

# ENERGY MATTERS

Facts & Tips from the U.S. Department of Energy

## Understanding The Benefits Of Geothermal Energy

(NAPSA)—Yellowstone is not just a geyser. Besides being a great place to visit, this favorite tourist destination is a great visual example of geothermal energy.

Impressive as Yellowstone is to visit, it's just one small example of an incredibly huge source of clean, sustainable energy.

Geothermal energy—literally, heat from the earth—is a clean, abundant and versatile natural resource that's just waiting to meet an ever greater share of the world's steadily escalating energy needs. This source of energy can be used in three ways: for electricity production, directly to provide heat and via geothermal heat pumps.

Today, geothermal resources already supply about 6 percent of the energy produced in California, 10 percent in northern Nevada, 25 percent on the island of Hawaii, as well as significant power in Utah. Geothermal steam and hot water are routinely used to generate electric power with the gentlest of environmental impacts.

Thermal waters piped from the ground support greenhouses, fish farms and municipal heating systems. Heat pumps use electricity and coils, or pipes buried in the earth to extract heat or cold from the earth. They can be installed almost anywhere and are widely considered the ideal means for heating and air-conditioning schools, homes and workplaces.

Geothermal energy has been described by energy experts as "buried treasure" and its potential is vast. This tremendous resource amounts to 50,000 times the energy of all oil and gas resources in the world.

This form of energy represents a promising energy supply solu-



National Park Service photo

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tion, as people become more concerned about global warming, pollution and rising fossil energy prices. Geothermal energy produces only one-sixth of the carbon dioxide that a relatively clean, natural gas-fueled power plant produces and very little, if any, nitrous oxide or sulfur-bearing gases. No air emissions or liquids are discharged by binary geothermal plants.

Heating systems can easily be integrated into existing communities and can diminish reliance on foreign sources of fossil fuels, thereby enhancing national security.

The U.S. Department of Energy's Geothermal Technologies program is working with industry to establish geothermal energy as an economically competitive contributor to the nation's energy supply. For more information, visit [www.doe.gov](http://www.doe.gov).