

ormat

MEMORANDUM FOR THE RECORD

FROM: Dean Nakano

SUBJECT: Meeting with Maurice Richard of Ormat Energy Systems, Inc.

On Wednesday, July 27, 1988, I met with Maurice Richard and Dwight Carey to discuss the current status of the Puna Geothermal Venture (PGV) project. Mr. Richard is the Regional Development Manager for Ormat and will be taking over as manager in charge of the Hawaii operations. Mr. Carey is the Vice President for Environmental Management Associates, Inc., a consultant firm hired by Ormat for permitting purposes.

Mr. Richard stated that after lengthy negotiations, Ormat has finally completed its acquisition of Thermal Power Co. and control of PGV (AMFAC's 25% share in March 1988 and Thermal Power's 75% share on 7/22/88). Mr. Carey advised me that a letter would be sent to the Department explaining the transition from Thermal Power to Ormat and how it relates to PGV.

A summary of our discussion at the meeting is outlined below:

- * Ormat still intends to meet HELCO's deadline for electrical power generation and expects to be online by late 1989 or early 1991.
- * ✓ Mr. Richard and Mr. Carey will be meeting with the Hawaii County Planning Department to discuss the status of the PGV Geothermal Resource Permit Application and EIS. *(see attached Summary of project application for PGV)*
- * ✓ The earlier proposed HGP-A/Kapoho State No. 1A pipeline project has been terminated and is no longer being considered. *Permit to temporarily plug K.S.# 1A issued to Thermal Power on Mar. 1, 1988, expires 3/1/89*
- * [A follow up letter will be forthcoming that will outline the present and future plans for Puna Geothermal Venture under Ormat's management.] This letter should clarify the current status of all pending permit applications with the County, DOH and DLNR, including the status of the proposed (69KV) electrical transmission line in Puna, Hawaii. *(Status report requested, but not received by DLNR.)*
- * ✓ I advised Mr. Richard that the Department's acceptance of PGV's new Plan of Operation (submitted earlier by Thermal Power) is still pending and would be subject to further review based on the recent change in ownership of PGV and proposed design modifications to the power plant facility. *(NVA - PGV to submit new Plan of Operations to ORMAT.)*
- * I also stated to Mr. Richard that Ormat's application for a 180 day permit extension to redrill Kapoho State No. 2 is currently under review by our staff.
 - A. *(Original Well modification permit for K.S. #2 (issued to Thermal Power) expired on July 10, 1988.)*
 - B. *ORMAT request for extension rec'd by DLNR on July 20, 1988, acknowledgement sent 8/15/88 requesting: 1) Transfer of ownership info (Done), 2) submittal of bonding (Done), 3) Amendment or New Plan of Operations (Pending).*
 - C. *Per phone call from ORMAT (10/27/88) - They will file for new well modification permit for K.S.#2 (Directed request for extension.)*

- * Mr. Richard inquired ~~as~~ to whether the Department would be agreeable to accepting an alternate form of surety other than the conventional method of bonding as required by DLNR's Administrative Rules, Chapter 183. I stated that I was unable to answer that question and advised him to make his request in writing to the Department for consideration. (W/A - Bonding req'd from ORMAT)
- * Mr. Carey stated that based on his review of our current regulations, all PGV permit applications and plan of operations submitted for approval to the Department/BLNR should not be affected by the new geothermal legislation, S.B. No. 3182 (Act 301, SLH 1988).
- * Mr. Richard asked which Department (DOH or DLNR) would have jurisdiction over injection wells. I stated that it was my understanding that DOH is proposing or has adopted regulations exempting injection wells located within a designated GRS. Nevertheless, I did advise him that DLNR would still require a well drilling permit for construction of any injection wells. (Also, even if GRS is an exempted aquifer, an UIC will still be required by DOH.)
- * In closing, Mr. Richard stated that he was under the assumption that the DOH Air Quality (H2S) standards had been approved and were to be signed by the Governor. As such, Ormat would be preparing for submittal, permit applications to DOH for Authority to Construct the PGV power plant facility. Mr. Carey further advised however, that design modifications (see attached sheets) were still being considered which would affect the overall project and related permit applications.

