

DEP

GEOTHERMAL ROUNDTABLE
September 21, 1989

The meeting was opened with a presentation by Frank Kingery, the Project Manager for the ERCE on the scope of the proposed Master Plan.

MASTER PLAN:

What will Master Development Plan (MDP) address?

- Proposed development of geothermal resource in geothermal subzones
- Resource development for local use and to Oahu (500 mw)
- Overland corridor from Puna to West Hawaii
- Components of subsea cable

What will plan contain?

- Comprehensive development scenario of the entire plan
- Updated cost information and comprehensive schedule for program
- Recommended planning, siting, and operating guidelines
- Description of current regulatory regime: compliance and monitoring
- Environmental Impact Statement
- Public involvement program:
 - Public information meetings to solicit input
 - 1st meeting, 10/11/89, 6:30 p.m., Pahoa Community Center
 - 2nd meeting, 10/21/89, 6:30 p.m., Waimea
 - Later October: Maui and Waimanalo
 - Focus Meetings/workshops (dates and times of meetings to be announced via newsletters)

Schedule:

- Draft Master Development Plan - March/April 1990
- Public workshops - May 1990

- Final Master Development Plan - August 1990
 - Draft EIS - October 1990
 - Final EIS - February 1991
- Q: Possibility of ocean route as soon as possible, has it been dropped?
- A: Proposal includes a provision to consortia to address this option
- Problems with water route: big gulch, depth of water
 - Master Plan will include alternatives
- Q: Since this is not an EIS, it won't be discussing alternatives to Big Island geothermal development?
- A: Such discussion will be included in the EIS
- Q: Will EPA requirements be included?
- A: This is a State of Hawaii (SOH) EIS but there will be further discussions with the Federal Government concerning their needs.
- C: Idea of geothermal master plan premature; need for full comprehensive energy plan. Could be detrimental.
- C: Around 1978/1979, the State of Hawaii commissioned "Hawaii Integrated Energy Assessment" (report finished 1981). It looked at potential energy sources in Hawaii. It was concluded that development of geothermal was advanced enough to make it viable. It would be going backwards to develop a Master Energy Plan again.
- C: State agencies and developers pushing geothermal hard, and cramming it down the community's throat. Subsidies not being offered to other alternatives. There's a need for current energy policy that justifies geothermal, takes out subsidies to geothermal. Need for discussion or there will be continued discontent with the project.
- Q: Any analysis of other places, other than East rift zones?
- A: Will provide criteria for expanding out of existing subzone. EIS will talk about other areas.
- C: Opportunity to look at other hot spots in State (i.e. Kilauea Southwest Rift Zone)
- Q: Should State be exploring other areas? Would the community be supportive?

A: Still feel premature.

A: Need to focus on active mitigation of impacts rather than dump this in someone else's backyard.

- Need to weigh subsidies and geothermal development

C: Re: Southwest Rift: if this area were slated for development it would spread the impact and spread the risks

TRANSMISSION:

Current status:

- Begun transmission portion of study
- Reviewing issues from other roundtable sessions

Approach:

- Project defined - regional study
- Reevaluate and validate
- More detailed study
- Alignments
- Alternatives
- Two-phase study: Alternative Corridor Evaluation
Alternative Alignment Evaluation
- Public workshops for review:
 - 1st workshop: Identify critical issues, develop corridor selection guidelines, rank selection guidelines
 - 2nd workshop: discuss/assess alternative corridor segments, rank corridor alternatives, adjust corridor segments, consensus on preferred corridor
- Formal selection of corridor
- Alternative alignment evaluation:
 - Field survey within corridor, map conditions
 - Establish criteria
 - Identify candidate/alternative alignments

- Public workshop #3:
 - Discuss alternative alignments
 - Rank alternative alignments
 - Identify preferred alignment
- Adjust and select preferred alignment
- Prepare routing report

C: Re: re-examining and redefining corridor - concern about participation in the process has led to public workshops.

Schedule:

Transmission discussion:

- 1st: Late November/early December 1989
 - 2nd: Alternative corridors: Late January/February 1990
 - 3rd: Review alternative alignments: June/July 1990
 - 4th: Routing reports: August/September 1991
- C: Community has reviewed DHM documents and considers it worthless; question methodology used and credibility
- C: Have reviewed also, not acceptable in portions; need to verify raw data.
- C: Want to validate raw data in those reports.
- C: Need to work closely with community for guidance on best possible route.
- Q: How wide will the overhead corridor be?
- A: Varies; right-of-way between 135-150 feet. If one common corridor is used it would need to be wider; needs to be re-examined.
- Q: Right-of-way not in RFP? Who pays?
- A: No definite answer. Fundamental policy decision. Appears State should play a significant role (ownership, management).
- Q: What does "consensus" mean?
- A: Agreement of everybody regarding specific issue.
- C: Alignment will impact all - objective to agree upon evaluation criteria.

