



GEO THERMAL ENERGY ASSOCIATION

209 Pennsylvania Avenue SE, Washington, D.C. 20003
Phone: (202) 454-5261 Fax: (202) 454-5265
www.geo-energy.org

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National News

Congress to Convene January 6 – Economic Stimulus Top on Agenda

The U.S. Congress plans to reconvene on January 6 and is expected to take immediate action on a major economic stimulus bill. Congressional leaders have indicated they would like to have legislation ready for President-elect Obama to sign into law on the day he is inaugurated – January 20.

The Politico reports that Senator Harry Reid (D-NV) is putting together an \$850 billion bill focusing on “energy, infrastructure, health care, education, and protecting the most vulnerable.” A memo from his office indicates “the goal for completing action on this important legislation should be as close to January 20 as possible.”

President-elect Obama had reportedly had his transition staff working on a stimulus package worth between \$675 and \$775 billion. "This package must renew our infrastructure, stimulate our economy by extending unemployment insurance, invest in new energy technologies, and help cash-strapped states protect vital services like education and health care from damaging cuts," House Leader Steny Hoyer (D-MD) said in a prepared statement.

While passage in the democratically controlled House of a stimulus package in this time frame seems possible, questions remained about action in the Senate. The rules of the Senate require 60 votes to stop any filibuster, and despite major gains in the elections the Democrats do not control 60 seats.

Among the provisions rumored to be under active consideration in the stimulus bill are a 5-year extension of renewable tax credits, including the Production Tax Credit, creation of a Renewable Energy Bank to help finance new projects, transmission assistance, and immediate increases in funding for Department of Energy programs, particularly clean energy programs.

Berkeley Laboratory Director Named to be Secretary of Energy

President-elect Barack Obama has nominated Dr. Steven Chu, Director of Lawrence Berkeley Laboratory, to be Secretary of Energy. Dr. Chu has been an outspoken advocate of the need to address climate change, and a supporter of energy efficiency and renewable technologies. There are a number of his presentations about energy policy available on the internet; one made in 2006 at Princeton is available at: <http://www.princeton.edu/WebMedia/lectures/20060330chuVN350K.asx>.

From http://en.wikipedia.org/wiki/Steven_Ch:



Steven Chu (born February 28, 1948) is an American experimental physicist. He is known for his research in laser cooling and trapping of atoms, which won him the Nobel Prize in Physics in 1997. His current research is concerned primarily with the study of biological systems at the single molecule level. He is currently Professor of Physics and Molecular and Cellular Biology of University of California, Berkeley and the director of the Lawrence Berkeley National Laboratory. He has been named Secretary of Energy-designate by President-elect Barack Obama. As global warming warnings grow more dire, Chu has pushed scientists at Lawrence Berkeley National Laboratory and in industry to develop technologies to reduce greenhouse gas emissions. He has joined the Copenhagen Climate Council, an international collaboration between business and science, established to create momentum for the United Nations COP-15 climate negotiations in Copenhagen in December 2009. Chief in Chu's campaign is an unprecedented research pact reached between UC Berkeley, oil industry giant

BP, the Lawrence Berkeley Lab and the University of Illinois, which has drawn controversy. Nearly US\$400 million in new lab space will expand energy-related molecular work centered at Lawrence Berkeley that involves partners around the world. A US\$160 million Energy Biosciences Institute Helios Building is to be funded by BP and subsidized with \$70 million of California state funds. It will house up to 50 BP scientists in a private lab, and will include Chu's separate solar-energy program, but is reportedly on hold due to "geotechnical issues".

Chu, a Chinese American, was born in St. Louis, Missouri and graduated from Garden City High School. He received his bachelor's degree in 1970 from the University of Rochester, and his doctorate degree from University of California, Berkeley in 1976. He remained at Berkeley as a postdoctoral researcher for two years before joining Bell Labs where he and his several co-workers carried out his Nobel Prize-winning laser cooling work. He left Bell Labs and became a professor of physics at Stanford University in 1987. Chu served as the chair of the Physics Department at Stanford University from 1990 to 1993 and from 1999 to 2001. He was appointed as the director of Lawrence Berkeley National Laboratory in 2004, during which time he also accepted a position as a Professor of Physics at the University of California, Berkeley.

New Energy Leadership Nominated by President-elect Obama

President-elect Barack Obama introduced his energy and environmental team on December 15, while emphasizing how his choices would help steer the nation toward breaking dependence on foreign oil and boosting economic growth. Obama named Senator Ken Salazar of Colorado as his choice for Secretary of the Interior and Iowa Governor Tom Vilsack for Secretary of Agriculture. He also chose Steven Chu for Secretary of Energy, Lisa Jackson as Administrator of the Environmental Protection Agency, Carol Browner as Assistant to the President for Energy and Climate Change, and Nancy Sutley as Chair of the White House Council on Environmental Quality.

“Sen. Salazar is going to be a superb Interior secretary,” said Chairman Bingaman. “I’m delighted that President-elect Obama has chosen someone who has the record and the background and knows the substance as well as Ken. He understands how to manage Federal lands and resources and knows the importance of working with stakeholders while protecting the public interest. Ken also will provide a strong Western voice in the Cabinet, and he’ll do a terrific job working with the States and the Tribes. As a leader, he’ll bring change to the Department in some important problem areas. I’m sorry that Ken will be leaving the Energy Committee, but I look forward to continuing to work closely with him in his new role at Interior.”

Others were not as thrilled. “[U.S. Senator] Salazar has a disturbingly weak conservation record, particularly on energy development, global warming, endangered wildlife and protecting scientific integrity,” said Daniel R. Patterson, southwest regional director of the Public Employees for Environmental Responsibility. “He is a right-of-center Democrat who often favors industry and big agriculture in battles over global warming, fuel efficiency and endangered species,” said Kieran Suckling, executive director of Center for Biological Diversity.

The Western Governors Association said in a letter to the President-elect that they look forward to working with his picks. “At no time in history have these positions been more important to our nation, our economy and our people,” Utah Governor Jon Huntsman said in a statement. “Western Governors presented President-elect Obama with recommendations for transforming the country’s energy infrastructure and economy, while reducing greenhouse gas emissions. The change we are talking about is broad based and will require new policies, incentives, market mechanisms, private-public partnerships, and a consensus among political leaders and with the American people.”

See <http://www.nytimes.com/2008/12/18/us/politics/18salazarcnd.html?hp> and www.westgov.org.

BLM Publishes Geothermal Leasing Amendments, Changes Aimed to Increase Development

Press Release—December 18, [Federal Agencies Move to Ease Development of Geothermal Energy and Increase Power Generation, Potential for Ten-Fold Increase in Geothermal Power-Generation Capacity on Federal Lands](#)

WASHINGTON, D.C. -- The Department of the Interior’s Bureau of Land Management today published the Record of Decision and Approved Resource Management Plan Amendments for Geothermal Leasing in the Western United States to make more than 190 million acres of federal lands available for leasing and potential development of geothermal energy resources.

