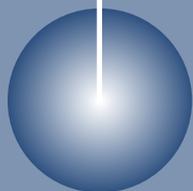


# Geothermal *technologies*



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## EERE Publications Catalog Project

The Office of Energy Efficiency and Renewable Energy (EERE) took a major step in integrating and consolidating all of its clearinghouses and hotlines with the launch of the new EERE Information Center on January 2, 2004. EERE's Information Center replaced the former Energy Efficiency and Renewable Energy Clearinghouse (EREC), as well as additional clearinghouses/hotlines operated by several other EERE programs. EERE is in the process of merging three remaining clearinghouses/hotlines.

By consolidating multiple clearinghouses, the new center will improve efficiency and customer ease of access providing a single contact point for EERE's extensive portfolio of information products, tools, and partnership opportunities. In addition, all EERE publication requests will be fulfilled by a single mail center.

The catalog, which is still under development, is intended to provide all EERE customers and programs direct access to a single, comprehensive database of EERE publications and abstracts/links to EERE-produced CD-ROMs, videos, software, databases, and similar products. Initially the catalog will concentrate on EERE 'communications and outreach' products rather than 'scientific and technical' documents, such as R&D project final reports.

The catalog features an online 'shopping cart' that will allow customers to order products directly from the Information Center, or download them to their personal computers. It will also be a very important tool for staff at the new EERE Information Center in helping to match the needs of thousands of callers with the most appropriate EERE communication product.

The EERE Information Center's toll-free number is 877-EERE-INF(O) or 877-337-3463. Calls to the former EREC hotline will automatically rollover to this new number, and will continue to do so as long as needed. Hours of operation for the EERE Information Center are 9 am to 7 pm EST, Monday-Friday except federal holidays.

The **Geothermal Technologies Program** was a "beta test" candidate for this new catalog, supplying a first-round list of appropriate program publications to help validate this new capability. The catalog is "live" at [www.eere.energy.gov/catalog](http://www.eere.energy.gov/catalog) and is called *Information Resources Catalog*. From this point, you can select *Geothermal Technologies Program* and arrive at a page giving you the choice between *Program Area* and *Product Type*. Program Area is divided into the following categories:

- General
- GeoPowering the West
- Environmental
- Direct Use
- Heat Pumps
- Power.

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*Product Type* is divided into the following categories:

- Bookmark
- Brochure
- Case Study
- Fact Sheet
- Guide
- Other
- Other Publications
- Report
- Software/CD-ROM
- Success Story.

If you'd like more information on this project, or want to include any program-funded publications and outreach products, please contact Bruce Green, NREL, at (303) 275-3621, or [bruce\\_green@nrel.gov](mailto:bruce_green@nrel.gov).

## Enhanced Geothermal Systems

### Grant Recipients

The EGS program has selected the following research projects—shown in the table below—for funding under the newest Enhanced (Engineered) Geothermal Systems Research and Development Grant (solicitation No. DE-PS36-04GO94001):

Applicant Name	Budget Information			
	Cost Share	Applicant	DOE	Total
Duke (Malin)	36%	\$96,446	\$170,384	\$266,830
Pennsylvania State University (Elsworth)	21%	\$125,358	\$476,195	\$601,553
SAIC (Pritchett)	25%	\$150,000	\$458,732	\$608,732
University of Utah (Hulen)	34%	\$250,000	\$495,742	\$745,742
University of North Carolina (Rial)	22%	\$134,828	\$487,302	\$622,130
University of Utah (Moore)	27%	\$185,000	\$500,000	\$685,000
University of Utah (Moore)	31%	\$214,999	\$475,599	\$690,598
University of California, San Diego (Möller-Weare)	20%	\$124,804	\$498,646	\$623,450
Pinnacle Technologies (Weijers)	25%	\$96,109	\$288,326	\$384,435
University of Utah (Wannamaker)	34%	\$254,364	\$499,328	\$753,692
University of Utah (Hulen)	29%	\$201,422	\$499,402	\$700,824
University of Utah (Rose)	20%	\$124,979	\$499,986	\$624,965

Visit the program Web site at:

[www.eere.energy.gov/geothermal/solicitations\\_awards.html#gred](http://www.eere.energy.gov/geothermal/solicitations_awards.html#gred) for links to project summaries.

## Geothermal Resource Exploration and

### Definitions (GRED-III) Grants

The following companies will receive financial assistance from DOE under its Geothermal Resource Exploration and Definitions (GRED-III) program:

- ORMAT Nevada, Inc.
- Earth Power Resources, Inc.
- Esmeralda Energy Company
- Noramex Corporation (see *Update on Blue Mountain Project* on page 3)
- AMP Resources
- New Mexico Institute of Mining and Technology
- Fort Bidwell Indian Community
- Western Geothermal Partners
- NGP Power Corporation
- Arizona Public Service
- Chena Hot Springs Resort, LLC.

The GRED III program will ultimately lead to more electrical generation and direct-use applications from geothermal resources. DOE requested approximately \$2 million in FY 2004 for this program.

## Geothermal State Energy Program

### Grant Awardees

A major problem that hinders geothermal development is that most state and local officials, utility managers, and others are unfamiliar with geothermal energy. They have little experience with geothermal development and have not considered the benefits in providing local jobs for resource development, construction, and operation of facilities. To this end, communication and outreach grant awards have recently been announced to the following states:

- Alaska - Alaska Energy Authority
- Arizona
- California - California Energy Commission
- Colorado - Governor's Office of Energy Management & Conservation
- Hawaii
- Idaho
- Montana
- Nevada
- New Mexico - Energy Minerals and Natural Resources
- Oregon - Oregon Department of Energy
- Texas - Texas Comptroller of Public Accounts
- Utah
- Washington - Washington Department of Community, Trade & Economic Development
- Wyoming.

