



## GEO THERMAL ENERGY ASSOCIATION

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## **National News**

### **House Passes Renewable Energy and Energy Conservation Tax Act of 2008, House Leaders Urge President Bush to Reconsider Veto Threat**

The February 27 press release from the House Committee on Ways and Means states:

#### House Renews Commitment to Renewable Energy

The House of Representatives voted on February 27 to pass H.R. 5351, the Renewable Energy and Energy Conservation Tax Act of 2008. The bipartisan legislation would end wasteful taxpayer subsidies to large oil and gas companies. The money would instead be invested in tax incentives that encourage the use and production of renewable energy and energy conservation.

H.R. 5351 includes important tax credits to promote renewable energy production from wind, solar, geothermal, cellulosic ethanol and biofuels and other sources, many of which are set to expire at the end of the year.

"The issues of global warming, climate change and America's addiction to foreign oil have arisen on our watch and they have reached the level of a national crisis that threatens our health, our economy, and our national security," said Ways and Means Chairman Charles B. Rangel (D-NY). One day our children and grandchildren will ask where we stood when we had the opportunity to chart a new course for America's energy policy and this bill takes an important first step in that direction.

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H.R. 5351 now goes to the Senate, where earlier attempts to extend the renewable tax credits have failed by one-vote margins. The White House has also threatened to veto the legislation because it removes tax breaks for major oil companies. A vote on an energy tax measure in the Senate is not expected until sometime in April or later.

Recognizing that a White House veto threat poses a major obstacle to passage of this legislation, House Speaker Pelosi and other Democratic leaders sent the following letter to President Bush upon passage of the energy tax bill:

*Dear Mr. President:*

*The House yesterday passed the Renewable Energy and Energy Conservation Act (H.R. 5351) by a vote of 236-182. The Act extends and expands tax incentives to deploy and develop wind, solar, geothermal, ethanol, biodiesel, biomass, and other renewable energy technologies, as well as provides incentives to increase residential and commercial building efficiency. These provisions are critical to the creation of hundreds of thousands of green jobs across America, as well as the preservation of an estimated 116,000 jobs in the wind and solar industries alone. Additionally, these incentives are critical to reducing greenhouse gas emissions that contribute to global warming, making our nation less dependent on foreign fossil fuels, and reducing energy costs.*

*This measure will direct nearly \$18 billion in incentives to American renewable energy. We believe strongly that this long-term commitment to our future must be made in a fiscally responsible manner. As part of the shift in our nation's energy policy, our legislation funds this commitment by ending certain tax subsidies given to the largest oil companies that are now earning historic profits.*

*There is no justification for continuing taxpayer-financed subsidies for the largest companies in the oil industry, and the most profitable corporations in America. The big five oil companies recently reported new record profits in 2007 – with ExxonMobil earning the largest corporate profit in American history, \$40.6 billion, or the equivalent of \$132 for every man, woman, and child living in the United States.*

*H.R. 5351 allows our nation to correct an imbalance in our tax code that favors one industry enjoying historic profits, and reinvest those dollars to help make cutting-edge technologies commercially viable: creating American jobs, spurring American innovation, and making real the American commitment to reduce global greenhouse gases.*

*Promotion of the renewable energy industry is the goal of the Washington International Renewable Energy Conference, which your Administration hosts next week. The conference offers a remarkable world platform to support a fiscally responsible commitment to these industries and technologies and the jobs they will produce. We urge you to reconsider your previous opposition to fiscally sound incentives for American renewable energy, and lend your support to this historic legislation in time for this occasion.*

See <http://waysandmeans.house.gov/News.asp?FormMode=release&ID=626>.

## **GEA Supports H.R. 5351: PTC Extension and Geothermal Heat Pump Credit**

On February 25, Karl Gawell, Executive Director of the Geothermal Energy Association, sent a letter to the House Ways and Means Committee supporting H.R. 5351, the Renewable Energy and Energy Conservation Tax Act of 2008. The letter is as follows:

*“I am writing on behalf of the Geothermal Energy Association (GEA) to express our support for H.R. 5351, and to urge all members of the House of Representatives to vote for this important legislation.*

*“H.R. 5351 includes a three-year extension of the Section 45 Production Tax Credit (PTC) which is vital for new geothermal power development in the U.S. There is substantial untapped geothermal energy capacity that could be used to provide clean, reliable power, and the tax credit is essential to attracting the investment necessary to develop these geothermal resources.*

*“But, the fact that the PTC is set to expire at the end of this year is having a chilling effect on the industry. It takes several years to bring a geothermal project on-line, and geothermal developers are already facing tough decisions about whether to proceed with projects that could not be in production by December 31, 2008.*

*“H.R. 5351 would extend the deadline to December 31, 2011. If passed this year, this legislation would encourage and support the continued growth of geothermal power in the United States. We believe this would result in a significant expansion of geothermal energy production, create tens of thousands of new jobs, and stimulate tens of billions of dollars of new investment in geothermal energy production in the U.S..*

*“We appreciate the Subcommittee’s support for geothermal energy, and its efforts to produce legislation that will promote the continued expansion of renewable energy production in the U.S. We urge the House to support H.R. 5351.”*

The Geothermal Energy Association also joined with others in a letter a group letter supporting the tax bill, and the addition of a tax credit for geothermal heat pumps.

The letter was signed by the Alliance to Save Energy, the American Council for an Energy Efficient Economy, the Geothermal Heat Pump Consortium, the Geothermal National & International Initiative Inc., the International Ground Source Heat Pump Association, the National Ground Water Association, the Geothermal Energy Association, and the National Rural Electric Cooperative Association.

