

JOHN WAIHEE
GOVERNOR OF HAWAII



WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

KEITH W. AHUE
MANABU TAGOMORI
RUSSELL N. FUKUMOTO

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER AND LAND DEVELOPMENT

P. O. BOX 373
HONOLULU, HAWAII 96809

JUN 26 1990

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Mr. Paul P. Spaulding, III
Sierra Club Legal Defense Fund, Inc.
212 Merchant Street, Suite 202
Honolulu, Hawaii 96813

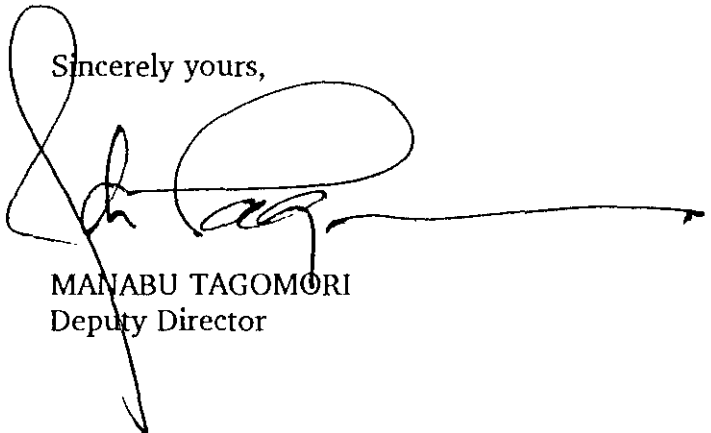
Dear Mr. Spaulding:

Your letter regarding inspection of government records has been referred to me for response.

You may inspect the files at the Geothermal/Cable Permit Center, 677 Ala Moana Boulevard, Room 509. Janet Swift, Geothermal/Cable Analyst of the Division of Water Resource Management (DWRM) staff will be contacting you to schedule an appointment.

Please be advised that the DWRM has a uniform information practices guideline with regard to requests for photocopies of file materials. You will be asked to indicate on a form what you wish to have copied. Staff will copy them for you as time allows. There will be a charge of 50 cents per page. If your request is large, you may be asked to return at a later date to pick up the copied material.

Sincerely yours,



MANABU TAGOMORI
Deputy Director

MT:JS:mh

cc: Susumu Ono

JOHN WAIHEE
GOVERNOR OF HAWAII



WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
KEITH W. AHUE
MANABU TAGOMORI
RUSSELL N. FUKUMOTO

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

JUN 12 1990

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
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CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

REF:WL-MH

Mr. Cecil L. Smith
President
Federal Gulf Corporation
1500 Republican Bank Tower
Dallas, Texas 75201

Dear Mr. Smith:

Thank you for your recent letter concerning the status of the following issues before the Board of Land and Natural Resources: 1) the proposed designation of the Kilauea Southwest Rift Geothermal Resource Subzone (GRS), 2) the pending request for a contested case hearing on the subzone proposal, and 3) your application for a State Geothermal Resource Mining Lease.

A preliminary determination by our Department of the Attorney General has indicated that although recent court decisions have affirmed the Board's subzone designation of the Kilauea Middle East Rift as a GRS, including the issuance of a Conservation District Use Permit authorizing such geothermal development activity, that ruling was a site-specific decision which cannot be directly applied to other areas such as the proposed Kilauea Southwest Rift GRS.

Therefore, it appears that the pending request for contested case hearing on the matter of infringement of petitioner's right to religious practice within the area of the proposed Kilauea Southwest Rift GRS, cannot be denied and removed from further action by the Board solely on the basis of recent court decisions.

Additionally, in spite of the statutory amendment eliminating contested case hearings from the subzoning process, it must be recognized that the request for such hearing was submitted prior to the adoption of the amendment. Therefore, without the discharge of the pending request for contested case hearing, the Board cannot reasonably designate the area as a subzone without first addressing the issue of contested case hearing.

Mr. Cecil L. Smith
Page 2

Since our last correspondence, the 1990 Legislature passed a bill (S.B. 3285) permitting the drilling of exploratory wells outside of designated geothermal resource subzones. The drilling of these exploratory wells are limited to scientific purposes or to determine the economic viability of a geothermal resource.

Subject to final approval of the bill by the Governor and the promulgation of administrative rules, the new law will permit exploration activity outside of designated subzone areas regardless of land use classification, provided that all other applicable state and county permits are secured.

In view of the above, the Department has decided to recommend the withdrawal of the current proposal designating approximately 8,090 acres of the Kilauea Southwest Rift as a Geothermal Resource Subzone. The withdrawal of the proposed subzone, if approved by the Board, will also eliminate any further action on the pending request for contested case hearing.

Without the prerequisite designation of a subzone, any application for a geothermal resource mining lease is premature and will not be considered at this time. As such, your application for a State mining lease received by the Department on February 12, 1990 cannot be accepted until such time as the area is properly designated and allows for such geothermal development activity.

However, in view of the recent legislative amendment described above, such decision by the Board to withdraw the subzone proposal will not in any way prevent the conduct of exploration activities in the area. Should such future exploration result in additional evidence supporting potential development of a resource, a re-evaluation by our Department may be warranted at that time.