Possible Agenda for 1/12/89 Mtg w/ORMAT

Alan Hansen

- A. Pursuant to Hilo mtg (1/4/89), ORMAT to submit copy of Final EIS to DOWALB for our files.
- B. ORMAT to submit PGV Plan of Operations in the format of the PGV's County Geothermal Resource Permit (GCRP) application, with a cover letter identifying all sections relevant to fulfilling the requirements of DLNR's Plan of Oper.
- C. ORMAT will also discuss the Deed/Lit - Olson project and the possibility of relocating the test holes. (ORMAT may suggest alternate permit review/approval procedures.)

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DRAFT

To: Mr. Manabu Tagomori
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Fax: (808) 587-0219

Date: February 6, 1992

From: Subir K. Sanyal

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cc: Dean Nakano/Gerry Lesperance, DBED - (808) 586-2536

Subject: Subir K. Sanyal's memo to DBED of October 23, 1991

Your office has asked me to clarify the reference to the Coso project made in my memo on the injection of geothermal fluids at Puna addressed to Mr. Gerald Lesperance on 23 October 1992. Before I clarify this issue, I would like to point out, as I did during my verbal presentation to your staff, DBED and DOH in Honolulu and Hilo, that the memo had been written before PGV submitted its latest development plan, dated 24 October 1992, to the State. Therefore, certain points addressed in my memo may not be relevant anymore.

Your staff have asked me to clarify my comments on the gas breakthrough at the Coso geothermal project made on page 5 of my memo. Of the four "problems" caused by the gas breakthrough listed on page 5, the first three impacted the economics of power generation to a small extent but had no impact on any environmental issue. The fourth "problem" listed was that of the necessity for a gas discharge permit; this was an embarrassment and a problem only in the sense that the developer had not obtained a gas discharge permit before the plant went on line, and therefore, had to backtrack to obtain such a permit after the subsurface gas breakthrough. Please note that the permit was for the discharge of primarily CO₂, which is a necessity for all geothermal plants where the gases are not injected. In fact, fossil fuel plants generate far more CO₂ per kilowatt-hour power production than does a geothermal plant. In summary, no environmental problem of any sort has ever occurred at Coso.

Best regards.

MEMORANDUM FOR THE RECORD

FROM: Dean Nakano

SUBJECT: Puna Community Council - Resolution No. 88-04

On Wednesday, January 25, 1989, I attended a public hearing held by the Hawaii County Council Committee on Planning to hear testimony on the Puna Community Council (PCC) - Resolution No. 88-04.

Ron Phillips and Dan Laine from the PCC presented their resolution and accompanying Transmission Corridor Committee Report # 2, which requested the State and County to implement a moratorium on any construction of high voltage electrical power transmission lines until such time that a proper EIS addressing social-economic impacts has been prepared and accepted.

The PCC also requested that more public input and participation be required in the planning and selection of any proposed high voltage transmission corridors.

Clyde Nagata from HELCO presented the following information addressing the issues raised by PCC:

1. Unless required by Chapter 343, HRS, HELCO is not obligated to prepare an EIS for transmission corridors. However, since the proposed routing for the (2) 69KV transmission lines crosses State lands, an EIS is currently being prepared and a draft EIS is due out for comment sometime in March.
2. The (2) 69KV transmission corridors currently selected will follow Highway 130. One of the two 69KV lines will be adjacent to the existing 34KV line along Highway 130 and the other will be constructed on the opposite side. Two 69KV lines are required, one to transmit the 25 MW of electricity from Pohoiki to Keaau and the other to serve as a backup or redundant system.

Mr. Phillips expressed his concerns that if the (2) 69KV transmission line corridors are approved, it would allow HELCO to "piggy-back" additional high voltage lines along the same corridor in the future (i.e. the proposed 500 MW geothermal development).

Mr. Nagata replied that HELCO would not allow "over building" of higher capacity lines over the (2) proposed 69KV lines.

The Council Committee responded to the testimony by stating that the resolution should more properly be presented to the State rather than the Hawaii County Council because the decision

to approve the transmission corridor rests with the PUC and not the County. The Council members further stated that the moratorium was inappropriate at this time, and that they felt the public and PCC would have ample opportunity for comment and input during the transmission line EIS comment and review period.


In reply to PCC concerns regarding the 500 MW geothermal development and overland electrical transmission lines, Councilwoman Helen Hale stated that she felt Bill Quinn's goal to develop geothermal resource for transmission to Oahu as being unrealistic and that the cable would never be built by 1995, if at all.