## Geothermal Events to be Showcased at WIREC

After much excitement and planning, this week the World International Renewable Energy Conference (WIREC) will be held at the Washington, D.C. Convention Center. The Geothermal Energy Association has been involved in the planning, and we are looking forward to all of our geothermal participants and events.

Geothermal Events: Week of March 3

Trade Show: Exposition Hours

Tuesday, March 4, 12pm–7:30pm (opening reception 6–7:30pm)

Wednesday, March 5, 10am–6pm

Thursday, March 6, 10am–4pm

WIREC Opening Plenary

Tuesday, March 4, 2–5pm,

Speakers include Karl Gawell, GEA

Business Conference Geothermal Sessions

Wednesday, March 5

- 10:30am–12pm “New Developments and Outlook for Geothermal Research”  
Speakers: Paul Thomsen—Ormat Nevada, Jefferson Tester—Massachusetts Institute of Technology, Susan Petty—AltaRock Energy, Pierre Ungemach—GPC Instrumentation-Paris, Frank Monastero—U.S. Navy, Egill Juliusson—Glitnir Bank, Ann Robertson-Tait—GeothermEx
- 2–4pm “Finance: The Financial Realities of Geothermal Projects and the Impact of Policies on the Bottom Line”  
Speakers: Lucien Bronicki—Ormat Technologies, Thomas King—U.S. Renewables, Domenic Falcone—Falcone Associates, Charles Arrigo—Glitnir Capital Corporation, Subir Sanyal—GeothermEx, Robert Banack—Dundee Securities
- 4:30–6pm “Global Markets: Geothermal Developments in Markets and Policies Worldwide”  
Speakers: Karl Gawell—GEA, Arni Magnusson—Glitnir Bank, Stephen Hirsch—Geothermal Development Associates, Subir Sanyal—GeothermEx, Ruggero Bertani—Enel, Asgeir Margeirsson—Geysir Green Energy

Thursday, March 6, 2008

- 10:30am–12pm “U.S. Markets and Policy Drivers”  
Speakers: Dennis Gilles—Calpine Corporation, Daniel Ellis—Climate Masters, Karl Gawell—GEA, Steve Munson—Vulcan Power, Dan Fleischmann—Ormat Nevada, Halley Dickey—UTC Power

Side Events:

Tuesday, March 4

- 12:30–2pm, Room 158AB “Building Effective Government-Industry Collaboration”  
Hosted by: Geysir Green Energy and GEA
- 5–6:30pm, Room 149B “African Rift Valley Geothermal Initiative”  
Hosted by: Department of Energy and GEA

## **Company News**

### **CEO Robert P. May to Leave Calpine**

Robert P. May, Chief Executive Officer and a director of Calpine Corporation, announced on February 29 his intent to leave the Company.

May will leave Calpine once a successor is in place, according to the press release.

"It has been a great honor to lead Calpine's employees, one of the finest groups in the country, and I am very proud of all that we have accomplished together over the last two years," Mr. May told the press. "Now that Calpine has emerged as a strong, focused competitor with an appropriate financial structure, now is the right time to identify a successor who will take Calpine to the next level. I have every confidence that Calpine will continue its positive momentum as one of most important providers of reliable—and environmentally responsible—electricity in this country."

"The Board and I would like to thank Bob for his tremendous contributions during his tenure with Calpine and we respect his decision to begin this transition process," William J. Patterson, Chairman of Calpine's Board, told the press. "His leadership, experience and knowledge helped Calpine successfully navigate one of the largest and most complex reorganizations in corporate history. He led a talented team that implemented and managed operational and financial improvements, substantially enhancing the value of Calpine and leaving it well positioned for success."

For more information, visit [www.calpine.com](http://www.calpine.com).

### **Ormat Announces \$296 Million Revenue in 2007**

Ormat Technologies Inc. published its financial report on February 27 for the fourth quarter of 2007 and for the year as a whole, according to *Globes* online.

Ormat announced \$296 million revenue (\$0.71 per share) for the year, up 10% on \$268.9 million in 2006. However, net profit fell to \$27.4 million from \$34.4 million in the year before. Electricity segment revenue rose 10.5% to \$216.0 million from \$195.5 million in 2006, and products segment revenue rose 8.8% to \$80.0 million from \$73.5 million in 2006. The company also announced a dividend of \$0.05 per share.

Ormat president and CEO Yehudit Bronicki said, "The strong performance experienced by us beginning in the second quarter continued into the fourth quarter." Looking ahead, she added, "We expect our 2008 electricity segment revenues to be approximately \$245 million. We also expect an additional \$9 million of revenues from our share of electricity revenue generated by a subsidiary, which is accounted for under the equity method. With regard to our products segment, we currently expect that our 2008 revenues will be between \$70 million and \$80 million."

The company's highlights in 2007 included adding 14 MW of new capacity in 2007, securing substantial land positions for future development, extensive exploration activity in a number of geothermal sites, and entering into new power purchase agreements for five projects that may add up to 256 MW of new capacity. They also made progress at the Sarulla geothermal project in Sumatra and received a \$20 million limited notice to proceed from NGP Blue Mountain I LLC (NGP I) to build the first phase of the Faulkner 1 geothermal project in Nevada.

So far in 2008, an additional 17 MW from the Galena III project in the U.S. has been added. The company expects to add a total of 128 MW during the year, surpassing \$320 million.

Bronicki added, "The renewable energy market is growing and is expected to continue to do so for years to come. There is increasing demand for clean, baseload power that is driven, in part, by a favorable

regulatory environment in the U.S. and other countries. This reality provides strong support for our own growth plans."

