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QUARTERLY PROGRAM REPORT

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***Geothermal Energy Outreach in the State of Oregon
 Fourth Semi-Annual Report
 September-May, 2006***

Statement of Objectives

The Oregon Department of Energy (ODOE) provides information and services to the geothermal community and other stakeholders. By leading the GeoPowering the West (GPW) effort for Oregon, ODOE maintains working relationships with others, including but not limited to: Tribes, Oregon Department of Geology and Mineral Industries, USDOE, U.S. Forest Service, Bureau of Land Management, National Park Service, the Oregon Institute of Technology, Geothermal Resources Council, and the Geothermal Education Office. This effort will help expand direct use of geothermal energy in Oregon and may lead to overcoming barriers to geothermal power plant developments. Appendix A contains the **Strategic Plan** outlining objectives for this program. Oregon Geothermal Working **Group members** are listed in Appendix B.

Program activities

The following highlights the principal accomplishments during the third half-year starting in April 1, 2006 through September 30, 2006:

The Program in **April** hosted the fifth Working Group meeting in the form of a *Workshop on Renewable Portfolio Standards*. This workshop provided background on production-based payments aka renewable energy tariffs used successfully in European countries. In the US, such renewable tariffs are being used in Minnesota for wind energy projects, and more recently in Washington state for select energy sources.

Goals of this workshop were to 1) assess the feasibility of a state Renewable Portfolio Standard to encourage renewable energy development and 2) to understand critical features of such energy payment policies a focus on small to medium sized projects. It remains to be seen whether this becomes a policy tool for the state Renewable Energy Working Group. Much discussion at the workshop centered on the value of community-based renewable energy systems as a means to to meet economic development or energy goals. Presentations from the workshop are available on the ODOE website. An agenda is below.

**Information Workshop
 Renewable Energy Production Payments
 Salem, OR, April 5, 2006**

This workshop focused on **production based payments** (or renewable energy tariffs) for renewable energy systems. These tariffs have been used in promoting renewable energy in European countries, wind energy projects in Minnesota, and more recently, a tariff was passed in the state of Washington for photovoltaic systems, small wind and anaerobic digesters.

Policy context: The Oregon Governor's Renewable Energy Action Plan (REAP) has two action items that read:

Assess the feasibility and effectiveness of production-based incentives for electricity generated by small to medium scale renewable resource facilities.

Assess the feasibility of a state Renewable Portfolio Standard and compare it with production-based incentives

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as to its effectiveness to encourage renewable energy development.

The **goal** of this workshop is to understand the critical design features of putting in place effective and efficient production based payment policies, with a focus on **small to medium sized projects**. In addition, this workshop will help evaluate this policy tool as the Renewable Energy Working Group implements the REAP.

When: Wednesday, April 5, 9:00 AM to 4:00 PM

Where: The Salem Public Library, 585 Liberty Street SE, Salem

**** Agenda ****

09:00 - 09:10 Welcome - Carel DeWinkel, Oregon Department of Energy
 09:10 - 09:30 The REAP, PURPA in Oregon, and community based energy development, Carel DeWinkel
 09:30 - 10:45 Renewable Tariffs in Europe and North America: An Overview-Success and Failures, Paul Gipe, author and renewable energy advocate
 10:45 - 11:00 Break
 11:00 - 12:00 Renewable Tariffs continued: successes, failures, Paul Gipe
 12:00 - 01:30 Lunch (own expense)
 01:30 - 03:15 Tariff design, Paul Gipe
 Key conditions to succeed (fair price, fixed period, differentiation by technology and region, predictability, etc.)
 Specific examples in detail
 Wind and Solar tariffs in Germany and France
 Wind, Solar, Biomass and Hydro tariffs in Ontario, Canada
 03:15 - 03:45 Scenarios for Oregon: ball park numbers for discussion
 03:45 - 04:00 Wrap-up

The Program in **May** hosted the sixth Working Group meeting in the form of a Workshop on direct use of geothermal energy. This workshop took place in Burns, Oregon where geothermal heat pumps and direct use greenhouses operate. Presentations from the workshop are available on the ODOE website. An agenda with notes is below.

