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Mr. Koppelman 1008



# DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM All: 15

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February 24, 1993

DEPARTMENT OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

The Honorable Stephen K. Yamashiro  
Mayor, County of Hawaii  
25 Aupuni Street  
Hilo, Hawaii 96720

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Dear Mayor *Steve* Yamashiro:

We appreciate the opportunity we have had in recent weeks to discuss issues related to geothermal development on the Big Island. Enclosed is a summary of the issues discussed with you and our views concerning them.

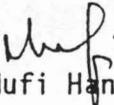
Your views and suggestions concerning the following would be helpful in working towards our common goal of facilitating the orderly and responsible development of geothermal energy presently underway and in the future:

- a. When do you anticipate the Asset Fund rules to become effective, and to what extent will they address the issue of temporary relocation and compensation?
- b. What actions will the county be taking with respect to limiting future residential development in the vicinity of geothermal projects? Will your efforts include the establishment of appropriate nuisance easements within the area as a county measure? What is your position concerning the Transfer of Development Rights (TDR) to property owners in the affected zone?
- c. Do you favor a rebate on electricity bills and the reduction of property taxes for residents near the plant as a means of compensation?
- d. The state would look favorably upon the leasing of the existing HGP-A well to the county as suggested by you for the purpose of generating revenues to be used in support of geothermal monitoring and mitigation. Please submit a proposal for our further consideration.
- e. Subject to legislative approval of our geothermal program funding, DBEDT is prepared to provide financial support of \$65,000 to the county for the next fiscal year in order to maintain the Geothermal Compliance Officer position. As such, we would like to begin the process necessary to enter into a new or amended contract subject to our review and agreement of the responsibilities and duties for this position.

Mayor Stephen Yamashiro  
February 24, 1993  
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I believe we are off to a good start on a coordinated effort to address and resolve the many issues before us concerning geothermal development. Please be assured of my full support in this regard.

Sincerely,

  
Mufi Hannemann

Enclosure

c: Dr. Joshua Aagsalud  
Mr. Jack Keppeler ✓  
Dr. Bruce Anderson  
Mr. Takeshi Yoshihara



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### ISSUES OF STATE AND COUNTY CONCERNS RELATED TO GEOTHERMAL ENERGY DEVELOPMENT ON THE ISLAND OF HAWAII

The following is a summary of issues related to geothermal development, and the State's views concerning them, as discussed between representatives of the State and the Mayor of the County of Hawaii.

#### \* Temporary Relocation

The Department of Business, Economic Development and Tourism (DBEDT) continues to support the concept of the Geothermal Asset Fund created by Condition No. 51 of Puna Geothermal Venture's (PGV) Geothermal Resource Permit as the most immediate means to provide for temporary relocation of nearby residents during drilling and testing operations.

Recognizing the continuing conflict between duly permitted geothermal development and nearby residents, we concur with the intent of Condition No. 51 which calls for "provisions and criteria to enable the first priority of distribution for temporary or permanent relocation of those property owners who are found, in accordance with criteria established in the rules, to be adversely impacted by the activities authorized, provided that such relief is applied for within a period of one (1) year of the impact."

We firmly believe that any resolution of this continuing conflict must begin with the expeditious promulgation of Asset Fund rules by the County of Hawaii. The administration and expenditure of funds must be formulated with the objective of providing residents impacted by such development an opportunity to seek temporary relocation without incurring economic loss, or to remain and receive some form of compensation for any nuisance condition which they may encounter. We recommend that the county provide a status report and estimated timetable for implementation.

#### \* Permanent Relocation

Senator Matsunaga's relocation proposal, Senate Bill No. 1289, is currently under consideration by the 1993 Legislature. While the bill and specific terms of this proposal must still be approved by the legislature, the basic elements provide for eligible owner-occupants to sell their property on a voluntary basis and to receive the fair market value as determined by appraisal (plus 10 percent or \$10,000, whichever is lower).

