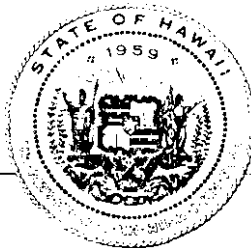


1408



DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT

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89:1064B-174

March 13, 1989

DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT
STATE OF HAWAII
MAR 14 1989
10:21:33
1064B-174

MEMORANDUM

TO: The Honorable John Lewin, M.D., Chairman
Department of Health

The Honorable Harold Masumoto, Director
Office of State Planning

The Honorable William W. Paty, Chairperson ✓
Department of Land and Natural Resources

FROM: Roger A. Ulveling

SUBJECT: Request for Proposals (RFP) for Planning Services Related
to the Geothermal/Cable Project

As discussed at the March 10, 1985 meeting on the geothermal/cable project, attached is subject RFP.

RAU/GOL:1ta
Attachment

March 10, 1989

REQUEST FOR PROPOSALS

DEVELOPMENT OF A MASTER PLAN, TRANSMISSION LINE ROUTING
STUDY, AND ENVIRONMENTAL IMPACT STATEMENT FOR
HAWAII'S PROPOSED GEOTHERMAL/INTER-ISLAND CABLE PROJECT


This letter is to invite your proposal to prepare a Master Development Plan, conduct a public involvement program, conduct an evaluation of overland transmission corridors and prepare a routing report, conduct a public involvement program, and prepare an Environmental Impact Statement for the development of 500 megawatts (net) of geothermal resource in the Kilauea East Rift Zone on the Island of Hawaii and transmit it to Maui and Oahu via an inter-island electrical transmission system. The Master Development Plan is desired by the end of 1989. It is expected that the location and selection of overland transmission line corridors will take place in 1989, with the preparation of routing report to be completed in 1990. It is expected that this routing study be conducted with the full benefit of a public involvement program. With the completion of the master plan and routing work, the State desires an Environmental Impact Statement which will lead to the permitting of the project. Permitting assistance will be requested as a separate additive proposal item under this solicitation.

Proposals are due no later than April 13, 1989.

The attached Notice of Intent to Respond is due no later than March 29, 1989.

Attached, for your information and use, is a brief description of the purpose and intended scope of this project. Any questions concerning this Request for Proposals shall be addressed to:

Director, Department of Business and Economic Development
Attn: Maurice H. Kaya, Energy Program Administrator
335 Merchant Street, Room 110
Honolulu, Hawaii 96813
Tel: (808) 548-4150



Director of Business and
Economic Development

March 10, 1989

REQUEST FOR PROPOSALS

DEVELOPMENT OF A MASTER PLAN, TRANSMISSION LINE
ROUTING STUDY, AND ENVIRONMENTAL IMPACT STATEMENT
FOR HAWAII'S PROPOSED GEOTHERMAL/INTER-ISLAND
CABLE PROJECT

The State of Hawaii's Department of Business and Economic Development (DBED) invites proposals to prepare a Master Development Plan, conduct a public involvement program, evaluate overland transmission line corridors, prepare a routing report, and prepare an Environmental Impact Statement for the development of 500 megawatts (net) of geothermal resource on the Island of Hawaii and transmit it to Oahu and Maui via an inter-island cable system, hereinafter called the geothermal/cable project. Included as an additive proposal item is the preparation and submission of Federal, State and County permit applications. Seven copies of the proposal are due on, or before 4:00 p.m., HST, on April 13, 1989. The proposals shall be mailed or delivered to:

Director, Department of Business and Economic Development
335 Merchant Street, Room 110
Honolulu, Hawaii 96813

Attn: Maurice H. Kaya
Energy Program Administrator

I. INTRODUCTION

A. PURPOSE

The purpose of this Request for Proposals is to select a consultant to perform planning and engineering functions relating to the geothermal/cable project to guide public and private decision-making relative to the implementation of the project. During 1989 and 1990, the State of Hawaii and the Hawaiian Electric Company, Inc. (HECO) will be requesting, receiving and evaluating proposals for the private sector to finance and implement the geothermal/cable project. The Master Development Plan to be developed as a result of this RFP will assist that process.