Goals of this workshop were to promote direct use of geothermal energy, particularly for the agricultural sector such as green houses and aquaculture. Speakers discussed technical details about the resource and the technologies.

***Sixth Oregon Geothermal Working Group Meeting
 Burns, OR, May 17, 2006***

When: Wednesday, May 17 2006, 10 AM to 3:00 PM

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Where: Harney Court House, 450 North Buena Vista, Burns. 541-573-6356

Agenda & Notes

Welcome/Introductions - Carel DeWinkel, introduced himself and asked audience members to do the same.

Harney County Judge (Commissioner) Steve Grasty welcomed the attendees and pointed to two prior reports identifying geothermal energy potential in his county. He was familiar with both direct use and power generation prospects and encouraging in his words.

Geothermal Energy: Resources, Exploration, Drilling and Economics - Alex Sifford of Ecos Consulting went over a short presentation on these four general topics. His goal was to lay the groundwork for the following talks by confirming that geothermal resources clearly occur in much of Harney County, referring to the same 1983 report that the Judge did. (Alex & John Lund were significant contributors to that report.) Exploration for the direct use resources in question included researching neighboring well records, prior to drilling. Drilling cost estimates initially provided by Al Waibel of Columbia Geoscience were confirmed with two drilling firm members in the audience. They also indicated the time for a 6 inch diameter 500 foot deep water well in the areas was about one week, at a cost of less than \$50 per foot. The economics discussion focused on letting audience members know the 1) any direct use enterprise must "pencil out" profitably regardless of the energy costs, and 2) higher first costs of developing a geothermal system must pay off in lower operating costs, all other costs being equal.

Introduction to direct use of geothermal energy - John Lund of the Geo-Heat Center gave a comprehensive overview of the many direct use applications worldwide. Many audience members asked about ways to capture heat and costs involved. John shared much of the valuable information accumulated from years of seeing applications worldwide.

Introduction to geothermal heat pumps - Andrew Chiasson of the Geo-Heat Center provided much useful information on using lower temperature water in specific current greenhouse applications. Many audience members asked about sizing greenhouses to match resources.

Greenhouse and aquaculture guides - Toni Boyd of the Geo-Heat Center covered what is in the extensive guides available regarding these two direct uses of energy. She covered some "rules of thumb" for heating requirements of both greenhouses and fish ponds.

Geothermal information and web sites- Toni Boyd collected and shared the many useful internet sites with valuable developer information. Many of these links will be added to the ODOE website. She ranked highly the Great Basin Center for Geothermal Energy (UNR) and NREL websites.

Current local interest in geothermal direct heat applications - this group discussion elucidated much interest in two nearby operations: Crane Hot Springs and a new greenhouse venture underway next door to it. Donna Kryer described the Crane Hot Springs Resort (<http://www.cranehotsprings.com>). It uses 185 degree water to heat a swimming pond. Accommodations include Rustic Cabins, Tent Camping Area, R.V. Sites, Horse Corrals, Natural Spring Swimming Pool and a Bathhouse. Jean Cain described her brand new venture using a similar temperature waters to heat a 13 bay greenhouse that had fallen into disrepair. Her operation is raising vegetables for the fresh market in Bend and nursery stock for a floral shop she operates in Burns.

One audience member indicated a local recreational vehicle factory is using a 134 degree well for space heating. Subsequent research indicates a 94 degree well is being used by the business (well log attached). The fourth and final takeaway was news that planned institutional building activity is underway that may be able to take advantage of local geothermal resources. Local well logs indicate strong potential for heat

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pump space conditioning systems (see above). Both the local hospital and high school are apparently in planning stages for renovation that would include new heating and cooling options. ODOE is following up with this possible lead.

Federal and State Incentives - Carel DeWinkel described these incentive topics briefly and the State's interest in rural agricultural applications.

The meeting concluded with a video of the DVD: "Development of Geothermal energy projects in Klamath/Lake counties". The excellent video is available from the South Central Oregon Economic Development District.