In DBEDT's testimony before the Senate Committee on Science, Technology and Economic Development we recommended several revisions to S.B. 1289. These suggested revisions include expansion of the proposed relocation program to allow voluntary participation by owner-occupants who reside beyond the designated 3,500 foot relocation area.

We fully agree that relocation/buy out of existing residences can be accomplished independently by PGV and/or by the state/county via a relocation program approved and funded by the 1993 Legislature. It is estimated that any approved relocation program will require an initial funding of about \$100,000 for the first year, and possibly \$500,000 for the second year to initiate the program and process any requests for relocation/buyout of properties.

The Department of Land and Natural Resources (DLNR), as the implementing agency, will have to adopt administrative rules and eligible properties will have to be identified/requested for sale and appraisals.

We strongly recommend that the state and county continue to support any effort by the legislature to enact a voluntary relocation program and to further encourage PGV to pursue the buyout of individual properties surrounding the project site. In addition, we urge the county to provide any comments and suggestions on a specific permanent relocation strategy.

\* Compensation

With regard to any compensation payable to owner-occupants (for which such eligibility criteria remains to be determined), it is recommended that the State/County Relocation Task Force be re-established and discussions continued.

Earlier discussions involved the idea of direct compensation to qualified owner-occupants who were determined to be ineligible for participation in the voluntary relocation program. Compensation options included a monthly payment of sums equal to one-half of the average monthly residential electricity bill calculated for the preceding calendar year for the entire county, as calculated by the Hawaii Electric Light Company.

Compensation payments could be made from the existing Asset Fund or could be paid from the geothermal mitigation fund identified in the relocation proposal (S.B. 1289), subject to its approval by the legislature. (It should be noted that S.B. 1289 would need to be further revised to permit such distribution of funds.)

Real property tax relief was also considered by the previous State/County Task Force. However, similar eligibility criteria would have be established and County Council approval would be required.

Although electricity and property tax rebate options were discussed with the previous administration via the State/County Relocation Task Force, no specific actions were taken as concerns were raised regarding subsidizing one particular district over another.

Some form of compensation in combination with a relocation program should be further researched. Appropriate discussions with the PUC and HELCO are recommended and could take place through the State/County Relocation Task Force. We request the county's views on the reinstatement of the Relocation Task Force.

\* Proposed Sale of Steam from HGP-A to PGV

It is our understanding that the earlier steam sale negotiations between NELHA and PGV were suspended for a number of reasons. These factors must be addressed prior to re-starting HGP-A.

No agreement on the valuation of the steam resource was reached between PGV and NELHA. Prior to suspending negotiations, the preferred method of steam valuation under consideration by both parties was a "percentage of electricity revenue" method. The range of percentages (allocated to steam value) was between 20 percent - 50 percent. It is our understanding that the last proposal from NELHA to PGV was for a percentage basis of 35 percent.

Assuming a 35 percent rate, the annual revenue from a 60,000 lb/hr well can be estimated as follows: (25 MW plant x 90 percent availability x 24 hours x 365 days x \$.06 per Kwh price for electricity x 35 percent allocated to steam value x 10 percent allocated to 60,000 pound well = \$414,000/year). This estimate may be on the high side and depends on the actual amount of steam that is delivered/accepted by PGV.

The cost to construct and install an additional pipeline to transport steam from HGP-A to PGV may be prohibitive. Early estimates of the steam pipeline costs were on the order of \$800,000. Current fiscal limitations on the part of PGV may preclude the expenditure of funds for such use.

The steam resource from HGP-A may not be of acceptable quality to PGV. The steam quality in terms of both chemical makeup and steam/brine ratio may not be suitable to PGV. (i.e. The additional volume of brine from the HGP-A resource may result in prohibitive reinjection disposal costs.)

