel energy sources cannot match.

Although there was much discussion about geothermal developments in the U.S., Peter Barnett of Hot Rock Limited, and Ben Norden of GeoForschungsZentrum certainly showed that Australia and Germany were beyond talking about sedimentary basin geothermal projects and were actively drilling into them. It will be important for the US geothermal industry to follow their activity and to learn from them both for their achievements in technology and governmental support.

This year's focus on technologies was highlighted by Gulf Coast Green Energy's on campus demonstration of the ElectraTherm "Green Machine". It used the SMU campus hot and cold water supply lines to represent a geothermal set-up to produce the 50 kW/h of electricity, which gave the attendees a chance to see first hand electricity being generated from heat. The six technologies discussed at the conference show the advancements being made which will increase the ability to develop projects at lower temperatures and fluid rates. Along with new technology came a new methodology by Karsten Pruess of Lawrence Berkeley Laboratory, with his talk on using CO₂ as a fluid instead of water for increased heat extraction and reduced injection friction. The idea of a power plant being not just carbon neutral, but carbon negative is one to work towards.

Instead of waiting for geothermal power production to come online, Jason Ryan, of RyanGlover L.L.P., encouraged attendees to develop five year plans now and to get involved with the government agencies for new regulations. With so much emphasis on renewable energy, state governments are already determining how to incorporate it into the transmission grid. Just because there is a line overhead, does not represent available connection. The importance of geothermal being a player in these discussions today could not be emphasized enough.

Company News

Nevada Geothermal Power: Stock Options Announced at \$1.02 per Share

Press Release— July 11, [Issues Stock Options](#)

Nevada Geothermal Power Inc. (NGP) (TSX-V: NGP, OTC-BB: NGLPF) announced that incentive stock options have been granted to a director of the Company to purchase 100,000 common shares of the Company at an exercise price of \$1.02 per share for a term of 5 years. Common shares which may be acquired upon exercise of the options shall be subject to a hold period which will expire on November 11, 2008.

For press releases from Nevada Geothermal, visit <http://www.nevadageothermal.com/s/News.asp>.

Polaris Geothermal: 22.8-MW Production Well Completed in Nicaragua

Press Release— July 15, [Polaris Geothermal Inc. Reports Major Production Well Drilled at San Jacinto-Tizate](#)

Polaris Geothermal Inc. ("Polaris" or the "Company"), (CA:GEO: news, chart, profile) a renewable energy producer is pleased to announce that it has drilled a significant production well SJ6-2 which has production capacity of 22.8 MW. This production well forms part of Polaris' Phase I Drilling Program, which consisted of 2 production and 2 reinjection wells, for its 24 MW expansion program at its San Jacinto - Tizate geothermal power project in Nicaragua.

Successful Completion of Phase I Drilling Program

SKM's report concludes that the project now has over 75% of the required total steam capacity for its full 72 MW, Phase I and II development. The report further concludes that when considering the Phase I development alone (2 x 5 MW back pressure units plus 1 x 24 MW MCT), there is more than sufficient steam production using a combination of SJ4-1, SJ6-2 and SJ9-1, and additionally injection requirements can be fully satisfied using SJ1-1, SJ10-1 and SJ9-2, temporarily supplemented by SJ5-1 and SJ6-1, if needed.

Impressive Results for SJ6-2

The most recent production well SJ6-2, has been confirmed to have a production capacity of 22.8 MW. SJ6-2 was discharged under the supervision of the project's independent consulting company Sinclair Knight Merz, (SKM). They have now released their summary report with the results. Calculations indicate that SJ6-2 has a total mass flow of 552 tons per hour and a steam flow of 215 tons per hour (based on production well head pressure of 6 barg and MCT steam consumption of 9.42tph/MWe net). With this flow rate, the well provides sufficient steam to produce an estimated 22.8 MW of energy. The SJ6-2 well temperature of 303 degrees C is the highest recorded to date on the San Jacinto - Tizate concession.

Tom Ogryzlo, President & CEO, said, "We are very pleased with the results reported by SKM. These results, which are in accordance with the predictions made by SKM, reinforce their conclusions that the San Jacinto - Tizate concession hosts at least 200 MW of commercial production. Our two new production wells, SJ9-1 at 16.1 MW and SJ6-2 at 22.8 MW respectively, confirm our belief that the San Jacinto - Tizate resource is world class. These results, together with the strong support we are receiving from the Nicaraguan Government, provide us with confidence that we will be able to proceed as quickly as possible to attain a production level of 72 MW in the eastern sector of our concession".

For press releases from Polaris Geothermal, visit <http://www.polarisgeothermal.com/eng/index.php>.

Raser Technologies: Geothermal Leases Signed in Utah, Nevada

Press Release— July 16, [Raser Technologies Secures Additional Geothermal Leases: Thermo Holdings Expanded to Nearly 30,000 Acres of Geothermal Leases](#)

Raser Technologies, Inc. (NYSE Arca: RZ) announced today that it recently signed eight additional leases totaling nearly 6,000 acres in Utah and 1,200 acres in Nevada with private land owners. The recent signing of additional leases in Southern Utah expanded the holdings for the Thermo project near Beaver, Utah, to nearly 30,000 acres. Raser is in the process of completing construction of the Thermo No. 1 project (construction photos can be found at: <http://www.rasertech.com/media/gallery/geothermal/index.htm>). The 10-MW Thermo No. 1 project, situated on approximately 640 acres in Beaver County, Utah, will be the first commercial geothermal power plant built in the state of Utah in over 20 years. The additional acreage secured by these new leases will provide for future expansion of additional projects to be developed in the area.

Raser also recently signed lease agreements for geothermal resources on nearly 1,200 acres in Nevada. The lease terms are generally for 10 or more years with rights to renew the leases for additional periods based on development activity or upon the payment of minimum rental payments. The financial terms of the leases were undisclosed.

Sean McBride, Raser's associate general counsel, stated, "We are very excited about our initial results from drilling in this valley and have aggressively pursued additional leases in this area. Adding these new leases to our already substantial portfolio in the Thermo area will allow us to continue development in the area for several years to come. We continue to see increasing demand for baseload, green, renewable electric power, and with this addition to our land holdings, we continue to position ourselves to take advantage of these favorable market dynamics. We recently announced signing power purchase agreements to sell the renewable energy from this area to the city of Anaheim. We look forward to completing the construction of our first plant at Thermo by October of this year."

For press releases from Raser, visit <http://www.rasertech.com/news.php>.

Raser Technologies: Merrill Lynch to Fund New Mexico Plant

Press Release Highlights— July 21, [Raser Technologies Announces Third Geothermal Development Commitment Letter: Merrill Lynch to Finance Development and Provide Tax Equity Capital for Raser's 10 MW New Mexico Geothermal Power Plant](#)

Raser Technologies, Inc. announced today that it has signed a commitment letter with Merrill Lynch for the project financing and tax equity funding for its planned 10-MW Lightning Dock geothermal power plant in Hidalgo County, New Mexico. The commitment letter provides for non-recourse debt financing and tax equity capital for Raser's first commercial geothermal project to be built in New Mexico. The tax equity capital will be provided by Merrill Lynch and/or by additional partners, at the option of Merrill Lynch, that can utilize the many tax benefits provided by the renewable energy project.

The commitment letter provides for up to approximately \$43 million of construction and debt financing and up to approximately \$27 million of tax equity capital. Under the commitment, approximately \$16 million of the tax equity will be used to pay down the construction debt funding at the time the plant is placed-in-service.

This is the third financing commitment announced under an agreement signed earlier this year that sets forth general terms relating to the structuring and financing of up to 155 MW of Raser's geothermal power projects.

The plant is designed to generate net 10 MW of electrical power with zero emissions and will use PureCycle® geothermal system technology from UTC Power, a United Technologies Corp. (NYSE: UTX) company and is expected to be online in the first quarter of 2009.

Roy Piskadlo, Managing Director for Merrill Lynch, said, "We are committed to the development of energy resources that are environmentally beneficial and to supporting Raser's continued progress in executing on its innovative development strategy."