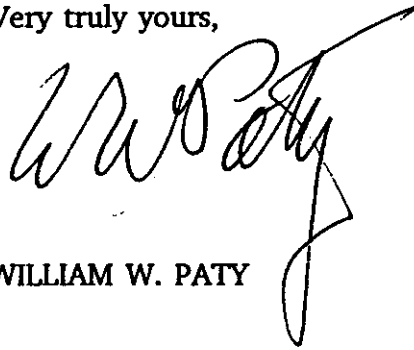
Notwithstanding such decision by the Board, any property owner, State mining lease applicant, geothermal mining lessee, or person with an interest in real property, may initiate an application for designation of any area with geothermal potential as a geothermal resource subzone. The procedure for such landowner initiated subzone designation is provided by statute and is set forth in our Department's administrative rules, section 13-184-5.

In summary, subject to approval by the Board, the original subzone proposal to designate the Kilauea Southwest Rift as a GRS will be officially withdrawn. Notification of such decision will be given to all interested parties and shall state that as a result of such decision, no further action will be taken on the pending request for contested case hearing.

Mr. Cecil L. Smith
Page 3

The Department will continue to hold your preliminary application for a State mining lease on file until such time that the application can be processed. Should you have any questions concerning the above, please contact Manabu Tagomori, Deputy Director, at (808) 548-7533.

Very truly yours,

A handwritten signature in black ink, appearing to read 'W. W. Paty', with a long, sweeping flourish extending downwards and to the right.

WILLIAM W. PATY

FEDERAL GULF CORPORATION

1500 REPUBLICBANK TOWER

DALLAS, TEXAS 75201

214-922-9393

RECEIVED

12 - 21 - 59

ATTORNEY &
COUNSELOR AT LAW

CECIL L. SMITH
PRESIDENT

March 6, 1990

Mr. Manabu Tagomori, P.E.
Deputy Director
State of Hawaii
Department of Land and
Natural Resources
Kalanimoku Bldg., Room 227
1151 Punchbowl Street
Honolulu, Hawaii 96809

Dear Mr. Tagomori,

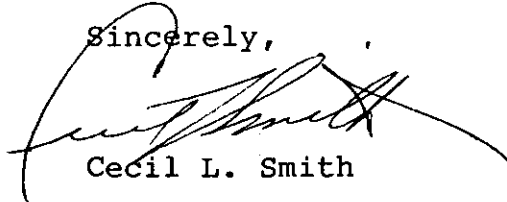
Our meeting there last Monday, February 26, 1990, was certainly timely. Just wish we had heard back from you before I left.

Your prompt follow up from the Attorney General's Office about our proceeding will be much appreciated. Hopefully that Opinion will allow you and the Board to proceed with our designation of the Southwest Rift Zone. As you know we have requested a state lease on the IASCO lands we now have under geothermal lease.

We really need to move ahead this year on the area. This includes the sub zone designation, state lease and participating in the research or slim hole project now underway through the University and Dr. Olsen.

Please let me know at your earliest convenience the best and quickest way to complete the geothermal sub zone designation for our Southwest Rift Zone. Your helpfulness and cooperation are very much appreciated.

Sincerely,



Cecil L. Smith

CLS/nt

FEDERAL GULF CORPORATION

1500 REPUBLICBANK TOWER

DALLAS, TEXAS 75201

214-922-9393

CECIL L. SMITH
PRESIDENT

February 7, 1990

Mr. Manabu Tagomori
State of Hawaii
Department of Land and Natural Resources
Post Office Box 621
Honolulu, Hawaii 96809

Re: Proposed Kilauea Southwest Rift Geothermal
Subzone and Geothermal Lease Application

Dear Mr. Tagomori:

As you know, we have a Landowner's Geothermal Lease covering approximately 3,927 acres of land included in your proposed Kilauea Southwest Rift Zone (Pahala), and have discussed with you on several occasions securing a State Geothermal Lease on these lands. While our recorded lease details those lands, the enclosed map shows you its general location in relation to your proposed designation of approximately 8,090 acres. In addition to other matters included herein, please consider this letter as our preliminary application for a State Geothermal Lease covering these lands.

Pursuant to your proposal of August, 1985, the Department of Land and Natural Resources recommended that approximately 8,090 acres of the Kilauea Southwest Rift Zone be designated as a geothermal resource subzone (GRS). This proposal was further delineated in August, 1985 through your Circular C-115. Its Conclusion and Recommendation was that this potential geothermal resource area be designated as the Kilauea Southwest Rift GRS.

Shortly thereafter this proposed designation was upheld by a contested case request, which the Department submitted to the Attorney General's Office for review. On July 7, 1989, following my meetings there and the RFP meetings by Hawaii Electric Company, you advised on behalf of Mr. Paty that a determination on this matter should be forthcoming from the Attorney General. This is consistent with the State Responses to written questions furnished by HECO during those meetings. One Response stated "A procedural question relating to this designation is currently being reviewed by the Attorney General's Office". The State Response also noted

Mr. Manabu Tagomori
State of Hawaii
Department of Land and Natural Resources
Honolulu, Hawaii
February 7, 1990

Page 2

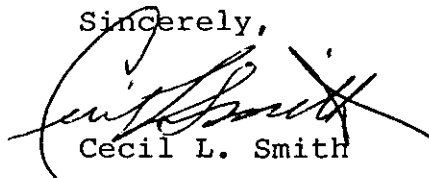
that the contested case hearing request was similar to the request involved in the Southeast Rift, which had already been disposed of in the Courts.

It is our understanding that the Attorney General's Office has now concluded that review and furnished you its Opinion. Considering the State's earlier Response through HECO regarding this request and the Opinion, perhaps the Board of Land and Natural Resources can now designate this area as the Kilauea Southwest Rift GRS.