<http://www.globes.co.il/serveen/globes/DocView.asp?did=1000315065&fid=1725>.

## **Renewable News**

### **Geothermal Projects in the West Could Double**

An article from *Summit Daily* this week gave an overview of geothermal production in the Western U.S. It quoted a survey from our headquarters at the Geothermal Energy Association, saying that projects in the West could double the nation's geothermal generating capacity in the next few years. The article discussed geothermal potential in the West, where resources are plentiful but funding is still inadequate.

The investment risk is still too high for a commercial-scale geothermal industry to flourish, Jefferson Tester of the Massachusetts Institute of Technology told the press. Adequate federal funding for research and development would smooth out operational kinks, slash the risk, and give investors more confidence, he said.

More than 80 geothermal power projects are underway across the West in every state except Montana and Colorado. Underground reservoirs in the West are prime for geothermal development because they often lie close to the surface.

The article also quoted a 2006 MIT study saying geothermal could supply 100,000 MW per year by 2050. That would be 10% of U.S. energy consumption. Plants in Nevada, Idaho, Utah, and California are already supplying power.

The Bureau of Land Management and the Forest Service are jointly investigating the environmental impacts of geothermal development. It is prohibited in national parks and wilderness areas, but side effects are minimal. The assessment of their investigation will be released this fall, and the BLM will be able to issue further geothermal leases and permits.

There are about 420 geothermal leases on federal land, 55 of which are producing geothermal energy, the article said. Interest in leasing has increased sharply in the last decade; the BLM has issued nearly 300 geothermal leases since 2001, compared to only 25 between 1996 and 2001. Last summer, the agency launched an effort to speed up the leasing process. Of the approximately 100 geothermal lease requests pending as of January 2005, the BLM has pledged to process at least 90 percent of them by August 2010. But even after a geothermal company leases public land, the process of actually acquiring a permit to develop the resource remains painful. The BLM is so overrun with oil, gas, and coalbed methane permit requests that geothermal interests get pushed to the back burner.

The article quoted GEA Executive Director Karl Gawell. "The BLM doesn't have adequate resources or personnel to deal with geothermal, so permits get delayed for years," he said. "I literally know people who have died waiting."

In the political realm, geothermal has struggled to appear on budget requests and tax credits. For example, in 2007, the article said, funding for the clean-coal technology program was upped, even though its performance was rated lower than that of the geothermal program, which did not receive additional funding. And with the recent failure of the Senate to extend tax credits through 2012, many developers won't be able to afford new geothermal projects, Lisa Shevenell, director of the Great Basin Center for Geothermal Energy, told the publication.

"Without an extension of the tax credit deadline, most likely, projects will be downsized or put on hold altogether," said Gawell. But geothermal may get a boost from the Energy Independence and Security Act

of 2007, which Bush signed in December. It includes the Advanced Geothermal Energy Research and Development Act, which directs the Department of Energy to authorize up to \$95 million annually for research and development.

"Interest in geothermal has really blossomed," Shevenell said. "And in the next few years, I think that the industry will, too." The increasing interest for geothermal will bring some of that potential to fruition—as long as the interest garners lasting support.

For more information, visit <http://www.summitdaily.com/article/20080225/NEWS/443354159>.

## **DOE to Invest \$34 Million for Cellulosic Ethanol**

The Department of Energy (DOE) will invest in four projects to develop cellulosic ethanol. The projects seek to improve enzymes for breaking down cellulosic biomass material into sugars, which can then be fermented into ethanol. The DOE chose DSM Innovation Center, Genencor, Novozymes, Inc., and Verenium Corporation because of their proven ability to reduce the cost of ethanol by improving the performance of the enzymes.

Over the next four years, DOE will invest up to \$33.8 million. Combined with the cost sharing from industry, up to \$70 million will be invested.

Cellulosic ethanol is produced from a wide variety of nonedible plant materials such as corn stover, cereal straws, sawdust, paper pulp, and switchgrass. Cellulosic ethanol has potential for produced in every region of the country using locally grown materials and creates less greenhouse gases than corn-based ethanol.

Within the last year, DOE has announced that it will invest \$1 billion in biofuels research and development, \$114 million in small-scale cellulosic refineries, \$405 million in bioenergy centers, and \$385 million in commercial-scale cellulosic refineries.

For more information, see the [DOE press release](#) and DOE's [Biomass Program Web site](#).

## **Governors Unable to Reach Consensus on Energy Strategy**

Gov. Brian Schweitzer and other governors and administration officials were unable to agree on clean energy technologies during the yearly meeting of the National Governors Association over the weekend, according to the *Missoulian*.

The Montana Democrat told the press he was frustrated that the governors failed to reach consensus on an energy strategy. The group may end up issuing a majority opinion along with a dissenting minority view, he said.

Schweitzer is on the group's Natural Resources Committee. He also serves on a one-year task force with seven other governors to develop policy on energy conservation, biofuels, reduction of greenhouse gas emissions, and clean energy technologies.

See <http://missoulian.com/articles/2008/02/26/news/local/news04.txt>.

## **New York Will Invest \$6 Million in Clean Energy Workforce**

The New York State Energy Research and Development Authority (NYSERDA) has developed a clean energy workforce training initiative to invest in a variety of clean energy initiatives, according to their press release. Funding for the workforce includes \$6 million.

NYSERDA will invest more than \$4 million in solar photovoltaic systems, small wind turbines, biogas energy systems, and other areas.

Additionally, the Governor's Executive Budget includes \$2 million for developing the solar workforce through community colleges in New York State. The workforce will be able to design, install, and maintain renewable energy systems and will ensure the successful implementation and promotion of renewable energy technologies in New York State.