"We are pleased to be working with Merrill Lynch to develop the first commercial geothermal power plant in New Mexico," said Brent M. Cook, Chief Executive Officer of Raser Technologies. "Merrill Lynch is showing bold leadership with their financial commitment to clean, baseload, renewable energy in the face of steeply increasing oil prices. We believe our pipeline of geothermal projects will help in reducing harmful carbon emissions while providing power to an area with increasing energy demands. We believe this additional agreement enhances our financial pipeline to provide the funding for the many projects we expect to complete."

For press releases from Raser, visit <http://www.rasertech.com/news.php>.

U.S. Geothermal: Nevada Grants Project Permit for San Emidio

Press Release— July 22, [U.S. Geothermal Announces Receipt of Drilling Permits for San Emidio Project](#)

U.S. Geothermal Inc. (AMEX: HTM, TSX: GTH), a renewable energy company focused on the production of electricity from geothermal energy, announced today that a Project Area Permit was issued by the State of Nevada, Division of Minerals on July 7, 2008 for the San Emidio project in northwestern Nevada. In conjunction with the Project Area Permit, the Division of Minerals also issued individual drilling permits for the first three new production wells. These wells are intended to provide geothermal fluid for the planned 27 MW, new development at the San Emidio project.

The Project Area Permit provides notification that allows the drilling of up to 14 wells on private property within the designated San Emidio project area. In addition to the project area permit, Geothermal Resource Development Permit Applications must be submitted for each individual well within the permit area.

Drill pad construction at the site began during the week of July 7. Drilling operations are expected to begin near the end of July or in early August.

The San Emidio Project, formerly know as Empire, was acquired by U.S. Geothermal on April 30, 2008. It includes a binary cycle, geothermal power plant that has been operating since 1987 with an installed capacity of 3.6 MW. Plant production averaged 3.1 net MW for 2007 and is sold to Sierra Pacific Power. The project is comprised of 22,944 acres (35.9 square miles) of private and federal geothermal leases located approximately 100 miles north of Reno, Nevada. Black Mountain Technology, an independent geothermal consulting firm, has estimated a resource potential of 44 MW at the San Emidio project using a 90% probability factor.

Visit <http://www.usgeothermal.com/NewsReleases.aspx>.

Renewable and Climate Change News

DOE Headquarters Ranked as an Energy Star Building

EERE Network News reported that the Environmental Protection Agency certified the Department of Energy's James Forrestal Headquarters Building an Energy Star building on July 9.

Energy Star buildings use lower levels of energy and are scored on a scale of 1 to 100. Those over 75 are eligible for the Energy Star designation. The Forrestal Building received a ranking of 88 for its energy-saving features such as energy-efficient lighting, energy-efficient motors in the air-handling equipment, and high-efficiency chilled- and hot-water pumps. It uses 40% less energy than the average office building, and is the second building in Washington, D.C., to have earned the Energy Star ranking.

For the DOE press release, visit <http://www.energy.gov/news/6402.htm>.

Expensive Oil Prices Causing Americans to Drive Less

The Sustainable Energy Coalition reported a 12th consecutive week in lowered demand for gasoline nationwide. The report came from MasterCard, and showed that motorists bought an average 9.43 million barrels of gasoline a day in the week ending July 11, down from 9.9 million a year earlier. The trend shows declining gasoline use due to record oil prices, the report said.

See http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a_wOKezc42mw.

State News

California: Utility May Bury Transmission Lines for Salton Sea Project

Los Angeles utility officials are considering burying transmission lines for a geothermal power project, according to a *Press Enterprise* article. Burying the lines would prevent marring the landscape, although many community members reacted with concern that the environment would be damaged in the process.

The Green Path North proposal would draw geothermal energy at the Salton Sea. The energy would be transmitted to a proposed substation in Victorville and merge with existing transmission lines heading to Los Angeles.

The article quoted David Nahai, general manager of the Los Angeles Department of Water and Power. "I pledge to you we will minimize, to the extent we can, our impacts on the environment and our impacts on private property," he said.

See http://www.pe.com/localnews/inland/stories/PE_News_Local_W_greenpath20.4ad9063.html.

California: RETI Needs Accelerated Timeline to Aid Energy Mandate

California Renewable Energy Mandate Heats Up: Schwarzenegger and Legislature Set to Act?

~ by John McCaull, GEA Western States Representative, john@geo-energy.org

July 21, 2008. It promises to be an interesting end to the summer in Sacramento. With regional efforts such as the [Western Climate Initiative](#) and Western Governors Association [Western Renewable Energy Zones \(WREZ\)](#) Program becoming increasingly more important, there is an even greater sense of urgency in an air to complete some unfinished business in California.

When Governor Schwarzenegger signed [AB 32](#) in 2006, he committed the state to very ambitious greenhouse gas reduction measures, and just as ambitious implementation timelines to approve an overall climate change strategy and regulatory program (called the [Scoping Plan](#)).

One of the cornerstones of California's strategy to reduce greenhouse gas emissions is to shift more of the electricity load to renewable energy sources. In 2002 California instituted the [Renewable Portfolio Standard \(RPS\)](#) which obligates investor-owned utilities (IOUs), energy service providers (ESPs) and community choice aggregators (CCAs) to procure an additional 1% of retail sales per year from eligible renewable sources until **20% is reached, no later than 2010**. The 2010 date is actually more of a 2012 target because of "compliance flexibility" built into the statutory mandate. Regardless, there has been much concern expressed that the retail providers of electricity are not going to collectively meet the 20% mark by 2010 or 2012.

Against this backdrop, the AB 32 Scoping Plan makes the following conclusion:

The California Energy Commission (CEC) estimates that about 12% of California's retail electric load is currently met with renewable resources, including wind, solar, geothermal, small hydroelectric, biomass, and biogas. California's current Renewable Portfolio Standard (RPS) is intended to increase that share to 20 percent by 2010. Increased use of renewables will decrease California's reliance on fossil fuels, thus reducing emissions of GHGs from the Electricity sector. Based on Governor Schwarzenegger's call for a statewide 33% RPS, ***the Draft Plan anticipates that California will have 33% of its electricity provided by renewable resources by 2020, and includes emission reductions based on this level in the Draft Plan.***

In recent months, the Governor's office, legislative leaders and various stakeholders have been discussing the need to create a statutory mandate to reach the 33% by 2020 renewable energy purchase goal, and to possibly expand and reform the overall renewable energy legislative package that is already on the books. Outlines of a comprehensive RPS legislative package are circulating in Sacramento, and it is anticipated that a bill with the backing of the Governor and at least the Senate leadership will be introduced in early August. The Legislature adjourns at the end of August for the year, so it will be a very short fire drill to make some very important changes to the law.

There are also other regulatory programs (such as the [market price referent program](#) of the California Public Utilities Commission) that may come under review for reform or major change. The intent of the RPS reform legislation is to give a boost to the market and the AB 32 Scoping Plan. Any 2008 bill will likely be previewed by a Schwarzenegger Executive Order calling for an accelerated timeline for completing the state's renewable energy transmission planning process, otherwise known as [Renewable Energy Transmission Initiative](#). That Order is anticipated any day now out of the Governor's office. The goal of RETI is to plan transmission line infrastructure to service enough "[competitive renewable energy zones](#)" (CREZ) where it makes environmental and economic sense to approve site new renewable energy production technologies so that California can meet its RPS requirements. The success of RETI hinges upon a number of key factors. The issue of how to we can site the most power at the least environmental cost/impact is front and center amongst the variables. The other anticipated element of the Governor's Executive Order is a "speed it up" deadline for RETI to produce its final CREZ report by the end of 2008.

It is also expected that the Governor will direct the California Department of Fish and Game to work with the Energy Commission to create a "[habitat conservation plan](#)" to address the cumulative impacts of transmission and energy development on sensitive species and important habitat areas. This could be an excellent streamlining and accompaniment to RETI to ensure that the state continues to honor its public trust obligations to protect wildlife and other natural resources.

As soon as the Governor's Executive Order or publicly available draft legislation becomes available, GEA will summarize the content in a future newsletter article.