Therefore, consistent with your Conclusion and Recommendation for such designation in 1985 and the current status, we hereby make our preliminary application for a State Geothermal Lease covering at least the lands already included in our Landowner's Geothermal Lease. This application is also consistent with our several meetings with you. Pursuant to this request for a State Geothermal Lease, we are confident that financial resources and relevant experience and technical expertise can be made available. We also believe that the other relevant plans and public benefits desired can be furnished consistent with your 1985 proposal for designating this GRS.

In view of the current pending geothermal matters and the need to implement our project, we would suggest a meeting with you and your group at 10:00 a.m. on Monday, February 26, 1990. We will call you shortly to confirm this date. Your advice and cooperation are greatly appreciated.

Sincerely,



Cecil L. Smith

CLS:prh
Enclosure
cc: Charles W. Smith

JOHN WAIHEE
GOVERNOR OF HAWAII



WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

KEITH W. AHUE
MANABU TAGOMORI
RUSSELL N. FUKUMOTO

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

JUN 12 1990

AQUACULTURE DEVELOPMENT
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FORESTRY AND WILDLIFE
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

REF:WL-MH

Honorable Andrew Levin
Senator, First District
The Fifteenth Legislature
State of Hawaii
State Capitol, Room 208
Honolulu, Hawaii 96813

Dear Senator 

Thank you for your recent letter concerning the status of the proposed designation of the Kilauea Southwest Rift as a geothermal resource subzone (GRS).

A preliminary determination by the Department of the Attorney General has indicated that although recent court decisions have affirmed the Board's subzone designation of the Kilauea Middle East Rift as a GRS, including the issuance of a Conservation District Use Permit authorizing such geothermal development activity, that ruling was a site-specific decision which cannot be directly applied to other areas such as the proposed Kilauea Southwest Rift GRS.

Therefore, it appears that the pending request for contested case hearing on the matter of infringement of petitioner's right to religious practice within the area of the proposed Kilauea Southwest Rift GRS, cannot be denied and removed from further action by the Board solely on the basis of recent court decisions.

Additionally, in spite of the statutory amendment eliminating contested case hearings from the subzoning process, it must be recognized that the request for such hearing was submitted prior to the adoption of the amendment. Therefore, without the discharge of the pending request for contested case hearing, the Board cannot reasonably designate the area as a subzone without first addressing the issue of contested case hearing.

Honorable Andrew Lewin
Page 2

As you are aware, the 1990 Legislature passed Senate Bill No. 3285, S.D. 1, H.D. 1, permitting the drilling of exploratory wells outside of designated geothermal resource subzones. The drilling of these exploratory wells are limited to scientific purposes or to determine the economic viability of a geothermal resource.

Subject to final approval of the bill by the Governor and the promulgation of administrative rules, the new law will permit exploration activity outside of designated subzone areas regardless of land use classification, provided that all other applicable state and county permits are secured.

In view of the above, the Department has decided to recommend the withdrawal of the current proposal designating approximately 8,090 acres of the Kilauea Southwest Rift as a Geothermal Resource Subzone. The withdrawal of the proposed subzone, if approved by the Board, will also eliminate any further action on the pending request for contested case hearing.

However, pursuant to the recent legislative amendment (SB 3285) described above, such decision by the Board to withdraw the subzone proposal will not in any way prevent the conduct of exploration activities in the area. Should such exploration activity result in additional evidence supporting the potential development of a geothermal resource, a re-evaluation by our Department may be warranted at that time.

Notwithstanding such decision by the Board, any property owner, State mining lease applicant, geothermal mining lessee, or person with an interest in real property, may initiate an application for designation of any area with geothermal potential as a geothermal resource subzone. The procedure for such landowner initiated subzone designation is provided by statute and is set forth in our Department's administrative rules, section 13-184-5.

In summary, subject to approval by the Board, the original subzone proposal to designate the Kilauea Southwest Rift as a GRS will be officially withdrawn. Notification of such decision will be given to all interested parties and shall state that as a result of such decision, no further action will be taken on the pending request for contested case hearing.

Additionally, regarding your request for information concerning the status of the multi-party application to withdraw from the existing geothermal resource subzones, please be advised that the matter is currently under review by the Attorney General's office. As this is the first such request for withdrawal since the designation of subzones by the Board, several legal and procedural matters require clarification before proceeding any further with the application.

Honorable Andrew Lewin
Page 3

As requested, the Department will keep you updated on the status of the application and shall advise you when the matter will be brought before the Board of Land and Natural Resources. Should you have any questions concerning the above, please contact Manabu Tagomori, Deputy Director, at (808) 548-7533.

Very truly yours,

A handwritten signature in black ink, appearing to read 'W. Paty', written in a cursive style.

