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National News

Pelosi, Hoyer, and Rangel Statement on Energy Tax Legislation on House Floor This Week

Speaker Nancy Pelosi, House Majority Leader Steny Hoyer, and Ways and Means Committee Chairman Charles B. Rangel released a statement today on the Renewable Energy and Energy Conservation Tax of 2008 (H.R. 5351). It will be voted on in the House next week, according to their press release. The legislation invests in clean, renewable energy and energy efficiency and pays for that investment by repealing unnecessary tax breaks to big energy companies, said the press release.

"With the price of oil above \$100 a barrel, this Congress is again taking action to reduce our dependence on foreign oil and support the domestic production of renewable energy. Next week, the House will vote on the Renewable Energy and Energy Conservation Tax Act to end unnecessary subsidies to Big Oil companies making record profits and invest in clean, renewable energy and energy efficiency.

"The bill extends and expands tax incentives for renewable electricity, energy and fuel, as well as for hybrid cars, and energy efficient homes, buildings, and appliances. It does not add to our deficit, but rather repeals \$18 billion in tax subsidies for Big Oil companies. By strengthening our renewable energy sector, the bill will help create the next generation of good-paying, green collar jobs and bring down energy prices in the long term.

"Already pinched at the pump, American families are now feeling the effects of higher energy prices throughout the economy. This legislation is another critical step in a series of concrete actions this Congress is taking to address soaring energy costs, grow our economy and create new jobs, strengthen national security, and begin to reduce global warming."

For more information on H.R. 5351, go to <http://waysandmeans.house.gov/MoreInfo.asp?section=38>.

International Conferences to Feature Geothermal Exhibits and Events

Next week, Washington DC will host the World International Renewable Energy Conference (WIREC) and Trade Show. The event will be held at the Washington DC Convention Center, and features numerous geothermal exhibits, panels, and events. GEA has been an active member of the steering committee for this event. Below are some of the scheduled geothermal-related events. For more information about all of these events, go to <http://www.americanrenewables.org>.

WIREC Trade Show:

Exhibitors: GEA, ThermaSource, Ormat, Glitnir Bank, Geysir Green Energy, United Technologies, Stoel Rives, Reznick Group, US Department of Energy, US Department of the Interior, and more...

Trade Show: Exposition Hours

Tuesday, March 4, 2008 12pm–7:30pm (opening reception 6–7:30)

Wednesday, March 5, 2008 10am–6pm

Thursday, March 6, 2008 10am–4pm

Business Conference Geothermal Sessions:

Tuesday, March 4, 2008

2:00pm–5:00pm Business Conference Plenary

Speakers include: Karl Gawell, Executive Director, GEA

Wednesday, March 5, 2008

10:30–12pm “Status of Technology”

Speakers:

Paul Thomsen- Ormat Nevada, Jefferson Tester- Massachusetts Institute of Technology, Susan Petty- AltaRock Energy, Pierre Ungemach- GPC Instrumentation-Paris, Frank Monastero- US Navy, Arnar Hjartson- Glitnir Bank, Ann Robertson-Tait- GeothermEx

2–4pm “Finance”

Speakers:

Lucien Bronicki- Ormat Technologies, Thomas King- US Renewables, Domenic Falcone- Falcone Associates, Charles Arrigo- Glitnir Capital Corporation, Subir Sanyal- GeothermEx, Robert Banack- Dundee Securities

4:30pm–6pm “Global Markets and Policy Drivers”

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

10:30–12pm “US Markets and Policy Drivers

Speakers:

Jonathan Weisgall- MidAmerican Energy Holdings Company, Daniel Ellis- Climate Masters, Karl Gawell- GEA, Steve Munson- Vulcan Power, Dan Fleischmann- Ormat Nevada, Halley Dickey- UTC Power

WIREC Ministerial Sessions:

(This is only a selection of the many speakers that are both invited and confirmed.)