California: AB 32 Draft Scoping Plan Impacts Geothermal Technologies

What Does California's Climate Change Law Mean for the Geothermal Industry? Increased Focus Needed for Heat Pump and Direct Use Technologies

~ by John McCaull, GEA Western States Representative, john@geo-energy.org

July 22, 2008. The fundamental economics (and market tools) that have governed the renewable energy world for at least a decade are in for a big shake up in the coming year. Market demand, government mandates, and tax incentives have given domestic renewable energy a big boost in the past 5 years, but the biggest boost is yet to come. California has signaled what the rest of the Western states and federal government will undoubtedly conclude: The path to meeting Kyoto Protocol standards for reducing greenhouse gas (GHG) emission reductions in the next 50 years is fundamentally based on a national energy portfolio that, dare we say it, should be "carbon-free."

As Al Gore put it a few days ago:

"The electricity system can be a mix of carbon-free baseload and dispatchable sources like solar thermal with storage, geothermal, wind, solar photovoltaics, biomass, existing nuclear and hydropower, and coal and natural gas power if they are able to capture the carbon."

If our nation's climate change strategy is going to rely upon a major expansion and deployment of renewable energy technologies, we need to look closely at how we structure the regulatory side of the equation that is designed to promote this policy and market choice. ***We also need to look very closely at our emissions accounting protocol. What emissions do we want to count, where should there be mandatory emission reporting and at what point in the use-chain should it be counted?***

Each of the major renewable energy technologies that has high viability in the Western states— which at this point are geothermal, solar, and wind – has a unique set of issues associated with major expansion beyond existing production levels. Major concerns include securing early-stage project financing, how to solve transmission problems and how to resolve individualized land-use and project permitting issues.

There are several issues that need the attention of the geothermal industry in the coming months. ***First and foremost, all sectors of the geothermal industry (utility-scale, heat pump and direct use) should applaud California for its efforts to implement the [AB 32 Draft Scoping Plan](#).*** This Plan was released in late June, and the [California Air Resources Board](#) is accepting its first round of [public comment](#) through August 1, 2008. The Board will revise the Draft Plan and hold a second round of comments in the fall before Board adoption of the Plan in November or December.

The Plan’s “**Big Four**” strategies to meet the law’s GHG emission mandates are to (1) focus on improvements in the transportation sector, (2) promote a very ambitious energy efficiency program at every level of the economy, (3) meet the RPS targets for renewable energy production and (4) institute a cap and trade program coordinated with the Western Climate Initiative. The Plan promotes a goal of meeting a 33% market-share for renewable energy by 2020 (the Renewable Portfolio Standards or RPS). Even though this goal is not yet a legal mandate, the Scoping Plan states:

“A more aggressive RPS goal of 33% by 2020 has also been proposed but is not yet codified into statute. In 2005, the CEC and the CPUC committed in the Energy Action Plan II to “evaluate and develop implementation paths for achieving renewable resource goals beyond 2010, including 33% renewables by 2020, in light of cost-benefit and risk analysis, for all load serving entities. For the purposes of calculating emission reductions in this Draft Plan, ARB is counting emissions avoided by increasing the percentage of renewables in California’s electricity mix from the current level of 12% to the 33% goal.”

In addition to the RPS, which can be met through distributed generation and utility-scale power production and purchases, the growing geothermal heat pump and direct use sector of the industry is facing an educational opportunity for their technology. ***There is no mention of geothermal heat-pump or direct use technology in the Scoping Plan.*** This is a critical oversight given the relatively untapped consumer and business market for heat pump and direct use technologies in California and the western states.

The Plan’s section on energy efficiency discusses “Green Buildings” and specifically calls out solar water heater technology, and the incentive program provided by statute. It also mentions combined heat and power as something that should be “encouraged” by the state. This encouragement can take the form of very significant state incentive and rebate programs such as the “Million Solar Roofs” Initiative, and a new \$25 million a year program to encourage the installation of solar water heating systems that offset natural gas use in homes and businesses throughout the state. The state’s unabashed goal is to “grow a mainstream market for solar water heating.” The program would be funded through a small surcharge (13 cents/month) on gas bills capped at \$250 million. ***With a proper education effort, there is no reason why geothermal heat pump and direct use technologies could not be included in similar state incentive programs.*** As always, the key is to show how state investment in expanding energy technologies will help reduce GHG emissions at the most cost-effective level.

Another other important ally for the heat pump and direct use sectors will be local government agencies. Although the Plan does not mandate that California’s cities, counties and special districts meet stringent emission targets, the Plan does lay the groundwork for ***an eventual shift to meeting regional emission reduction targets.*** For now, the Plan “encourages” local agencies to develop regional emission reduction targets and institute emission reporting protocol. However, many regions of California are moving aggressively to get ahead of the AB 32 regulatory curve. For example, the [Sonoma County Water Agency](#) is instituting a [Regional GeoExchange Energy Efficiency Program](#) to deploy geothermal heat pump technology at the Santa Rosa Airport business park and other parts of Sonoma County. The municipal bonding, tax and ratepayer funding bases are all in place at the local and regional level, and once again, AB

32 and follow-up investment decisions by the State of California will drive a whole new part of the energy market.

Colorado: Aspen Announces Geothermal Drilling

City officials have announced drilling of an exploratory well in Aspen, according to [aspentimes.com](http://www.aspentimes.com). This venture follows new state regulations allowing for geothermal production.

“We’ve already filed for geothermal water rights with the state, making the Aspen the first to apply under the new Colorado Geothermal Act,” Phil Overeynder, Aspen’s public works director, said in a press release.

Visit <http://www.aspentimes.com/article/20080716/NEWS/6907242/1077&ParentProfile=1058>.

Hawaii: Geothermal Plant Providing Power, Jobs

An article on ecoworld.com gave an overview of geothermal use in Hawaii, where Kilauea Volcano provides a resource that contributes to much of the power on the Big Island.

Puna Geothermal Venture is Hawaii’s only geothermal plant. A 30-MW facility, it provides more energy to Hawaii Electric Light Company than wind and solar combined, according to the article.

The article pointed out the great benefits of geothermal energy, and the positive influence it has had on Hawaii’s environment and economy.

Visit <http://www.ecoworld.com/blog/editor/guest/2008/07/12/geothermal-in-hawaii/>.

Utah: Raser to Develop Iron County’s First Geothermal Plant

The Iron County Commission has approved a geothermal power plant, the first in the county, according to localnews8.com. Raser Technologies will develop the 10-MW plant, expected to deliver power to California by the end of 2009.

See http://www.localnews8.com/Global/story.asp?S=8683712&nav=menu554_2.

Vermont: Bellows Falls Raising Funds for Widespread Geothermal Heating

The town of Bellows Falls, Vermont, is raising money for a geothermal project, according to an article on sentinelsource.com. The town sits on a geothermal hot spot not hot enough for electricity production, but the project would be fairly unique in that a widespread heat system could be developed that would be far more efficient than how most heat pump systems work.

VHB-Pioneer senior hydrogeologist Meddie J. Perry says the project will cost \$55,000 to \$75,000, according to the article. So far, the town has raised \$5,000 and will seek grants with the help of the state Chamber of Congress.

Project supporter Roger R. Riccio, a Bellows Falls village trustee, told the press, “If we have a source of energy underneath our feet that is something that we can tap into, then I believe that we should.”

For the complete article, visit http://sentinelsource.com/articles/2008/07/14/news/local/free/id_314252.txt.

International News

Australia: Queensland Government Finds Geothermal Resource

The *Sydney Morning Herald* reported a geothermal find at Millungera Basin, a 15,000-km² area in Queensland.

"It is possible that this basin could hold clean energy sources that could provide low emissions power for the entire northwest region," Premier Anna Bligh told the press.

Queensland Mines and Energy Minister Geoff Wilson said measurements of the resource would begin. "There are also plans to drill a number of relatively shallow holes to measure the geothermal potential," he said. "We will shortly consider which blocks of land could be released for tender for geothermal and gas exploration."

See <http://news.smh.com.au/national/major-clean-energy-discovery-in-qld-20080720-3i0p.html>.

Australia: Cooper Basin Test Complete; Origin Energy Adds Funding

Origin Energy has added another U.S. \$6.7 million to a joint geothermal venture with Geodynamics in Cooper Basin, South Australia, according to energycurrent.com. Origin made the additional commitment once the third well was complete and an open circulation test was done between wells one and three, the article said.