WILLIAM W. PATY

- RICHARD S. H. WONG
PRESIDENT
- JAMES AKI
VICE PRESIDENT
- GERALD T. HAGINO
MAJORITY LEADER
- ANTHONY T. HANG
DONNA IKEDA
ELOISE YAMASHITA TUNGPALAN
ASSISTANT MAJORITY LEADERS
- RUSSELL BLAIR
MAJORITY FLOOR LEADER
- LEIFER FERNANDEZ SALLING
DENNIS NAKASATO
ASSISTANT MAJORITY FLOOR LEADERS
- ANN KOBAYASHI
MAJORITY POLICY LEADER
- BERTRAND KOBAYASHI
MIKE MCCARTNEY
MALAMA SOLOMON
ASSISTANT MAJORITY POLICY LEADERS
- MARY GEORGE
MINORITY LEADER
- RICK NEED
MINORITY FLOOR LEADER
- FIRST DISTRICT
ANDREW LEVIN
- SECOND DISTRICT
RICHARD M. MATSUURA
- THIRD DISTRICT
MALAMA SOLOMON
- FOURTH DISTRICT
MAMORU YAMASAKI
- FIFTH DISTRICT
RICK NEED
- SIXTH DISTRICT
HON MENOR
- SEVENTH DISTRICT
GERALD T. HAGINO
- EIGHTH DISTRICT
MIKE MCCARTNEY
- NINTH DISTRICT
STANLEY T. KOHI
- TENTH DISTRICT
MARY GEORGE
- ELEVENTH DISTRICT
DONNA R. IKEDA
- TWELFTH DISTRICT
STEVE COBB
- THIRTEENTH DISTRICT
BERTRAND KOBAYASHI
- FOURTEENTH DISTRICT
ANN KOBAYASHI
- FIFTEENTH DISTRICT
MARY-JANE MCMURDO
- SIXTEENTH DISTRICT
RUSSELL BLAIR
- SEVENTEENTH DISTRICT
ANTHONY K. U. CHANG
- EIGHTEENTH DISTRICT
MILTON HOLT
- NINETEENTH DISTRICT
DENNIS M. NAKASATO
- TWENTY DISTRICT
RICHARD S. H. WONG
- TWENTY-FIRST DISTRICT
NORMAN MIZUGUCHI
- TWENTY-SECOND DISTRICT
ELOISE YAMASHITA TUNGPALAN
- TWENTY-THIRD DISTRICT
MIKE COZZIER

The Senate

The Fifteenth Legislature

of the
State of Hawaii

STATE CAPITOL

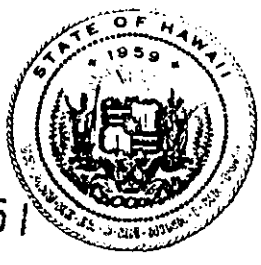
HONOLULU, HAWAII 96813

February 27, 1990

DEPT. OF WATER &
LAND DEVELOPMENT

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DEPT. OF LAND
& NATURAL RESOURCES
STATE OF HAWAII

Mr. Warren Price, Attorney General
State of Hawaii
State Capitol
Honolulu, HI 96813

Mr. William W. Paty, Jr., Chairperson
Department of Land and Natural Resources
1151 Punchbowl Street
Honolulu, HI 96813

Dear Messrs. Price and Paty:

It is my understanding that, back in 1985, the Department of Land and Natural Resources considered creating a geothermal subzone south of Pahala along the S.W. rift zone. Pele Defense Fund asked for a contested case hearing on the issue and the matter apparently was referred to the Attorney General's office. Since that time, the issue has been open and no decision on whether to set up the subzone has been made, so far as the public is aware.

Without taking a position on the merits, it seems to me that a decision should be made one way or the other as to whether a subzone should be created in Ka'u.

May I please know where this matter stands, and what kind of timetable we are looking at for a decision.

I would appreciate hearing from you at your earliest convenience.

Very truly yours,

ANDREW LEVIN
Senator
First District

AL:ck

JOHN WAIHEE
GOVERNOR OF HAWAII

DENK



WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

KEITH W. AHUE
MANABU TAGOMORI
RUSSELL N. FUKUMOTO

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

May 29, 1990

AQUACULTURE DEVELOPMENT
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AQUATIC RESOURCES
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
PROGRAM
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Noa Emmett Aluli, M.D.
Pele Defense Fund
Post Office Box 404
Volcano, Hawaii 96785

Dear Dr. Aluli:

Thank you for your April 9, 1990, letter to Governor Waihee and to me, relating to geothermal development. I am responding in sequence to your numbered and lettered questions.

1. The State's intent is to determine the feasibility of delivering geothermal electricity to Oahu, and possibly Maui. We will not support geothermal development for export from the Big Island at all costs.

2. The Department of Business and Economic Development (DBED) estimate of \$1.676 billion was based on 1986 dollars. Northwest Economic Associates' (NEA) March 1, 1990, report escalated that figure up to \$1.745 billion in 1990 dollars. If we were to use an annual inflation of 3 percent, the earlier DBED estimate would currently total almost \$2 billion (1990 dollars). We note that the low range of NEA's estimate is \$2.221 billion (1990 dollars). At this early stage of project scope definition, a 10 percent variation in the cost estimate between your consultant and the State's consultant is not considered a significant discrepancy.

a. Until the project scope is better defined and negotiations between a potential developer and the Hawaiian Electric Company (HECO) are near completion, we see no significant reason to dismiss the DBED estimate adjusted to 1990 dollars.

b. No irrevocable decisions have been made regarding geothermal energy development for export from the Big Island to Oahu and possibly Maui. We are encouraging exploration to determine if sufficient geothermal resource exists; these resource questions need to be answered regardless of whether geothermal is used for intra-island or inter-island electricity. We are engaged in planning such as the preparation of a Master Development Plan, overland transmission corridor analysis and an Environmental Impact Statement. We are participating with HECO in the process of firming costs by negotiating with developers to finance, develop and operate the project. Until exploration, planning and negotiations activities provide more definitive information, it would not be prudent to make any decisions regarding geothermal energy development for export.