The development of this plan must consider the multitude of reports and studies that have already been conducted to date regarding geothermal and deep water cable development in Hawaii. This project has not been without controversy, and the preliminary work that has been done has revealed concern particularly by those communities in the lower Puna district of the Big Island, over the impact of this widespread development on their neighborhoods. It is therefore expected that the public in potentially affected areas of all counties would want to have input in the planning for this project.

Despite the controversies, the State recognizes the importance of developing its geothermal resource to its fullest potential to achieve a significant degree of energy independence. Private development of the resource has been slow, and the State believes that it is necessary to conduct this planning to show leadership and commitment, to invest in the upfront engineering activities so that an eventual private development consortium will assume responsibility for financing and development and sale of electricity to HECO.

B. BACKGROUND

Hawaii's deep concern for its energy future is a result of the State's extremely high reliance upon petroleum in an unstable world market. Despite the current world oversupply and the recent decline in price, there is widespread opinion that the current worldwide surplus oil production capacity will likely be exhausted in less than a decade. Thereafter an escalation in oil price is expected. Energy experts differ greatly as to exactly when and how rapidly prices will rise. This uncertainty emphasizes the need for Hawaii to take active measures to reduce its oil dependence and improve its energy stability and security. This need becomes imperative in the light of the serious negative impact of high energy costs on our State economy.

Petroleum accounts for ninety percent of Hawaii's total energy supply, twice the national average. In the case of electrical power generation, the contrast between Hawaii and the rest of the nation is even greater. While the nation's utilities have reduced their use of oil to a point where petroleum products now account for only about five percent of the fuel consumed for power generation, Hawaii's utilities have continued to rely almost entirely on oil. Nationally, coal is the leading source of energy for power generation, accounting for fifty-six percent of the fuel used. Locally, coal will be used for the generation of power on Oahu for the first time starting in 1992.

Recognizing Hawaii's energy vulnerability, the Hawaii State Plan, adopted by the State Legislature in 1978, sets forth the following energy objectives: Dependable, efficient, and economical statewide energy--systems capable of supporting the needs of the people; and increased energy self-sufficiency.

To meet the objectives stated above requires serious consideration of the use of locally available energy resources. There are several candidates in various stages of technical maturity. However, geothermal energy is the only near-term indigenous source which can bring about significant energy self-sufficiency in Hawaii.

Geothermal energy has proven to be technically and economically feasible elsewhere. Scientists estimate that there is sufficient thermal energy on the Big Island to satisfy at least half of the State's total electricity requirements. Because geothermal resources are located primarily on the Big Island, and Oahu represents eighty percent of the demand, successful utilization of geothermal energy requires transmission of electric power between the Islands. The most feasible method of transporting electricity under the conditions involved is by high-voltage, direct-current (HVDC) submarine cables. Such a transmission method has been under study for several years.

The Hawaii Deep Water Cable (HDWC) Program, a \$27 million project funded by the Federal Government and the State, was started in 1980. Its purpose is to develop the technology of a cable system to transmit electricity between the islands of Hawaii. This requires a transmission cable capable of traversing a distance of 150 miles in ocean depths down to 6,300 feet. This is twice the distance and four times the depth of the longest and deepest cable laid to date anywhere in the world. The HDWC has produced a design for an electric transmission cable which is expected to satisfy Hawaii's requirements. A segment of a cable meeting design requirements has undergone electrical and mechanical testing in the laboratory. This testing demonstrated that the cable can withstand a thirty-year operating life under the design parameters identified for the Hawaii application. These laboratory tests are being followed by testing to confirm the validity of the subsystem integration plans in 1989 at sea with a six mile length of surrogate cable. The technical feasibility of a cable system for commercial application will be confirmed with the completion of these at-sea tests. Ocean bottom surveys have identified a feasible cable route linking Hawaii with Maui and Oahu.

The Hawaiian Electric Company, providing Oahu with electricity, will be the buyer of power produced and transmitted by the geothermal/cable project. It has confirmed that the utility system on Oahu is capable of accepting 500 megawatts of "competitively priced" baseload geothermal power phased in between 1995 and 2006. This is the basis upon which cable and geothermal development planning is proceeding. The cable system is estimated to cost about \$450 million, with the geothermal development for 500 MW estimated to cost approximately \$1.3 billion in 1986.

