REPORT ON DOE's DIRECT HEAT PROGRAM
(February 1981)

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(What follows is the Report in its entirety.)

Geothermal resources possess the potential to contribute five percent to incremental energy use by the year 2000. Although their contribution will be national in scope, geothermal resources for direct heat applications will have an even more significant impact in the western U.S., possibly exceeding ten percent of the additional usage.

Besides its incremental role, geothermal will also serve to displace imported fuels. More significantly perhaps, their widely dispersed character minimize the threat of external disruption, thus making an additional contribution to national security. Geothermal energy can also be utilized by dispersed weapons systems such as the MX missile.

Geothermal resource utilizations also have a relatively benign effect on the environment, while requiring a minimal governmental subsidy per barrel of oil equivalent produced.

The Subpanel has reviewed the DGE, Department of Energy's technical market penetration analysis of the direct-use program (see: Market Shares Estimation Task Force Report - December 1980) and found it to be both reasonable in its assumptions and approach, and substantially supportive of the conclusions contained in the summary.

The program elements identified in the technical report as significant are, in the judgment of the Subpanel, critical ones possessing the greatest potential to influence successful geothermal development. Specifically two crucial program elements that warrant continued Federal support are the resource confirmation programs (state and user coupled) and the technical assistance programs (both geological and engineering). In particular, the resource confirmation programs will have direct impact for the successful development of the low- and moderate-temperature reservoirs, which are found nationwide.

The Subpanel therefore recommends that Federal funding for the overall direct-use program be extended for a period of ten years at a level of \$50-100 million per year, peaking around the fifth year. After that time, a private sector infrastructure should exist, decreasing the need for government support. Due to the pivotal role of resource confirmation, the lack of a service and supply industry, and the diverse characteristic of the user community, this program represents a proper and valuable activity for the Federal government to establish secure domestic energy resources.

The Geothermal Panel was chaired by Carl Savit*. Other Panel members were Joseph Aidlin, David Butler, William Dolan, Lois Ewen, Herbert Hunt, George Keller, John Lund, Jack McNamara, Carel Otte, Richard Pool, Robert Rex, Vasel Roberts, Victoria Tschinkel*, and Stanley Ward.

*ERAB members

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