Tuesday, March 4, 2008

9:15–10:30am Opening Statements

Confirmed speakers:

Paula Dobriansky- Under Secretary of State for Democracy and Global Affairs
Sigmar Gabriel- Environment Minister from Germany

Invited speakers:

Xie Zhenhua- Vice Chairman, National Development and Reform Commission of China

11–12:30pm Ministerial Level Plenary Session, Defining the Issues

Confirmed and invited speakers include:

Tony Hayward, CEO of BP
Mohamed El-Ashry- Chairman of REN-21
Arnold Schwarzenegger, Governor of California

Wednesday, March 5, 2008

11–12:30pm Market Adoption and Finance Concurrent Sessions

Speakers to include:

Lucien Bronicki, Founder, Chairman and CTO of Ormat International

2:30–4pm Market Adoption and Finance Concurrent Sessions

“Distributed and Off Grid Generation in Mature Markets”

Confirmed speaker:

Hannes Smarason- Chairman of Geysir Green Energy

4:30–6pm Concurrent Sessions for Research and Development

“Ocean, Tidal, Geothermal, Hydro and Hydrogen”

Panelists to include representatives from, Finavera Renewables, Inc., Reykjavik Energy, Group on Earth Observations Secretariat, University of Iceland

WIREC Side Events:

Tuesday, March 4, 2008, 12:30–2pm, Room 158AB
“Building Effective Government-Industry Collaboration”
Hosted by: Geysir Green Energy

Tuesday, March 4, 2008, 5–6:30pm, Room 149B
“African Rift Valley Geothermal Initiative”
Hosted by: Department of Energy

Sen. Reid Proposes Renewables Standard at Conference

At the Renewable Energy World Conference & Exhibition North America (POWER-GEN Renewable Energy & Fuels in Las Vegas), U.S. Senate Majority Leader Harry Reid (D-NV) called on the U.S. Congress to pass a Renewable Portfolio Standard, according to renewableenergyworld.com.

Sen. Reid’s speech outlined ways the federal government can more effectively support renewable energy. This included policy ideas such as a minimum requirement of use for renewable fuels, long-term extensions of tax incentives, and allocating federal land for energy production.

"This national Renewable Standard would encourage utilities to make real national investments in this new market opportunity," Sen. Reid said. "Through the exchange of ideas comes innovation and progress. The solutions and ideas coming from meetings just like this are extremely impressive."

Visit

<http://www.renewableenergyworld.com/rea/news/story;jsessionid=38DBBF87DF3DE429AA595435B0952BA2?id=51623>.

Murkowski Pressing for Geothermal Grant Funding

Last year, Sen. Lisa Murkowski and Sen. Ted Stevens included a renewable energy grant program in the energy bill. This month, Murkowski is following up with U.S. Energy Secretary Samuel Bodman to secure funding, according to newsminer.com.

The program, which aims at developing alternative energy projects in rural Alaska, authorizes federal grants to pay for up to half the cost of building renewable energy projects such as wind, geothermal, ocean, biomass, solar, landfill gas, and small-scale hydroelectric power.

While the program was approved in December along with the rest of the energy bill, the Department of Energy has not yet developed regulations for its implementation or provided funding. It will assist the development of renewable energy projects and will benefit small communities who struggle with high energy prices.

“If we can figure out how we can get renewable energy technology out into these villages, we can make an absolutely incredible difference,” Murkowski told the press. “We got our foot in the door. Now we just have to get it in the regulations and then find the money,” she said

Bodman agreed to move forward with developing regulations for the program, but said, “The question of grants from the federal government is an issue that I can’t be very encouraging with you on right now.”

Murkowski told the press she was happy to see the president's budget did not eliminate funding for geothermal energy programs, as was done in past years. She said she would like to see more funding for near-surface geothermal, such as the project at Chena Hot Springs.

For more information, visit <http://newsminer.com/news/2008/feb/17/stevens-young-take-fire-over-budget-earmarks-washi/>.