Private investments made to date for geothermal development in Hawaii exceed \$20 million, although no commercial plant has yet been constructed. Presently there are two firms actively involved in geothermal development activities on the Island of Hawaii--Ormat Energy Systems, Inc., and True/Mid-Pacific Geothermal Venture. Ormat has entered into a contract with the Hawaii Electric Light Company on the Island of Hawaii to provide 25 MW of geothermal power by 1991 to meet the Island's needs. True/Mid-Pacific Geothermal Venture has been trying for years to get the necessary permits to start exploration for geothermal resources. Although one of the objecting parties are still in the courts, it is anticipated that its permits will soon be confirmed and it can at long last begin its work. It will have land-use approval for the development of up to 100 MW of geothermal power. True/Mid-Pacific has also indicated an interest in developing geothermal energy on Maui.

Development of geothermal energy in Hawaii has been slow, for a number of reasons. Temporarily depressed petroleum prices have discouraged alternatives. Private developers are reluctant to undertake the risk of large-scale geothermal exploration and development in the absence of an assured market. The market in turn depends upon the availability of an inter-island transmission system. Numerous and complex permitting policies and procedures as administered by various government agencies have hampered progress in development. Strong encouragement and cooperation by the State and Hawaiian Electric Company are required if geothermal energy is to provide some energy self-sufficiency for Hawaii.

The State Legislature has supported geothermal development in recent years by adopting several bills intended to encourage development. Bills to establish geothermal resource subzones, to address the requests for hearings on some geothermal development activities, to give the BLNR flexibility with respect to royalty payments to the State, and to streamline and provide for a consolidated permit application process have offered significant encouragement.

There is wide public support for geothermal energy development. An August 1987 opinion poll indicated that eighty-four percent of the statewide population favor geothermal development, with only seven percent opposed. On the Big Island, seventy-five percent were in favor of geothermal development while five percent were opposed.

II. SCOPE OF WORK

A. Master Plan

The State will prepare an EIS and may obtain master permits for the geothermal/cable project. It is necessary, therefore, to prepare a Master Development Plan of the project which includes, but is not limited to, the following elements:

1. Descriptions and elements of the Hawaii Deep Water Cable Program (HDWC).
2. Descriptions of the geothermal resource development, and plan for development of the steam fields and power generating stations, drilling requirements, resource exploration, and AC-DC converter stations.
3. Development of a realistic time schedule in critical path format for permitting, completion of the Hawaii Deep Water Cable Program geothermal exploration/reservoir assessment, public information/public involvement, overland transmission line corridor selection, and private development of the geothermal wells, steam gathering systems, power plants, converter stations, overland transmission lines and submarine cables.
4. Describe the management structure and appropriate responsibilities of the organizations for each element of the project.
5. Identify critical path elements and the relationship they have in meeting the project timetable. Describe measures that could be considered to facilitate meeting project timetables. Consult with the DLNR, who is responsible for implementing the streamlining and consolidation of the permitting for the geothermal/cable project and identify the needed permits and responsible agencies involved in permitting the overall project.
6. Provide descriptions and cost estimates for each element of the project.
7. Describe the public involvement and community acceptance approach that formed the basis for decisions and recommendations comprising the master plan.
8. Describe the legal, financial and regulatory framework of the project, based on a review of past studies and reports. Recommend appropriate legislation or rulemaking that would be required to support, expedite, facilitate, or otherwise clarify the project in order to remove impediments. Further describe crucial roles for agency action that would facilitate private sector development.

The master plan must address specific characteristics of the project that reflect local, environmental, physical and cultural conditions. For example, development of the geothermal resource and siting of transmission line corridors must consider the effects of these facilities on environmentally sensitive constraints.

In addition to defining the project for the State and County permit process, the Master Plan, together with the EIS, will also form the basis for discussion and pre-application review by affected federal agencies for a National Environmental Policy Act (NEPA) EIS or applicable federal permitting actions.