Following the meeting, a field trip to the geothermal greenhouses in Crane took place. The greenhouses are in remarkably good shape for having been abandoned for almost five years. As it was a warm day the greenhouses were exceptionally productive.

Attendees at newly restored geothermal greenhouse operation, Crane Oregon.

The Program in **June** focused on ground source heat pump promotion. Working with residential tax credit staff at ODOE, the program helped address new requirements for installers of such systems. After a preliminary meeting with in May, ODOE staff held a teleconference call on June 6 in Salem. Four ODOE staffers hosted the event, with three heating contractors attending in person. Twenty two other participants dialed in for the one hour event with the primary goal of explaining new state tax credit certification requirements. Program and ODOE staff responded to contractor questions. Over 20 Oregon contractors are interested in being certified. A second call occurred June 30 covering the same material in an effort to get all interested parties trained.

The primary goal of the calls is to clarify requirements for Oregon state tax-credit certified technicians. Oregon residents applying for a tax credit must use tax-credit certified technician. ODOE currently certifies diagnostic, duct, solar - and now -geothermal technicians. Certified geothermal technician have three options: 1) show proof of International Ground Source Heat Pump Association training (IGSHPA), 2) show proof of an qualified manufacturer's equivalent training program, or 3) other training approved by the Oregon Department of Energy Director. Reasoning behind the certification requirement is to make geothermal consistent with other tax credit requirements and increase quality assurance. A copy of the call agenda is below

**2006 Geothermal Update Conference Calls
June 6 & 30, 2006****Purpose of the Update Conference Call**

- To talk with geothermal professionals about the state energy tax credit program
- To share what is new with the tax credit programs

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- To share technical geothermal information
- To discuss other incentives and federal tax credits
- To give you resources at the Oregon Department of Energy
- To get feedback from geothermal professionals

What is NEW?

General - Residential Energy Tax Credit

For an Oregon resident who has installs a qualifying geothermal system installed by a tax-credit certified technician

General - Business Energy Tax Credit

For an Oregon business that has a qualifying geothermal system installed

Non-profit or public entity can use the Pass-through Option

Must apply for the tax credit **before** the start of project

Must show a 15-year payback or eligible cost is prorated

Tax-credit certified technician

Oregon Dept. of Energy certifies diagnostic, duct, solar and geothermal technicians

Oregon residents applying for a tax credit must use tax-credit certified technician

Oregon Dept. of Energy lists tax-credit certified technician's employer on its Web site

Why certification? To make geothermal consistent with other tax credit requirements and increase quality assurance.

Tax-credit certified geothermal technician must show proof of International Ground Source Heat Pump Association training (IGSHPA) or an IGSHPA certified manufacturer's training program or other training approved by the Oregon Department of Energy Director.

Technician must sign annual agreement

To maintain tax-credit certification, geothermal technician must:

1. Sign and update certification agreement on annual basis.
2. Participate in an annual "update" conference telephone call with ODOE.

Maintain current requisite technical certification and licensing.

Install and submit a minimum of two (2) geothermal Residential Energy Tax Credit applications.

Technical Issues

Geothermal space or water heating system must be installed in a closed-loop configuration

Only systems that use a subsurface coil of tubing or heat exchanger and do not remove water from the ground, lake, pond or stream are eligible.

Tax-credit certified technician must provide an accurate description of the equipment or system on the application form.

Technician must provide a 12-month minimum system warranty.

Technician must provide homeowner with an owner's manual and explain basic operation and proper maintenance of system to the owner.

Use Geothermal Tax Credit Yield Table:

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System Tons	BTU per Hour Output	Estimated Savings	Tax Credit Amount
3 ton and under	Less than 40,000	1,000 kWh	\$600
4 ton	40,000 - 49,999	1,165 kWh	\$700
5 ton	50,000 - 64,999	1,335 kWh	\$800
6 ton and over	65,000 and over	1,500 kWh	\$900

Tips

- Technical portion of forms must be filled out by technician
- Technician must sign application form
- Itemized receipt required marked "PAID" with contractor signature and date
- Homeowner must sign form

Other incentives:

Federal tax credit for geothermal (Please contact the IRS or a tax professional for assistance on claiming the federal tax credit.