There being no further testimony presented, the Council Committee on Planning moved to table the PCC resolution and seek no further action on the matter.

A handwritten signature in black ink, appearing to be "Helen Hale", written in a cursive style.

EXHIBIT V-7 Potential Corridors

Legend

Corridor Area 

Corridor Segments A-E

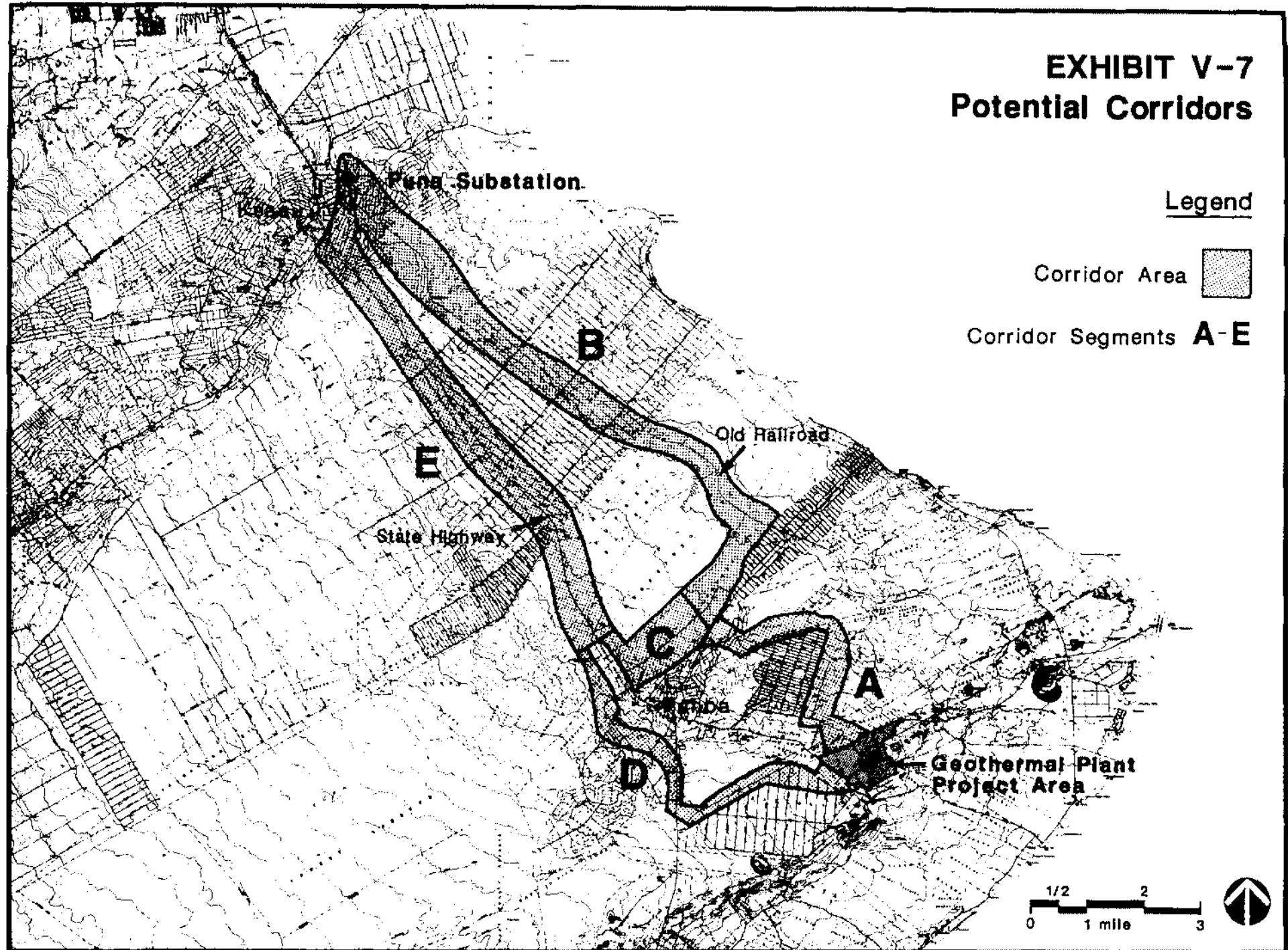


EXHIBIT VI-10 Alignments

Legend

Preferred Alignment 

Alternate Alignment 