Company News

Industry Leaders Support Desert Peak Project

Last week, we reported that Ormat had begun work on the first application of enhanced geothermal systems (EGS) in the U.S. As we reported, this project is pivotal for proving the viability of enhanced technology for increasing geothermal productivity at Desert Peak and ultimately at countless locations. One estimate of potential worldwide capacity from identified, conventional geothermal resources is reported to be 70,000 MW, according to *Globes Online*, but with EGS, that amount could be significantly exceeded even in just the U.S. alone.

GeothermEx president Subir Sanyal said that EGS could boost the Desert Peak production of 11 MW of electricity from convention geothermal technology to more than 50 MW.

Support for the Desert Peak EGS project includes \$1.6 million in direct Department of Energy funding and involves more than two decades of development work at five national laboratories, working capital from Ormat, and the use of existing wells and facilities at the Ormat site.

Yoram Bronicki told the press, "The research institutes mainly help us with the development of theories and models. We buy the tools from companies in the field, and we manage the project and the work, which will enable the success of the technology, if we achieve it." He predicts that the current R&D stage of the Desert Peak project will take two years, "at which point we'll know whether this element succeeded. There's a good chance of success, and I believe that the geothermal industry will develop in this direction."

Participants in this R&D project also included the Idaho National Laboratory, Lawrence Berkeley National Laboratory, Sandia National Laboratory, University of Utah EGI, TerraTek, Pinnacle Technologies, and the U.S. Geological Survey.

For more information, visit <http://www.ormat.com/news.php?did=137&aid=73525454292ad91a5eed9feb15a4ef79> and <http://www.globes.co.il/serveen/globes/DocView.asp?did=1000311796&fid=1725>.

Marketwire Reports on Nevada Geothermal Power

The most recent Fundamental Equity Report dated February 8, 2008, was reported at marketwire.com.

The analyst stated, in part: "Geothermal electricity producers like NGP will be the major beneficiaries of the strong U.S. electricity prices; simply because they do not bear the high cost of fossil fuels while they enjoy the buoyant electricity prices determined by market forces. For this reason we think, once getting into the production stage, NGP's income statement will be showing a growing gross and net margin and thus growing profitability in the future."

For more information, visit <http://www.marketwire.com/mw/release.do?id=824125>.

Renewable News

California Approves Feed-In Tariffs for Renewables

The California Public Utilities Commission (CPUC) has approved long-term prices for the state's utilities to buy renewable energy from their customers, according to their press release. The "feed-in tariff" will support the development of up to 480 MW of renewable generating capacity from small facilities throughout California.

"Up until now, only large renewable projects were able to effectively participate in the Renewables Portfolio Standard program," CPUC President Michael R. Peevey told the press. "Now small facilities can easily contribute to this program and be compensated for their renewable generation by signing up for these tariffs."

The power that is sold to the utilities under the feed-in tariffs will count toward the utilities' Renewables Portfolio Standard (RPS) goals, according to the release. California's ambitious RPS program requires electric corporations to increase renewable energy usage by at least 1% of their retail sales annually until they reach 20% by 2010.

The tariff requires a long-term contract for 5, 10, or 15 years. The price is based on the time of day of the power generation. Facilities earning the tariff cannot participate in other state incentive programs. The new tariffs are effective immediately.

For more information, visit http://docs.cpuc.ca.gov/PUBLISHED/NEWS_RELEASE/78824.htm.

Article Discusses Future of Geothermal

The Mercury News published an article about geothermal energy that heralded its growing popularity in the U.S. and around the globe.

The article highlighted geothermal-related sites and companies such as The Geysers, ThermaSource, and Calpine. It mentioned that The Geysers generates 4.7% of California's electricity, "far more than solar, wind, and biomass projects—and its capacity again is growing." In California, 1 MW is enough to power 1,000 homes for a year. California, the U.S., and indeed the world are becoming more geothermal-savvy.

Power has been generated from steam for decades, but the high price of oil and the growing demand for renewable energy has pushed geothermal into the forefront. The article quoted a recent report from our headquarters here at the Geothermal Energy Association, showing a 40% increase in the number of geothermal projects around the country in just the last year. Eighty-six new projects are under way in 12 states with a potential capacity of 3,368 MW.