The project is in the first of three stages, which will culminate in an additional nine plants with overall capacity at 500 MW by 2015.

See <http://www.energycurrent.com/index.php?id=3&storyid=11892>.

Dominica: WIPD to Develop Geothermal Resources

The Government of the Commonwealth of Dominica has issued a geothermal exploration and development license to West Indies Power Dominica Limited, according to dominicanewsonline.com.

"We are pleased that the Government of the Commonwealth of Dominica has taken the decision to grant WIPD this license," Gregory de Gannes, Chairman of West Indies Power Holdings BV, the parent company of WIPD, told the press. "The geothermal resources of Dominica will now be developed by a Caribbean company which is committed to generating reliable, low cost electricity, from a renewable resource to the people of Dominica and in a timely manner."

See

<http://dominicanewsonline.com/default.asp?sourceid=&smenu=1&twindow=&mad=&sdetail=701&wpag e=1&keyword=&sidate=&ccat=&ccatm=&restate=&restatus=&reoption=&retype=&repmin=&repma x=&rebed=&rebath=&subname=&pform=&sc=2554&hn=dominicanewsonline&he=.com>.

Iceland: *New York Times* Blogger Notes Geothermal Use

A *New York Times* opinion blog was written by Nathan Myhrvold who visited Iceland, met with the president, Olafur Grimsson, and on the topic of geothermal energy, mentioned that the "stark Icelandic landscape is punctuated by pipelines or rows of power lines stretching into the distance."

The piece mentioned the need for more geothermal use in the United States. "Until recently, geothermal was not eligible for the same tax advantages as wind," Myhrvold said. "That has been changed, and we'll see what happens next."

See <http://freakonomics.blogs.nytimes.com/2008/07/16/how-iceland-went-from-blood-feuds-to-geothermal/>.

Nevis: Reformation Party Says Geothermal Bill a Key Advancement

On July 8, the Geothermal Bill was passed into law in the Nevis House of Assembly. In a recent address celebrating the anniversary of the Nevis Reformation Party's 2006 return to office, Premier Joseph Parry listed geothermal energy as one of the party's key advancements on the island, according to sunstkitts.com.

The first geothermal plant in Nevis will begin construction this year.

See

<http://sunstkitts.com/paper/?asknw=view&asknw=view,view&sun=494418078207132005&an=191844108107142008&ac=Local>.

Philippines: Zayco Signs MOA to Allow Exploration at Mt. Kanlaon

Negros Occidental Governor Isidro Zayco signed an agreement with the Energy Development Corporation (EDC) to allow for geothermal exploration at the Mt. Kanlaon Natural Park buffer zone, according to sunstar.com.ph.

Several groups had filed a class suit against EDC to prevent cutting trees in the buffer zone, and expressed their displeasure at the Memorandum of Agreement that may finally end the contention.

EDC, on the other hand, thanked Zayco for finally signing the MOA. "We thank Governor Zayco and the Sangguniang Panlalawigan (Provincial Board) for standing up to what is right and what is legal," said Paul Aquino, EDC's president and chief executive officer, in a press statement.

See

<http://www.sunstar.com.ph/static/bac/2008/07/19/news/zayco.inks.moa.on.geothermal.exploration.html>.

Philippines: Envent to Develop Geothermal Plant on Biliran Island

Envent Holding Philippines will develop a geothermal power plant on the island Biliran in Leyte, Philippines, according to an article on istockanalyst.com. The renewable energy firm has signed a service contract for the Biliran Geothermal Development Project.

"We are pleased to have been chosen by the Department of Energy to undertake the project in Biliran," Thor Gislason, chairman of Envent, told the press. "Envent's key shareholders have over the past decade established themselves as global leaders in the startup of new geothermal power plants. We are now committed to the Philippine market and the Philippine government's goal of an additional 1,200 MW of renewable energy capacity by 2013."

See

http://www.istockanalyst.com/article/viewiStockNews+articleid_2391391&title=Envent_to_Develop.html.

Philippines: DOE Seeks to Become World's #1 Geothermal Producer

The Philippines could become the number one geothermal power producer in the world, according to an article on business.inquirer.net. Three new geothermal contracts will add 120 MW to the country's production. The Philippines' Department of Energy told the press that once these projects are producing, it needs only 70 MW more to surpass the United States, which is currently the highest-ranking country in terms of geothermal output.

The three new service contracts were awarded by the DOE to Guidance Management Corp. (GMC), Biliran Geothermal Inc. (BGI), and Basic Energy Corp. (BEC) for exploration and development in Amacan, Biliran, and Mabini, respectively.

See <http://business.inquirer.net/money/breakingnews/view/20080719-149459/RP-rising-as-a-global-geothermal-power>.

Notices and Employment Opportunities

Department of Energy Invites Participation in July 25 Conference Call to Discuss Geothermal FOA

The Department of Energy's (DOE) Geothermal Technologies Program (GTP) invites you to join a **1-2 hour conference call on Friday, July 25 at 1 pm EDT/10 am PDT** to discuss the Funding Opportunity Announcement (FOA) entitled "Enhanced Geothermal Systems (EGS) Research, Development, and Demonstration" that is currently open. The full announcement can be found at the following link: [https://e-center.doe.gov/iips/faopor.nsf/UNID/C6AC09127A4B508B8525746C005F950D/\\$file/Announcemnt_DE_PS36-08GO98008.pdf](https://e-center.doe.gov/iips/faopor.nsf/UNID/C6AC09127A4B508B8525746C005F950D/$file/Announcemnt_DE_PS36-08GO98008.pdf)

GTP will provide a brief overview of the EGS FOA to be followed by a question and answer session, for which GTP will be required to follow DOE procurement guidelines. Therefore, **please submit questions in advance by 12 pm on Thursday, July 24** by using the "Submit Question" button in the upper left part of the web page at the following link: <https://e-center.doe.gov/iips/faopor.nsf/UNID/C6AC09127A4B508B8525746C005F950D?OpenDocument>. Live questions cannot be answered on the conference call. Questions not posted by the deadline cannot be answered on the conference call itself, but will be answered at a later date via the web page.

The objective of this two-topic FOA is to solve critical Research, Development, and Demonstration needs for Enhanced Geothermal Systems technical feasibility and to increase the knowledge and understanding necessary for EGS to advance to a state of commercial readiness.

Topic Area 1 entitled "Component Technologies R&D" seeks projects that address key aspects of engineered reservoir creation, management, and utilization by developing tools and techniques including zonal isolation, downhole pumps, fracture characterization, imaging fluid flow, tracers and tracer interpretation, high-temperature logging tools/sensors, and stimulation prediction models.

Topic Area 2 entitled "System Demonstrations" seeks projects to characterize a geothermal system with low natural productivity, develop a plan to stimulate the productivity of the system, stimulate a well in the system and monitor the productivity or injectivity of the well in relation to other wells available in the system with the goal of increasing productivity or inter-well connectivity.

The call information is as follows:

Call-in number: 888-391-6568

Passcode: 61564

Applications for the FOA are due at 11:59 pm EDT on August 12, 2008. Answers to questions that are submitted will also be posted at the link above following the call. DOE thanks you for your interest and input.

Nicaraguan Energy Ministry Seeks Offers to Develop San Cristobal Volcano (Bids Due July 31)

The Nicaraguan government is considering offers of at least \$30,000 made before July 31 to develop at the San Cristobal Volcano.

Nicaragua's Energy Ministry posted a statement on their Web site at <http://www.mem.gob.ni/media/file/ADQUISICIONES/CONVOCATORIA%20LICITACION%20CASITA.pdf>.

The documents, in Spanish, can be obtained from:

MINISTERIO DE ENERGIA Y MINAS

Del Portón del Hospital Bautista 1 c. Abajo, 125 vrs. al lago. Apartado postal CJ-159.

Managua, Nicaragua

PBX: (505) 222-5576 Fax: (505) 222-4629

For more information, contact:

- Lic. Iván Cortés, Dirección General de Electricidad y Recursos Renovables, correo electrónico: ivan.cortez@mem.gob.ni
- Ing. Magdalena Pérez, correo electrónico: magdalena.perez@mem.gob.ni
- Lic. Aura María González correo electrónico: aura.gonzalez@mem.gob.ni. Pagina web: www.mem.gob.ni

Release of Forseo's "Investor's Guide to Geothermal Energy" (August)

"The Investor's Guide to Geothermal Energy" provides a comprehensive and market driven insight into all important aspects of geothermal business and project development. It serves as a practical reference tool for the financial community, for stakeholders from the industry, and for novices to geothermal energy.