### 2004 GPW State Summit

On September 1 – 2, 2004, DOE's GeoPowering the West (GPW) Initiative hosted the third GPW Annual State Working Group Summit Meeting. The meeting was held at the Hyatt Grand Champions Resort in Indian Wells, California, in conjunction with the GRC Annual Meeting and GEA Trade Show. The meeting brought together the lead staff of the state geothermal working groups to:

- Develop a clear understanding of the status of geothermal development at the state level
- Identify issues, barriers, and accomplishments
- Match resources and share strategies/lessons learned for overcoming identified barriers
- Identify needs of states, and understand the role of GPW in helping address them.

Representatives from the following states attended: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Texas, Utah, Washington, and Wyoming. In addition to staff from the GPW program, members of the U.S. geothermal industry were also in attendance as speakers or observers. In all, over 65 participants representing state, federal, and private sector entities attended the Summit.

The meeting included a discussion of innovative project updates of geothermal research in the West, Mammoth Lakes, and the Imperial Irrigation District. In addition to the status of GPW, other featured topics included a legislative and policy update, the turn-key geothermal project development process, geothermal heat pumps, and geothermal development on tribal lands. Two special sessions were the working group status update from all the states represented and an "Ask the Experts" breakout session designed to facilitate interaction.

This meeting was the third of the State Summits and represents a maturing of the GPW Initiative. As a result of these efforts, geothermal has increased its visibility; geothermal resources of the Earth have been identified for new audiences; geothermal expertise has been identified for new and potential beneficiaries in these states; and certain project opportunities have come forward. One of the benefits of GPW has been working with geothermal industry professionals, and this third Summit helps to prepare the states for encouragement and advancement of new geothermal installations.

### Update on Blue Mountain Project

Nevada Geothermal Power, Inc. (NGP) reports that a temperature gradient drilling program is near completion at the Blue Mountain project in Nevada. Eight holes have been drilled to depths up to 1,020 feet using an air rotary rig to map the subsurface thermal anomaly outward from the central thermal zone. At three valley locations where the depth of overburden exceeded the capability of the air-drilling equipment, additional drilling with a mud circulation rig may be conducted after the initial results have been compiled. Results from the current drilling, combined with earlier temperature gradient data and test wells, Deep Blue No. 1 and 2 will be used to determine the optimum location for two production test wells.

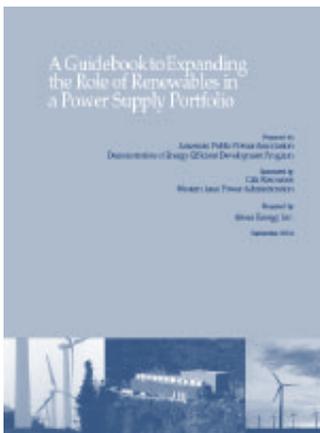
Permits are in place for further flow and injection tests of Deep Blue No 2, which was drilled earlier this year to 1,128 meters (3,700 feet). DOE and Noramex

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Corp, an NGP subsidiary, have approved a \$148,000 (U.S.) budget for this project. Funding will be shared at \$95,000 (U.S.) from DOE and \$53,000 from NGP. Stabilized well temperatures will be measured to determine the well heat-up characteristics following a five-month period when the well has been shut in after drilling. The well will be discharged by air lifting in a similar fashion to an earlier “rig-on” well discharge. Subsequently, water injection tests will be performed, and the combined results will be used to interpret the potential production well productivity at the location. The test equipment is scheduled to be on site by October 18, 2004.

**Source:** Nevada Geothermal Press Release, September 29, 2004. Also, see the Blue Mountain Geothermal Project Web site at: [www.nevadageothermal.com/s/News.asp](http://www.nevadageothermal.com/s/News.asp)

## Web Cast Series on Guidebook to Expand Role of Renewables in an Energy Supply Portfolio



Beginning on November 1, 2004, and the subsequent first Monday of every month, for the next five-months, small and medium-sized public power utilities can participate in a free Web cast to learn how to expand the role of renewable resources in their energy supply portfolio.

The Web cast is sponsored by the American Public Power Association’s (APPA) Demonstration of Energy-

Efficient Developments (DEED) Program, the Western Area Power Administration, the DOE GeoPowering the West Program, the DOE Wind Powering America Program, and the National Renewable Energy Laboratory. The Web cast series is based on a new resource produced by the APPA DEED Program entitled: *A Guidebook to Expand the Role of Renewables in an Energy Supply Portfolio*.

Public power utilities face unique challenges in trying to add more renewable energy to their power supply mix. The Guidebook will assist in answering their questions and helping them with the planning process. The Web cast series will review each core chapter in the Guidebook, including topics on:

- Drivers for expanding the role of renewable resources
- Strategies for acquiring resources
- Options for public participation
- Examples of consumer research versus customer participation
- Defining renewable resource alternatives
- Screening renewable resource options
- Designing acquisition programs
- Analyzing cost and risk factors
- Suggesting implementation processes.

The Guidebook draws on strategies other utilities have used to increase their percentage of renewable energy, and provides a step-by-step process for considering renewable resources, especially wind and geothermal, in smaller public power system resource portfolios.

To register for one or all of the Web casts, please contact Debbie Rock, Western Area Power Administration, at [arockd@wapa.gov](mailto:arockd@wapa.gov) or 720-962-7271. Please provide your full name, company, telephone number, e-mail address, and which particular Web cast you’d like to attend. Attendance will be limited to the first 40 people for each Web cast. Additional Web casts will be provided on a demand basis. If more than 40 people register for any single Web cast, representatives from public power utilities will have priority over non-utility participants.

## How to Reach Us

For more information contact:  
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*Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.*