The approved development scenario, which was analyzed in the Final Programmatic Environmental Impact Statement, anticipates a potential 5,500 megawatts of new electric generation capacity from resources in the 12 western States (including Alaska) by 2015. It also estimates an additional 6,600 megawatts by 2025 for a total of 12,100 megawatts.

“Geothermal energy will play a key role in powering America’s energy future,” said Secretary of the Interior Dirk Kempthorne. “All but 10 percent of our geothermal resources are found on Federal lands and facilitating their leasing and development is crucial to supplying the secure, clean energy American homes and businesses need.”

Replenished by heat sources deep in the earth, geothermal energy is a renewable resource that generates electricity with minimal carbon emissions. Direct use of geothermal energy is used to heat buildings, plus many other uses such as in greenhouses and aquaculture, offers additional possibilities for reducing the need for conventional energy sources. The approved development scenario envisions as many as 270 western communities that could benefit from such direct uses.

The Record of Decision amends 114 Bureau of Land Management resource management plans and allocates about 111 million acres of Bureau-managed public lands as open for leasing. An additional 79 million acres of National Forest System lands are also legally open for leasing. Site-specific analysis of future leasing nominations, permit applications, and operations plans can refer back to the impact analysis and best management practices included in the Approved Resource Management Plan Amendments, thus reducing the processing time of future geothermal development. These actions will reduce the time to produce energy from federal geothermal resources.

Kemphorne noted the strong interest States, local communities, industry and environmental groups took in the Programmatic Environmental Impact Statement. “This process has benefited greatly from the involvement of both governmental and non-governmental stakeholders, and from the clear direction Congress gave in the 2005 Energy Policy Act,” the Secretary said.

“It’s really a model for working together to make decisions about our energy future.”

As with all energy leasing administered by the Bureau of Land Management, future geothermal leasing will be subject to all existing laws, regulations and orders, as well as stipulations and terms and conditions. To protect special resource values, the Record of Decision/Approved Resource Management Plan Amendments identifies a comprehensive list of stipulations, conditions of approval, and Best Management Plans required for approval of future leases.

Lands withdrawn from or administratively closed to geothermal leasing will remain so. For example, lands within a unit of the National Park System, such as Yellowstone National Park, will continue to be unavailable for leasing. The Record of Decision /Approved Resource Management Plan Amendments also excludes Wilderness areas and wilderness study areas from analysis. It will allow discretionary closure of Areas of Critical Environmental Concern where the Bureau of Land Management determines that this is appropriate.

The Forest Service will use information in the Programmatic Environmental Impact Statement to facilitate leasing analysis to determine whether or not geothermal leasing is appropriate and to evaluate its land use plans and amend them as needed through a separate environmental review process and facilitate future decisions on leasing National Forest System lands for geothermal development.

Public involvement in preparation of the Programmatic Environmental Impact Statement was extensive, as documented in the Statement and the Record of Decision. Results of the 60-day Governors’ Consistency Review of the Programmatic Environmental Impact Statement, as required by Bureau planning regulations, were favorable in that none of the governors objected to the proposed plan amendments.

Federal lands in the Western United States contain the largest supply of known resources of geothermal energy in the country. Growing interest in developing these resources is seen in the results of recent Bureau of Land Management geothermal lease sales in areas where current Resource Management Plans already allocate lands for such use. An August 2007 sale drew the highest-ever per-acre bid for a lease in California’s famed Geysers field. Additionally, a sale of leases in Nevada brought a record-breaking \$28.2 million in August 2008. Geothermal leasing revenues and royalties are shared with the states and counties where the leases are located, with 50 percent going to the State and 25 percent to the county.

The United States continues to be the world leader in generating electricity using geothermal energy, with about 16,010 gigawatt-hours of electricity generated in 2005. Almost half of this production and about 90 percent of U.S. geothermal resources occur on federal lands.

The Bureau of Land Management manages geothermal leasing on the Federal mineral estate, including the 258 million acres of public land whose surface it manages and another 442 million subsurface acres where other federal agencies, such as the Forest Service, manage the surface. A total of 29 geothermal power plants currently operate on Bureau of Land Management lands in California, Nevada and Utah, with a total generating capacity of 1250 megawatts – enough to supply the continuous electric power needs of 1.2 million homes.

The Final Programmatic Environmental Impact Statement is online at http://www.blm.gov/Geothermal_EIS.

For full Record of Decision, go to:

http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION/energy/geothermal_eis/final_programmatic.Par.90935.File.dat/ROD_Geothermal_12-17-08.pdf.

Senate Energy Committee Publishes Green Stimulus Proposals

The United States Senate Committee on Energy and Natural Resources has published a compilation of green jobs ideas for the next economic recovery bill on its Web site.

“I directed my staff to assemble these ideas and proposals, and to make them available in a single compilation, both to encourage discussion among policymakers and to create a document for various interest groups and individuals that have a stake in ‘green’ proposals to share and compare ideas similar to theirs,” Chairman Bingaman said in a statement. “The goal of this volume is to promote a vigorous and informed discussion of how both to help the U.S. economy recovery from the current recession and to build long-term strength and capacity into our national energy and natural resource systems. It is my hope that by promoting this discussion, a thoughtful, deliberate, and transparent dialogue can take place.”

The Green Stimulus Proposals can be found at

http://energy.senate.gov/public/index.cfm?FuseAction=IssueItems.View&IssueItem_ID=ce27babd-d579-40ce-91e9-7b41510d97d3.

Company News

Enel: Two New Geothermal Plants Announced for Nevada

Enel, based in Italy, announced two geothermal plants in Nevada in the first quarter of 2009, according to reuters.com. The two plants will have a total capacity of 65 MW and will produce about 400 million kilowatt hours of energy a year, enough to power 40,000 homes and reduce emissions by 300,000 tonnes.

See <http://www.reuters.com/article/environmentNews/idUSTRE4BE35K20081215>.

Newberry Geothermal: Newberry Project Paused Temporarily

Newberry Geothermal has temporarily stopped drilling while it evaluates data for next steps, according to energycurrent.com. Data from two wells drilled so far is being analyzed at Southern Methodist University in Dallas, the article said, adding that reports that the Newberry geothermal project was being shut down were false.

See <http://www.energycurrent.com/index.php?id=3&storyid=14808>.

Sierra Geothermal Power: Nevada Pumpnickel Project Option Cut

Press Release—December 16, [Sierra Geothermal Power Drops Pumpnickel Option](#)

Sierra Geothermal Power Corp. (SGP) (TSX VENTURE:SRA) announces that it has decided not to exercise its option to earn a 50 percent interest in the Pumpnickel Project in Nevada. Under the terms of its option agreement with Nevada Geothermal Power dated October 12, 2004, SGP could have exercised the option on or before December 15, 2008, by providing \$4 million for work commitments, paying a \$70,000 option payment and issuing 200,000 of its common shares to Nevada Geothermal Power.