Each project stage, from site identification, exploration, site development, power plant construction to operation and maintenance is looked at from an investor's point of view:

- capital costs & cost affecting factors
- financing instruments & incentives
- associated risks & risk mitigation tools
- geoscientific & technology barriers and solutions
- investment opportunities and market drivers

Recognized experts and leading geothermal companies are sharing their insight to make this publication the first of its kind. Sterr-Kölln & Partner is the main contributor to the content of the publication. The target groups are investors and lenders, project developers, utilities, consultancies, insurance companies and other market players. The publication is endorsed by the IGA (International Geothermal Association) and SEFI (Sustainable Energy Finance Initiative).

Scope: 80-100 pages in A4 format

Price: 280 EUR (excl VAT) per copy

Early-Bird Special: 15% discount for payment before 31 July 2008

Publication Date: August 2008 anticipated

For more information please contact Birgit Eggl at birgit.eggl@forseo.de or visit <http://www.forseo.eu/english/publications/the-investor-s-guide-to-geothermal.html>.

FOA, U.S. DOE, Enhanced Geothermal Systems Research, Development, and Demonstration (Applications Due August 12)

Announcement Number: DE-PS36-08GO98008

Initial estimated total funding for this award is listed at \$10,500,000 in FY'2008; with additional anticipated funds of \$79,000,000 in FY'2009 and FY'2010, subject to change and Congressional appropriations. There are also distinctions between funding for two topic areas covered in this FOA. Please see the FOA for detailed funding information.

Geothermal energy is an abundant, reliable, ubiquitous, base load, indigenous renewable energy source. Only the hydrothermal portion of the geothermal resource has been developed commercially around the world. There are a significant number of hydrothermal systems that do not have adequate productivity for economic production. To address the development of Enhanced Geothermal Systems (EGS), DOE recognizes that there will be challenges requiring new technology development in the form of R&D, field testing, and verification in order for EGS to enter the marketplace. DOE is seeking to partner with geothermal stakeholders to alleviate some of the risks of EGS development through this Funding Opportunity Announcement (FOA) covering two key topic areas. This integrated FOA will allow DOE to develop new sensors, down-hole tools, and mapping capabilities in order to operate at greater depths and higher reservoir temperatures, and to partner with geothermal stakeholders to increase the knowledge and understanding necessary for EGS to advance to a state of commercial readiness. Brief descriptions of both topic areas are as follows:

Topic Area 1: Component Areas R&D

This topic area seeks projects that address key aspects of engineered reservoir creation, management, and utilization by developing tools and techniques useful to temperatures up to 300°C and depths as great as 10,000 m. Areas of interest include: zonal isolation; down hole pumps; fracture characterization; image fluid flow; tracers and tracer interpretation; high temperature logging tools and sensors; and stimulation prediction models. These technology improvements are discussed in greater detail in the report, An Evaluation of Enhanced Geothermal Systems Technology, posted on the DOE website: http://www1.eere.energy.gov/geothermal/pdfs/evaluation_egs_Tech_2008.pdf.

Topic Area 2: System Demonstrations

This topic area seeks projects that will successfully characterize a geothermal system with low natural productivity, develop a plan to stimulate the productivity of the system, stimulate a well in the system and monitor the productivity or injectivity of the well in relation to other wells available in the system. The projects will allow testing and validation of stimulation techniques for improving productivity of wells or increasing inter-well connectivity at existing geothermal fields. Use of available or experimental technologies from geothermal, petroleum or other relevant industries will be considered.

Applications for this Funding Opportunity Announcement must be accessed, completed, and submitted through Grants.gov at <http://www.grants.gov> to be considered for award. Questions regarding the content of the announcement should be submitted through the "Submit Question" feature of the DOE Industry Interactive Procurement System (IIPS) at <http://e-center.doe.gov>.

VERY IMPORTANT: To complete and submit applications through Grants.gov, there are several actions you must complete (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), install the PureEdge Viewer, register with the credential provider, and register with Grants.gov). Applicants are highly encouraged to register as soon as possible and should allow at least 21 days to complete the registration process. When done, call the Grants.gov Helpdesk at 1-800-518-4726 to verify successful registration. Registration Instructions are found on the Grants.gov web site at <http://www.grants.gov> and in the Funding Opportunity Announcement.

Should you have questions regarding the operation of Grants.gov, please contact the Grants.gov Contact

Center at support@grants.gov or 1-800-518-4726. Contact Center hours of operation are Monday–Friday from 7:00 am to 9:00 pm Eastern Standard Time.

Visit <https://e-center.doe.gov/ips/faopor.nsf/3b3cff0a4a1f243485256ec100490e1a/c6ac09127a4b508b8525746c005f950d?OpenDocument> for information and instructions. The full announcement can be found at [Announcemnt DE_PS36-08GO98008.pdf](#). Additional information is available at [Document; Enhanced Geothermal Systems Research, Development, and Demonst...; 06/19/2008](#).

Rio Tinto Alcan and the International Business Leaders Forum, Prize for Sustainability (Responses Due September 12)

Rio Tinto Alcan and the International Business Leaders Forum seek nominations for the Rio Tinto Alcan Prize for Sustainability. The prize recognizes organizations demonstrating a comprehensive approach to addressing, achieving and further advancing economic, environmental and/or social sustainability. First prize is \$1 million. Responses due 9/12/08.

For more info, go to: <http://www.alcanprizeforsustainability.com/intro.php>.

Federal Loan Guarantees for Projects that Employ Innovative Energy Efficiency, Renewable Energy, and Advanced Transmission and Distribution Technologies (Applications Due December 31)

Solicitation Number: DE-PS01-08LG00001

This solicitation announcement invites the submission of applications for loan guarantees under Title XVII of the Energy Policy Act of 2005, 22 U.S.C. 16511-16514 (“Title XVII”), from the United States Department of Energy in support of debt financing for projects in the United States that employ energy efficiency, renewable energy, and advanced transmission and distribution technologies that constitute New or Significantly Improved Technologies. This Solicitation is issued in accordance with the terms and conditions of Title XVII and the Final Regulations. All applicants are encouraged to review and become familiar with the requirements of Title XVII and the Final Regulations, the provisions of which govern this Solicitation; copies of these authorities may be found at <http://www.lgprogram.energy.gov/>.

DOE will make no more than \$10 billion in loan guarantee authority available under this Solicitation for projects employing energy efficiency, renewable energy and advanced transmission and distribution technologies that constitute New or Significantly Improved Technologies. The Department’s authority to issue this amount of loan guarantees was provided by the Consolidated Appropriations Act, 2008, P.L. No. 110-161 (the “FY08 Appropriations Act”). Under the terms of the FY08 Appropriations Act, the availability of this loan guarantee authority expires on September 30, 2009.

PROJECT TYPES

DOE is actively promoting projects that fall within the following three general but distinct project type categories: (1) manufacturing projects, (2) stand-alone projects, and (3) large-scale integration projects that may combine multiple eligible renewable energy, energy efficiency and transmission technologies in accordance with a staged development scheme. Attachment E sets forth illustrative lists of each of these project types. The applicant is requested to specify which, if any, of the below project types and technology categories most accurately represents its project:

TECHNOLOGY CATEGORIES

DOE will consider projects derived from the list of technology categories identified below and which fall within one of the three distinct project types described above. Attachment E provides an illustrative list of

technologies potentially constituting New or Significantly Improved Technologies that fall within each of these technology categories.

Category 1: Alternative Fuel Vehicles

Category 2: Biomass

Category 3: Efficient Electricity Transmission, Distribution and Storage

Category 4: Energy Efficient Building Technologies and Applications

Category 5: Geothermal

Category 6: Hydrogen and Fuel Cell Technologies

Category 7: Energy Efficiency Projects

Category 8: Solar

Category 9: Wind and Hydropower

To the extent an applicant has questions relating to the application process at any time prior to submission of its application to DOE, the applicant may set forth its question in an email to the LGPO at lgprogram@hq.doe.gov. Please include in the subject line "RETDEE Solicitation Question."