New York has already invested nearly \$1 million to develop seven accredited solar training centers and continuing education programs across the state.

For more information, see the [NYSERDA press release](#) and the pamphlet about New York's Solar Electric Practitioner Training Centers ([PDF 311 KB](#)).

## **Climate Change News**

### **Congressional Committee Issues Climate Change White Paper**

The Committee on Energy and Commerce and its Subcommittee on Energy and Air Quality are issuing a series of Climate Change Legislation Design White Papers, according to their Web site.

The papers are the next step in the legislative process toward a mandatory, economy-wide climate change program. They propose a comprehensive national approach to climate change, with all levels of government taking active roles.

The papers will help raise the issues of necessary steps and appropriate roles for the different levels of government.

The White Paper is available at [http://energycommerce.house.gov/Climate\\_Change/white%20paper%20st-lcl%20roles%20final%202-22.pdf](http://energycommerce.house.gov/Climate_Change/white%20paper%20st-lcl%20roles%20final%202-22.pdf).

### **Wal-Mart Energy Team to Audit State Capitols**

The National Governors Association and Wal-Mart Stores, Inc. have partnered to conduct a clean energy audit of up to 20 state capitol complexes during 2008 and 2009, according to the *Environmental News Service*.

The goal is to reduce the energy consumption of state capitol complexes. The Wal-Mart energy experts will identify energy efficiency improvements as well as demonstrate cost savings and greenhouse gas reductions. The team will identify improvements that can be made within 5 years.

Visit <http://www.ens-newswire.com/ens/feb2008/2008-02-25-091.asp>.

## **State News**

### **Hawaii: Wind Farm Group Plans Geothermal Plant for Big Island**

Kent Smith, Hilton Unemori, and Guy Gilliland, codevelopers of wind farms on Maui and Kauai, are planning a second geothermal power plant for the Big Island of Hawaii.

The 30-MW geothermal plant is planned for Hamakua, Hawaii, according to *Pacific Business News*.

The group has formed Hamakua Biomass Energy. Gilliland told the press the group is in the process of securing land and expects to be in operation by the third quarter of 2010.

Visit <http://www.bizjournals.com/pacific/stories/2008/03/03/story8.html>.

## **Nevada: Researchers at Great Basin Center Make Geothermal Discovery**

Researchers at the University of Nevada have discovered evidence of a geothermal system in the Teels Marsh area of Mineral County, Nevada, according to the University's *Nevada News*.

The researchers, who are with the University's Great Basin Center for Geothermal Energy and the Desert Research Institute (DRI), told the publication that no thermal wells are known to exist in the Teels Marsh basin.

In addition to the research done at Teels Marsh, scientists from the University have also measured shallow temperature anomalies in other areas of the Great Basin, according to the article. Great Basin Center for Geothermal Energy scientists are recording all of the state's geothermal assets.

For more information, visit <http://www.unr.edu/nevadanews/detail.aspx?id=2555>. For maps and other data, visit <http://www.unr.edu/Geothermal/>.

## **Nevada: NGP Announces Positive Results from Flow Test**

Nevada Geothermal Power Inc. has announced results from a long-term flow test on Well 25-14. Results indicate that the well is a very prolific producer, according to Nevada Geothermal's Web site.

NGP completed Well 25-14 to a depth of 2370 ft (722 m). The well was flowed January 27–29 for approximately 50 h, including 33 h of full flow.

GeothermEx, Inc., a consulting firm, supervised the flow testing of 25-14. Their report said:

- Well 25-14 produced roughly 770,000 lb h<sup>-1</sup> when fully open (equivalent to a volumetric flow rate of 1,750 gal min<sup>-1</sup>) at a wellhead pressure of 120 lb in<sup>-2</sup>.
- The well produces primarily from a single zone at 2,280 ft (695 m). The temperature of the zone is 374°F (190°C).
- Comparison of static and flowing pressure survey in 25-14 indicates a total cumulative pressure drawdown of about 121 psi at 2,280 ft (695 m) during the production period. This indicates very good productivity.
- The net power potential of 25-14 would be about 7.5 MW. This estimate accounts for parasitic load for the combination of the production pump in the well and the well's proportionate share of a binary plant and injection pumps.

NGP has completed three full-size productive wells at Blue Mountain (26A-14, 23-14, and 25-14) and is currently drilling well (44-14).

For more information, visit

[http://www.nevadageothermal.com/s/News.asp?ReportID=289094&\\_Type=News&\\_Title=Nevada-Geothermal-Power-Announces-Results-from-Flow-Test-GeothermEx-Inc.-Ra](http://www.nevadageothermal.com/s/News.asp?ReportID=289094&_Type=News&_Title=Nevada-Geothermal-Power-Announces-Results-from-Flow-Test-GeothermEx-Inc.-Ra)

## **Utah: Raser Completes Drilling Phase on Geothermal Well**

Raser Technologies, based in Provo, Utah, has completed drilling on a reservoir in southern Utah, according to their Web site. The plant, when completed, would provide 10 MW of power, enough to power 7,000 homes.

"We are pleased with the preliminary results of this drilling program and look forward to executing on our business plan," Raser CEO Brent M. Cook, told the press. "Our initial review of the information from this well is encouraging, however, precise data will not be available until further flow testing and verification can be conducted. Based upon preliminary results as well as data from other wells in the area, we expect the well to achieve temperatures around 300°F (150°C). We anticipate that the power this project generates will be sold to a southern California utility under a power purchase agreement that will be announced after final approval has been granted."

Utah currently has only two geothermal power plants.

For more information, visit <http://www.rasertech.com/news/scripts/full-news.php?1204124760>.