- C: Being asked to identify location that involves environment, engineering, and community input which will provide basis for decision.
- C: Not a perfect process. Regarding decision-making: the "least unagreed upon"
- C: Still need to be convinced that it is the best alternative.
- C: Still talking about two separate corridors?
- A: Yes; both being examined. A preferred corridor will be selected.
- C: Land use - taking prime land out of use is not acceptable.
- C: Discussions concerning basic premises have never taken place. Need for justification for basic decision to proceed with geothermal development. The community and Big Island being forced into collaboration.
- C: Need to revisit Ground Rules during the afternoon discussion.
- Q: Has there ever been a study or report on the physical and other impacts of transmission lines?
- A: Many; electromagnetic fields and other major studies underway.
- Q: Regarding Ground Rules: Any parameters on development of the resource?
- A: None.
- Q: Can dates for workshops be consolidated?
- A: Public information workshops driven by technical studies.
- C: Need to have meeting available to working people. Meetings will be at night and will last 2-3 hours.

QUESTIONS TO DLNR / ORMAT:

- Q: Relation to SOH compensation issue? Where will funds come from? Who will manage funds? What will be the criteria for disbursement?
- A: Condition 51 in PGV permit creates asset fund. Management of asset fund directed by County. Set of criteria to be established regarding disbursement of funds.
- C: PGV in process of formulating policy. Will include participation of parties at local level to develop plans.

- C: SOH contribution will come from HGP-A. State obligated to advance money into fund.
- Q: Criteria for drawing on funds? How will these be developed? process to develop will be in accordance with chapter 91 of the county.
- Q: Will the shutdown of HGP-A plant occur within 30 days?
- A: State must look at development of shutdown plans, as soon as possible.
- Q: Is there money for renovation?
- A: Funds from HGP-A plant will be deposited into account. Money from Legislature appropriated for repairs (approximely \$250,000). Trying to insure protection of these funds.
- C: Need to protect future revenues to be generated as well as those that have been.
- Q: What kinds of payments and for what purposes from the Asset Fund?
- A: Temporary and permanent relocation costs.
- Q: Any comparison to condemnation payments?
- A: Not defined yet. Criteria/rules to be set up by the county under Chapter 91.
- A: State of Hawaii: Revenues derived from that source will lead to impact on community. Definition broadened to individuals, family and community.
- Q: How will the State of Hawaii fund the Asset Fund if well is unsalvageable?
- A: If well not produceable, one-shot contribution. If sale produces revenues, state expects payback, revenues into fund. There will be a need for periodic review of fund.
- C: Reservoir is there and has value. A matter of how to be produced from now on.
- Q: What's in it for us? (Big Island)
- C: Issues should not have been decided without additional input. Community not consulted in developing scenario.

STATUS OF POHOIKI TRANSMISSION LINE:

- C: - Public information meeting in Hilo.
- EIS accepted by DLNR.

- CDUA must be approved/denied by 11/21/89 (not accepted; HELCO requested 90-day extension)
- PUC application submitted 9/6/89.

Q: Has the PUC approved any geothermal contracts?

A: PUC 3/19/87 approved HELCO/PGV power purchase agreement.

- Capacity payment increment (equivalent to what utility would have to pay to put an alternative source into operation) in front of PUC for review; hearings to come.

Q: Fully approved contract for PGV via PUC?

A: Energy-side - yes. Capacity payment being considered by PUC. Interconnection. Partial approvals in place; future approvals to come.

C: DLNR permitting activities:

- Act 301 - Geothermal and cable rules (Adm. Rule 185) effective 9/5/89.
- Adopted by Land Board
Deals with geothermal and cable system development permitting and approval process
- Subzone
- Petition for withdrawal - public hearing
- Recent denial of 40-acre application
- Issuance of geothermal mining permits/drilling permits
- Pohoiki Transmission Line - CDUA process - True/Mid-Pacific

Q: Questions on permitting process?

Q: Short summary available?