Completed applications must be submitted to DOE electronically through the Fed Connect website located at www.fedconnect.net no later than 11:59 pm (ET) on Wednesday, December 31, 2008.

The full announcement can be found at [Announcemnt DE PS36-08GO98008.pdf](#). Visit <http://www.lgprogram.energy.gov/keydocs.html> for more information.

Engineering Manager, Western GeoPower, Inc.

Western GeoPower, Inc. (WGPI) has an immediate opening for a full time Engineering Manager to be located in our Healdsburg, CA office. WGPI is looking for a flexible and entrepreneurial person who can assist in a variety of tasks to grow WGPI into world class renewable power developer/operator. The ideal candidate will possess 5+ years of technical design, project engineering and operational support in the geothermal power industry. Must have geothermal power and experience working in the Geysers and Salton Sea or similar geothermal field. H2S abatement strategies, steam quality, production/injection systems and plant operations are all a plus.

The Engineering Manager will be report to the Operations Manager and be responsible for the following key tasks:

- Technical support for Project Permitting
- Technical oversight of the Detailed Engineering Contract (power plant and gathering system)
- Evaluation of Value Engineering and Technical Betterment Projects
- Technical support for Project Construction issues (technical support for WGP's Construction Manager)
- Technical support for New Development Projects
- Technical support for future Plant Operations, Reporting, Plant Optimization, Environmental Compliance, Safety and Training

To apply for the position, please send a Word formatted resume to Redfish Technology Chris@redfishtech.com.

Requests for Proposals (RFPs)

RFP for Renewable Energy Certificates, Defense Energy Support Center (August 4)

The Defense Energy Support Center solicitation SP0600-08-R-0417 for supply of renewable energy certificates for various Department of Defense and Federal Civilian agencies is now available.

Total contract quantity is 193,092,728 kWh in renewable energy certificates for ultimate transfer to Department of Interior, NASA Kennedy Space Center, Air Force Reserve Command, Air Mobility Command, Kirtland Air Force Base, Air Education & Training Command, Internal Revenue Service, Air Combat Command Food and Drug Administration, National Institute of Standards of Technology, and Air Force Special Operations Command.

Technical data and final pricing proposals are due by noon local Ft. Belvoir, VA time on August 4, 2008. The delivery date for all accounts is September 30, 2008, except for NASA Kennedy Space Center, which is January 7, 2009.

For more information, contact Jezabel Avilés at Jezabel.Aviles@dla.mil or Leslie Simpson at leslie.simpson@dla.mil or visit <http://www.desc.dla.mil/DCM/DCMSolic.asp?SolicID=1333>.

RFP for Renewable Energy, Arizona Public Service (August 13)

The Arizona Public Service seeks at least 35,000 MWh and up to 1,000,000 MWh from renewable energy resources. Notice of Intent to Bid is due 7/11/08, final proposals due 8/13/08.

For more info, contact Gordon Samuel at RenewableRFP@aps.com or go to: <http://www.aps.com/aps/rfp/renewable2008/default.html>.

RFP for Renewable Energy, Tucson Electric Power Co. and UNS Electric (September 5)

Tucson Electric Power Company and UNS Electric RFP seek up to 150,000 MWh from eligible renewable energy resources and associated credits to meet Arizona's RPS requirements. Responses due 9/5/08.

For more info, contact Carmine Tilghman at ctilghman@tep.com or go to: <http://www.uesaz.com/Wholesale/>. (Green Power Network 6/7/08)

RFP for Energy Frontier Research Centers, U.S. DOE (October 1)

The U.S. Department of Energy requests proposals for Energy Frontier Research Centers (EFRCs) to accelerate the rate of scientific breakthroughs needed to create advanced energy technologies for the 21st century. The EFRCs will pursue the fundamental understanding necessary to meet the global need for abundant, clean, and economical energy. Through this initiative, DOE seeks to bring together the skills and talents of multiple investigators to enable fundamental research of a scope and complexity that would not be possible with the standard individual investigator or small group research project. \$500 million expected to be available, up to 50 awards anticipated.

Responses due 10/1/08. For more info, contact Emiela Bradford at emiela.bradford@ch.doe.gov or go to: <https://e-center.doe.gov/iips/faopor.nsf/UNID/933104E42D0185E58525742100694C78?OpenDocument>. Refer to Sol# DE-PS02-08ER15944. (Grants.gov 4/4/08)

RFP for Renewable Energy Resources, Public Service Company of New Mexico (October 15)

PNM issued a request for proposals (RFP) for renewable energy projects on July 18, 2008. The RFP is seeking multiple proposals for wind, solar, geothermal and bio-fuel energy resources. PNM is seeking renewable energy sources that can be available beginning in 2009 and no later than 2011. A pre-bid conference will be held at the PNM downtown office in Albuquerque and via teleconference on July 30, 2008. RFP Responses due October 15.

All inquiries and other communications relating in any manner to this RFP must be directed in writing, by mail, facsimile or email, to the PNM RFP administrator. The questions and corresponding answers (without identification of the party asking the questions) will be emailed to all parties that have provided a Notification of Intent to Respond (“Notification”) to this RFP. Contact information is provided below.

RFP Administrator
Public Service Company of New Mexico
Alvarado Square MS 1006
Albuquerque, N.M., 87158-0001
Phone: 505-241-4700
Fax: 505-241-2202
Email: renewableRFP@pnm.com

The entire RFP can be found at http://www.pnm.com/rfp/renewables/docs/rfp_renewables.pdf.

RFP for Climate Change and Sustainability Conferences, U.S. EPA (December 9)

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

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

Upcoming Events

GEA “Geothermal 101” Workshop, July 23 (Ritz-Carlton @ Battery Park, New York City)

Come hear leading experts discuss a fast growing renewable energy industry considered to have massive untapped energy potential. Space is limited, reserve your spot today!

Agenda:

9:00–9:05 Welcome and Introduction, Jonathan Weisgall, President, GEA and Vice President MidAmerican Energy

9:05–9:20 Opening Keynote Remarks: Assistant Secretary of Energy, Andy Karsner, Invited

9:20–11:45 Basic Introduction to Geothermal Energy

- *Understanding the geology behind geothermal energy*: Paul Brophy, President, EGS Inc. and Geothermal Resources Council
- *Geothermal reservoir assessments*: Arnar Hjartarson, Geothermal Reservoir Specialist, Glitnir

Short Break Expected

- *Drilling*: Lou Capuano, President, ThermaSource
- *Power plant technology*: Lucien Bronicki, Founder and Chairman, Ormat

12:00–12:30: Lunch served in the Skyline Vista

12:30–1:30: Luncheon Address

- Dan Reicher, Director for Climate Change and Energy Initiatives, Google.org
- Ólafur Ragnar Grímsson, President of Iceland

1:30–2:45pm *Geothermal Finance Issues and Perspectives*:

- Dita Bronicki, CEO- Ormat
- Charles Arrigo, Director, Sustainable Energy- Glitnir

- Josh Haacker, Principal- U.S. Renewables Group
- Christopher Smith- Merrill Lynch

2:45–2:55 *US Market Review*: Karl Gawell, Executive Director- GEA

2:55–3:15 *World Market Review*: Subir Sanyal, President- GeothermEx

3:15–3:30: Afternoon Break, Dessert will be served

3:30–5:00 *Project showcase*:

- UTC Power- John Fox, PureCycle Geothermal Product Manager
- Google.org- Charles Baron, Climate and Energy
- Terra-Gen Power- Steve Doyon, Senior Vice President and Head of Development
- Western GeoPower, Inc.- Thomas Drolet, CEO
- Raser Technologies- Michael Hayter, Director of Geothermal Development
- Iceland America Energy, Magnus Johannesson, CEO
- Ormat- Paul Thomsen, Public Policy Manager
- Geysir Green Energy- Nanna Baldvinsdottir, Head of Marketing and Relations
- Vulcan Power- Steve Munson, CEO
- Enel North America- John Snow, Director of Resource Development

To register, go to http://geo-energy.org/financeWorkshop/work_shop.asp.