## **International News**

### **Australia: Minister Wilson Calls for Energy Saving Measures**

Australia's Mines and Energy Minister Geoff Wilson spoke to State Parliament on February 27, calling for a change in nation's actions toward the environment, according to *BYM Green Environment News*.

The Minister spoke regarding the Gamaut interim report, which he said showed the need for urgent action to reduce greenhouse gas emissions. According to the article, he said:

"It rightly points out that as a nation we cannot keep doing what we're doing without substantial cost to the environment, our economy and living standards.

"We won't add to [speculation about the long-term price of electricity]. Along with the Federal Government and other State Governments, we'll consider the final report, consult with key stakeholders and carefully consider the options. One option is undeniably clear: The long term future for Australia and the world doesn't include business as usual. We cannot keep doing what we were doing.

"A price on carbon, through a national emissions trading scheme, is necessary to achieve structural change. But the price can be managed by setting targets that reflect short and long-term emission reduction opportunities. In Queensland, we can all be part of the solution. If we sat on our hands and did nothing, the Queensland electricity sector would be emitting more than 63 million tonnes of carbon dioxide a year by 2020. Under our energy initiatives, we expect to reduce that to around 51 million tonnes by 2020.

"We've launched a \$50 million Smart Energy Savings Fund to encourage businesses to invest in energy-saving measures. Our new \$50 million Renewable Energy Fund will help fuel the 21st century with clever solutions to combat climate change. We have Australia's only working geothermal power station at Birdsville—there are hot rocks in abundance in the west. We're developing the state's first solar farm at Windorah, and in another first, we're investing in a new solar thermal power station for Cloncurry.

"Some projects are big, some are small, but most are cutting edge and all are designed to save tens of thousands of tonnes of greenhouse gas emissions.

"For instance, solar panels on people's homes often produce more power than the home needs. A feed-in tariff will pay consumers for the energy they send to the national grid from their solar panel system. We're putting our money on the table, rolling up our sleeves and getting on with the job of addressing this very real threat to our environment."

Visit <http://www.bymnews.com/news/newsDetails.php?id=23182>.

## **Australia: Eden Energy to Transfer Geothermal Assets**

Eden Energy Ltd of Perth is planning to transfer its Australian geothermal assets to subsidiary company Terratherma Ltd, according to *Business News*.

Eden is a clean energy company that has interests in multiple facets of the industry. According to their Web site, the company focuses on clean energy transport, producing hydrogen without carbon emissions, transporting hydrogen, and providing engines to power hydrogen-based transport and energy solutions.

In the transfer, Terratherma would seek an Australian Securities Exchange listing as soon as stock market conditions permit. Eden would initially hold shares of approximately \$15 million (i.e., 75 million shares at a valuation of 20 cents each), together with a similar number of 5-yr 20 cent options.

Eden would retain a majority shareholding in Terratherma. Eden and Terratherma may collaborate on other renewable energy projects in the future. This would consist of using Terratherma's geothermal power to produce hydrogen and Eden's hydrogen technology to store and transport it to the market.

*For more information, visit <http://www.wabusinessnews.com.au/en-story/1/61042/Eden-Energy-spins-off-geothermal-assets-into-IPO>.*

## **Guam: Kempthorne Meets Island Territory Leaders**

Geothermal energy potential in the Commonwealth of the Northern Marianas Islands was one of the topics discussed in the seventh plenary session of the Interagency Group on Insular Areas (IGIA), according to [allamericanpatriots.com](http://allamericanpatriots.com).

IGIA is a White House-led group that works with island governments to mitigate the impact of federal laws, regulations, and policies on the U.S. insular territories in the Pacific and Caribbean. Secretary of the Interior Dirk Kempthorne chaired the session.

Kempthorne met with governors and congressional representatives of U.S. island territories to discuss a range of issues, from the planned U.S. military expansion on Guam to health care, educational needs, and the application of federal immigration, wage, and tax laws in the islands.

*For more information, visit [http://www.allamericanpatriots.com/48743364\\_dirk-kempthorne-confers-us-island-governors-congre](http://www.allamericanpatriots.com/48743364_dirk-kempthorne-confers-us-island-governors-congre).*

## **India: Glitner Teams With Bhilwara in India, Nepal**

Nordic bank Glitnir is partnering with Indian energy development company Bhilwara Group to develop geothermal energy projects in India and Nepal.

According to [webwire.com](http://webwire.com), Glitnir will be responsible for raising capital and supplying specialist consultants for projects to build geothermal power plants in India and Nepal. LNJ Bhilwara will bring its large-scale infrastructure and local experience to its 60% share of the partnership.

"India is a very exciting market for Glitnir, particularly in the seafood and energy field," Bala Kamallakharan, Executive Director of Strategic Growth at Glitnir, told the press. "Given the projected growth of energy demand in India, the country needs to utilize all sources of energy possible, particularly renewable and green sources of energy like geothermal."

"By establishing an office in India, Glitnir bank will also be playing a key role in supporting the seafood and offshore service vessels industry and utilizing the vast service industry in India to further improve the efficiency of Glitnir operations worldwide" he added.

Glitnir focuses on geothermal energy as one of three global market niches. The investment and corporate bank has formed teams of specialist bankers which operate in 11 countries around the world.