B. Public Involvement Program.

Public acceptance of this project is determined to be critical for its successful implementation since a multitude of permits are anticipated to support the action. A comprehensive public involvement program is therefore desired as part of the scope of work. This public involvement program should include, but not be limited to the following:

1. Describe and analyze system requirements. Develop and describe the project purpose and need, and develop the project process. The detailed public involvement program plan should be developed as part of this task.
2. Develop and describe transmission line routing methodology. Identify and describe the sequence of steps that will be used in analyzing and selecting the transmission line routes.
3. Describe and analyze transmission line alternatives. Identify, describe and analyze the basic options for linking the geothermal power plants overland, through each County jurisdiction, to the location of the delivered resource, Maui and Oahu Counties. The options shall include, as a minimum, overhead lines, underground lines and submarine cables.
4. Select overland corridors by identifying the criteria for corridor selection, collecting and analyzing broad-scale data factors, identifying potential corridors for potential further detailed study, developing evaluation criteria for corridor selection, evaluating and selecting the preferred corridor, and surveying and mapping conditions along the preferred corridor. The corridor selection process shall combine the technical expertise made available to the project with the consultation and active participation of the affected publics, including HECO, in the development of constraints and opportunities. Evaluation data categories should include, but not be limited to

exclusion areas, geophysical hazards, biological factors, socio-economic factors, and cost factors. The information already obtained by DBED to identify environmental constraints (see References) shall be made available to the consultant. The consultant will be responsible to review this information and advise whether additional work is necessary.

5. Alignment selection. This task will analyze and identify potential alignments within the preferred corridors using the constraints that are developed for analytical purposes. Where analysis of the trade-offs between constraints indicate that more than one alignment is feasible, all identified alignments shall be delineated. The consultant shall work with DBED to develop the rationale for selecting (i.e., selection criteria) the preferred alignment and the application of the rationale to select the preferred alignment. Public involvement for alignment selection is also considered to be a significant element in constraint development and acceptance.
6. Prepare a routing study. This document shall be a final report that will describe the details of the work performed in the above five tasks.
7. The consultant shall include in his public involvement program for transmission lines, appropriate coverage of the development of the environmental resource to enable public understanding for the purpose of the project, and likely development scenarios. This task shall also include the identification of the need and schedules for public information programs, workshops, etc., and the preparation of materials for these programs. Materials to be prepared under this task shall include, but not be limited to, speeches, graphic presentations, newsletters, and handouts. The consultant shall recommend in his proposal, elements in this task that will lead to a better public understanding of the program, with a goal that increased public awareness will lead to a more effective public involvement campaign and acceptance during the permitting phase of the project.

C. Prepare Environmental Impact Statement

DBED has determined that an EIS is required under Hawaii Revised Statutes (HRS), Chapter 343, because the proposed action, which will involve the use of State lands and/or State funds, could have a significant effect on the environment based on the significant criteria set forth in Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules (Section 11-200-12b). Because federal permits may be required to install the facility, preparation of the EIS should be closely coordinated with the affected federal agencies in order to

ensure that all NEPA requirements are fulfilled in the State EIS. The consultant shall recommend ways in which this EIS could also serve to fulfill NEPA requirements to expedite and facilitate federal permitting efforts that would be required. The preparation of the EIS should also be closely coordinated with the affected County Planning Departments to ensure that the statement adequately addresses impacts as required for the County's permit review.

Prior to starting the EIS process, a public scoping meeting(s) must be held to assure that all public concerns are addressed. Public input and informational meetings shall also be held during the development of the EIS. The proposer is expected to develop a plan that would capitalize on the public involvement work that precedes the preparation of this EIS in the routing study phase of the contract.

This scope item includes, but is not limited to:

1. Prepare Notice of Preparation; conduct needed field surveys and collect needed data either not currently available or not developed during the routing study. The State intends that the routing process develops most, if not all, of the environmental impact data needed for environmental documentation and review.
2. Hold informational hearings on each affected island.
3. Prepare Draft EIS, submit fifteen (15) copies of a review draft to DBED, and prepare 100 copies of the Draft EIS for submittal to OEQC.
4. Prepare written responses to all written comments to the Draft EIS. These responses will be prepared for signature by the Director, DBED, or his designated representative.
5. Prepare Final EIS, submit five (5) copies of a review draft to DBED, and prepare 150 copies of the Final EIS for submittal to DBED and OEQC.