FREE Geothermal Energy Webcast Featuring Prominent Keynote Speakers, July 23

The Geothermal Energy 101 Webcast is provided for free by the Geothermal Energy Association and will take place Wednesday, July 23. The schedule is as follows:

9:00 a.m. to Noon (ET)

- Opening Keynote Remarks by Assistant Secretary of Energy, Andy Karsner.
- Geothermal Energy 101 session led by experts in the field. Topics to include: geology behind geothermal, geothermal reservoir assessments, drilling, and power plant technology.

12:30 p.m.-2:00 p.m. (ET)

- Luncheon Keynote addresses by The President of Iceland, Olafur Ragnar Grimsson and Director for Climate Change and Energy Initiatives, Google.org, Dan Reicher.

**Note: for registrants not in Eastern Time zone, webcast will be archived to watch at your convenience.

To register, visit <http://www.visualwebcaster.com/event.asp?id=49057>.

If you have any questions, contact Kathy Kent at kathy@geo-energy.org.

Public Hearing on PEIS, BLM and the U.S Forest Service, July 24 (Denver, Co)

The Bureau of Land Management (BLM) is continuing to implement the geothermal provisions of the Energy Policy Act of 2005 that significantly revised the Geothermal Steam Act of 1970, from essentially noncompetitive leasing to an all-competitive leasing system. Revised final Geothermal Regulations were published on May 2, 2007 and first lease sales held during June and August of 2007.

The BLM and the U.S Forest Service are jointly preparing a Programmatic Environmental Impact Statement (PEIS) to analyze and expedite the leasing of BLM- and Forest Service-administrated lands with high potential for geothermal resources in 11 western states and Alaska, including Colorado. The draft PEIS was released for comment on Friday June 13, with the intent to release the final document in December 2008.

Please review the full draft PEIS online at:

http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal_nationwide/Documents/draft_programmatic.html.

One concern is that federal land areas identified in the PEIS may be closed indefinitely to geothermal leasing. Closure areas are generally mapped in the PEIS, but may not be specifically identified. Land owners and developers wanting to pursue geothermal projects on their land will want to carefully review this document and voice their comments within the next 90 days.

Written comments on the Draft PEIS may be submitted by any of three methods:

- *e-mail – geothermal_EIS@blm.gov*
- *fax – 1-866-625-0707*
- *US Mail – Geothermal Programmatic EIS, c/o EMPSi, 182 Howard Street, Suite 110, San Francisco, California 94105*

In addition, comments may be submitted at public meetings scheduled for 13 cities during July. Colorado's public meeting will be held on July 24th from 5:30pm – 7:30pm in the Evergreen A Room at the PPA Event Center, 2105 Decatur Street, Denver, Colorado.

Once the PEIS is completed BLM will be accepting nominations for leasing geothermal resources in Colorado for both electrical generation and direct use applications. Lands that are available for leasing will be offered for competitive leasing. Those lease parcels not receiving bids will then be available for noncompetitive leasing for a period of two years following the sale. Applications for noncompetitive direct use leasing will be posted for a period of 90 days to determine whether or not there is competitive interest. If there is competitive interest, the lands requested will be offered in a competitive lease sale. If no competitive interest is expressed, the lease may be issued to the applicant.

California Geothermal Summit, California Geothermal Energy Collaborative, July 30 (Embassy Suites Hotel, Sacramento, CA)

What does the future hold for the geothermal community?

What should we focus on to fast-track geothermal energy in the state?

How can we more effectively partner with other renewable technologies?

The California Geothermal Energy Collaborative encourages you to participate in the Summit -- and join us in welcoming speaker, Ed Wall, the new Manager of DOE's Geothermal Program Office.

Agenda:

- 8:30 a.m. - Attendee Check-in
- 9:00 a.m. - Welcome – *William Glassley, CGEC Executive Director; Summit Moderator – Karl Gawell, Geothermal Energy Association*
- 9:10 a.m. - Future Direction of State and Federal Geothermal Research - *Gerry Braun, California Energy Commission; CGEC R&D Plan, William Glassley, CGEC; Allan Jelacic, DOE; and Ed Wall, DOE Geothermal Program Manager*
- 10:00 a.m. - Climate Change, RPS, and other federal and state policies affecting geothermal energy – *V. John White, CEERT; Jonathan Weisgall, MidAmerican*
- 10:30 – 10:45 - Break
- 10:45 a.m. - Moderated Discussion: Perspectives on Geothermal R&D Priorities for California – *Discussion Leaders: Carol Bruton, Simbol Mining Corp. and Mack Kennedy, LBNL*
- 11:30 a.m. – 1 p.m. - LUNCH
- 1 p.m. - Keynote Speaker: *Eileen Wenger Tutt, Deputy Secretary Climate Change and Environmental Justice, CalEPA*
- 1:40 p.m. - Transmission and Renewable Energy - RETI Process, and Western Governors Association Initiative Reports
- *John McCaull, Geothermal Energy Association and Andy Horne, California State Assoc. of Counties (CSAC)*

- 2:20 p.m. - Direct Use, Heat Pumps and Small Power: Their Role in the California Energy Landscape – *Rick Phelps, High Sierra Energy Foundation; Lisa Meline, Meline Engineering*
- 2:50 – 3:10 p.m. Break
- 3:10 p.m. - Status and Outlook: BLM Leasing and the PEIS – *Kermit Witherbee, BLM Leasing Plans; Jack Peterson, BLM PGEIS*
- 3:40 p.m. - Is there a consensus about the future direction/priorities for the CGEC? – *Moderated Discussion with audience participation*
- 4:00 p.m. - Adjourn

Registration Fee - \$85.00

Late Registration Fee after July 21 - \$160

Limited seating available

Registration fee is payable by check to the Geothermal Education Office or a Visa or MasterCard credit card. Please note: your credit card statement will show a charge from California Study.

Registration Processing is being handled by Marilyn Nemzer, Geothermal Education Office.

To obtain a registration form email: GEO.nemzer@gmail.com or go to: <http://ciee.ucop.edu/geothermal/documents/2008CGECSummitFlyer.pdf>.

For general questions concerning the workshop, contact CGEC Administrative Manager Judy Fischette at fischette@sbcglobal.net.

11th Annual Congressional Renewable Energy, Energy Efficiency EXPO, and Forum, Sustainable Energy Coalition, July 31 (Washington, DC)

The 11th Annual Congressional Renewable Energy & Energy Efficiency EXPO + Forum will be hosted by the Sustainable Energy Coalition in cooperation with Members of the congressional Renewable Energy & Energy Efficiency Caucuses. The day-long event will be held in the Caucus Room of the Cannon House Office Building in Washington, DC on Thursday, July 31.

This year's EXPO will bring together more than three dozen businesses, sustainable energy industry trade associations, and energy policy research organizations to showcase the status and near-term potential of the cross-section of renewable energy and energy efficiency technologies.

As Congress, the Administration, the business community, and American voters search for options to address ever-higher energy prices, increased reliance on energy imports, and the potential threat posed by rising levels of greenhouse gas emissions, the EXPO will help address the role that sustainable energy technologies might play. This will include not only the technical aspects of renewable energy and energy-efficient technologies but also related issues such as economics, current and near-term market potential, model programs in the public and private sectors, institutional and legal barriers, etc. Attendance is free and no RSVPs are required.

For more information and to register to exhibit, contact:

Ken Bossong

Sustainable Energy Coalition

6930 Carroll Avenue

Suite #340

Takoma Park, MD 20912

301-270-6477 x.23

Kbossong614@yahoo.com

<http://www.sustainableenergycoalition.org>

Royalty Conversion Workshop for Producing Geothermal Leases, July 31 (Reno, NV)

The Bureau of Land Management and MMS will host a workshop for operators that have geothermal leases that are commercially generating electricity. The revised Geothermal Rules published June 2, 2007(43CFR 3212.25), provides the opportunity for leases existing on 8/8/2005 to convert to a revenue neutral royalty rate for electrical generation from net back to a gross proceeds royalty rate, to fee schedule for direct use not sold, and to a 10% royalty rate for arms length sale of the resource.