Must be placed in service in 2006-2007

\$300 maximum credit for closed loop: EER 14.1 COP 3.3

Open loop: EER 16.2 COP 3.6

Direct expansion: EER 15 COP 3.5

Rebates - Many Oregon utilities offer rebates for geothermal

See Oregon Dept. of Energy Web site (www.oregon.gov/energy) Under "Favorites" click on "Utility Incentives and Other Funding Sources." Then click on the word "incentives" in the third paragraph. Click on State: "Oregon" and Type: "Heat Pump." This will give you all Oregon utilities that offer an incentive for geothermal heat pumps.

Or go directly to the site: <http://www.northwestenergystar.com/index.php?cID=171>

Resources

Angie Whitethorn - Oregon Dept. of Energy - Energy Program Specialist - 1-800-221-8035 or (503) 378-2697 - Call regarding questions on Residential Energy Tax Credits, tax credit forms, and how to become a tax-credit certified technician.

Lisa Hull - Oregon Dept. of Energy - Energy Analyst - 1-800-221-8035 or (503) 378-6916 - Call regarding questions on Business Energy Tax Credits and forms.

Suzanne Dillard Oregon Dept. of Energy - Conservation Services Manager - 1-800-221-8035 or (503) 373-7565- Call concerning policy issues for the Tax Credit Program.

Nevada Geothermal Inc. announced in early June that it has evaluated the power potential of its prime Oregon geothermal prospect, Crump Geyser with positive results. A copy of the Nevada Geothermal n announcement is in Appendix C.

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An Oregon municipal electric utility confirmed to the program its interest in purchasing geothermal power from a project underway in Idaho. Eugene Water and Electric Board confirmed the utility is negotiating with U.S. Geothermal Inc. to purchase additional power from the Idaho project underway. A copy of the U.S. Geothermal n announcement is in Appendix C.

A business consultant working the Hot Lake property owners in Union County Oregon contacted the program regarding opportunities for both direct use and power generation. Information and sources were provided to Brad Cole of Baker City, Oregon. For more information about his clients and their geothermal property see <http://www.davidmanuel.com>.

Pacific Gas and Electric Company announced in **July** that it contracted with Northwest Geothermal Company to purchase geothermal energy resources to help meet its customers' future electricity needs. It is unclear how much power was contracted for, as the announcement covered two purchases totaling 169 MW. Regardless of the amount, this should lead to renewed activity at Newberry Volcano. Doug Perry, President of Davenport Power LLC, the Operator of Northwest Geothermal Company, is quoted as saying "this is an exciting opportunity to use the earth's naturally occurring heat as a source of new clean energy for PG&E's customers." A copy of the announcement is in Appendix C.

The Program began in **August** working with Harney County economic development officials on heat supply options for a prospective business. The company considering relocating to the Burns area needs low pressure steam in its process applications and some level of space conditioning. For process energy needs, one option is to use relatively warm water (~65 F) to pre-heat water prior to boiling with wood or gas. For space conditioning needs, using the same water in a ground source heat pump application would be very effective.

One tangible result from the Burns meeting in May was confirmation of a 94 degree well being used by a local recreational vehicle manufacturing facility. Coincidentally in August that same business using geothermal heating gave notice of needing some serious changes in order to keep running the plant. As a result of some quick conferring with ODOE and the Geo-Heat Center, Center investigated the flow of and energy withdrawal from the geothermal resource.

September activities centered around the GeoPowering the West meeting and Geothermal Resources Council Annual meeting. The positive news is GPW's growing presence in the power industry. GPW Utility Webcasts and other outreach activities with electric utilities are creating new partnerships for the industry.

Website additions during the period include:

- Renewable Portfolio Standards (Fifth) workshop presentations;
- Burns Direct Use (Sixth) workshop presentations;
- NREL Oregon Geothermal factsheet
- Additional GPW and Geo-Heat Center materials

Appendix A

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Oregon Geothermal Energy Development Strategic Plan

**Proposed Activities
September 2004 to October 2006**

MISSION STATEMENT

The Oregon Geothermal Working Group promotes the use of Oregon's geothermal resources for power generation and direct use applications.