Due to the discovery of a highly productive reservoir from the drilling of KS-8, PGV may not need an additional source of steam from a reservoir located outside of their leased area. Estimates of the potential resource tapped by KS-8 have ranged from 12MW to 20MW+. Therefore, it is conceivable that KS-9, which encountered the same production zone as KS-8 and having appropriate production casing, may in fact supply much, if not all of the steam needed by PGV.

The HGP-A Special Use Permit (SUP) granted by the Land Use Commission and administered by the County of Hawaii and the Geothermal Resource Permit (GRP) issued by the Hawaii County Planning Commission would have to be amended, or a new permit issued for the proposed sale of steam. This process may be subject to public hearings and in the case of the GRP issued to PGV, may require another round of mediation which could result in further delay or a temporary suspension of operations. (It is our understanding that this was one of the overriding reasons for discontinuing earlier discussions.)

The well will be required to undergo mechanical integrity testing subject to review and approval by DLNR. The lessee/operator will probably be required to conduct well tests, including but not limited to, casing caliper logs, spinner surveys, and cement bond logs to evaluate the integrity of the existing casing (e.g. casing corrosion/cementing). Further, a drill rig may be needed to conduct possible well repairs. In addition to the well workover costs (e.g. rig mobilization, etc.), the close proximity of the HGP-A well to nearby residents may discourage PGV's use of the well.

Concerning NELHA's original objective to sell steam and receive brine for use by the Puna Research Center, there is a potential problem related to the disposal of brine after it has been used by the PRC facility. Since the use of percolation ponds will not be allowed, it is assumed that brine exiting the PRC will be disposed of by PGV through reinjection. However, since heat will be extracted by PRC, the brine returning to PGV will be at a lower temperature and may not be suitable for reinjection with the non-condensable gases. If that is the case, NELHA would have to drill their own injection well for disposal of spent fluids subject to State/County approvals.

Should an agreement be reached between PGV and NELHA, the respective geothermal resource mining leases (GRML R-2 and S-4602) may need to be amended by the Board of Land and Natural Resources (BLNR). The NELHA lease provision for waiver of royalties would need to be revised and the PGV lease may need to be amended to allow for the use of steam from an adjacent leased area.

The HGP-A facility was partially funded by the U.S. Department of Energy and has been defined by the federal court to be part of Phase I of the Hawaii Geothermal Project (HGP). Use of steam from HGP-A may link PGV to the large-scale geothermal development scenario defined by the federal EIS. This linkage, while admittedly weak, may raise further legal concerns.

In addition to paying a portion of the steam sale proceeds to the state for use of the HGP-A well, the county may have to pay a royalty based on the value of the steam produced. Any waiver of royalty payments to the State will have to be approved by the BLNR. Further, the transfer of the HGP-A well may require an amendment to the existing geothermal resources mining lease (S-4602) issued to NELHA.

It should also be noted that if the county assumes responsibility for HGP-A, it will also be responsible for plugging and abandonment of the well. Estimated costs to properly abandon the well can range from \$50,000 to \$150,000.

In spite of these concerns, we agree that revenue from steam sales may benefit the county for impact mitigation and community enhancement. We therefore propose that the state grant the HGP-A well to the county for their development and use.

\*

### Building Moratorium and Noise Easements

The establishment of a building moratorium and/or creation of noise easements related to geothermal development projects are considered land use issues appropriately handled by the county.

It is our understanding that any action at the county level regarding a moratorium on new residences and/or establishment of noise easements may require County Council approval. A deed covenant may also have to be prepared by Corporation Counsel for recordation and acceptance by those residents choosing to remain, if offered relocation, and for any party desiring to purchase property within the designated noise easement areas.

We therefore recommend that an opinion by the Corporation Counsel be requested by the Mayor's office on the legality and the procedures necessary to establish a moratorium and create noise easements by the county. These issues may be further considered by the State/County Relocation Task Force.

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### Geothermal Royalty

Increasing the county's share of royalties and/or designating royalties paid to the state for mitigation/monitoring purposes will require legislative approval which would occur with the 1994 session at the earliest.

