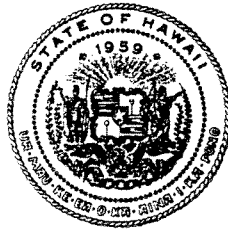


A Report to the 1994 Legislature

GEOHERMAL DEVELOPMENT PERMITTING



Prepared by the

**Department of Land and Natural Resources
State of Hawaii**

in response to

Section 196D-11, Hawaii Revised Statutes

JOHN WAIHEE
Governor

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Geothermal Development Permitting

State of Hawaii

INTRODUCTION

Pursuant to Chapter 196D, Hawaii Revised Statutes (HRS), the Department of Land and Natural Resources established a consolidated permit application and review process.

Recognizing that there has been no application for any large-scale geothermal project for the State of Hawaii, Governor John Waihee on December 8, 1992 issued a policy statement stating that there is no such project under consideration by the State. Department resources and staff efforts have been appropriately utilized and actively involved in the monitoring and regulation of existing projects currently permitted to explore, develop and generate geothermal electricity exclusively for the Island of Hawaii.

Although these efforts relative to geothermal development activities on the Big Island did not involve any aspect of large scale development of geothermal power, the Department's activities have been consistent with the objectives and purpose of Chapter 196D, HRS as amended. The allocation of program resources and duties performed by staff have been invaluable in the Department's geothermal resource management responsibilities and in providing support to the monitoring and regulatory functions of other State and County agencies.

STATE ADMINISTRATION'S POLICY AND PRIORITIES ON GEOTHERMAL DEVELOPMENT

There have been no changes in the State Administration's policies and priorities on geothermal development since the policy statement issued by the Department of Business, Economic Development and Tourism December 1, 1992, as approved by Governor Waihee on December 8, 1992.

This policy limits the State's support for geothermal development to currently permitted projects on the Big Island and states that the State is no longer pursuing a large-scale geothermal project.

GEOTHERMAL DEVELOPMENT STATUS

The Department of Land and Natural Resources (DLNR), together with the Department of Business, Economic Development and Tourism (DBEDT) as the lead agency for the State, continues to actively cooperate in the U.S. Department of Energy's (DOE) preparation of a Federal National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS) for the Hawaii Geothermal Project (HGP).

The completion date for the DOE EIS is March 1995 with the draft available in the latter part of 1994.

CURRENT GEOTHERMAL DEVELOPMENT ACTIVITIES STATUS

True/Mid-Pacific Geothermal Venture

True/Mid-Pacific Geothermal Venture maintains its interest in the development of a power plant and transmission lines to support 25 megawatts of electrical production, but has not resumed drilling activity.

Puna Geothermal Venture

Wells KS-9 and KS-10 were successfully drilled, tested and put on line this year as production wells supplying more than 27 megawatts of power to the Hawaii Electric Light Company, Inc. (HELCO) grid. Wells KS-1A, KS-3, and KS-4 are currently being used for injection. There have now been several months of continuous production. Because of the quality and quantity of steam produced by the two production wells, with some relatively minor modifications and additional plant equipment, PGV anticipates being able to produce up to 40 megawatts of power to HELCO within the next two years.

The University of Hawaii Scientific Observation Hole (SOH) Program

The three wells previously drilled in the Kilauea East Rift Zone are monitored continuously. Non-drilling testing activities are continuing, such as water sampling, hydrogeologic testing, geochemical analysis, seismic testing and injection/interference testing. There are no plans for drilling any more scientific observation hole wells at this time.

Monitoring

Regulatory agencies continue to monitor all existing geothermal sites within resource limits. Short term support was made available for these efforts, but long term support has not been forthcoming.

OTHER ACTIVITIES

Geothermal Resource Valuation

The Board of Land and Natural Resources (Board) adopted a "netback" resource evaluation method with a 1.5 multiplier and limits on transmission and generating deductions for the Puna Geothermal Venture (PGV) project on Geothermal Mining Lease R-2. Projections show this method should result in royalties amounting to about 2.8% of gross electricity revenues for the first fifteen years of the project life, increasing to about 6.8% of gross electricity revenues by the end of the project's estimated thirty-five year life. Royalties are to be shared as follows: State of Hawaii, 50%; Hawaii County, 30%; Office of Hawaiian Affairs, 20%. This method will allow calculation of royalties for the PGV project which began selling geothermally produced electricity on April 22, 1993. PGV has filed for a contested case hearing with the Board and their standing to file for this hearing is currently being evaluated.

Publications

The Division of Water and Land Development of DLNR published two reports, "Hawaii Geothermal Blowout Prevention Manual" and "Hawaii Geothermal Drilling Guide". These reports provide Hawaii-specific information for geothermal developers' use.

These reports are available on request from the Division of Water and Land Development.

Geothermal Technical Advisory Committee

Under the guidance of the Geothermal Technical Advisory Committee (GEOTAC), and partially funded by DBEDT, several scientific projects undertaken last year are on-going. These include a seismicity monitoring program, a gravity study, a geothermal fluid monitoring program, a groundwater monitoring program, a shallow groundwater study, and a subsidence study. Assisting the Committee on the contract to DBEDT, GeothermEx Inc. has completed a deep thermal reservoir study to model the geothermal reservoir of the Kilauea East Rift Zone.

The GEOTAC Committee is an on-going body of scientists and government officials whose future tasks include advising on geothermal resource management. Studies and reservoir modelling reference above are being conducted toward that goal.

Copies of the GeothermEx report will be available from DBEDT in January 1994. Copies of GEOTAC sponsored scientific reports will also be available from DBEDT.

Geothermal Asset Fund

Draft Administrative Rules for the Hawaii County geothermal asset fund have been developed by staff of Hawaii County Planning Department and are currently under review.

Newspaper File

The Division of Water and Land Development continues to maintain a chronological newspaper clippings file on geothermal activities in the State of Hawaii.

FUTURE ACTIVITIES/REQUESTS FOR LEGISLATIVE ACTIONS

In connection with royalty collections, an annual audit must be coordinated and conducted by DLNR. A request for funds for this purpose will be included in the department's budget request to the Legislature this year.

In connection with geothermal resource development and use, a request will be made to make permanent four temporary management, inspectional and monitoring positions within DLNR to enable the Department to establish an on-going geothermal resource management, regulatory, and monitoring capability.