The article also quoted our Executive Director here at GEA. Karl Gawell said that geothermal is "at the front end of the upturn," and there's no guarantee the projected growth will fully materialize. This is a reminder that the industry's future is not set in stone. It takes years to build a plant once financing is secured. And Congress kicked an extension of the federal tax credit out of the energy bill passed late in 2007. "That could start taking some steam, pardon the pun, off the market," Gawell said.

Hopefully, with industry players continuing to push ahead, policy makers won't be too far behind.

"Geothermal is a hot topic around the world," ThermaSource's Capuano told the paper. Capuano is currently involved with projects and potential projects in Chile, Nevis, New Zealand, and the Philippines.

The article provided a good background on the benefits of geothermal energy but also its difficulties that lay ahead. Many people are still unaware that geothermal even exists. The article quoted Curt Robinson, executive director of the Geothermal Resources Council in Davis: "This is like Florence coming out of the Dark Ages. Anytime oil ticks up a dollar more a barrel, this becomes a more attractive form of energy."

For more information, visit

http://www.mercurynews.com/healthandscience/ci_8287942?source=email&nclick_check=1

Climate Change News

California Climate Technology Report Gives Boost for Renewables—Urges Geothermal Actions

Contributed by John McCaull, GEA's Western States Representative, john@geo-energy.org.

On February 11, the California Air Resources Board (CARB) Economic and Technology Advancement Advisory Committee (ETAAC) released its well-anticipated Final Report on "Technologies and Policies to Consider for Reducing Greenhouse Gas Emissions in California." The [Global Warming Solutions Act of 2006 \(AB 32\)](#) requires that the Air Resources Board determine the statewide greenhouse gas (GHG) emissions level in 1990. The Act also requires that CARB approve a statewide greenhouse gas emissions limit, equal to that level, to be achieved by 2020. On the basis of its [1990-2004 inventory](#) work, ARB staff recommended an amount of 427 million metric tons of carbon dioxide equivalent (MMTCO_{2e}) as the total statewide greenhouse gas 1990 emissions level and 2020 emissions limit. The Board approved the 2020 limit on December 6, 2007.

The ETAAC Report was prepared for CARB to assist in their preparation of a "[Scoping Plan](#)" that will contain the main strategies California will use to reduce GHG emissions that cause climate change. The Plan, when it is completed, will have a range of GHG reduction actions which can include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

To meet the state's emission limit, California must reduce its current level of 14 tons/ person/year of carbon-dioxide equivalents down to 10 tons/person by 2020. ETAAC also considered an 80% reduction by 2050, which would require a level of 1.5 tons/person by 2050. Average US GHG emissions were 23.4 tons/person in 2003. As the Report states,

"To achieve these significant reductions will require more efficient use of energy, the virtual elimination of all GHG emissions from the state's energy infrastructure and a substantially different mix of transportation systems and fuels. A key part of the committee's task is to expand the scope of technical and economic solutions available for consideration."

A major emphasis of the Report was on the critical role of the energy sector in meeting GHG reduction targets. ETAAC recognized four major areas where the electric and natural gas sector will play a leading role in helping California reach a 90% per capita reduction of GHG emissions by 2050:

- Accelerating energy efficiency upgrades;
- Expanding renewable electricity supplies;
- Removing and storing carbon from residual fossil fuel and biomass electricity generation facilities;
- Developing enabling technologies to increase low and zero carbon transportation fuels from renewable electricity generators.

The ETAAC Report highlights the fact that “California also has in place the most aggressive renewable energy development goals in the country. It is therefore quite likely California will maintain its leadership role in terms of connecting the largest amount of renewable energy supply to its electricity grid. California boasts world-class wind, geothermal, and solar resources that can be greatly expanded to meet future supply needs.”