For more information, visit <http://www.webwire.com/ViewPressRel.asp?aId=59862> and <http://www.glitnirbank.com/energy/>

## **Indonesia: Government Forms New Geothermal Company**

The State Ministry of State Enterprises (BUMN) is forming a new geothermal mining company for geothermal potentials. "We do need to set up several new state companies soon, among other things, to develop our geothermal potentials," secretary to the state enterprises minister Muh. Said Didu said on Wednesday, according to the Embassy of the Republic of Indonesia's Web page

The new geothermal company will join PT Geodipa, PT Pertamina, and state electricity company PT PLN. PT Pertamina's stake in Geodipa is 65 percent and PLN's 35 percent. Additionally, PT Pertamina Geothermal Energy (PGE), a subsidiary of PT Pertamina, would be merged into the new company.

Geodipa runs two geothermal mining sites in Dieng, Central Java and Patuha, West Java. The Dieng mining site has produced 60 MW of electricity.

PGE owned 15 regional geothermal mining sites with a design capacity of 800 MW.

For more information, visit <http://www.embassyofindonesia.org/news/2008/02/news24.htm>.

## **Nicaragua: Polaris Geothermal Inc. Finds Positive Well Results**

Polaris Geothermal Inc. has announced positive results at well SJ9-1 in Nicaragua, according to marketwire.com.

Tests at the well indicated a production capacity of 16 MW. The results said:

Testing commenced last week after the rig was released and moved to another pad to drill injection well SJ10-1. Well SJ9-1 was discharged under the supervision of Sinclair Knight Mertz (SKM) of Auckland, New Zealand, the independent geoscientific consultant of Polaris. The well was discharged on Thursday, February 28 for 5 hours and measurements during the discharge test show that the well produces up to 500 tonnes hr<sup>-1</sup> of steam and water at a wellhead pressure of 12 barg. At this flow rate the well will supply sufficient steam to produce an estimated 16 MW of electricity. The feed zones have an average temperature of about 265°C, and the reservoir is liquid dominated with low gas content. Previous surveys indicate that the fluid comes from several permeable zones between about 730 m and 1100 m. This is consistent with other production wells presently in use, providing steam for the existing 10 MW plant which has been in operation for the past two and half years. Testing of Well SJ9-2 will take place during coming months after it has had sufficient time for reheating.

Tom Ogryzlo, President & CEO of Polaris told the press, "Our new SJ9-1 production well is the first one completed as part of our expansion program. Preliminary tests show SJ9-1 to be the most productive of our four existing wells and we now have approximately 36 MW of proven steam under well head. This is over 50% of the total steam requirement for the full development of the eastern sector of San Jacinto and confirms our expectations for the reservoir."

It will now take several months for Exorka to do brine testing work while Polaris analyzes capital costs and contract negotiations.

For more information, visit <http://www.marketwire.com/mw/release.do?id=827490>.

## **Notices and Employment Opportunities**

### **Employment Opportunity—Terra-Gen Operating Company**

Terra-Gen Operating Company is a newly formed independent power producer operating clean and reliable energy projects located in several western states. Current renewable projects include wind, geothermal, and solar. Terra-Gen is currently seeking...

#### **Geothermal Resource Manager:**

Manage/develop the geothermal resource company wide. Maintain departmental budget. Direct/support geological/resource needs i.e., on-going geologic model, temperature model, reservoir and well performance evaluation. Evaluate geothermal reservoirs, provides recommendations for well field operations. Target drilling for production and injection wells. Provide technical support for well maintenance i.e., workovers, acid jobs, caustic jobs, surveys, etc. Desired qualification: Relevant BS from 4 yr college or university; or 10 yrs related exp and/or training; or equal education and experience. Geological and temperature modeling knowledge.

#### **Environmental Manager:**

Supervise the Environmental Compliance Dept personnel. Oversee departmental budget integrated into plant budgets. Document, review and track department activities, reports, compliance documents, audits, and investigations. Ensure company operations comply with environmental permit requirements and federal, state and county/district regulations. Maintain an effective relationship with regulatory agencies. Prepare and update company programs, policies, and procedures for safety and environmental compliance. Organize, develop, implement and administer the company's safety program. Desired qualifications: Bachelor's Degree from a 4-yr college or university; and 8+ yrs related experience and/or training; or equal education and experience. Environmental and safety regulation knowledge.

*To apply for either position, send a resume to Terra-Gen Operating Company, Attn: Human Resources, P.O. Box 1690, Inyokern, CA 93527, fax to 760-764-1318, or email to [djackson@tgpnyc.com](mailto:djackson@tgpnyc.com). Terra-Gen Operating Company is an Equal Opportunity Employer.*

### **Employment Opportunities—Mighty River Power**

Mighty River Power's diverse generation portfolio helps New Zealand ensure its ability to meet future energy needs. Mighty River Power is an integrated energy generation and retail business with a diverse and expanding portfolio of generation assets throughout the North Island of New Zealand. That portfolio includes rapidly growing geothermal interests including those at Mokai, Rotokawa, Kawerau, and throughout the Taupo Volcanic Region. Mighty River Power's geothermal team performs to world class standards and is focused on implementing cutting-edge technology to the development of these renewable and greenhouse friendly energy resources. Rapid growth in our geothermal business has increased their need for engineers to join the geothermal team. They're looking for motivated engineers with good written and verbal English skill. They offer a stimulating environment for those who want to apply their geothermal expertise, whilst enjoying New Zealand's extensive lifestyle opportunities.

#### **Reservoir Engineer:**

As a reservoir engineer you will:

- Design and supervise well tests, and collect and interpret results
- Propose and oversee field monitoring projects
- Characterize resource behavior using sophisticated computer modeling software.
- Provide valuable technical support to high-dollar energy resource projects.

An engineering, hydrology or applied maths degree are relevant qualifications. An interest in real-world applications in a mixed office and outdoor environment is essential, as well as interests in geology, civil engineering, hydrology and computer modeling. Specialized knowledge and skills in geothermal field

management, resource monitoring and well testing will be developed over time. This position reports to the Geoscience Manager and is located in Hamilton.

