

## Geothermal Energy

Heat from the earth can be used as an energy source in many ways, from large and complex power stations to small and relatively simple pumping systems.

This heat energy, known as geothermal energy, can be found almost anywhere—as far away as remote deep wells in Indonesia and as close as the dirt in our backyards. Many regions of the world are already tapping geothermal energy as an affordable and sustainable solution to reducing dependence on fossil fuels, and the global warming and public health risks that result from their use.

For example, more than 8,900 megawatts (MW) of large, utility-scale geothermal capacity in 24 countries now produce enough electricity to meet the annual needs of nearly 12 million typical U.S. households (GEA 2008a). Geothermal plants produce 25 percent or more of electricity in the Philippines, Iceland, and El Salvador. The United States has more geothermal capacity than any other country, with more than 3,000 megawatts in eight states. Eighty percent of this capacity is in California, where more than 40 geothermal plants provide nearly 5 percent of the state's electricity.

In thousands of homes and buildings across the United States, geothermal heat pumps also use the steady temperatures just underground to heat and cool buildings, cleanly and inexpensively