However, California’s Renewable Portfolio Standard (RPS) is under increasing scrutiny. The RPS program requires electric corporations to increase procurement from eligible renewable energy resources by at least 1% of their retail sales annually, until they reach 20% by 2010. According to the California Public Utilities Commission (CPUC), as of August 1, 2007, California’s three large Investor-Owned Utilities collectively served 13.2% of their 2006 retail electricity sales with renewable power.

The ETAAC Report notes that the mandate to achieve a 20% RPS goal by 2010 is still blocked by “a number of barriers...that must be alleviated in order to realize significant GHG emission reductions...” The Report goes on to say that “a focused, massive commitment on the part of California’s policymakers is essential [to] increase California’s renewable energy (or carbon-free equivalent) supply to 33% by 2020...” The key barriers identified by the Report are a lack of adequate infrastructure, storage technology, and integration processes needed to support such an increase. California also lacks the coordinated policy direction needed to remove implementation barriers and support additional renewable energy development.

The Report makes three key recommendations to help remove obstacles and jump-start the RPS process:

1. The state should institute a process to resolve and examine issues related to increasing the RPS target. This will be accomplished through a number of means, with the establishment of a multi-agency taskforce to identify all existing and expected hurdles to increased renewable energy contributions and develop a coordinated action plan to alleviate the impediments.
2. Adopt a policy to identify and assess Competitive Renewable Energy Zones (CREZs) throughout the state and then develop a strategy for public agencies and other stakeholders to facilitate the next generation build-out of these carbon free technologies. Supportive transmission infrastructure would be factored into this planning process. This policy should be coupled with a coordinated siting, environmental review and permitting process that is coordinated between the Federal, State and local agencies, similar to the CEC and BLM’s current joint National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) process for concentrating solar power plants. This new siting process will create common environmental documents and consolidated State and Federal permits within one year.
3. Conduct renewable energy technology assessments. The Report makes the following observations and recommendations regarding geothermal technology:

Geothermal: California has the largest developed geothermal resources in the U.S. at approximately 1,900 MW. CEC studies have shown the potential for an additional 2,900 MW_s using conventional flash and binary technologies in known resource areas. US DOE estimates California resource potential at between 12,200 and 15,100 MW. In order to better pursue this valuable base load renewable resource, California should consider undertaking a number of steps. Resource identification is a costly and time-consuming process, one that might be assisted by targeted State intervention. The US Geological Survey is undertaking a new resource assessment, updating the last assessment which was completed in 1979. The new assessment, however, will not examine new technologies and their potential in California, nor will it examine direct uses, heat pumps, or other non-conventional geothermal resources (like oil field co-production or geo-pressured resources). The CEC should support its own complementary assessment to examine California’s geothermal potential in a more comprehensive and up-to-date manner. Roughly one-half of the cost of a geothermal project is estimated by the Geothermal Energy Association to be related to subsurface exploration and resource characterization. These costs also raise the greatest risk to investors, and are usually not financially feasible. Cost-shared exploration drilling by the

federal DOE has been successful in the past. It should be explored by the State of California in the future.

Where does it go from here? CARB will consider the ETAAC Report at its February 28th Board meeting, and integrate many of the recommendations in its Scoping Plan. In addition, the Legislature will begin a series of hearings on February 26th to review the status of the RPS Program, and transmission issues.

To download a copy of the report, or obtain other information on the California Air Resources Board's process visit <http://www.arb.ca.gov/cc/etaac/etaac.htm>.

Tenaska Proposes Power Plant to Capture CO₂

Tenaska, Inc. is developing a site near Sweetwater, Texas, for a technologically advanced coal-fueled electric generating plant, according to their press release. Tenaska has filed for an air permit application, the first step in approving the project, with a decision about whether or not to proceed projected for 2009.

According to Tenasks, the technology will be able to capture up to 90% of the carbon dioxide that would otherwise enter the atmosphere. The carbon dioxide would be sold for use in enhancing oil production in the Permian Basin, resulting in geologic storage. The \$3 billion project will provide up to 2,000 jobs at peak construction and more than 100 permanent jobs.