**Senior Mechanical Engineer:**

As a senior mechanical engineer you will:

- provide vital strategic support to both operations and new generation development
- provide engineering and economic evaluation for enhancement opportunities of existing assets and new developments
- oversee and provide leadership for a multi-disciplined team of engineers.
- ensure that the company's strategic goals are achieved through assurance of plant performance in consideration of life cycle costs

The ideal person for this role will hold a relevant engineering qualification and have more than ten years experience in geothermal projects. This position reports to the Geothermal Engineering Manager and is located in Hamilton.

**Plant Chemical Engineer:**

As plant chemical engineer you will:

- be responsible for determining appropriate treatment processes throughout the different geothermal power generation cycles
- oversee various specialist service providers
- review industry trends to ensure best practice principles are being applied
- specify and review the design of new installations
- supervise investigations

The ideal person for this role will hold a relevant engineering qualification and have more than five years experience in geothermal power plant operation. This position reports to the Operations Manager and is located in Taupo.

**Maintenance Manager:**

As maintenance manager, responsible for a portfolio of power generation plant currently totaling 150MW and expanding to 500MW in the near future, you will:

- proactively improve and implement systems to enhance plant availability
- oversee and provide leadership for a multi-disciplined team of engineers.
- remain aware and trained on all technical advancements in the area of responsibility
- manage plant level capital projects in conjunction with the engineering team

This role will require a relevant engineering qualification and have more than ten years experience in geothermal power plant operation, including demonstrated line management skills. This position reports to the Operations Manager and is located in Taupo.

**Drilling Engineer:**

As a drilling engineer you will:

- Write drilling programs and monitor drilling progress
- Assist the onsite drilling supervisor with implementation of high profile drilling operations
- Review operations for process improvements
- Provide technical support to field managers and reservoir groups for well maintenance.

An engineering degree with computer skills and good written and spoken English communications skills are required. Specialized knowledge and skills in geothermal drilling are important and additional experienced can be developed over time where needed. This position reports to the Drilling Manager—Geothermal and is located in Hamilton.

*If you would like more information about Mighty River Power please see the company Web site at [www.mightyriver.co.nz](http://www.mightyriver.co.nz). If you would like more information about any of these vacancies or wish to apply then email [careers@mightyriver.co.nz](mailto:careers@mightyriver.co.nz), or phone +64 9 5803612, or post your application to Human Resources, Private Bag 92008, Auckland Mail Centre.*

## **Employment Opportunity—Nevada Geothermal Power Inc.**

Nevada Geothermal Power Inc. is seeking an experienced Geothermal Resource Exploration and Development Manager. Nevada Geothermal Power's 30 MW geothermal power development at Blue Mountain near Winnemucca is financed to production (\$120 million). This dynamic company seeks to significantly expand the resource base at Blue Mountain and is actively developing other geothermal power projects to meet the increasing demand for clean energy. The Company is well financed and expects significant growth through the next decade.

### **Geothermal Resource Exploration and Development Manager:**

This is a senior management position that requires a MS in Geological Sciences, Geological Engineering or Hydrology with 10+ years experience with geothermal field development. The successful candidate will plan and implement exploration and geothermal reservoir evaluation programs using a multi-disciplined approach involving geology, geochemistry, geophysics, and drilling up to and including large scale development wells, helping to achieve the Company's objective for growth. The position is based in Reno and/or Winnemucca and will involve supervision of resource technical staff and consultants. Excellent communication and interpersonal skills are required as is a familiarity with budgets and cost controls.

The Company offers excellent health benefits, competitive remuneration, opportunities for career advancement in an exciting field.

*To apply, fax resumes to 604-688-5926 or email resumes to [careers@nevadageothermal.com](mailto:careers@nevadageothermal.com).*

## **Employment Opportunity—NREL Management (Due March 5)**

The U.S. Department of Energy requests proposals for the selection of a Management and Operating prime contractor to lead the National Renewable Energy Laboratory (NREL), a premier renewable energy and energy efficiency research, development, demonstration, and deployment institution. Responses due 3/5/08.

*For more information, contact Mary Hartford at [Mary.Hartford@go.doe.gov](mailto:Mary.Hartford@go.doe.gov) or go to <https://e-center.doe.gov/tips/busopor.nsf/UNID/761A911053622FE3852572F20078F2CE?OpenDocument>.*

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

### **RFP Renewable Energy Certificates—U.S. Air Force (Due March 13)**

Request for Proposal SP0600-08-R-0410 Renewable Energy Certificates on behalf of various U.S. Air Force bases and Major Commands has been issued.

Please direct questions to:

Leslie Simpson—703-767-8536/ [leslie.simpson@dla.mil](mailto:leslie.simpson@dla.mil)

John Nelson—703-767-8523/ [john.nelson@dla.mil](mailto:john.nelson@dla.mil)

*For more information, visit*

*<http://www.desc.dla.mil/DCM/DCMSolic.asp?SolicID=1337&SPos=0&DocID=9925>.*

### **RFI for Geothermal Development— Colorado (Due March 14)**

The Colorado Governor's Energy Office (GEO) has issued a Request for Information (RFI) to gain an understanding of the potential for geothermal projects in the state and the resources needed to assist developers of projects. The RFI covers geothermal for electricity, direct use applications, or for ground source heat pumps. There is a reference in the RFI for grant funding under the Clean Energy Fund.