Gary Thompson, CEO of SGP, said that "When we considered this project in light of the current state of our economy and our stock markets, to say nothing of how it relates to our total portfolio, we determined that it was not in our best interest to exercise the option. Although the Pumpnickel Project remains an attractive geothermal target, our potential 50 percent interest comprised a very small portion of our total portfolio and power output estimates. We have determined that it is more prudent to conserve capital and focus on our wholly owned projects. We have approximately \$4 million on hand and no debt as of December 15, 2008. We own a 100% interest in the remainder of our portfolio of projects subject to a US\$151,000 payment due April 2009."

Renewable and Climate Change News

UN Wraps Up This Year's Climate Change Negotiations

From EESI Climate Change News, [UN Climate Negotiations Near End in Poznan](#)

On December 12, delegates entered the final day of negotiations at the United Nations Framework Convention on Climate Change in Poznan, Poland, with the hope of creating a blueprint for talks next December in Copenhagen, Denmark. The UN hopes to have a new global treaty to reduce greenhouse gas emissions by the end of 2009 to replace the Kyoto Protocol, which expires in 2012. One development that has come out of the talks was a decision to give the UN's Adaptation Fund governing board the authority to directly disburse money to developing countries to finance projects ranging from sea walls and improved water systems to training in new agricultural techniques. "This is an important step," said delegate Mozaharul Alam of Bangladesh.

Among the many issues discussed at the climate negotiations is the issue of the amount of emissions reductions that developed and developing countries should commit to and by when. Speaking on behalf of 130 developing countries plus China, John Ashe, Antigua's ambassador to the UN, said the attitude of the rich countries "borders on the immoral and is counterproductive." To spur global collective action, Mexico's environment secretary, Juan Rafael Elvira, announced his country's plan to cut its greenhouse gas emission levels 50 percent below 2002 levels by 2050. The move makes Mexico the only developing country to set a voluntary national target below current levels, said Antonio Hill, senior policy adviser for Oxfam.

Around 11,000 participants from more than 190 countries gathered in Poznan from December 1-12, including US Senators John Kerry (D-MA) and Amy Klobuchar (D-MN), along with several Congressional staff. On the sidelines of the talks in Poznan, Kerry predicted that the US Senate will let President-elect Barack Obama sign a UN pact to fight global warming in late 2009 even if US climate legislation is not yet in place. US legislation might have passed "a couple of committees" but might not have reached the full Senate "because of the economic situation and the budget issues and other things," Kerry said. But Kerry, Chair of the Senate Foreign Relations Committee, said that China, India and Russia would also have to promise to cut greenhouse gas emissions for the Senate to support any new global agreement.

For additional information see <http://www.reuters.com/article/vcCandidateFeed2/idUSLB562320> and <http://www.nytimes.com/2008/12/12/world/europe/12poznan.html?ref=todaypaper>.

Study Ranks Clean Energy Options, Geothermal Ranked Third Cleanest source

Mark Jacobson, a professor of civil and environmental engineering at Stanford, published a study in the Journal of Energy and Environmental Science ranking technologies by how clean they are. Jacobson's research was considered in developing both RePower America and the Pickens Plan. He has also presented his findings to members of Congress.

The best to worst electric power sources, he found, are 1. Wind power, 2. concentrated solar power (CSP), 3. geothermal power, 4. tidal power, 5. solar photovoltaics (PV), 6. wave power, 7. hydroelectric power, and 8. a tie between nuclear power and coal with carbon capture and sequestration (CCS).

“The energy alternatives that are good are not the ones that people have been talking about the most. And some options that have been proposed are just downright awful,” Jacobson told press.

He also presented best to worst vehicle options: 1. Wind (wind-electric)-BEVs (battery electric vehicles), 2. wind-HFCVs (hydrogen fuel cell vehicles), 3. CSP-BEVs, 4. geothermal-BEVs, 5. tidal-BEVs, 6. solar PV-BEVs, 7. Wave-BEVs, 8. hydroelectric-BEVs, 9. a tie between nuclear-BEVs and coal-CCS-BEVs, 10. corn-E85, and 11. cellulosic-E85.

See <http://energywashington.com/> and <http://news-service.stanford.edu/news/2009/january7/power-010709.html>.

European Geothermal Energy Council Adopts Energy and Climate Package

Press Release—December 17, Final Agreement on Renewable Energy Directive Creates a Positive Climate for a Much-Needed Investor Confidence in the Renewable Energy Sector

The European Geothermal Energy Council, representing the European geothermal industry, welcomes the final adoption of the energy and climate package by the European Parliament during its Plenary Session today in Strasbourg.

The Directive on the promotion of the use of renewable energy sources sets the framework to achieve the target of a 20% share of renewable energy sources in the final energy consumption by 2020. The attainment of this target will require the use of the diverse renewable non-fossil energy sources, among which geothermal energy. EGEC welcomes particularly the adoption of a definition for geothermal energy: “geothermal energy” means energy stored in form of heat beneath the surface of solid earth.

Geothermal energy is a sustainable, renewable, nearly infinite energy source, delivering heat and power 24 hours a day throughout the year and available all over Europe.

The directive addresses existing barriers that prevent Europe from fully exploiting its abundant domestic renewable energy sources. Therefore European regulations should be established without delay to harmonize and promote procedures for geothermal energy development, and to permit a better access to the electricity grid.

The Directive also stresses the importance of developing renewable district heating and cooling systems. Geothermal district heating & cooling, with 50 €/MWh, is one of the most competitive energy technologies, so Member States must develop district heating infrastructures to accommodate the development of heat and cold production from geothermal facilities.

EGEC regrets that an agreement on the “building obligations” could not be found, but emphasizes that Member States will have to introduce measures to increase the use of renewables in this sector. The current recast of the “Buildings Directive,” which is under discussion in the ITRE Committee, must complement the RES Directive in providing all measures to have more renewables in our new and refurbished buildings.

On Shallow geothermal systems (GSHP), the compromise is that the heat pump system must stand up to a primary energy substitution check, in order to secure efficient systems (if there is no substitution, the system will not be counted at all), and then the renewable geothermal energy is counted as the energy delivered from the geothermal source to the heat pump. Details are given in Annex VIIb of the directive, and the Commission will have to provide guidelines for calculation – another item EGEC will have to work on in future, in order to ensure these guidelines will be correct and fair to geothermal heat pumps.

Finally, the Directive provides now specific criteria for the certification of shallow geothermal installers. In consequence, the Annex IV and the Member States in their implementation must cover the different categories of professionals intervening in the design and installation of shallow geothermal heating/cooling systems, to ensure that they have the necessary knowledge to provide for the optimal use of this renewable energy source.