STRATEGIC OBJECTIVES

- Strategic Objective 1: Organize an Oregon Geothermal Working Group and Implement a Strategic Plan.**
- Strategic Objective 2: Educate the stakeholders and increase public awareness of Oregon's geothermal energy resources, rules, laws, benefits and cost-effective applications.**
- Strategic Objective 3: Promote the establishment of laws, legislation, and policies that encourage the development of geothermal energy for direct use and power generation.**
- Strategic Objective 4: Increase technical knowledge and understanding of Oregon's geothermal resources and their uses.**
- Strategic Objective 5: Promote financial assistance for geothermal energy projects.**
- Strategic Objective 6: Promote innovative and broader use of non-generating applications geothermal energy.**
- Strategic Objective 7: Promote opportunities for geothermal electric power development.**
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- Strategic Objective 1: Organize an Oregon Geothermal Working Group and Implement a Strategic Plan.**

Action Plan:

- a. By November 2004, organize a Oregon Geothermal Working Group to review, adopt, and implement the Oregon Geothermal Energy Development Strategic Plan. The Oregon Department of Energy will facilitate and support this group.
- b. Through September 2006, conduct regular working group meetings to review

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progress of the Strategic Plan. This will include disseminating information to Oregon geothermal energy stakeholders through the Oregon Geothermal Working Group email list and ODOE website.

Strategic Objective 2: Educate the stakeholders and increase public awareness of Oregon's geothermal energy resources, rules, laws, benefits and cost-effective applications.

Action Plan:

- a. Through September 2006, sponsor and/or coordinate educational activities (e.g., workshops, symposiums, etc.) to promote the uses of geothermal energy (e.g., space and water heating, aquaculture, industrial applications, power generation) to various groups.
- b. Through September 2006, network with resource centers i.e., OIT GeoHeat Center, Geothermal Education Office, NREL in developing educational programs for interested parties, potential users and community leaders in the use of geothermal energy.

Strategic Objective 3: Promote the establishment of laws, legislation, and policies that encourage the development of geothermal energy for direct use, power generation and cascading applications.

Action Plan:

- a. Through September 2006, educate appropriate legislative committees and others influencing energy policies.
- b. By January 2006, identify organizations to promote the drafting of legislation, which may include renewable portfolio standards, set asides, system benefit charge, and tax credits.
- b. Through September 2006, provide technical support to those involved in drafting legislation.
- d. Through September 2006, work with the Oregon Public Utilities Commission to promulgate rules promoting utility purchase of geothermal power.
- e. Through September 2006, explore for possible links with new farm bill to support direct use applications in agriculture.
- f. Through September 2006, encourage the Oregon Congressional delegation to support legislation to promote development of geothermal resources for direct

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use and power generation.

Strategic Objective 4: Increase technical knowledge and understanding of Oregon's geothermal resources and their uses.**Action Plan:**

- a. Through September 2006, promote efforts to improve and update existing geothermal resource databases and maps. Information will be collected from the OIT Geo-Heat Center, the Dept. of Geology & Mineral Industries and the Geothermal Resources Council. Such information will be distributed as part of Strategic Objective 2.

Strategic Objective 5: Promote financial assistance for geothermal energy projects.**Action Plan:**

- a. Through September 2006, compile and disseminate information on available government financial incentives. These include federal incentives (production tax credits), state incentives (loans and tax credits), and Energy Trust of Oregon incentives.

Strategic Objective 6: Promote non-generating applications of geothermal energy.**Action Plan:**

- a. By June 2005, identify and characterize geothermal resources in Oregon suitable for non-generating applications, and make such information regarding the same publicly available.
- b. By December 2005, develop a repository of technical, financial, regulatory and other relevant information on non-generating uses of geothermal energy.
- c. Coordinate with the Oregon Economic Development officials and others in conducting studies that document the rural economic impacts of developing geothermal energy resources for direct use.