"The benefits of this proposed plant are many," Bill Braudt, Tenaska's general manager of business development, told Sweetwater business leaders. "It will provide a source of badly needed, environmentally sound electric generating capacity. This plant will use abundant and relatively low-cost coal and help keep Texas electricity prices in check."

The approximately 600-MW plant would provide enough electricity to power about 600,000 homes. Construction could begin in late 2009 and be completed in 2014. The final decision to proceed with the project will be made in 2009. Factors include the availability of local, state, and federal incentives, final project cost estimates, and projected market prices for electricity and CO₂.

Visit <http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=109&STORY=/www/story/02-19-2008/0004758374&EDATE=>.

Coalition Pledges \$10 billion for Clean Technology

Energy Central Network published a story about efforts by U.S. and international investors to increase funding for clean technology.

Nearly 50 major investors led by activist pension funds from California to New York have pledged to invest \$10 billion over the next two years, the article said. Wall Street investors have significantly increased their participation, a move that shows they are unable to ignore the economics of climate change.

"We must seize the opportunity to make sound investment decisions and protect our environment," California Controller John Chiang said during a news conference at a United Nations Investor Summit on Climate Risk in New York.

"California has been at the forefront. We can do much more," said Chiang, a trustee of the California Public Employees' Retirement System and California State Teachers' Retirement System, the nation's two largest public pension funds with combined assets of more than \$410 billion.

In recent years, some of the world's largest companies have launched campaigns to invest in clean technology. Last year, banking giants Citigroup Inc. and Bank of America Corp. committed a combined \$70 billion to invest in green projects over the next decade.

According to the article, the climate change action plan will:

- Target a 20% reduction in energy use over the next three years from main real estate holdings, including office buildings, and industrial parks.
- Push the Securities and Exchange Commission to enact rules requiring public companies to disclose climate risks and opportunities.
- Lobby Congress for a mandatory plan to cut greenhouse gas emissions to 60–90% below 1990 levels over the next four decades.
- Urge Wall Street analysts, rating agencies, and investment banks to analyze long-term carbon emission costs of corporations, especially energy companies with coal-fired power plants.

Visit <http://www.energycentral.com/centers/news/daily/article.cfm?aid=9755754>.

State News

California: IID Energy Approves Transmission Project

The board of directors of Imperial Irrigation District (IID) Energy in California approved the first phase of a project to construct an 8-mile portion of a transmission line that will connect the existing IID Energy Midway substation and the proposed Bannister substation, according to *Energy Current*. The project will serve future geothermal energy producers.

The board also approved funding for Phases 2 through 4 to finalize environmental and acquisition rights of way for the remaining 27 miles of transmission.

IID Energy Assistant Manager Juan Carlos Sandoval said, "With a 40,000 MW renewable energy potential in the Imperial Valley, IID has more than 22 generator interconnection requests currently on the books waiting to be processed. Many of these are expected to come online within the next five years. Creating the needed transmission capacity for these generators can make or break their ability to operate in our area."

The new line is part of IID Energy's overall Green Path Transmission Expansion plan.

For more information, visit <http://www.energycurrent.com/index.php?id=3&storyid=8985>.

Nevada: Article Discourages New Coal Plant

An opinion piece on reviewjournal.com discussed the value of renewable energy development in Nevada and the ability of renewables to replace coal-fueled power plants.

The article referenced a previous piece that had promoted coal-fueled power plants and a coal-fueled power plant being planned in northern Nevada.

"If the Ely plant is built, it will largely define Nevada's energy choices until late in this century," the article said. "Current ratepayers, their children, grandchildren and likely their great-grandchildren will be paying the costs of the planning decisions we make today. The sad truth is that the "clean coal" and "cheap coal" mantras the industry drills into paid media campaigns deceive Nevada's consumers. Future coal-fueled power plants will be neither cheap nor clean."

According to the article, *Forbes* magazine indicated coal prices could double over the next two years. Support for renewable energy in Nevada would be less expensive, not to mention environmentally superior. The article praised "the utility, regulators, lawmakers and the incredibly inventive entrepreneurs from the private sector" who make strides in that direction.