Master's Degree Programs in Renewable Energy Available in U.S. and Europe

Four universities in Ohio will collaborate to offer a Master's degree program in renewable energy, according to renewableenergyworld.com. The University of Dayton, Wright State University, Central State University, and the Air Force Institute of Technology will start the two-year program, designed to develop more engineers and address economical energy needs. Classes will focus on development of energy-reducing design techniques, renewable energy and manufacturing systems and better forms of solar energy, fuel cells and biofuels.

"Ohio is in the midst of major job losses and is trying to reinvent itself as a tech-based economy. One of those ways is in the area of 'green' jobs," said Kevin Hallinan, director of the University of Dayton's master's program in clean and renewable energy.

In Iceland, the School for Renewable Energy Science, in partnership with the University of Iceland, the University of Akureyri, and technical universities around the globe, offers a one-year Master's degree program in renewable energy science and technology. In the 2008 program, students focused on geothermal, fuel cell systems and hydrogen, or biofuels and bioenergy. In 2009, hydropower and energy systems / policies will be added.

The European Renewable Energy Research Centres (EUREC) Agency offers a European Master in Renewable Energy degree. Master's degrees in renewable energy are also offered in European universities: University of Dundee in Scotland, The University of Nottingham in England, The University of Ulster in Northern Ireland, and The University of Jyväskylä in Finland.

See <http://www.renewableenergyworld.com/rea/news/story?id=54212>.

State News

California: Air Resources Board Approves Plan for Greenhouse Gas Emissions

By John McCaull, Western States Representative for GEA, [California Air Resources Board Approves Sweeping Climate Change Plan: What's Next?](#)

SACRAMENTO. On December 11—in the face of both widespread support and multi-faceted opposition—the California Air Resources Board unanimously approved a long-awaited plan to reduce the state's greenhouse gas emissions to 1990 levels by 2020.

"This plan is California's prospectus for a more secure and sustainable economy," said ARB Chairman Mary Nichols. "It will guide capital investments into energy efficiency to save us money, into renewable energy to break our dependence on oil, and promote a new generation of green jobs for hundreds of thousands of Californians."

By moving first in the nation," added Nichols, "California maintains its position at the front of the line in attracting venture capital, and positions us as a leader in the race to develop the clean technology products, patents and projects the global market demands and needs."

Development of the [Climate Change Scoping Plan](#) is a central requirement of [AB 32, the Global Warming Solutions Act of 2006 \(Nuñez, Pavley\)](#), that requires California to reduce its greenhouse gas emissions to

1990 levels by 2020. Governor Schwarzenegger signed the bill into law in September 2006. In order to meet the GHG reduction targets, AB 32 required the Air Board “to identify and make recommendations on direct emission reduction measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives for sources and categories of sources that the Board finds necessary or desirable to facilitate the achievement of the maximum feasible and cost-effective reductions of GHG emissions by 2020.”

The mix of strategies contained in the Scoping Plan relies on existing technologies and major improvements in the efficiency of energy use. As the Scoping Plan states, “a number of solutions are “off the shelf,” and many – especially investments in energy conservation and efficiency – have proven economic benefits.” Additional recommendations of the Scoping Plan include implementation of California’s clean cars standards; increases in the amount of clean and renewable energy used to power the state; and implementation of a low-carbon fuel standard.

Another important component of the plan is a “cap-and-trade” program covering 85 percent of the state’s emissions. This program will be developed in conjunction with the [Western Climate Initiative](#), comprised of seven states and four Canadian provinces that have committed to cap their emissions and create a regional carbon market.

The plan proposes full deployment of the California Solar Initiative, high-speed rail from Los Angeles to the Bay Area, water-related energy efficiency measures and a range of regulations to reduce emissions from trucks and from ships docked in California ports. There are also measures designed to safely reduce or recover a range of very potent greenhouse gases - refrigerants and other industrial gases - that contribute to global warming at a level many times greater than carbon dioxide contributes.

The “what next?” question is what will drive the ARB and state regulatory process to implement the Scoping Plan for years to come. The ARB will begin developing detailed strategies to implement all of the recommended measures that must be in place by 2012. Of immediate concern is how to pay for both the administrative implementation of the law, and the programs it recommends adopting. The Plan recommends targeted fees to fund the state’s long-term commitment to AB 32 administration.

The details of “what’s next” are contained in the [ARB Board Resolution](#) accompanying adoption of the Plan. Some of the “next step” highlights of the Resolution include:

- Direction to the ARB Executive Officer to design greenhouse gas regulations that affect stationary sources so that they utilize local air district permitting programs and compliance determination mechanisms.
- Clear direction that rulemaking for a future cap and- trade program, including reporting and verification of offsets, should be administered at the state level.
- A requirements that all implementation programs, including the cap-and-trade system, must complement California’s criteria and toxic air contaminant programs and be consistent with ARB’s environmental justice policies
- Pursuant to 2008 legislation ([SB 375, \(Stats. 2008, Chapter 728\)](#)) the Board will develop a method to evaluate the full potential for reducing greenhouse gas emissions in each major region of the state, and statewide, using improved land use patterns, indirect source rules, enhanced bike, walk, and transit infrastructure, and pricing policies where applicable (including congestion, toll, and parking pricing).
- A host of directives on additional economic analysis of the Plan, including direction to the Executive Officer to coordinate the economic analysis of California’s AB 32 program with the analysis conducted for the Western Climate Initiative.
- Direction to the Executive Officer to work with the California Energy Commission (CEC), the California Public Utilities Commission (CPUC) and other agencies, as appropriate, to ensure that California’s energy demands are met, and that the Scoping Plan and AB 32 are implemented in a manner to avoid disproportionate geographic impacts on energy rates.

California: Sunrise Powerlink Transmission Project Approved by PUC

The California Public Utilities Commission approved Sempra Energy's proposed \$2 billion Sunrise Powerlink transmission project, according to reuters.com. Commission President Michael Peevey's proposal received a 4-1 "yes" vote from the board, and is scheduled to open in 2012.

The approved plan did not include a requirement that at least a third of the power transmitted be renewable power, but Sempra's investor-owned utility, San Diego Gas & Electric Co, indicated by oral promise that would be the case. California's requirements are expected to be set soon to ensure that a third of the power delivered to customers come from renewable energy sources.

See <http://uk.reuters.com/article/governmentFilingsNews/idUKN1839866720081218>.

California: Perez Introduces Green Worker Readiness Initiative

New Assemblyman Manuel Perez, D-Coachella, has introduced AB 3, legislation that would establish the "California Renewable Energy Worker Readiness Initiative," according to mydesert.com. If passed, it would ensure nonprofits, local governments, businesses, and other agencies collaborate to educate and train the green workforce, the article said.

See <http://www.mydesert.com/article/20081204/NEWS01/812040332/1006/news01>.