3. This Administration is aware of the situation at the Geysers in California apparently caused by overproduction. In a recent comprehensive letter to the chairman of the advisory board on the geothermal/cable project, Governor George Deukmejian did not allude to the Geysers problem. He stated, "Overall California's experience with geothermal development has been quite positive." The State wants to prevent a situation like the Geysers from occurring in Hawaii, so we are committed to a substantial investment in resource research so that our geothermal resource can be managed effectively.

4. It is unlikely that a developer will enter into a long-term Power Purchase Agreement (PPA) with HECO before that developer is satisfied of reliable, long-term geothermal resources. One way to address resource concerns is to develop a PPA to require the delivery of electricity in increments leading to full scale delivery after the turn of the century.

a. The State has assumed that 500 megawatts of (net) geothermal energy can be sustained for at least 30 years for commercial development purposes. Experience elsewhere (e.g., Italy) has shown that the resource is available for much longer periods. However, the 30-year service life is currently an assumption that must be proven before major irreversible capital commitments are made by the private sector.

b. The U.S. Geological Survey has estimated almost 33,000 MW-Centuries (thermal resource) in the Kilauea Southwest and East Rifts. The 1978 report (Geological Survey Circular 790) indicates an identified accessible geothermal resource base of over 3,000 MW-Centuries in Hawaii with an additional undiscovered accessible geothermal resource base of over 15,000 MW-Centuries. The report states, in part, "Many uncertainties exist concerning the subsurface geology as it relates to the development of geothermal reservoirs on these (Kilauea and Mauna Loa) volcanoes, but undiscovered reservoirs are likely to exist."

In 1980, the Director of the Hawaii Institute of Geophysics estimated that the Kilauea East Rift Zone has a geothermal potential from 100 MW-Centuries to more than 3000 MW-Centuries. While these estimates do not provide commercial certainty, our development plans to prove out the resource will.

5. State planners have considered the impact of consumer costs for geothermal electricity on the State's economy. Economic considerations and energy security have been the primary impetus for the State's efforts to promote energy conservation and indigenous energy resources, including geothermal. Despite major efforts since the oil dislocations of the 1970s our economy is still 90 percent dependent on imported oil for its electricity. This extreme oil dependence will render us less able to control our own economy when the inevitable escalation of worldwide oil prices occurs.

a. The rate payers will indirectly pay for the capital cost of any electric generating capacity including geothermal energy development.

b. Until the scope of the geothermal/cable project is better defined, and the Public Utilities Commission has approved a Power Purchase Agreement between HECO and the geothermal/cable developer, we cannot predict the per capita cost to the rate payer.

c. It is conceivable that the State could suffer from a lower bond rating if we developed a poor record on default of special purpose revenue bonds (SPRB), whether they be issued for geothermal or any other project. SPRB authority is conferred by the Legislature, and this Administration will not endorse projects that are not meritorious or are overly risky to the State.

d. The State has invested the following sums to support geothermal. About \$2.1 million was expended on the demonstration HGP-A wellhead generator; \$4.8 million on geothermal resource evaluation including the HGP-A well; \$2.6 million on planning and impact assessment; \$400,000 on Noi'i o Puna (Puna Research Center); and \$400,000 on various small studies and demonstrations not fitting into the preceding categories. No direct support has been expended on current efforts being conducted by the private sector to drill wells, or proposed to HECO for the export project.

6. A PPA between an independent power producer and an electric utility provides the same degree of reliability for the purchased power (which is usually the same reliability standard for the utility itself). The PPA also addresses the penalties the independent power producer will pay for not meeting these standards, or for failing to deliver power. The financial risks for the geothermal project fall primarily on the developer.

We generally agree that a consumer of any product, including electricity, will attempt to stabilize his/her cost for that product. When the cost of that particular product rises, some consumers may use less of the product or switch to alternatives. A review of electricity costs and consumption per customer show a clear inverse relationship over the past 15 years. If electricity prices escalate, whether that escalation is due to increasing oil prices or other causes, some consumers are likely to shift to do-it-yourself alternatives such as direct solar, or reduce their consumption.

As noted earlier, a major impetus for geothermal and other alternative energies, as well as conservation, is to stabilize the future cost of electricity by regaining local control over its production in Hawaii. The State is much more concerned about our 90 percent dependence on oil for electricity generation than the effect of consumers shifting to lower cost alternatives because of the price of electricity. We believe price escalations are riskier with continued dependence on oil, rather than conversion to a locally available, dependable source of power.

7. The local refineries do not produce all of the low sulfur fuel oil (LSFO) required by the utilities, so over 168 million gallons of LSFO are imported annually, without local refining, for the generation of electricity. A reduction in the generation of petroleum-fired electricity will reduce the direct import of LSFO. Our refineries also have a couple of management alternatives to further reduce the net import of crude. First, they can import different grades so that the residual fraction that remains is less; and second, recently installed hydrocracking units can further refine the crude feed stock to produce less residual and a greater fraction of naphtha, jet fuel, diesel, and gasoline to meet the changes in market demand dictated by a reduction in the need for residual.

8. The data on the economics of large scale geothermal development will be made available to the public when that information is definitized by HECO and the prospective developer.

a. HECO's present schedule calls for negotiation of a draft PPA in October, 1990, with the successful geothermal developer. The PPA must be filed with the Public Utilities Commission (PUC) which will open a docket and hold a hearing(s). Details of the contract will become public at that time because the PPA becomes a public document when it is filed with the PUC. Based on the present schedule, we foresee that the PPA will not be filed with the PUC until very late in 1990 or early 1991.

b. The economic information has not been shared with the public for several reasons:

1) HECO is negotiating with more than one developer so the confidentiality of the business proposals of each developer is being respected.

