



U.S. Department of Energy

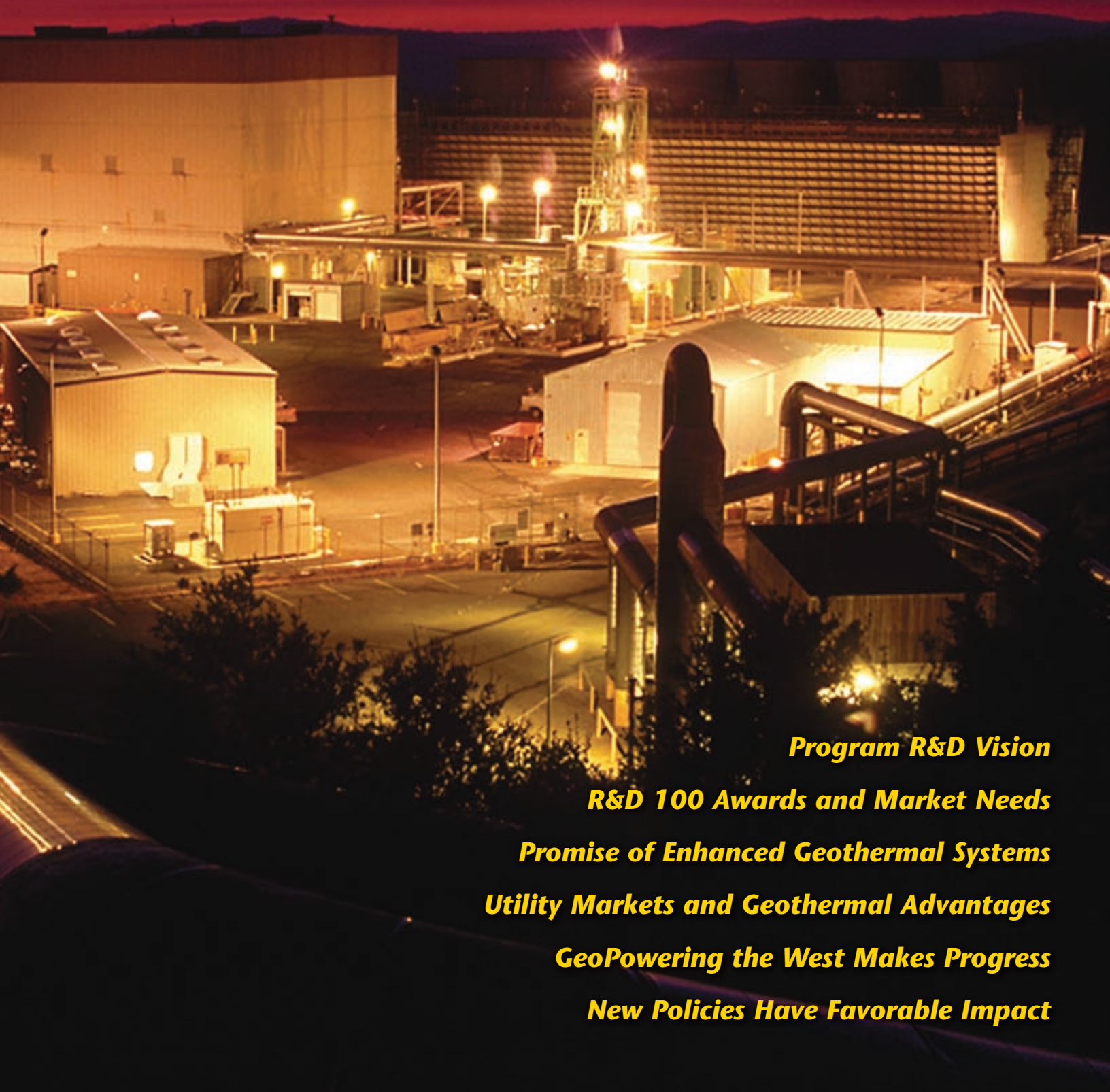
Energy Efficiency and Renewable Energy

Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable

GEO THERMAL TODAY

U.S. Department of Energy

2005 Geothermal Technologies Program Highlights



Program R&D Vision

R&D 100 Awards and Market Needs

Promise of Enhanced Geothermal Systems

Utility Markets and Geothermal Advantages

GeoPowering the West Makes Progress

New Policies Have Favorable Impact

About “Geothermal Today”

The geothermal energy potential beneath our feet is vast. This tremendous resource amounts to 50,000 times the energy of all oil and gas resources in the world. And geothermal energy is clean; it represents a promising solution for the nation and the world as they become ever more concerned about global warming, pollution, and rising fossil energy prices. Furthermore, increased development of geothermal energy gives people the potential to gain better control of their own local energy resources and use a secure, safe, domestic source of energy.

Today’s U.S. geothermal industry is a \$1.5-billion-per-year enterprise involving over 2800 megawatts (MW) of electricity generation, about 2000 MW of thermal energy in direct-use applications such as indoor heating, greenhouses, food drying, and aquaculture, and over 3,700 MW of thermal energy from geothermal heat pumps. The potential for growth is substantial.

The international market for geothermal power development could exceed \$25 billion (total) for the next 10 to 15 years. At the present time, U.S. technology and industry stand at the forefront of this international market.

However, the cost of geothermal heat and electricity remains higher than the least-cost conventional technologies and the near-term market for geothermal energy is uncertain, presenting a major challenge for the U.S. geothermal industry. Significant work is still needed to lower costs and create incentives to spur the market for geothermal heat and power. The U.S. Department of Energy (DOE) Geothermal Technologies Program (the Program) is committed to supporting the geothermal industry with research and development to reduce costs and help geothermal energy fulfill its potential. This issue covers highlights from 2003.

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