QUARTERLY PROGRAM REPORT**Strategic Objective 7: Promote opportunities for geothermal electric power development.****Action Plan:**

- a. By June 2005, identify and characterize resources in Oregon suitable for geothermal electric development, and make information regarding the same publicly available.
- b. By June 2005, make information pertinent to geothermal power plant siting, acquisition of financing, etc. publicly available.
- c. By December 2005, determine from rural electric utilities (including aggregators such as Pacific Northwest Generating Company) their near-term interest in pursuing geothermal development in Oregon
- d. Through September 2006, work with other stakeholders to resolve existing transmission constraints that could impede development of geothermal electric generation.

Appendix B Oregon Geothermal Working Group List as of Sept. 30, 2006

APPENDIX C - Press Releases

GeothermEx Estimates Minimum 40 MW, Most Likely 60 MW Potential at Crump Geyser, Oregon

VANCOUVER, B.C. (May 30th, 2006) -- Nevada Geothermal Power Inc. (NGP) (TSX-V: NGP, OTC-BB: NGLPF) today announced the results of an independent review of the Crump Geyser Geothermal Project by GeothermEx, Inc. of Richmond, California which provides a preliminary estimate of the minimum and most likely megawatt (MW) capacity of the Crump Geyser geothermal resource.

The GeothermEx results are contained in a report entitled "Assessment of the Crump Geyser Geothermal Project, Lake County, Oregon" dated May 1, 2006.

Summarizing directly from the report:

- "Nevada Geothermal Power Company, a wholly owned subsidiary of Nevada Geothermal Power Inc. (NGP) holds approximately 7,200 acres (11.2 square miles / 29 square kilometers) of geothermal leases in the area of the thermal anomaly. These are divided into a "southern geothermal zone," which includes the Crump Geyser anomaly, and a "northern geothermal zone," which encompasses a separate set of warm springs. The Crump Geyser geothermal system is expressed by hot springs with temperatures to 78°C, which extend about 5 km along the western edge of Warner Valley, at the eastern front of the Warner Mountains, in Lake County, Oregon.
- "Using Monte Carlo simulation, we estimate the potential megawatt (MW) capacity of the Crump Geyser reservoir to have a minimum value of 40 MW (90% probability) for 20 years and a most likely value of 60

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MW for 20 years. This capacity estimate is based on a volumetric estimate of heat in place which assumes an area of 5.4 to 16 km² (most likely 10.7 km²), a reservoir thickness of 760 to 1,680 m (most-likely 1,070 m), and average reservoir temperature 140° to 160°C (most-likely 150°C).

- "The area is at the northeastern end of the Basin and Range geologic province. Rocks exposed at the surface and likely to host the thermal reservoir at depth are volcanics that are at least a million years old. The thermal anomaly is accordingly expected to be the result of deep circulation (of groundwater) in a region of elevated heat flow.
- "A conceptual model of the resource suggests that the deep source fluid probably migrates up-dip, moving to the NE, within fractured volcanic strata of the gently SW-dipping Warner Mountains block (i.e. the hot water comes to the Crump area from the SW). The depth of these strata is unknown, but probably at least 1.5 to 2 km. This water migrates NE at depth until it reaches the steeply-dipping range-bounding fault, on the west side of Warner Valley, and steeply-dipping NW-trending cross-faults. Permeability in the range-bounding fault zone, probably enhanced by the cross-faults, provides conduits for a rapid ascent to the surface. Some of the deeply migrating water may also cross the bounding fault and cross-faults and reside at commercially drillable depths beneath the valley, particularly along the west side."

Following a corporate review of our exploration results to date and the positive analysis by GeothermEx, Inc., NGP intends to advance the Crump Geyser project through reservoir drilling, testing and confirmation, project feasibility studies and ultimately electrical power production."