In addition, a determination will have to be made by the BLNR as to the selection of a steam valuation method and a decision rendered regarding PGV's request for royalty waiver. Until this is done, it is unlikely that the legislature will consider any designation of royalties for mitigation/monitoring purposes without knowing the amount of potential revenues to the state.

No funding is required relative to selecting a method or deciding on the PGV's request for waiver. However, both items will have to be brought to the BLNR for formal approval and adoption by DLNR.

The county on its own initiative can redirect their (30 percent) share of geothermal royalty received from the State for mitigation/monitoring purposes. It is our understanding that approval would be needed from the County Council.

We believe that designating the county's share of geothermal royalties for mitigation and monitoring purposes can be accomplished more quickly than reallocating any portion of the state's royalty payments. As such, initial support should be directed to the county's efforts to designate the use of such funds, and every effort made to expedite BLNR's decision on steam valuation.

In addition to geothermal royalties, the county may wish to consider dedicating geothermal real property tax revenues for mitigation purposes. Dedicating taxes collected from geothermal facilities to mitigate impacts is a viable option that should be further discussed by the State/County Relocation Task Force. It is our understanding that such action would

require County Council approval, public hearings, and possible amendments to the county charter/ordinances. In order to facilitate further discussion, we would recommend that the County Finance Department be requested to provide an estimate of real property tax revenues from the PGV project.

\* Purchasing of Surrounding Properties by Bishop Estate or Other Parties

Some of the owner-occupants surrounding the PGV project lie outside of the designated geothermal resource subzone and/or are located in areas already under lease to other developers (e.g. Barnwell Geothermal). Any acquisition of development rights by Bishop Estate or others, from the purchase of such properties, would be subject to these existing mining leases. In addition, any proposed geothermal development will be limited to direct-use applications for those parcels located outside of designated GRS areas.

Informal discussions with Bishop Estate, Kapoho Land Partnership, Campbell Estate and others should be initiated to determine their interest in such properties. In addition to the direct purchase of properties, the idea of land exchanges or other mechanisms to relocate residents from geothermal development areas should be considered and the State/County Relocation Task Force used as the forum for such discussions. We would appreciate the county's comments on this suggestion, together with any information they have on the desire of major landowners to participate.

\* County Geothermal Compliance Officer

The original intent of the 1991 legislative appropriation for a Geothermal Compliance Officer (GECO) was to have a position located within the County of Hawaii government that would be responsible for coordination and communication between state geothermal regulators and the county.

It is our understanding that the current duties and responsibilities assigned to the position include, but is not limited to, assisting the County Planning Department in regulating geothermal related activities on the Big Island and to serve as a front-line government representative for geothermal activity.

The current contract (No. 31695) between DBEDT and the County of Hawaii to provide these geothermal compliance coordination services will terminate on June 30, 1993. At the present time, we are unaware of any specific legislative appropriation to continue funding of the GECO position.

DBEDT geothermal program funds, if appropriated by the 1993 Legislature, could be considered to renew the GECO contract for one year, but we will require that the current duties of the GECO be specifically described to provide for better state and county inter-agency communication and coordination. This expanded scope of work would include, but not be limited to, assuming the role of the "communication hub" currently performed by Michelle Wong-Wilson of our Hilo-DBEDT Office. We note that this function is consistent with our original understanding for funding of the position.

We strongly believe that the current functions of the GECO can be enhanced to provide both inter-agency coordination and public communication, better public interaction relative to permit notification requirements, and increased responsibility for overall regulation of power plant operations, consistent with the county's geothermal resource permit.

Under the existing contract scope of services, quarterly reports are required to be filed with DBEDT summarizing the activities and expenses of the GECO position and support staff. We request the quarterly progress reports for the periods ending December 31, 1992 and March 31, 1993 as it will assist us in assessing the future role and function of the GECO position.