D. Project Management

This task shall include all administrative, financial and technical functions including scheduling, costing, reporting, and enforcement of technical adequacy and quality assurance controls to maintain overall study costs, schedules, and technical information levels. The consultant shall prepare subcontractor's scopes of work and subcontract documents and monitor the subcontractor's performance on the scopes of work and subcontract to ensure that the quality and quantity of work meet the requirements of the contract with DBED. DBED reserves the right to approve all subcontractors proposed for portions of the work scope.

E. Permitting (Additive Proposal Item)

DBED has prepared a listing of anticipated permits that would be required for this project. This list is attached to this RFP, and includes permitting actions at the federal, State and county levels (note that three counties are involved). It is the respondent's responsibility to develop a list of all required permits and approvals required, using the developed master plan as a basis. The master plan and EIS must be prepared to support the permitting requirement although the work on both may proceed simultaneously. Hawaii is committed to full public disclosure in the land use permitting process. The respondent should anticipate the requirement to attend public hearings, provide supporting testimony and exhibits, and generally assist DBED during the process.

A proposal for this additive item should be included. DBED may initiate the permitting actions for this project, or the permitting may become the responsibility of the development consortium for the project. The contract for the master planning/EIS consultant agreement will be developed with enough flexibility to accommodate either course of action.

III. PROPOSAL GUIDELINES

1. Timetable. The State desires completion of the master plan and routing report by March 31, 1990. The State desires a preliminary master plan within six months from the notice to proceed. The completion of the EIS is desired as soon as practicable after enough elements of the master plan and routing report are available to initiate environmental documentation processes. A goal of this program is to complete the planning work so that it can be provided to a development consortium for the project which will be selected by the State and HECO by the end of 1990. The consultant is requested to develop an approach that will be responsive to this requirement.
2. Phasing. The State will receive proposals for the entire scope of services. The contract will be funded in two phases, with the first to be limited to a fee not exceeding \$400,000. The total estimated cost range for these services is expected to be \$850,000 to \$1.2 million. Proposals should specify those scope elements that can be funded in the initial phase, for example, work on a preliminary master plan, development of a public involvement plan, and initiating the routing activities can be started in Phase 1. Funding for Phase 2 (the respondent's remaining elements in his comprehensive approach) is subject to DBED obtaining additional appropriations for this effort. Respondents shall advise DBED on a Phase 1 approach that would derive the maximum benefit to meet overall project objectives within the Phase 1 funding limitation.

3. The State reserves the right to reject any and all proposals.
4. The State reserves the right to organize its own "team" from proposed contractors and subcontractors. The State further reserves the right to approve each and every subcontractor.
5. It is anticipated that the selected respondent to this RFP will be given a notice to proceed 40 to 45 days after the date proposals are due.
6. Preparation of the proposals and the presence at an interview shall be at the respondent's own expense.
7. The respondent agrees that the proposal shall constitute a firm offer to DBED and cannot be withdrawn for sixty (60) calendar days after the due date for submission of the proposals. The respondent shall agree that prices listed are firm and shall remain so throughout the performance of the work.
8. Alternate scopes of service may be suggested. Justification for any major changes, including how they will accomplish the goals and purposes of the requirements, should be provided.
9. All changes to this RFP will be made by DBED in the form of written addenda sent only to those interested respondents who have completed and returned the NOTICE OF INTENT TO RESPOND attached hereto.
10. The proposal shall be signed by an individual authorized to bind the respondent. It shall include the name, title, address and the telephone number and facsimile number of individuals with authority to negotiate and contractually bind the company, and also who may be contacted during the period of proposal evaluation to answer any questions concerning their proposal.
11. Interviews may be held in DBED's offices in Honolulu after the derivation of a short list of qualified consultants. An opportunity will be provided DBED to meet key team members assigned to this project.
12. DBED reserves the right to contract for any, a portion, or all of the scope elements of this RFP. Accordingly, the proposal should be costed individually, by scope items.

IV. REQUIRED CONTENTS OF THE PROPOSAL

Proposals shall consist of two parts: Technical and Cost, for each proposal item. The technical portion of the proposal must include a complete description of the methodologies to be used and the tasks involved, including timetable estimates. The cost portion of the

proposal must include estimated costs to accomplish the scope of work and all other associated costs.