2) Each developer has requested that HECO consider all or portions of its proposal as proprietary.

3) The original economic data provided by the successful developer is likely to be changed during the course of negotiations.

4) The proposals and subsequent negotiations are primarily between private parties and, therefore, there is no requirement to disclose that information to the public. Because there may be policy matters and requirements of importance to the State before a PPA is entered into between HECO and the selected developer, the State has been and will continue to be a participant. With the concurrence of the Attorney General because of the requirements of the Uniform Information Practices Act, we have entered into a process with HECO, and through HECO with the developers, toward allowing the State to participate, yet protect the confidentiality of most matters between the private developers and HECO. However, should the State's direct involvement be necessitated, this information would have to be made public.

9. The current Energy Functional Plan presents a number of objectives, policies and actions, each action with its own timetable, and each leading to greater energy self-sufficiency. However, the actions and their timetables are not integrated, nor does the Energy Functional Plan provide a forecast of energy demand. Therefore, the Energy Functional Plan does not provide a timetable or other means for establishing how well at any given future date we have realized our energy self-sufficiency goals. Two efforts are underway that will lead toward an integrated plan. The Public Utilities Commission has mandated Integrated Resources Planning (IRP) for the State's energy utilities. The results of IRP will be integrated within a broader process, sponsored by the Department of Business and Economic Development, for the Hawaii Integrated Energy Policy Development (HEP) Program.

Both IRP and HEP have started. Both involve public input, and this Administration is fully supportive of both efforts.

The Hawaii Integrated Energy Assessment, prepared in 1981, was designed to aid decision-makers in Hawaii to plan the transition from 90 percent dependence upon oil to a mix of renewable, indigenous energy resources during the succeeding 25 years. That plan assumed three different future scenarios of world oil price escalations and levels of energy demand. Overall the plan predicted that in the year 2005, about 42 percent of Hawaii's total electricity capacity would be based on petroleum, 20 percent on geothermal, and 38 percent on other renewables such as wind, OTEC and direct solar. However, oil prices did not escalate in the 1980s as was assumed in the plan, so the commercialization of renewable energy resources lagged because of the lack of economic incentives. Today, renewable energy developers appear more willing to assume that future oil price escalation will make their projects economically competitive.

10. An agency of the State, the Public Utilities Commission, has directed that the energy utilities participate in a least cost energy plan known as Integrated Resources Planning (IRP). Another agency of the State, the Department of Commerce and Consumer Affairs through its Division of Consumer Advocacy, is a party representing the consumers to the IRP. The Department of Business and Economic Development has requested to be a party to the IRP. You can be assured that these three State agencies have the same energy objectives which are spelled out in the Hawaii State Plan: (1) The provision of dependable, efficient and economical Statewide systems capable of supporting the needs of the people; and (2) increased energy self-sufficiency.

11. Conservation is aggressively pursued by the State. The Energy Division of the Department of Business and Economic Development has the primary responsibility to promote and implement energy conservation programs in the State. Their efforts to date have largely focused on voluntary efforts. We are now fully behind the effort to implement demand-side management programs in Hawaii to elevate our energy efficiency programs to beyond the voluntary. Funding for Hawaii conservation programs for the period July 1, 1984 through December 31, 1989, has totalled almost \$19 million, a significant amount, much of which went to direct retrofits of institutional facilities which achieved direct savings.

12. We believe that an energy conservation program can be truly effective if it is administered by the same agency whose primary purpose is business and economic development. Energy conservation and renewable energies are not only compatible but an important strategy in improving business and economic development. The key to maximizing success is to effectively integrate both renewable energy development and improved energy efficiency.

We will continue to strive for the best mix to meet our two primary energy objectives: dependable, efficient and economical energy; and self-sufficiency. We will continue to devote our resources to those specific programs which offer the best chance of achieving these objectives. While we have sought increased funding for geothermal exploration and planning in the past few years, we have not done this at the expense of our conservation programs. We do not see these as either/or choices.

13. The State is participating in a program to provide an asset fund to compensate those directly impacted by geothermal development. It is our intent that the asset fund will be administered at the county level. For this reason, it would be inappropriate to commit to a statement that "the State (will) require compensation...."

Concerning your last three questions on the State's energy policy:

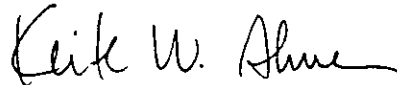
1. Geothermal energy will continue to compete with other indigenous energy resources for State funding. The State will continue to assist development of all resources that can significantly contribute to our two primary energy objectives.


2. We acknowledge that there are significant questions yet to be answered regarding the economic feasibility and social and environmental acceptability of large scale geothermal development. Our programs are designed to provide definitive answers to these questions, so we will not suspend funding and permitting for planning, impact assessment and exploration related to the geothermal program.

3. The ongoing Integrated Resources Planning by the Public Utilities Commission and the Hawaii Integrated Energy Policy Development Program sponsored by the Department of Business and Economic Development are designed to address concerns about various energy technologies, including cost/benefit comparisons. Any decision to consider additional studies should await the outcome of these processes.

The Governor has designated Mr. Keith Ahue, Deputy Director of the Department of Land and Natural Resources, to be the liaison between his Administration and the Pele Defense Fund. Mr. Libert Landgraf will be available to assist during the transition period. Your request to have Ms. Norma Wong serve as liaison cannot be accommodated due to the extremely heavy workload already being placed on her.