Nevada is the nation's "breadbasket of renewable resources," the article said. It called for a "balanced portfolio of renewable resources" to meet energy needs, create jobs, and benefit the future of the state.

"In order to deliver expanded geothermal base load power to Southern Nevada, an interconnecting transmission line is essential, as the governor's renewable energy transmission task force recently proposed. Private firms have recently expressed a desire to share in the cost of such a line and federal incentives may become available as the nation revises its energy policy to encourage the reduction of greenhouse gases. This line would be economically viable without the "anchor tenant" of a multibillion-dollar coal plant. With that transmission infrastructure in place, other renewable energy such as wind, when available, can then be transmitted to displace fossil fuel generated electricity."

Regarding geothermal energy, the article said, "Geothermal resources in northern Nevada have been conservatively estimated at between 2,500 and 10,000 MW, enough to meet our needs far into the future. Geothermal power can be developed at rates that are currently comparable to coal-generated power, and without any risk of future fuel price increases or environmental costs."

The article asked readers to question reliance on coal companies and instead plan for a "creative, forward-looking energy policy."

Visit <http://www.lvrj.com/opinion/15713517.html>.

Idaho: Rev & Tax Committee Hold Geothermal Tax Bill

The House Revenue and Taxation Committee in Idaho is considering a bill that would require counties to tax geothermal power projects on the basis of production revenue, as it done for wind projects. The bill was held last week, according to Idaho Business Review.

The bill would also define machinery and equipment used by renewable energy production facilities and would clarify what equipment is exempt from sales tax. Tax Commission Policy Supervisor Dan John said it would have a fiscal impact if it exempts from sales tax some items that now are not exempt. It would not impact the definition of personal property. Facilities would be exempt from property tax. A 3% production tax would apply on revenue from energy production. The energy production tax revenue would go to counties.

"It improves the economic model for existing facility expansion or new facilities, and provides the means to recover some of the enormous capital costs associated with these types of projects," he said. The operator would pay the county from realized revenue rather than from property taxes up front, he said.

"With this legislation, we're able to recover some of those capital costs sooner without adversely impacting the revenue stream going to the county," Stephen West of Centra Consulting told the paper. This would leave the facilities in better position to hire people and expand—a boon to income and sales tax collections, he said.

Centra Consulting Inc. and U.S. Geothermal proposed the bill.

For more information, visit <http://www.idahobusiness.net/archive.htm/2008/02/19/Rev--Tax-Committee-holds-geothermal-tax-bill-for-clarifications>.

International News

Chile: Geothermal Will Aid Energy Shortage

Facing an energy shortage, Chile plans to develop geothermal plants in an agreement between the state-run oil company ENAP and Antofagasta Minerals, the El Mercurio newspaper reported.

The country has had too little rainfall and too few shipments of natural gas from Argentina. The production of geothermal energy will help ease the shortfall. Chile has an estimated geothermal potential of 3,350 MW, the paper said.

Antofagasta Minerals will own 60% while ENAP will own the rest. Both companies will continue to work on individual projects.

ENAP already has similar agreements with state-owned miner Codelco, the world's biggest copper producer, and Italy's Enel.

For more information, visit

<http://www.reuters.com/article/rbssIndustryMaterialsUtilitiesNews/idUSN1762718320080217>.

India: Glitner and Bhilwara Partner for Geothermal Projects

Nordic bank Glitnir has teamed up with Bhilwara Group to develop geothermal energy projects in India and Nepal, according to webwire.com.

In the partnership, Glitnir will raise capital and supply consultants for projects to build geothermal power plants in India and Nepal. LNJ Bhilwara will offer its large-scale infrastructure and local experience.

"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.

The bank's specialist bankers operate in 11 countries around the world including China, Scandinavia, the U.S., and the UK.

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

Nevis: Island Hosts Diplomatic Week

St. Kitts and Nevis hosted Diplomatic Week 2008 last week, according to sknvibes.com. Offers of assistance were made to St. Kitts and Nevis by its bilateral and multilateral partners, according to the article.