The proposal shall be organized in the following sequence:

1. A statement of the respondent's understanding of the assignment and identification of the proposed approach, including methodology, special studies required, and consultants to be utilized. A detailed outline of the proposed technical approach for executing the requirements specified in the Scope of Services is required.
2. Statement and discussion of any anticipated major difficulties and problem areas, together with the potential or recommended approaches for their resolution.
3. Statement of any interpretations, qualifications, or assumptions made by the respondent concerning the work to be performed.
4. A schedule in graphic format of respondent's choosing that clearly shows the major tasks and milestones, including deliverables, in weeks after receipt of Notice to Proceed. This schedule should also show the relationship with Phases 1 and 2 and the listed tasks from the scope of work.
5. Description of the project team including the name, title, and qualifications of the project manager and other key participants in the employ of the respondent, as well as the name, qualifications and description of the role of each subconsultant.
6. Experience and qualification of the respondent and subconsultants, including but not limited to a description of comparable work previously performed by the project team.
7. Total cost to DBED by major budget categories showing: direct costs, including salaries, air travel, other travel-related costs, per diem, subconsultants, printing and other direct costs; and indirect costs such as overhead, profit and State of Hawaii General Excise tax. Fringe benefits related to direct salary costs may be included as direct costs or an element of overhead cost. The direct labor portion of the budget shall list each of respondent's participating professional or technical people by title, and if determined, by name, with the number of hours of that person's time that will be charged to DBED. The budget shall clearly differentiate costs related to Phase 1 efforts versus the remainder.

8. Assistance and/or information that will be required from DBED. Respondents shall note that the list of references included with this RFP reflect information already available from DBED. Respondents are advised that DBED desires that previous studies be utilized to full advantage in this master plan/EIS, and the State does not wish to replicate previous efforts.

V. EVALUATION FACTORS

A. General

1. Unless all responses are rejected, award shall be made to that responsible respondent whose offer, conforming to the RFP, is determined to be the best overall response, price or cost and other factors considered.
2. "Best overall response" is defined as the response that is evaluated as the most superior technically; however, in the event two or more competing proposals are assessed as substantially equal, the lower or lowest estimated cost shall be the determinant. "Substantially equal" proposals are those which do not demonstrate in DBED's or the State's judgement any clear and convincing evidence of technical superiority relative to each other.
3. An evaluation committee formed by DBED will evaluate the technical and cost portions of each proposal. (See evaluation checklist). If deemed necessary, the evaluation committee may conduct discussions with potential respondents. Final consultant selection for work scope and fee negotiations will be made by the Director of DBED.
4. Multiple awards. In addition to other factors, responses will be evaluated on the basis of advantages and disadvantages to the State that might result from making more than one award. If after evaluation of the offers, it is determined that one or more awards would be advantageous, individual awards will be for bid items or combination of bid items listed in the scope of work. DBED prefers single source contracting for this project.

B. Technical Evaluation

All proposals received will be evaluated using the following criteria:

1. Technical Approach:

- Understanding of problems and tasks.
- Responsiveness to scope, concept and time of performance.
- Organization, with clear, concise articulation of the project.
- Appropriateness to Hawaii's situation.

2. Technical Personnel Qualifications:

- Sufficient personnel available to perform all tasks.
- Available personnel experienced to perform all tasks.

3. Corporate Background/Experience/Location:

- Prior experience in performing similar work.
- Company presence in Hawaii or relation with local planning or engineering firm.
- Ability to participate in and support DBED during public meetings.

C. Cost Evaluation

In evaluating the respondent's proposed cost for this project, DBED's concern is to determine whether (a) it reflects the respondent's understanding of the project and its ability to successfully organize and perform the contract, (b) it is based on adequate estimating procedures and is supportable and realistic in terms of the respondent's proposed technical approach, and (c) it is reasonable when compared to any similar complex work efforts. Technical considerations will be given priority over proposed cost. The proposed cost and budget for this planning effort should break down the hours of professional and technical time that will be devoted to the study and the proportion of the total cost that will be budgeted to productive direct cost.

D. Evaluation Check List

The following checklist will be used as a guide by the evaluation committee in determining the "Best Overall Response."