U.S. Geothermal Announces Plan for Enhanced Power Sales

BOISE, Idaho, June 16, 2006 (OTCBB: UGTH, TSX.V: GTH) U.S. Geothermal Inc., a renewable energy development company focused on the production of electricity from geothermal energy, announced today changes in its existing power purchase agreements ("PPAs"). US Geothermal has received a letter of intent from Eugene Water and Electric Board ("EWEB"), of Eugene, Oregon, for EWEB's purchase of the full 13 MW electrical output from the second planned power plant. The parties have exchanged a draft PPA and intend to complete it by the end of July. Upon execution of the EWEB PPA, and if the phase 1 is successful in the Idaho Power Request for Proposal, then the total output from phases 1 and 2 of the Raft River power plants will be 26 MW from two plants, instead of the originally planned 30 MW from three plants, resulting in substantial capital and operating cost savings through improved economies of scale.

News Release Date: July 28, 2006

Contact: PG&E News Department (415) 973-5930

Pacific Gas and Electric Company Adds More Renewable Geothermal Energy to Electric Mix - New Agreement to Provide Enough Renewable Electricity for More than 125,000 PG&E

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SAN FRANCISCO - Pacific Gas and Electric Company announced it has entered into contracts with IAE Truckhaven I, LLC and Northwest Geothermal Company to purchase up to a total of 169 megawatts (MW) of renewable geothermal energy resources to help meet its customers' future electricity needs. Electric generation from these renewable energy resources will provide enough power to supply more than 125,000 PG&E customers.

“The addition of this geothermal generation further adds to PG&E's diverse and renewable energy resources and ensures that more than thirty percent of our northern and central California customers' energy needs will come from hydroelectricity and renewable sources,” said Fong Wan, vice president of Energy Procurement. “These new resources will add to a generating portfolio that already has one of the lowest rates of air emissions in the country.”

“Iceland America Energy (IAE) is very pleased to have reached an agreement with PG&E. It allows us to move aggressively into financing and development of the IAE Truckhaven I project,” said Magnús Jóhannesson, CEO of IAE. The country of Iceland is the world leader in the use and exploitation of geothermal energy, both by providing clean electricity to its citizens and industry as well as heat and hot water for domestic consumption and industrial and municipal uses. IAE, through its Icelandic and US shareholders, brings that world class technical expertise and over 70 years experience in developing and exploiting all phases of geothermal energy to the US and Canadian market.

Doug Perry, President of Davenport Power LLC, the Operator of Northwest Geothermal Company, noted that “this is an exciting opportunity to use the earth's naturally occurring heat as a source of new clean energy for PG&E's customers.”

PG&E has a long history of developing, generating, and purchasing renewable power. The utility currently supplies 32% of its customer load from renewable resources: 20% from its large hydroelectric facilities and 12% from smaller renewable resources that qualify under the State's Renewable Portfolio Standard (RPS) Program. This agreement represents another milestone for PG&E towards its goal of supplying 20% of customer needs with qualifying renewable energy under the RPS program.

These are the fourth and fifth contracts originating from the 2005 RFO solicitation and bring the total renewable generation added as a result to 274 MW. PG&E is currently in discussion with additional market participants that submitted bids in the 2005 RFO solicitation and anticipates submitting additional contracts for renewable energy in the next few months.

To continue to increase its renewable energy portfolio, PG&E recently announced its 2006 renewable energy procurement solicitation. In this upcoming solicitation for additional generation from renewable resources, the company is seeking to procure an additional 1-2 percent of its customers' electricity needs through renewable sources. Schedule and bidding instructions can be found at www.pge.com/renewableRFO. The 2006 RPS solicitation is PG&E's fourth competitive solicitation for renewable energy since 2002. Since then, it has entered into contracts for up to 837 MW of renewable power from wind, geothermal, biomass, and hydro resources, including the contracts filed today with the CPUC.

California's RPS Program requires each utility to increase its procurement of eligible renewable generating resources by 1% of load per year to achieve a 20% renewables goal. These two contracts increase PG&E's 2005 RFO procurement to approximately 2.5% of load, 2.5 times the annual target. The RPS Program

Submitted by:**Date:**

Typed name George D. Thompson, Jr.
Title: Federal Grant Officer
Phone: (503)378-3767
 /s/ Signed electronically

10/31/2006