California: Salton Sea Privatization Could Include Geothermal Production

State and federal governments don't have the money to commit to Salton Sea restoration, according to mydesert.com. Geothermal energy production is an area where investors could reap profits if local officials turn to privatization as a way to fund cleanup. Debate on what to do has been going on for years, and this spring state Secretary of Resources Mike Chrisman chose a 75-year, \$8.9 billion mitigation plan to restore the sea. State legislature has since failed to adopt the plan due to insufficient budget, so privatization could be the answer.

"I feel a great deal of the answers for the future of the Salton Sea are on the private side," Imperial County Supervisor and Authority member Gary Wyatt told press.

See <http://www.mydesert.com/article/20081212/NEWS0701/812120330/-1/newsfront>.

Hawaii: Geothermal Drillers Discover Magma Chamber

A Puna Geothermal Venture exploratory drilling pursuit inadvertently drilled right into a magma chamber in the east of Hawaii's Big Island, according to the BBC. The well is completely safe, representatives from US Geothermal who oversaw the drilling told press. The well is a unique opportunity to observe magma in its natural habitat at such a shallow depth of 2.5 km.

"It's the difference between looking at dinosaur bones in a museum and seeing a real, living dinosaur roaming out in the field," magma specialist Bruce Marsh told press.

Geothermal experts told press that studies of the chamber may result in information that can be applied to electrical generation projects throughout the world.

See <http://news.bbc.co.uk/2/hi/science/nature/7780873.stm>.

International News

Chile: Expert Says Government Should Play Large Role in Geothermal Industry

A conference hosted by the UN's Economic Commission for Latin America and the Caribbean (Eclac) brought together officials from Chile's mining ministry and national energy commission and geothermal developers, according to bnamericas.com. Geothermal exploration has been going on for more than 50 years, but the country does not yet have a geothermal power plant, the article said. Problems include obtaining a concession and acquiring rigs.

Geothermal expert Dr. Chris Bromley said at the conference that Chile should consider the model of New Zealand, where the government has played a very active role in development.

See <http://www.bnamericas.com/story.jsp?sector=6¬icia=460041&idioma=I>.

India: Government Looks to Puga Valley for Geothermal

The Government of Jammu and Kashmir plans to develop geothermal energy at a site in Puga valley, according to pib.nic.in, following recommendations by an Expert Group on Power Generation from Geothermal Energy that was set up in 2007. The group submitted a report in May 2008 that recommended the site for phase two development.

See <http://pib.nic.in/release/release.asp?relid=45577>.

Kenya: Geothermal Spots Identified Near Nairobi

New technology is aiding engineers in locating hot spots for geothermal development in East Africa's Great Rift Valley, according to brietbart.com. Several wells have been identified near the Kenyan capital of Nairobi, the article said. The wells have been estimated to generate 4–5 MW of electricity, with one at 8 MW.

See http://www.breitbart.com/article.php?id=081209183940.r2h39bz8&show_article=1.

Netherlands: Town Accesses Old Coal Mines for Geothermal Energy

The town of Heerlen in the Netherlands has drilled five wells to access geothermal energy from abandoned underground coal mine shafts, according to inhabitat.com. The project creates a large-scale district heating system called the Minewater Project. It provides 350 homes and businesses with hot water and heating in the winter and cool water in the summer. According to the article, Each well is 700 m deep and can pump out nearly 80 m³ of water per hour.

See <http://www.inhabitat.com/2008/12/10/heerlen-minewater-project/>.

Montserrat: Nevis to Aid in Geothermal Development

Nevis Premier Joseph Parry pledged at the 48th OECS Authority Meeting in Montserrat to work with Montserrat in developing geothermal energy, according to caribbeannetnews.com. The Citizens for the Redevelopment of Montserrat (CRM) hope to begin work by the middle of January 2009, the article said.

Ray Tyson of CRM told press, “We have been working very closely with Department for International Development (DFID), which is now financing the exploration. We were invited to join, so we have been working very hard and very quickly. We have now come to a decision time in which we have three major

world leaders in geological surveys. As we said before, the survey is one of the most important thing before we start to do the drilling.”

See <http://www.caribbeannetnews.com/news-12955--22-22--.html>.

Philippines: EDC to Bid for Three Geothermal Plants

The Energy Development Corp. (EDC) has named its number one priority to be a bid for three National Power Corp. power plants, according to visayandailystar.com. The firm plans to bid for Palinpinon in Negros Oriental and the NPC power plants in Tongonan, Leyte and Bacon-Manito in Bicol. The plants have a total rated capacity of 455 MW. Bidding for the Palinpinon geothermal power plants 1 and 2 is expected in July.

See <http://www.visayandailystar.com/2008/December/15/topstory2.htm>.

Switzerland: Small Geothermal Facilities Increasing in Popularity

Geothermal projects in Switzerland are becoming more popular, according to swissinfo.org. A project in Geneva, set to begin in January 2009, is expected to provide heat and energy for over ten thousand new homes by 2020. The city of St. Gallen is also planning a heating project, and the Zurich city parliament is making decisions about a geothermal project. Switzerland has about 50,000 small geothermal facilities, the highest density of geothermal installations in the world, although there are not yet any geothermal power plants.

See <http://www.swissinfo.org/eng/front.html?siteSect=109&ty=st&sid=10100237&front=br>.

Notices and Employment Opportunities

Funding Opportunity, California Energy Commission (January 30, 2009)

The California Energy Commission’s Public Interest Energy Research Renewable (PIER) program announced a competitive grant solicitation for funds to further accelerate the state’s renewable energy portfolio. The goal of this grant program is integration within a single community of multiple renewable energy technologies, including wind, solar, biomass, biogas, geothermal, energy storage, combined heat and power, energy efficiency, etc. Projects in Exploratory, Pilot, or Implementation stage are all eligible for funding. A pre-proposal workshop will be held at the California Energy Commission on December 22nd at 10 am. Prime Applicants should be based in California and must be empowered to act on behalf of a specific community in the matters of RESCO planning and implementation.

To see the full solicitation, visit http://www.energy.ca.gov/contracts/PON-08-004/PON-08-004_Application_Manual.pdf. The deadline to submit proposals is January 30, 2009, 4:00 pm PST.

Participants Sought for ESP Design Meeting (February 11, 2009)

Participants sought for an all-day design meeting for the ideal ESP, to be held in Palo Alto on Wednesday, February 11.

A limited number of participants are being sought for a one-day design meeting. The goal of the meeting is to develop the criteria for the ideal ESP (e.g., temperature, horsepower, diameter, efficiency, etc). Individuals knowledgeable in down hole submersible pumps and high temperature motors are explicitly sought. Representatives from pump companies are welcome.

Elevated temperatures in confined subsurface environments pose a unique set of challenges not encountered in other areas of energy retrieval. Recognizing this, a geothermal prize is being developed to spur innovation and accelerate the manufacturing of robust geothermal pumps. The goal is a set of design criteria for an ESP pump that is technically feasible within the next five to seven years.