1. Size and resources of company - the availability of suitable resources to meet the objectives of this program in a timely manner.
2. Professional staff experience on projects of similar scope and complexity.
3. Documented experience in geothermal and high voltage transmission line planning, and environmental documentation.
4. Office location in Hawaii, or relationship with local planning, engineering, or environmental firms.
5. Selection of subcontractors who are technical experts in the necessary fields.
6. Scope of statements and discussion that would indicate understanding of anticipated major difficulties and their potential solutions.
7. Understanding of the assignment, identification of proposed approach, innovative concepts, and responsiveness to the RFP and its schedule.
8. Ability to assist the State in public meetings, processing permits and land use changes that might be required, etc.
9. Understanding of the nature of energy issues in Hawaii, the geothermal development, and siting and transmission line routing issues.
10. Familiarity with the local publics and agencies whose consensus would facilitate permitting of the program.
11. Management plan, including staffing quality, quantity, and availability including both prime and subcontractor personnel.
12. Qualifications and ability of the proposed project manager.
13. Program for making the affected community a part of the planning process.
14. Capability to define the legal and financial issues that are crucial to project success.
15. Fully understandable cost estimating procedures.

VI. REFERENCES

- Hills, A.L., Hawaii Geothermal Project, Overview of Status, Development Approach and Financial Feasibility Assessment, Cogeneration Capital Associates for the Department of Business and Economic Development, July 1988.
- Krasnick, G. and J. Mansur, HDWC Program, Phase II-C, Executive Summary, Parsons Hawaii, August 1987.
- Lesperance, Gerald O., Geothermal Development in Hawaii, pp 75-79, Geothermal Resources Council, Transition, Vol 12, October 1988.
- Mountford, J.D., HDWC, Phase II-C, Studies, Final Report for Hawaiian Electric Company, Vols. I, II, III, Power Technologies, Inc., May 22, 1987.
- Patterson, Ralph A., Geothermal/Cable Development Project Planning, R.A. Patterson & Associates for the Department of Business and Economic Development, January, 1989.
- Plasch, Bruce S., Undersea Cable to Transmit Geothermal-Generated Electrical Energy from the Island of Hawaii to Oahu: Economic Feasibility, Decision Analysts, Hawaii, Inc. for Department of Business and Economic Development, February 1988.
- Quinn, William F., Preliminary Report, Governor's Advisory Board on the Underwater Cable Transmission Project, January 15, 1988.
- Sumida, Gerald A., Preliminary Analysis: Legal, Institutional and Financial Aspects of an Inter-Island Electrical Transmission Cable, Carlsmith, Carlsmith, Wich an and Case and Prudential-Bache Securities, Inc. for the Department of Business and Economic Development, April 1984.

Sumida, Gerald A., Alternative Approaches to the Legal, Institutional and Financial Aspects of Developing an Inter-Island Electrical Transmission Cable System, Carlsmith, Case, Mukai and Ichiki and First Interstate Cogeneration Capital Associates for the Department of Business and Economic Development, April 1986.

Request for Proposals (RFP) for the selection of a consortium to develop the geothermal/cable project. This RFP is currently under preparation by a working committee with members from the Hawaiian Electric Company, Inc. (HECO), consultants to HECO, and DBED.

A consolidated permit application and review procedure for the geothermal/cable project, with the State's Department of Land and Natural Resources as lead agency, was established by Act 301, Session Laws of Hawaii, 1988 (Geothermal and Cable System Development Permitting Act of 1988).