Sincerely,



 SUSUMU ONO
Geothermal Energy Coordinator

bcc: Hon. Roger A. Ulveling
Hon. William W. Paty
Mr. Libert Landgraf
Ms. Norma Wong
Mr. Keith Ahue



THE PELE DEFENSE FUND
POST OFFICE BOX 404 • VOLCANO, HAWAII 96785

April 9, 1990

Governor John Waihee
Hawai'i State Capitol
Honolulu, Hawai'i 96813

VIA

Mr. Susumu Ono
Geothermal Energy Coordinator
Office of the Governor
Hawai'i State Capitol
Honolulu, Hawai'i 96813

Dear Mr. Ono:

I am writing in follow-up to the meeting of March 8, 1990 in which the Pele Defense Fund and Northwest Economic Associates presented findings from "An Economic Analysis of the Kilauea Geothermal Development and Inter-Island Cable Project" to members of the Governor's cabinet. At the end of the meeting you agreed to respond, by May 15, 1990, to questions about the state's support for largescale geothermal energy which arose out of the findings of the report. Most of these questions were raised in our meeting, however, we have included additional questions as a result of our discussions with the cabinet members. We suggested that Greg Pai from the Office of State Planning assist in analyzing the report and providing a response to our questions.

Specifically, we would like a response to the following questions:

- (1) Does the governor's office acknowledge that geothermal electricity delivered on Maui and O'ahu from the Big Island will cost more than electric energy generated locally from fossil fuels?
 - (a) What will be the difference in cost per kilowatt hour on those islands?
 - (b) What is the assumed cost per barrel of oil that this difference is estimated upon?
- (2) Specifically, what accounts for the discrepancy between the \$1.7 billion estimate out of the Department of Business and Economic Development for geothermal development and our \$3.4 to \$4.3 billion estimate?
 - (a) Do you disagree with the reasons for the difference? Why?
 - (b) Are decisions regarding geothermal energy development still based on the \$1.7 billion estimate?
- (3) Is the governor's office aware of the situation at The Geysers in California where the geothermal resource has gone into unexpected decline causing a reduction in output, an idling of power plants which must still be paid off, the cancelling of new plants, lawsuits between investors over who should bear the loss of income, and the potential loss of several billion dollars in investments?

(4) Since the California experience at The Geysers indicates that geothermal resources can be depleted if they are initially overestimated and subsequently overused, and, since no reliable or verifiable estimate of the usable geothermal potential exists for Kilauea, how, exactly, is a 500 MW geothermal project seen to be a reliable, long term renewable source of energy?

(a) How long does the state assume base line power (500 mw) will be available once geothermal is on line?

(b) On what scientific basis and on whose opinion do you rely for these estimates?

(5) Have state planners analyzed or considered the impact of higher consumer costs for geothermal electricity on the state's economy? If not, why not? Shouldn't an attempt be made to quantify the impact that higher consumer rates will have on the state's economic growth?

(a) As the state has already provided a mechanism by which the utility and the developer are guaranteed rate hikes to consumers to cover geothermal project cost increases, won't either the rate payers or the taxpayers ultimately have to pay for the capital cost of geothermal energy development?

(b) What will be the per capita cost of either the rate payer or the taxpayer?

(c) If geothermal fails after special purpose revenue bonds have been issued, can the state suffer from a lower bond rating or credit standing even without being directly liable for a default on those bonds?

(d) How much has the state already spent to support geothermal development?

(6) In the Pacific Northwest a large power project which began in the 1970's overestimated future demand and underestimated the impact of conservation and market forces. When these factors came into play the large power project went into default costing the state, its rate payers, and investors billions of dollars. Is the governor's office in agreement with the assumption that if the geothermal project causes rates to increase greatly there will be a strong incentive for major consumers to reduce their consumption or even leave the system and find and use lower cost alternatives available to them, such as conservation or solar? Will the remaining rate payers then suffer even higher rates in order to pay off the project costs?

(7) Since crude oil is brought into the state primarily to be refined into transportation fuel with the residual oil (the waste oil remaining after refining) being used to generate most of the electricity currently produced in the state, and since the addition of 500 MW of generating capacity will only promote development and increased use of transportation fuels, will the state specifically explain how geothermal development will reduce crude oil imports into the state?

(8) Will the state and Hawai'i Electric Industries share their data on the economics of largescale geothermal development with us and the public?

(a) At what stage of the project and by what date?

(b) Why has this information not been shared with the public?

(9) What are the specific objectives and timetables for the state's energy self-sufficiency policy?

(a) Are these objectives and timetables specifically part of the current State Energy Plan?

(b) Have any conditions changed, such as the cost of oil, which calls any part of plans to develop geothermal energy into question?

(10) What specific commitments will the state make to working with the public utility to implement a least cost energy plan ?

(11) Since conservation is recognized by the federal government, many state and local governments, and utilities as the keystone of sound energy planning and policy, why is conservation not pursued as aggressively and at the same funding levels as the 500 MW geothermal project?

(12) Can an energy conservation program be truly effective if it is administered by the same agency whose primary purpose is the promotion of business and economic development programs? Can an energy conservation program and a 500 MW geothermal project be compatible? If so, how will that compatibility be achieved? Which one will take priority?

(13) Will the state require compensation be paid to individuals whose quality of life or property values are diminished by geothermal development, or will it abandon them as necessary sacrifices to "progress?"