C: Yes; copies to be distributed to group. (attached)

Q: Status of fines for True/Mid-Pacific?

A: Fines not yet paid; details for scope of work being worked on.

Q: Contract regarding environmental monitoring at HGP-A between RCUH and EAL - is data public?

A: Yes.

Q: Does DOH receive that data?

A: Yes; data available.

UPDATE: DOH - AIR QUALITY STANDARDS:

- Will not adopt proposed standards
- New set of standards will be worked on:
 - Consultant to be hired
 - Department review including Attorney General
 - Governor's approval
- May not be able to do within two-month mandate
- Within 3-6 months: rules and standards for geothermal
- No numbers yet; must submit to consultant
- Public hearings
- H2S standards - top priority

Q: Will consultant talk to community?

A: Proposal to DOH - short timeframe. Open to public information meetings.

C: Concerned that consultant should talk to community

A: Consultant will try to gather as much information as possible.

Q: Will available studies be given to consultant?

A: Yes; justification/adjustment

C: Objectives of proposal for consultant submitted; not selected yet.

- Strictly air pollution control

C: Need to submit ambient air quality information to consultant.

RE: HGP-A pollution incident:

C: Need to correct misperception of highest level of pollution that occurred.

- Reports as high as 68ppb

- 24 hour average for day - 11ppb; difficult to catch all spikes
- C: Legislature appropriated money for two mobile vans to monitor air pollution.
 - Developing specifications; when complete, will be going out to bid
 - Anticipate getting equipment January/February 1990 as well as getting new person hired
- C: Legal limit should be "odor threshold"
- C: Reports about workers experiencing nausea.
- Q: Is DOH studying mercury concentration?
- A: DOH doesn't have the ability to measure mercury in the air as of now.
- Q: What happens if power plant shut down, still blowing off steam? Problem of venting.
- A: Capability of shutting down slowly.
- C: Immediate shutdown of well destroys the integrity of the well.

REVISIT OF MASTER PLAN:

- Q: Two other plans that may impact Master Plan:
 - 1) Hawaii Integrated Energy Assessment (HIEA) - DBED
 - 2) PUC Integrated Resource Management Plan
- C: RE: PUC Plan:
 - Evolving process, results that bear impact will be incorporated.
- C: RE: HIEA - DBED trying to establish awareness of how we use electricity and develop end-user data via surveys of commercial, industrial, residential sector.
- C: DBED (Energy Division) incorporating the two plans.
- C: PUC report will be available mid-to-late October.
- Q: If failure occurs, how will venting be dealt with?
- A: Have to vent, can't be reinjected (need to get better answers)

- C: DOH will be dealing with mercury as soon as new equipment is available.
- Q: Do you know anything about the proposed bill which would allow PUC to increase cost to consumers of geothermal?
- A: Unaware of bill. (see attached)
- Q: Any bills that DBED is planning to submit to Legislature with relation to geothermal?
- A: No decisions made. Certain issues need to be determined.
- Q: Will Master Plan be assessing long-term depletion of geothermal resource? Is there any possibility of long-term Big Island use and Oahu?
- A: Yes; data being gathered on current state of knowledge as well as local vs. Oahu use.
- C: State will develop policy.

DISCUSSION: GROUND RULES:

Suggested change:

"No media allowed in discussions in the interest of a free flow of information and the creation of a level playing field, and no press statements will be issued concerning what happens at the Roundtable subsequent to the meetings."

- C: No press at roundtable is appropriate. Need to be able to discuss freely because of significance to community/public.
- C: Press must recognize bias, must talk to all parties.
- C: Can't believe everything press does.

Regarding Ground Rule:

"This is not a discussion of whether or not geothermal development proceeds in Hawaii but how." No consensus reached on change; ground rule stands as is.

- C: Policy issues need to be discussed along the way; no logical stopping point. Developed without regard to forces.
- C: Forum provides opportunity to look at geothermal and determine economics
- C: Pele Defense: need to set aside that ground rule; have meeting to examine issue by way of "reasoned argument" and examine NEA study (benefits/cost ratio)
- C: Worthwhile to set up special meeting to address question.
- C: Key factor: Consortia's figures/costs

- C: Policy makers need to have this discussion; suspend rules of roundtable to have discussion.
- C: DBED set up roundtable to open avenue of communication regarding geothermal -- based on "marching orders", not "if" but "how".
- C: Discussion on whether or not must occur. Will explore setting up such a meeting.