Application must be made by December 1, 2008. BLM then has 140 days after a request is complete to notify the lessee of the proposed royalty rate determined to be revenue neutral. The lessee then has 30 day to accept or reject the proposed royalty rate.

The workshop will be held at the Best Western Plaza Hotel in Reno, Nevada on July 31, 2008 from 1:00 p.m. to 4:00 p.m. BLM contractor Jeff Eppink, Energis,LLC, will present the model developed for calculating the revenue neutral royalty rate. The contractor, BLM Staff, and MMS Staff will provide additional information on the information and data needed to calculate the gross proceeds royalty rate.

Following the workshop a reception and dinner will be held in honor of the retirement of Richard Hoops, BLM NV Geothermal Program Manager.

Best Western Airport Plaza Hotel & Conference Center - 775-348-6370
1981 Terminal Way
Reno, Nevada 89502

Meeting in the Gulf Stream Room 1 - Happy Hour - Crosswinds Lounge and patio 4 - 5

Dinner - Plaza Court Restaurant - downstairs lower part of the restaurant - menu - Surf and Turf (Early Bird Special) \$14.95 - Plus a cake for Rich

Block of rooms under BLM. Visitors will make their own reservations - \$77.00 - On July 18, 2008, unused room will go back into inventory and reservations will be subject to the best available rate.

The reception and dinner are open to industry representatives along with his coworkers.

For more information please contact Kermit Witherbee at Kermit_Witherbee@blm.gov or 202-452-0385.

Geothermal Technologies Workshop, Western Area Power Administration, August 11-12 (Everett, WA)

Western Area Power Administration (Western) is hosting a Geothermal Technologies workshop. The theme is "Electric Utilities' Roles in Promoting Geothermal Energy Technologies." It is cosponsored by the American Public Power Association (APPA), the National Rural Electric Cooperative Association (NRECA), and the Utility Geothermal Working Group (UGWG).

The target audiences for the workshop are utility staff who are interested in learning about geothermal technologies—including geothermal heat pumps (GHP) and geothermal power production—who want to compare them with other resource options, or who want to learn how to improve on existing programs. Through class presentations, case histories, and demonstrations, attendees will learn about:

- Cost effectiveness tests of GHP from the utility and customer perspectives
- Case histories of GHP systems energy savings over conventional HVAC systems
- How GHP programs qualify as energy efficiency programs
- New drilling and installation techniques

- Cost comparisons of geothermal power and other resource options

Georg Shultz the Director, Electric Staff Division for the USDA's Rural Utility Services (RUS), will give an update on the RUS's work with cooperatives on promoting geothermal technologies in rural areas.

Workshop fees are \$90 for one day and \$125 for both days. Reduced fees for APPA, NRECA, NWPPA, and State Working Group members and Western Customers are \$60 and \$90. If you wish to attend, please fill out the registration form and send a check to made payable to Utility Forum Connection to:

Utility Forum Connection
PO Box 255
Lincoln City, OR 97367

Questions? Contact Guy Nelson, energyguy@utilityforum.com or (541) 994-4670.

High Sierra Energy Summit, August 11-15 (Mammoth Lakes, CA)

The 2nd Annual High Sierra Energy Summit, sponsored by the High Sierra Initiative, is a weeklong series of courses focusing on energy efficiency and renewable energy resources. It will take place from August 11-15 at Cerro Coso Community College. Courses will run from 8:30 a.m. to 5:00 p.m. Monday through Friday.

For more information or to register, please visit <http://www.highsierraenergysummit.com/index.html> or contact Rick Phelps at rphelps@highsierraenergy.org or 760-934-4650.

Renewable Energy Philippines 2008, August 28–30 (Manila, Philippines)

This is the First International Exhibition & Conference on Renewable Energy in the Philippines.

Renewable energy is getting more and more attention because of global warming. Renewable Energy Philippines 2008 is a link to enable the U.S. Renewable Energy providers, manufacturers, and researchers to go overseas and encourage other countries to invest in environment friendly energy sources.

Asian Development Bank & World Bank will speak on Future Carbon Fund, Carbon Finance Program, and support of CDM Projects.

August 28–30, Hall 3, SMX Convention Center
Metro Manila, Philippines

The exhibition provide a one-stop B2B and technology exchange platform for equipment manufacturers and suppliers, project operators, financing institutions, oil & gas producing companies, state-owned companies and relevant Government Agencies to meet and do business under one roof and venue. Exhibition profile includes all equipment, technology applications and projects available for investment to the following fields of interest:

- Alternative Fuels
- Gas Energy
- Geothermal Energy
- Hydro Energy
- Ocean Energy
- Solar Energy
- Wind Energy
- Others—Battery, Energy Bank, Energy Saving Products, etc.

*For more information, contact: TDC EVENTS INTERNATIONAL INC., 1504 FRANCISCO STREET
BERKELEY, CA 94703*

*USA Contact: Maria Gomez, Tel: +1 305 4365751, Fax: +1 305 4365352, Cel: +1 305 7722549, e-mail:
maria@andinalink.com*

*Latin America Contact: Andrea Valencia, Tel: +571 4821717, Fax: +571 3128782, e-mail:
andrea@andinalink.com*

Web site: www.dp-link.com

GEA Trade Show/GRC Annual Meeting, October 5–8 (Reno, NV)

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

*For more information about the GEA Trade Show, visit http://www.geo-energy.org/2008_ts/index.htm.
For information about the GRC Annual Meeting, go to <http://www.geothermal.org>.*

NZ Geothermal Workshop & NZGA Seminar 2008, November 11-13 (Taupo, New Zealand)

The NZ Geothermal Workshop will be held November 11-12 and the New Zealand Geothermal Association Seminar 2008 will be held on November 13. Both events will take place at the Great Lake Centre in Taupo, New Zealand.

The events mark the 30th anniversary of the Geothermal Workshop, which is New Zealand's longest running energy conference. This year's workshop will celebrate New Zealand's people and past achievements as well as the exciting future of geothermal energy use around the world. Particular focus will be on New Zealand's contributions to the research, education, and development of geothermal energy.

NZ Geothermal is calling for papers related to the history of achievement and the future potential of geothermal energy as well as paper on all aspects on Wairakei. The paper deadline is August 25 and must be submitted via email to geothermal08@auckland.ac.nz.

Workshop registration began June 1 and online registration will continue until November 4. Discounted rates will be available until early registration closes on October 12.

For more information or to register, please visit <http://www.nzgeothermal08.com/nzgeothermal/index.cfm>.

XVI Annual Congress of the Mexican Geothermal Association, November 14 (Morelia, Mexico)

The XVI Annual Congress of the Mexican Geothermal Association (AGM: Asociación Geotérmica Mexicana) will take place in the city of Morelia, Mexico, on November 14.

The AGM is calling for papers related to geothermics. Please send abstracts to Luis Gutiérrez-Negrín (luis.gutierrez@geotermia.org.mx) before July 25. Ten to twelve papers will be selected for oral presentation during the congress. Papers and presentations can be in Spanish or English.

The AGM is the Mexican association affiliated to the International Geothermal Association (IGA) It holds an annual technical congress and a general assembly, restricted to its membership, usually in a city of Mexico related to geothermics. The events are cosponsored by the geothermal division of the Comisión Federal de Electricidad, whose headquarters is in Morelia.

For more information, please visit the AGM Web site (<http://www.geotermia.org.mx>), and/or send a message to Luis Gutiérrez-Negrin.

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

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

Scientific Program

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

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

Sessions

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

- Session 1: Exploration: Geology, Geophysics, Geochemistry, and Hydrology
- Session 2: Drilling and well design: Shallow and deep, Production and Injection
- Session 3: Field development, Production Technology, Power generation & Operation.
- Session 4: Reservoir Engineering: Well Testing, Injection, and Modeling
- Session 5: Case Histories
- Session 6: Economics and Financing
- Session 7: Environmental, Social, Legal and Institutional Aspects
- Session 8: Direct Use: Agri- and aquaculture, Mineral extraction, Manufacturing, Air conditioning etc.

Contributions

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

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



GEA Update

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

For more information contact GEA at: 209 Pennsylvania Avenue SE, Washington, D.C. 20003. Phone: 202-454-5261; Fax: 202-454-5265; E-mail: research@geo-energy.org