For the record, we also asked the following questions relating to the state's energy policy. You indicated that we would have to pursue discussions at another level to get answers to these questions:

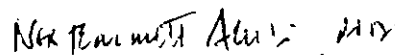
(1) Why shouldn't geothermal energy be required to compete without subsidies with all other sources of electric energy?

(2) Is the state willing to suspend its funding and permitting of geothermal activities until a thorough re-examination of the economic feasibility and social and environmental impact of largescale geothermal energy is completed?

(3) Is the state willing to conduct a detailed cost/benefit comparison, including social and environmental costs of all energy options, including the LUZ system; decentralized solar thermal promoted by tax credits and legislation; energy conservation promoted by state financial assistance and mandatory requirements such as solar water heating, heat pumps, and energy-efficient light bulbs; and centralized solar and wind generation?

In pursuing a re-examination of the state's policy regarding geothermal energy by the governor, we would like to have Norma Wong replace Libert Landgraff as our liaison. Thank you for your assistance in arranging for the meeting with the cabinet and for providing us with a response to our economic analysis of largescale geothermal development by May 15, 1990.

Sincerely,



Noa Emmett Aluli, M.D.
Pele Defense Fund

cc. Representative Mark Andrews
Senator Richard Matsuura
Senator Daniel Inouye
P.U.C. Chairman Yukio Naito
Consumer Advocate, Richard Totto
U.S. Secretary of Energy James Watkins

REF:VI-PO

MAR 28 1990

Mr. William Lipp
P.O. Box 1765
Pahoa, Hawaii 96778

Dear Mr. Lipp:

Thank you for your letter expressing concern regarding proposed geothermal development in Puna. I assure you that my staff and I are working very hard to make sure that geothermal development is done properly with least amount of adverse impact to the environment and to residents. We believe that this is the best of the alternatives available to provide for current and projected electrical energy demands.

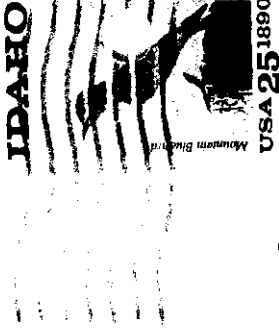
Thank you for writing.

Very truly yours,

VIGOR W. PATY

REF:VI-PO

WILLIAM LIPP
BOX 1705
PATAA HI 96778



WILLIAM PATY
DEPT of LE NAT RESOURCES
P.O. Box 621
Hon. HI 96809

Haha,

Mr Pity... I hope you ~~will~~ ^{will} the
 Dept. to the job you're supposed to refer
 to the proposed weathered development
 in Puna. I went in ~~to~~ ^{to} ~~see~~ ^{see} ~~it~~ ^{it}
 and was about to buy until I read the
 sickening details of this fiasco. Your
 job is to fight this immense wrong against
 the people and nature. We're all watching.
 Let's end it together.

RECEIVED
 JUN 12 10 35
 HONOLULU
 STATE OF HAWAII

Thanks!
 Ray Whyp
 Kurestons A.C.

REF: 11-70

MAR 28 1960

Mr. Vincent W. Mosch
20 Albert Street
Madison, N. A. 53705

Dear Mr. Mosch:

Thank you for your concern about preservation of the Waialeale C
Eucalypt forest and about using conservation measures to decrease our need
for fossil fuel for generation of electrical energy.

I can assure you that the State of Hawaii is continuing to look
after the Waialeale C Eucalypt forest. Only a small portion of original
forest land has been approved for geothermal development. A full range
of conservation programs and measures has been undertaken by the
State of Hawaii, but conservation measures alone will not free up enough
energy to meet current and projected demands for electrical energy.

Thank you for taking the time to write.

Very truly yours,

WILLIAM A. PATY

MT:JS:ko

The logo features the acronym 'ASAS' in a large, bold, black sans-serif font. It is centered within a series of concentric circles that create a tunnel-like effect, drawing the eye towards the text. The circles are thin and black, set against a white background.

ASAS

Vital
Information
Subsystem

User Manual

October, 1989



U.S. Department of Transportation
Federal Aviation Administration

WL

2-23-90

RECEIVED

Mr. James P. Kelly
10 Albany Street
Medford, MA 02155
RECEIVED

FEB 23 12 40 PM '90

William Patey
Dept of Land & Natural Resources
PO Box 621
Honolulu, HI
96809

DEPT. OF LAND
& NATURAL RESOURCES
STATE OF HAWAII

Dear Mr. Patey.

I am writing this letter out of concern over the destruction of the rainforest Wao Kele O Puna. As a person urging other countries to preserve their tropical rainforest, I find it hard to believe that we in the U.S. are not willing to show constraint in preserving ours. If we don't do it, why should they?

There is no energy shortage, but a moral and vision shortage. We could easily dramatically decrease our need for petro resources? How you may ask? By four simple painless changes in our lifestyles. First, instead of turning on an air conditioner, use a fan instead. Actually, if architects

adopted passive cooling / heating methods in their
designs we could eliminate both. Next, hang
your laundry out on a clothes line (it's free)
don't use an electric cloth dryer. Third,
buy a solar water heater. In Japan, they
are common, why not in Hawaii. Oh, does
Hawaii have an extensive mass transit trolley
system to encourage people not to use their
automobiles (a high waste of oil).

Projects like Wao Iele O Puna Geothermal
Power Plant would not be needed if our society
needed in this direction. Conservation is not
very important but we must start and care!
I doubt this project will decrease your
dependence on oil, but only increase dependence
on a high energy infrastructure.

Sincerely,
Wendell