UPDATE: Consortia:

- HECO met with five different consortia:
 - ABB
 - Kealohi Partners
 - Mission Power Engineering
 - Mission Energy
 - PG&E Bechtel
 - Technical proposals to be submitted 11/1/89
 - Commercial proposals due 12/1/89
 - Until proposals received, won't know costs.
- Q: Will public see any of 5 proposals, or just one?
- A: Can't say. Much of the information is proprietary to the company and as such can't be released.
- C: Contract (with consortia) to be submitted to PUC, should not be above projected costs.
- Q: HELCO/HECO to finance contract?
- A: HECO to purchase energy - independent power producer contract.
- Q: Draft of legislation dealing with avoided costs - PUC might set avoided costs that was artificial/higher. (bill not passed, will check it out)
- Q: Will any of costs of transmission lines and everything else developer puts appear in rate base? Important consideration: impacts ratepayers.
- A: Don't know; intent that ratepayer pays no more.
- Q: Any plans by HECO to shut down fossil fuel plants?
- A: Possibly downtown plant. Other plant shutdowns depend on length of time to develop resource.
- C: Regarding RFP: HECO on Oahu must have online 230 mw capacity.

Q: Will there be guarantee to consortia to purchase 500 mw?

SENATOR LEVIN'S CONSUMER ADVOCATE PROPOSAL:

- For Geothermal
- Responsive to community
- Expert
- Make sure permit conditions complied with

Q: What is the intent of consumer advocate?

A: Needs to be someone responsive to community; unsure about where to place

- Full-time state employee or consultant on contract
- Liaison to community
- Provide advice on conditions of permit
- Watchdog - help protect community

Q: Who to respond to?

A: DCCA

C: Difficult to find some "one" person to deal with all issues; possibly a consulting firm.

Q: Has concept been tried anywhere else?

A: Done on local, county level elsewhere
- i.e. California, usually within county planning department

C: County probably can't afford it; must be someone with expertise and ability

C: Like ombudsman - needs independent view, ability to avoid loyalty to department

C: Jerry Lesperance going to mainland conference; will try to get job descriptions

Q: Can DBED support this proposal?

A: Recognize need, willing to explore; continue communications with DBED and respond to proposal

C: Possible geothermal roundtable agenda item - potential bill draft (not to be construed as endorsed by all)

- Q: Precedent of funding position totally independent from source of funding?
- A: Ombudsman concept is an example of total independence, yet still funded by government
- C: Community and state have to pick someone they feel is qualified
- C: Someone out of tradition, acceptable primarily to community and state

COPIES TO ROUNDTABLE PARTICIPANTS:

- Rules - Act 301
- Summary DLNR Permit Process
- Status of forestry - conditions: True/Mid-Pacific
- DOH - Noise status
 - Mercury
 - Venting - ORMAT
- Bill on geothermal - rate raising: Status?
- Setup discussion on whether or not geothermal should happen? (Search for funds for discussion)
 - Who else should be included in discussion?
 - Representatives of conservation efficiency, any options
 - Policymakers vs. technical people?

NEXT AGENDA:

- DOH - epidemiological tests; unabated venting
- Update on work on Master Plan
- Feedback from HECO's RFP
- Asset Fund: Compensation
- Consumer advocate/ombudsman idea: description, funding, budget
- Information/update on cable project from marine/environmental view

ATTENDANCE LIST
9/21/89

Participants:

Rod Moss - Mid-Pacific Geothermal Co.
Allan Kawada - True Geothermal Energy Co.
Herman Clark - Estate of James Campbell
Paul Aki - DOH
Willy Nagamine - DOH
John Richardson - HECO
Francis Hirakami - HECO (representing HELCO)
Denver Leaman - Greenpeace Hawaii
Maurice Richard - Puna Geothermal Venture
Sus Ono - DLNR
Don Jacobs - PCC
Luana Jones - PCC - stand in
Nelson Ho - PCC
Ron Phillips - PCC
Clive Cheetham - PCC
Manabu Tagomori - DLNR
Tom Luebben - Pele Defense
John Everingham - CH2M Hill
Frank Kingery - ERC Environmental
Gerald Lesperance - DBED
Maurice Kaya - DBED
Delan Perry - PCC
Dee Dee Letts - Center for A.D.R.
Jerry Chang - State House
Jennifer Perry - PCC

Observers:

Russell Kokubun - County Council
Pelikapu Dedman - PDF
Scott Shirai - HECO
Milton Papineau - PCC