

Geothermal Energy

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Geothermal energy is an alternative source of energy with great potential: approximately 50,000 times more energy than the total supply of oil and natural gas in the world (How Geothermal Energy Works; Energy Story 2011). Despite its potential geothermal energy currently only accounts for 0.3 percent of the annually produced energy in the United States (Geothermal energy technology and current status, 2002). The low use of geothermal energy is generally due to the complex regulatory environment and opposition from local environmental groups, despite vocal national policy support and material support by national environmental groups and federal agencies. The Telephone Flats and Fourmile Hill area illustrates the obstacles facing increased geothermal energy development. Calpine Corporation, in attempting to develop the leases it obtained at Fourmile Hill and Telephone Flats, encountered stiff resistance, and ultimate defeat, at the hand of the Pitt River Tribe and others, who regarded this area as environmentally, historically, culturally, and spiritually significant. While listing the area with the National Historic Register would provide some protection, and compliance with regulations would require minimizing development impacts, the Pitt River Tribe contended that any development of the area would interfere with their cultural heritage (Pit River v. U.S. Forest Service, 2006).

The Native Coalition for Medicine Lake Highlands Defense, and the Mount Shasta Bioregional Ecology Center joined with the Pitt River tribe in opposition to the Calpine Corporation. Meanwhile the Forest Service, the Advisory Council on Historic Preservation, and the Bureau of Land Management all favored development. Despite compliance and federal approval of development plans, all development was halted due to litigation on the behalf of the opposition. Due largely to expenses in obtaining

leases, performing federally mandated studies, and investments in developing the region, the ensuing legal battle and inability to capitalize on the investments resulted in bankruptcy for Calpine (22 Largest Bankruptcies in World History, n.d.).

Despite compliance with regulations, and obtaining the approval of the requisite agencies, technicalities and agency errors ultimately allowed the Pitt River Tribe and other litigants to block development of the resource. The regulatory and legal costs of compliance that Calpine faced in attempting to develop its leased sites were daunting enough to force the company into bankruptcy. The high costs faced by Calpine are common for any firm attempting to develop geothermal energy and serve as significant potential obstacles for future expansion of the industry in general.

This case illustrates the conflicts between environmental preservation groups and alternative energy projects. While, in general, the expectation is that environmental groups support green energy projects, issues over both actual and perceived conflicts in land use frequently put these groups at odds with green energy. Green groups typically support, at least on paper, alternative energy, but in fact often stand as the greatest opposition to alternative energy projects such as geothermal energy.

Policy Recommendations:

- Streamline regulatory compliance process to reduce redundant environmental studies
- Identify and pre-approve areas as geothermal development zones to reduce potential litigation

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