*Available at [http://www.colorado.gov/energy/in/uploaded\\_pdf/GeothermalRFI\\_000.pdf](http://www.colorado.gov/energy/in/uploaded_pdf/GeothermalRFI_000.pdf).*

## **SMUD to Release 2008 Renewable Energy RFO (Due April)**

On January 4, The Sacramento Municipal Utility District (SMUD) will release a Request for Offers (RFO) of renewable energy for power purchase agreements (PPA). Proposals will be due early April.

SMUD has a goal to meet 23% of its retail electricity sales with renewable energy by 2011 and beyond. The utility's need for renewable energy continues to increase due to its commitment to expand the amount of power from renewable sources in its power mix and a need to replace current contracts that expire in the coming years.

The 2008 solicitation is for PPA offers of California RPS eligible conventional renewables, which include resources such as wind, geothermal, small hydroelectric, landfill gas, biomass and biodiesel. A separate RFO for emerging renewable technologies is planned for mid-2008.

Interested parties can download the RFO documents from SMUD's Electronic Bid Solicitation System (EBSS) Web site at [www.bids.smud.org](http://www.bids.smud.org) when it becomes available. Registration to the EBSS site is required to access the documents.

SMUD recommends that those interested in this and future solicitations list their company name in the "Renewable Power" category as well as in one or more of the following Renewable Power subcategories: Generation Energy, Geothermal Power, Landfill Gas Power, Renewable Power-Other, Small Hydro Power, and Wind Power.

Registered individuals will also receive updated information regarding this RFO and will also receive notification of future solicitations for purchase of renewable energy resources.

*For additional information, contact Cesar J. Beltran at (916) 732-6925 or [cbeltra@smud.org](mailto:cbeltra@smud.org).*

## **RFP Climate Change and Sustainability Conferences (Due June 5 and 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 1/7/08, 6/5/08 and 12/9/08.

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

## **Upcoming Events**

### **WIREC International Renewable Energy Conference, March 4–6, Washington, DC**

The United States Government, in cooperation with the American Council on Renewable Energy (ACORE) and several leading renewable energy trade associations, will host the Washington International Renewable Energy Conference March 4-6, at the Washington Convention Center. GEA is a member of the Coordinating Committee and has helped prepare geothermal side events and a trade show geothermal program track. *See details in story above under "National News."*

*For more information about the Conference visit <http://www.americanrenewables.org>*

## **MIT Energy Conference, April 11–12, Cambridge, MA**

Registration is now open for the MIT Energy Conference, which brings together leaders in technology, policy, entrepreneurship, and finance to discuss multidisciplinary solutions to our global energy challenges. Based on the 2008 theme of “Solutions that Scale,” panel sessions will cover: Nuclear Power, End-Use Efficiency, Carbon Capture and Sequestration, Geothermal Energy, Transmission Infrastructure, Vehicles, and the all-conference session Renewables at Scale. Many of these panels will be moderated by MIT faculty who are leading researchers in these fields.

*For more information and to register, visit <http://mitenergyconference.com/>.*

## **4th International Geothermal Conference, April 24, Freiburg, Germany**

The International Geothermal Conference takes place in Freiburg, Germany in April for the fourth time. The event provides information about Technology, Financing and Insurance of geothermal projects and ideal conditions to network with international business partners. According to the organizers, “the opportunities for geothermal have never been more promising. A growing number from the financial community sees it as the next pot of gold and emerging financing and risk mitigation instruments are accelerating market development and helping push projects forward. However, successful geothermal business development requires in depth know-how as well as experienced and skilled partners.”

The Conference is supported by Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and sponsors include the International Geothermal Association

*For application and more information, visit [www.geothermiekonferenz.de](http://www.geothermiekonferenz.de).*

## **SMU Geothermal Conference, June 17–18**

Southern Methodist University will put on a Geothermal Conference June 17–18. This international conference specializes in the enhancement of existing oil & gas wells for electrical production. According to SMU, “Geothermal energy can be extracted from the well fluids using newly designed compact turbines with binary fluids. These systems are now sized to fit single wells or multiple wells with an approximate fluid temperature differential of 120°F+ between produced and cooling temperatures. Thus, in the Gulf Coast temperatures of 225°F or higher are eligible. This electrical production (geothermal energy) is renewable and considered a baseload source and is capable of producing 24 hours a day. This capability gives new life to low yield producers with high water volume and a reason to keep them pumping.

Undesirable high water flow geopressure wells become an immediate revenue path if converted to electrical production. With a system installed in Chena Hot Springs, Alaska and another installation going into the Wyoming Rocky Mountain Oil Field Testing Center, the ability to use low temperature fluids is no longer just a concept, rather it’s a reality. New technology, data, and economics will be presented to assist you in developing your company’s renewable energy portfolio using existing wells.

Topics Presented To Include: • Power Generation Technology Advancements, • Geothermal Resource Exploration and Assessment, • Reservoir Engineering, • Fracturing, • Geopressure Development, • Tight Gas Sands Development, • Well Longevity—Corrosion and Scaling Management, • Enhanced Geothermal Systems – International, • Green Power for Utilities (RECs), • Economics and Business Plan • Transmission needs, • Regulations and Leasing, • Financing, • Demonstration Sites

*For more information and to read the Call for Papers, visit [http://smu.edu/geothermal/Oil&Gas/2008/Geothermal\\_Energy\\_Utilization.htm](http://smu.edu/geothermal/Oil&Gas/2008/Geothermal_Energy_Utilization.htm).*

## **GEA Trade Show/GRC Annual Meeting, October 5–8, Reno, Nevada**

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](http://www.geo-energy.org/2008_ts/index.htm).*

*For information about the GRC Annual Meeting, go to <http://www.geothermal.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](mailto:research@geo-energy.org)