The initial stages of this prize project are being funded by the Lemelson Foundation. To learn more about this project please contact Lawrence Molloy at Lawrence.Molloy@gmail.com.

Employment: 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. No calls please.

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 is under one 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

Great Basin Transmission Opens Bids for Transmission Rights in Idaho, Nevada

Press Release—November 6, [Great Basin Transmission Announces Open Season for the Southwest Intertie Project](#)

Great Basin Transmission, LLC announced on November 6 an Open Season to receive proposals for the purchase of long-term point-to-point transmission rights on the Southwest Intertie Project (SWIP). Successful bidders in the Open Season will secure firm transmission rights to support financing of new generation resources and to allow existing generation resources to transport their output to attractive liquid markets in the West.

The SWIP is a proposed above-ground 500 kV AC transmission line stretching over 500 miles between southern Idaho and southern Nevada. As much as 1,850 MW of north-to-south transmission capacity and 1,850 MW of south-to-north transmission capacity will be available for purchase during the Open Season.

The SWIP will provide a new energy pathway connecting the existing high voltage transmission infrastructure near Twin Falls, Idaho and the existing systems in northern Nevada and the Las Vegas area. It will provide direct interconnection and/or viable access to multiple transmission providers in the West which may include Arizona Public Service, Idaho Power, Los Angeles Dept. of Water and Power, Nevada Power (NV Energy), PacifiCorp, Salt River Project, Sierra Pacific Power (NV Energy), Southern California Edison, and Western Area Power Administration.

The SWIP is being developed in phases and is well advanced such that the first phase connecting southern Nevada with northern Nevada is expected to begin construction in 2009 and achieve commercial operation as early as 2010.

GBT is developing the SWIP in response to the growing needs of the Desert Southwest and the Northwest. The SWIP will also provide an important pathway for renewable energy resources to reach major load centers.

GBT will conduct the Open Season in a transparent and nondiscriminatory manner. Entities wishing to secure long-term point-to-point transmission rights on the SWIP may submit proposals for consideration. To ensure a fair and open process, generation affiliates of GBT will not submit proposals in the Open Season.

For more details regarding the SWIP and the Open Season please visit the dedicated website at: <http://www.SWIPOS.com>. Any party interested in participating in the Open Season is encouraged to

register at the website to ensure they receive all communications related to the Open Season. Questions may be submitted via email at SWIP@SWIPOS.com.

DOE Announces Open Geothermal Technologies Funding Opportunity

From DOE's Web site: GTP has issued a Funding Opportunity Announcement (FOA) for up to \$5 million over five years. This work will create and maintain a web-based National Geothermal Database that will help to overcome barriers to the development of conventional and Enhanced Geothermal Systems.

Initial estimated total funding for this award is listed at \$1,300,000 in FY2009; with additional anticipated funds of \$3,700,000 in years FY2010 through FY2013, subject to the availability of Congressional appropriations. DOE anticipates making one award under this announcement.

Geothermal energy has the potential to emerge as a capable alternative to conventional energy resources due to its renewable baseload capabilities, little to no carbon emissions, and affordability relative to other alternative energy technologies. In early 2008, GTP initiated the Geothermal Risk Mitigation Strategies Report ([PDF 778 KB](#)) to analyze the risks involved with geothermal energy development.

The report proposed strategies to overcome barriers to development and to enable additional investment in conventional and enhanced geothermal systems. As a result of this study, GTP is initiating an effort to create the National Geothermal Database to serve as a central repository for all publically accessible geothermal data.

Creating, maintaining, and operation this database is the subject of this FOA, titled National Geothermal Database and you can find further on and requirements for responding to this Geothermal FOA DE-PS36-08GO98020 as part of the DOE [Industry Interactive Procurement System](#).

You can also access and download the complete Announcement DE-PS36-08GO98020 ([PDF 102 KB](#)).

Employment: 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, 214-768-2745

Employment: 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/
NREL is an equal opportunity employer committed to diversity and a drug-free workplace.

Employment: 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.

Employment: 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, submit to NCPA HR, 651 Commerce Dr., Roseville, CA 95678. Open until filled.

Requests for Proposals (RFPs)

RFP for Student Design Competition for Sustainability, U.S. EPA (December 23)

The U.S. Environmental Protection Agency requests proposals for the 6th Annual P3 Awards: A National Student Design Competition for Sustainability Focusing on People, Prosperity and the Planet. This program supports science-based designs developed by interdisciplinary student teams that benefit people by improving their quality of life, promote prosperity by developing local economies, and protect the planet by conserving resources and minimizing pollution. P3 seeks to respond to the technical needs of the world while moving towards the goal of sustainability. Areas of interest include: Agriculture, Materials and Chemicals, Energy, Information Technology, Water, and the Built Environment. \$950K expected to be available, up to 50 awards anticipated.

Responses due 12/23/08. For more info, contact Cynthia Nolt-Helms at nolt-helms.cynthia@epa.gov or go to: http://es.epa.gov/ncer/rfa/2009/2009_p3.html. Refer to Sol# EPA-G2009-P3-Q(1-6). (Grants.gov 9/23/08)

Request for Applications for Office of Science Financial Assistance Program, U.S. DOE (December 31)

The U.S. Department of Energy, announces its continuing interest in receiving applications for the Office of Science Financial Assistance Program. Areas of interest include, but are not limited to, Basic Energy Sciences and Biological and Environmental Research. Subtopics include Climate Change Research. \$400 million expected to be available, multiple awards anticipated. Responses due 12/31/08. For more info, contact Lori Jernigan at Lori.Jernigan@science.doe.gov or go to: <https://e-center.doe.gov/iips/faopor.nsf/UNID/1822D414FB0C1064852574D50071644C?OpenDocument>. Refer to Sol# DE-PS02-09ER09-01. (Grants.gov 10/1/08)

RFP for Climate Studies, NOAA (January 5)

The National Oceanic and Atmospheric Administration requests proposals for a Cooperative Institute that will focus on: 1) Climate and satellite research and applications, 2) Climate and satellite observations and monitoring, and 3) Climate research and modeling. \$13 million expected to be available, 1 award anticipated. Responses due 1/5/09. For more info, contact Ingrid Guch at ingrid.guch@noaa.gov or go to: <http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=43003>. Refer to Sol# NESDIS-NESDISPO-2009-2001411. (Grants.gov 10/7/08)

RFP for Geothermal Resource Evaluation, City of Glenwood Springs, CO (January 30)

The City of Glenwood Springs is evaluating options to derive beneficial uses of the geothermal resources located under and near the City for the benefit of its citizens. This first phase of work is focused on examining the technical aspects of the options and determining the estimated relative costs of those options. The City understands there are legal considerations with developing these options and would like the selected party to identify the legal issues associated with the options but not address them at this time. If the recommended options to be pursued are predicated on any assumptions concerning ownership or water use, they must be enumerated in the final report. Funding for this first phase of analysis has been budgeted to a maximum of \$75,000 by the City Council. Additional funding may be available from other sources such as grants. Proposers may wish to assist the City in obtaining outside funds (e.g. grants, rebates, incentives, subsidies, etc.) that may increase the budget and scope for this phase of study.