The theme for Diplomatic Week 2008 was "Maximizing Benefits from International Relations: Building Partnerships for Mutual Advantage."

Minister of Foreign Affairs Dr. Timothy Harris told the press that there was great support for geothermal energy in Nevis. "I believe, as a result of the inputs we have had over the last couple of days, there is going to be increase in attention by multilateral institutions and interested partners in other countries to have a further look at what is happening in Nevis and to see where strategic partnership may eventuate," he said.

For more information, visit <http://www.sknvibes.com/News/NewsDetails.cfm/4617>.

Philippines: PNOC-EDC Seeking Projects in Indonesia

PNOC-EDC, the top geothermal power company in the Philippines, is planning to further their geothermal development and oil drilling operations overseas, according to abs-cbnnews.com.

The company has three potential projects in Indonesia. Two of these, Ulubelu and Lumut Balai, are in South Sumatra. The third, Tompasso, is in North Sulawesi.

PNOC-EDC president Paul Aquino and Energy Undersecretary Guillermo Balce, the company's consultant for the international operations, confirmed PNOC-EDC's interest in Indonesia's geothermal energy reserve to the press.

According to the reports, Indonesia has the largest geothermal energy reserve in the world. It is estimated at 27,000 MW, 40% of the global reserve. Current use is only at about 800 MW.

For more information, visit <http://www.abs-cbnnews.com/storypage.aspx?StoryId=110144>

Tunisia: El Hamma Uses Geothermal for Agriculture

Tunisian and Icelandic researchers jointly published a scientific study that ranks Tunisia as the third country in the world in geothermal technology applied to agriculture, after the U.S. and Hungary, according to *Tunisia Online News*.

The geothermal potential in the El Hamma region of Tunisia is attracting foreign investors and creating new jobs. The technology is used for heating greenhouses and for irrigation.

The governorate of Gabes, where the district of El Hamma is located, is currently home to 15 geothermal projects, including three by foreign investors.

The projects are geared mainly to the production of melons and tomatoes. The 'El Hamma tomato' is exported to Europe, the U.S., and the Gulf countries.

Visit <http://www.tunisiaonlinenews.com/feb08/140208-1.htm>.

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@tgpmvc.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. If you would like more information about any of these vacancies or wish to apply then email 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.

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 or go to <https://e-center.doe.gov/iips/busopor.nsf/UNID/761A911053622FE3852572F20078F2CE?OpenDocument>.

Requests for Proposals (RFPs)

RFP Renewable Energy Certificates—U.S. Air Force

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
John Nelson - 703-767-8523/ john.nelson@dla.mil

For more information, visit <http://www.desc.dla.mil/DCM/DCMSolic.asp?SolicID=1337&SPos=0&DocID=9925>.

RFP for All-Source Generation—Washington (Due February 29)

Puget Sound Energy announces its intent to seek over 2,000 MW of all-source generation, including efficiency. Final RFP scheduled for release 1/12/08, with responses due 2/29/08.

For more information, contact Roger Garratt at Roger.Garratt@pse.com or go to <http://www.pse.com/energyEnvironment/pse2008RFP.aspx>.

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.

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

On January 4, 2008, 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 2008.

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 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.

RFP Climate Change and Sustainability Conferences (Due June 5 and December 9 2008)

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 or go to http://es.epa.gov/ncer/rfa/2008/2008_baa.html. Refer to Sol# EPA-C2008-BAA. (Grants.gov 12/6/07)

Upcoming Events

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, 2008, 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 2008 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.

SMU Geothermal Conference, June 17–18

Southern Methodist University will put on a Geothermal Conference June 17–18, 2008. 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.

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 US 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 US and internationally, we expect the 2008 trade show in Reno to be our largest event yet!

For more information about the GEA Trade Show, visit http://www.geo-energy.org/2008_ts/index.htm.

For information about the GRC Annual Meeting, go to <http://www.geothermal.org>.



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