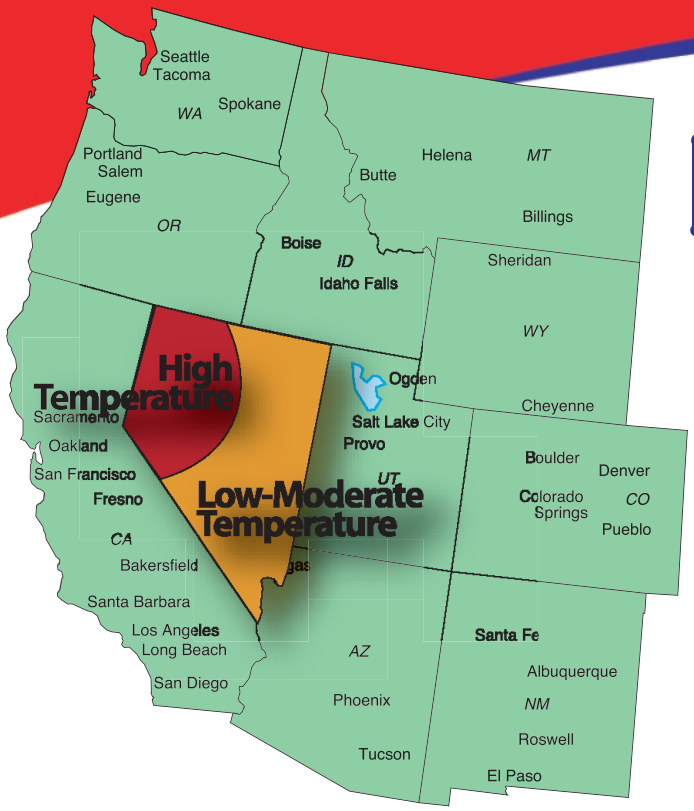
GEOTHERMAL ENERGY
heat from the earth



Nevada

holds the largest amount of untapped geothermal resources in the U.S., with a potential of 2,500 to 3,700 megawatts of electricity (MWe). (1 MWe powers approximately 1,000 homes.) Wells and springs exist over the entire state, offering extensive opportunities for development of low- and high-temperature resources for direct use or power generation. As U.S. Senator Harry Reid said at the inauguration of GeoPowering the West (see reverse), "This modest investment by the Federal government has the potential to stimulate billions of dollars in investment and tens of thousands of new jobs, and in turn make Nevada the Saudi Arabia of geothermal energy."

Why Geothermal ?

Homegrown Energy

It's here, right beneath our feet! No need to import!

Current Development

Today, Nevada is one of the top producers of geothermal power, with 235 MWe gross (196 MWe net) installed capacity. Geothermal energy provides about 9% of northern Nevada's electricity; 14 power plants are operating at 10 geothermal sites. More than 30 Nevada facilities use the geothermal waters for space heating, mining, food processing, district heating, resorts and spas, and aquaculture. More geothermal development is expected soon. Nevada's Renewable Portfolio Standard now requires that 15% of Nevada's energy come from renewables by 2013.

Economic Benefits

Eighty-seven percent of Nevada is Federally owned. Half of all Federal lease rental fees and production royalties are returned to the state. Geothermal royalties and fees returned to Nevada were estimated to be almost $2 million in 1999. The geothermal industry is a source of employment in many areas, including well services, environmental services, construction contractors, plant operators, researchers, equipment suppliers, and others. The U.S. Department of Energy currently supports 19 research and development projects, either in Nevada or involving Nevada-based partners, primarily through cost-sharing agreements. These projects are valued at more than $6 million.

Technical Capabilities

Universities and other research entities, Federal and state agencies, and industry in Nevada bring outstanding technical capabilities to the U.S. geothermal community. Nevada's vast geothermal resources have long attracted some of the best scientists, technicians, and businesses in the geothermal industry.

Nevada has five aquaculture farms.

A Steamboat Springs geothermal power plant.

History

Ten thousand years ago, North American Paleo-Indians used geothermal hot springs for cooking, healing, and even negotiating.

Modern geothermal use in Nevada began in 1940 with the first residential space-heating project in Reno. Today almost 400 homes use geothermal energy for heat and/or hot water. In 1978, the first geothermal food-processing plant was opened in Brady Hot Springs. More than 25 million pounds of dehydrated onion and garlic are now being processed annually in Nevada. The pioneering use of geothermal heat for ethanol production began in 1980. An associated power plant is still producing electricity. In 1984, Nevada's first geothermal electricity was generated in Lyon County. Geothermal fluids were used for gold recovery in the first geothermal-enhanced heap-leaching project in 1987. In 2000, DOE initiated its GeoPowering the West program to encourage development of geothermal resources in the western U. S. An initial group of 21 partnerships with industry (seven in Nevada) was funded. In 2001, Nevada was granted nearly $100,000 by DOE to produce an on-line database of Nevada geothermal information. The database will provide detailed information to prospective developers about future power plant and direct use operations.

A crop-drying plant in Empire.

GeoPowering the West

GeoPowering the West is a cooperative Federal, state, and local effort to promote awareness of the vast geothermal energy resources in the western United States, including Alaska and Hawaii. GeoPowering the West partners with businesses, government officials, Native American groups, utilities, and energy consumers to expand the use of geothermal energy. For further information on these efforts, please contact the following:

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Produced for the U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
by the National Renewable Energy Laboratory,
a DOE national laboratory

DOE/GO -102001-1432 Revised October 2001
Printed with renewable-source ink on paper containing at least 50% wastepaper, including 20% postconsumer waste