Questions which arise during the response preparation period regarding issues around this Solicitation, purchasing and/or award should be directed, in writing, via fax, email or U.S. mail, to Ricky Smith, Purchasing Agent, Purchasing Department, City of Glenwood Springs, 101 West 8th Street, Glenwood Springs, Colorado 81601, rdsmith@ci.glenwood-springs.co.us, fax number 970-945-4388. Questions regarding the Scope of Work should be directed to: Mr. Robin Millyard, Public Works Director, City of Glenwood Springs, 101 West 8th Street, Glenwood Springs, CO 81601, Phone-970-384-6409, Fax-970-945-8582

RFP for Development of Poncha Hot Springs, City of Salida, CO (January 30)

RFP# 2008-001, Proposal for: The City of Salida (“the City”) owns approximately 145 acres south of Poncha Springs, CO commonly known as “Poncha Hot Springs” (the Property). The City is seeking proposals for the development of the Property, including the geothermal hot springs present at this site for the benefit of the communities of Salida and Poncha Springs, both within Chaffee County under a lease arrangement. RFP# Closing Date & Time: January 30, 2009 at 4:00 PM.

Instruction to Proposers: Proposals are solicited from experienced developers whose ability to finance the project is a requirement. Please submit a resume of qualifications and relevant experience with proposals. Proposers will be judged by the quality and completeness of the package of offerings. All associated aspects which are standard considerations in analysis of a successful land development shall be addressed, including but not limited to design and development of structures, infrastructure, market study, pro forma financials, etc. In addition, the City wishes the development to match its priorities with regard to sustainable building, increasing outdoor recreational opportunities, attracting visitors to the area, and complimenting the existing Salida Hot Springs Aquatic Center.

Purpose: To develop the Poncha Hot Springs property utilizing the inherent assets of the property to their fullest capacities. Some of the issues which should be addressed include, but are not limited to:

- Use of the geothermal springs sourced on the Property
- Ingress / Egress of the Property
- Project infrastructure including utilities, wastewater treatment, roads, parking, communications, pedestrian pathways, signage

- Geotechnical / Environmental Reports
- Site Considerations and Proposed Highest and Best Use Concept
- Project Feasibility via Market Study

Contact Information: For information about this RFP, please contact Mike Copp, Interim City Administrator at administrator@cityofsalida.com.

Delivery Information: to Mike Copp, City Hall, 124 E Street, P.O. Box 417, Salida, CO 81201 by 4:00 PM, January 30, 2009.

RFP for National Geothermal Database, U.S. DOE (February 3)

The U.S. Department of Energy requests proposals for the National Geothermal Database Grant. Through this RFP, DOE seeks the creation of a web-based National Geothermal Database that will serve as a central repository for all publicly accessible geothermal data. \$5 million expected to be available, 1 award anticipated. Responses due 2/3/09. For more info, contact Pete Simon at GO.Geothermal@go.doe.gov or go to: <https://e-center.doe.gov/iips/faopor.nsf/UNID/7CAC4E5E3DA165D9852574D30071183E?OpenDocument>.

Refer to Sol# DE-PS36-08GO98020. (Grants.gov 9/29/08)

RFP for Small Business Technology Transfer, National Science Foundation (February 25)

The National Science Foundation requests proposals for the Small Business Technology Transfer Program (STTR). STTR seeks to stimulate technological innovation in the private sector by strengthening the role of small business concerns in meeting Federal R&D needs, increasing the commercial application of federally supported research results, and fostering and encouraging participation by socially and economically disadvantaged and women-owned small businesses. Areas of interest include: Materials for Sustainability, Bio-inspired Materials and Systems, Smart Materials and Structures, and Nanostructured Materials. \$5 million expected to be available, up to 35 awards anticipated. Letters of Intent are required and are due 1/14/09, final proposals due 2/25/09.

For more info, contact Cheryl Albus at calbus@nsf.gov or go to:

http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf08608. Refer to Sol# 08-608. (Grants.gov 9/22/08)

RFP for Energy Efficiency, Renewable Energy, and Transmission Technologies, DOE (February 26)

This solicitation announcement (DE-PS01-08LG00001) 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 U.S. Department of Energy in support of debt financing for projects in the U.S. that employ energy efficiency, renewable energy, and advanced transmission and distribution technologies that constitute New or Significantly Improved Technologies. Copies of related regulations may be found at <http://www.lgprogram.energy.gov/>.

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.

The applicant is requested to specify which, if any, of the following project types and technology categories most accurately represents its project: (1) Alternative Fuel Vehicles, (2) Biomass, (3) Efficient Electricity Transmission, Distribution and Storage, (4) Energy Efficient Building Technologies and Applications, (5)

Geothermal, (6) Hydrogen and Fuel Cell Technologies, (7) Energy Efficiency Projects, (8) Solar, and (9) Wind and Hydropower.

With questions, email the LGPO at lgprogram@hq.doe.gov. Please include in the subject line "RETDEE Solicitation Question." Completed applications due February 26, 2009 Full announcement can be found at <http://www.lgprogram.energy.gov/keydocs.html>.

Upcoming Events

Utah Geothermal Lease Sale, BLM, December 19

The Utah State Office has scheduled a proposed competitive geothermal lease sale on December 19, 2008.

Relevant announcements and forms can be found at <http://www.blm.gov/ut/st/en/prog/energy/geothermal0.html>.

If you have questions regarding this notice, please call Judy Nordstrom at 801-539-4108; facsimile at 801-539-4200; write to attention at the address on this letterhead; or send electronic mail to judy_nordstrom@blm.gov.

Featured Event: 2009 Green Inaugural Ball, January 19 (Washington, DC)

Smithsonian American Art Museum and National Portrait Gallery and the 2009 Green Inaugural Ball Host Committee Present 2009 Green Inaugural Ball, honoring President-elect Barack Obama and Michelle Obama and Vice-President-elect Joseph Biden and Jill Biden, with Honorary Chair Former Vice President Al Gore.

Hosted by the American Wind Energy Association (AWEA) and the Solar Energy Industries Association this ball will ring in a new administration for 2009. The Geothermal Energy Association is one of the Host Committees for this event, which will be held on January 19, 2009, at the Donald W. Reynolds Center for American Art and Portraiture in Washington, DC. Tickets will be available for purchase in late December 2008. Please visit www.GreenBall2009.org for more information, or email GreenBallInfo@WebsterConsulting.com. If you are interested in sponsorship, please contact Bree Raum at 202-383-2513 or email braum@awea.org and mention that you received this information from GEA.

Ground Engineering Geothermal Energy, February 5 (London, England)

Ground Engineering Geothermal Energy: Unlocking opportunities, collaborating across disciplines and understanding what works

Thursday 5th February 2009, Earls Court Conference Centre, London SW5

Explore latest approaches to harnessing ground source energy and learn from the experiences others have had in this growing sector. Capitalize on the opportunity to position your firm ahead of the competition and attract new clients to the services you offer.

Key speakers include:

- Duncan Nicholson, Director, Arup
- Aleksandra Sasha Krstanovic, Regional Director, Faber Maunsell
- Brian Mark, Director of Sustainability, Fulcrum Consulting
- Peter Smith, Geothermal Manager, Cementation Skanska
- Dr Robin Curtis, Technical Director, Earth Energy Ltd

Register today to:

- Build relationships in this sector
- Get technical information on the building services and geotechnical challenges of ground source energy
- Hear from leading players within the geothermal field

For more information visit www.gegethormal.co.uk, call 0845 056 8069 or email constructconferences@emap.com. Quote “GEA” when you register

34th Stanford Geothermal Workshop, February 9–11, 2009 (Stanford, CA)

This workshop will bring together Engineers, Scientists and Managers involved in geothermal reservoir studies and developments; provide a forum for the exchange of ideas on the exploration, development and use of geothermal resources; and enable prompt and open reporting of progress.

Papers will be presented on recent research relating to geothermal reservoirs including:

- * Case Studies: reservoir response to production, effects of injection, scaling characteristics
- * Enhanced Geothermal Systems (EGS): current and future activities
- * Engineering Techniques: reservoir simulation, empirical methods, well tests, tracers
- * Field Management: strategies for exploitation, injection, scale inhibition
- * Exploration: geophysics, geochemistry, geology, heat flow studies, outflows
- * Drilling and Well Bore Flows: well stimulation, bore flow modeling, hydro-fracturing, scaling
- * Low Enthalpy Systems: applications of heat pumps, hot dry rock technology
- * Geosciences: application of geophysics, geochemistry, thermodynamics and fluid mechanics.

For more information such as abstract submission, last year’s workshop format, and more visit <http://pangea.stanford.edu/ERE/research/geoth/conference/workshop.html>.

GeoFund–IGA Geothermal Workshop, February 16–19, 2009 (Istanbul, Turkey)

Partnership International, Inc would like to invite you to the GeoFund - IGA Geothermal Workshop in partnership with the IGA (International Geothermal Association) and the World Bank this February 16-19, 2009 at the President Hotel in the heart of old-city Istanbul, Turkey.

The goal of the Workshop is to educate participant and thereby enable geothermal development via World Bank and IFC GeoFund as well as private sector financing. These GeoFunds will enable the develop of bankable geothermal existing and greenfield projects, and help mitigate the risk of explorations in Europe Central Asia region. As outlined by the World Bank’s GeoFund initiative, the workshop aims to help educate participants on how to secure these funds for geothermal developments in 2009:

Direct Investment: GeoFund, via the World Bank, will support selected project developers by providing low cost loans, contingent grants and outright grants which would cover part of the project cost through monetization of external benefits. GeoFund via the IFC, the GeoFund will help improve the performance of existing geothermal installations through renovation of existing facilities, and will support bankable business plans greenfield facilities where the resources are promising.

Geological Risk Insurance Window: GeoFund will partially insure project developers/investors against the short-term and medium-term geological risks. This insurance will help mitigate the risks associated with geothermal energy exploration.

For more information, please see that attached Application, or visit the website: <http://www.partnership-international.com/GeothermalEnergy.php>.

If you are interested in a Best Practice Geothermal Kiosk please visit the website: http://www.partnership-international.com/Geothermal_Kiosk.php.

For information on being a Corporate Sponsor in the workshop – please contact Tracy Mathieu for further information: <http://www.partnership-international.com/GeothermalSponsors.php>.

Featured Event: Renewable Energy World Conference and Expo North America 2009, March 10–12, 2009 (Las Vegas, NV)

North America's Premier Renewable Energy Conference & Expo Is Now in its 6th Year!

The Renewable Energy World Conference & Expo North America (formerly POWER-GEN Renewable Energy & Fuels) has a proven track record– now in its 6th year– as renewable energy's leading conference. It offers a worldwide audience who will hear papers, panel discussions and presentations during technical sessions related to technology, markets, business strategies and policy covering the wind, solar, biomass, hydro, geothermal, ocean/tidal/wave, bio-power, bio-fuels hydrogen and energy sectors. There has never been a better time to be a part of the exciting, ever-growing world of renewable energy!

Connecting 5,000 renewable energy power professionals with 300 exhibitors for three days of networking, new business negotiation, and the exchange of important ideas and information impacting the renewable energy industry today.

REenergize with new technologies, new companies, new strategies and new views!

The Geothermal Energy Association will be cosponsoring this event, with panels on geothermal energy soon to come. For more information and to register, visit <http://rewna09.events.pennnet.com/fl/>.

New Date: Canadian Geothermal Energy Association Conference and AGM, April 22–24, 2009, (Vancouver, B.C.)

The Canadian Geothermal Energy Association (CanGEA) announces their Workshop, Tradeshow, Conference and AGM on April 22–24, 2009 in Vancouver, BC.

CanGEA also announces that its 2009 membership drive has begun. CanGEA welcomes all members interested in advancing the development of Canada's vast resources. In addition, members receive premium benefits on one of the world's most popular geothermal websites.

Visit the Web site for information: <http://www.cangea.ca/>.

Featured Event: GEA Project Showcase, Newseum, May 6, 2009 (Washington, DC)

GEA will bring into DC companies with geothermal projects either near completion or online. We ask that these companies bring footage (either video or stills) and talk about their projects. We will invite the DC community (congressional and committee members, embassies, etc.) and give these companies the chance to give their perspectives on how the government can help move these projects along more smoothly in this non-lobbying event. A panel discussion with moderator will also be part of this half-day event. Companies will likely plan visits around the Hill for the day before or after the Project Showcase. More information coming in early 2009 to www.geo-energy.org.

Featured Event: GEA West Coast Finance and Development Workshop, Washington Convention and Trade Center, June 3, 2009 (Seattle, WA)

GEA will hold their annual West Coast Finance and Development Workshop in Seattle, WA. The agenda of this workshop will include a U.S. Geothermal update, panel of project developers, technology panel, finance panel, community/environmental panel, tribal and power company perspectives, keynote

presentations by the Mayor of Seattle and other members of congress, and some panel discussion and speakers around the Pacific Northwest U.S. This event will be promoted nationwide and to the media. More information coming in early 2009 to www.geo-energy.org.

Featured Event: GEA Direct Use/Small Power Finance Workshop, Oregon Institute of Technology, August 12-13, 2009 (Klamath Falls, OR)

GEA has been in discussion with OIT and some small power equipment producers to hold a specialized 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. More information coming in early 2009 to www.geo-energy.org.



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