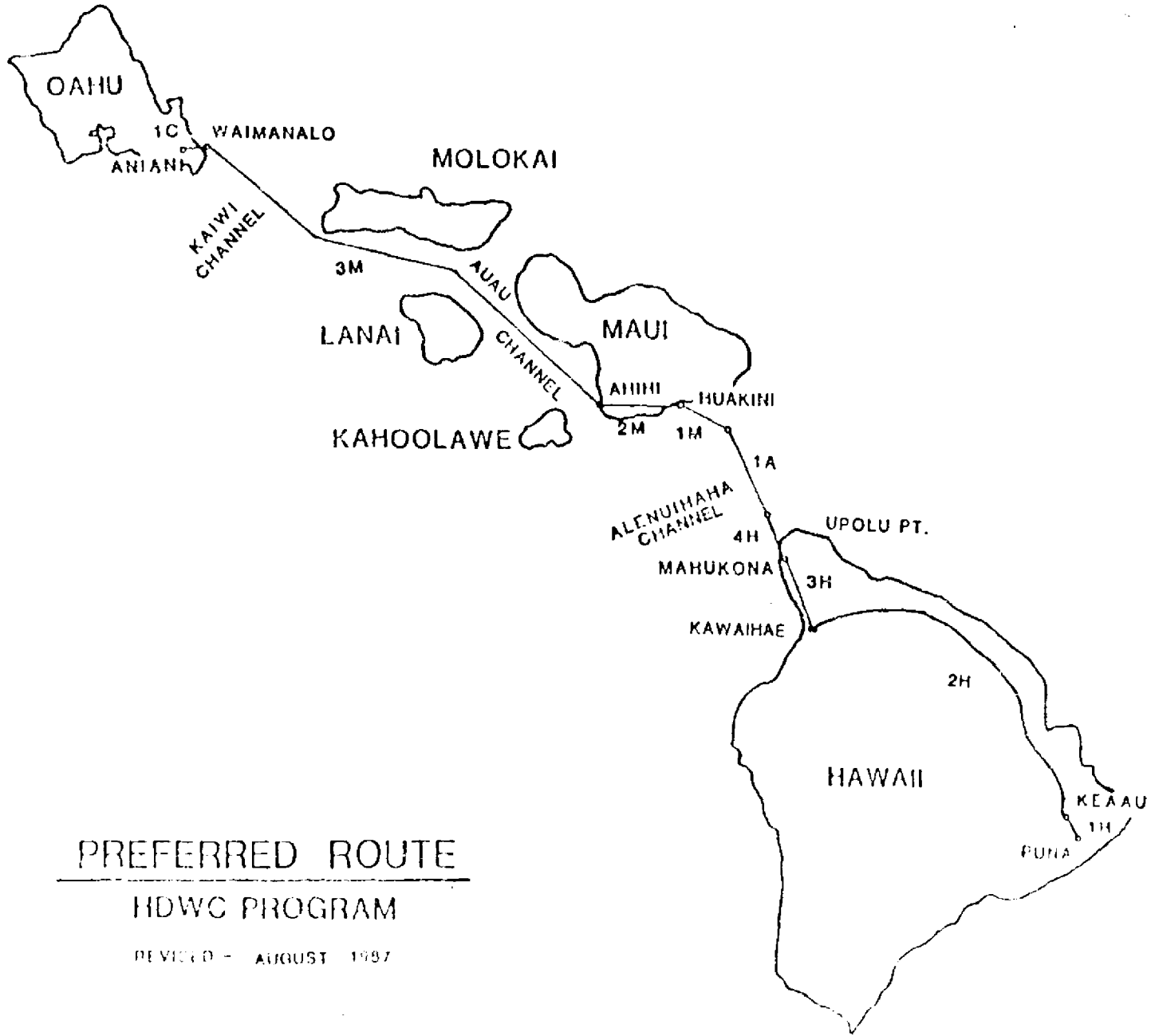
VII. ATTACHMENTS

A. Project Timeline

B. Project Map

C. DBED List of Potential Permits

D. Notice of Intent to Respond



PREFERRED ROUTE

HDWC PROGRAM

REVISED - AUGUST 1987

GEOTHERMAL/CABLE PERMITTING REGIMES

	PERMIT ALWAYS REQUIRED	GOVT LEVEL	AGENCY	PROCESSING TIME (MONTHS)		PUBLIC HEARING REQUIRED	CONTESTED CASE PROVISION APPLY	EIS
				MIN	MAX			
GEOTHERMAL								
GEOTHERMAL RESOURCE SUBZONE CONSERVATION DISTRICT USE PERMIT	Y	STATE	DLNR	6	12	Y	N	N
GEOTHERMAL RESOURCE PERMIT	Y	STATE	DLNR	6	6	Y	N	N
GEOTHERMAL MINING LEASE	Y	COUNTY	PLNG	6	6	Y	N	N
GEOTHERMAL EXPLORATION PERMIT	Y	STATE	DLNR	7	12	?	?	N
GEOTHERMAL PLAN OF OPERATION	Y	STATE	DLNR	2	2	N	N	N
GEOTHERMAL WELL DRILLING PERMIT	Y	STATE	DLNR	2	2	N	N	N
AUTHORITY TO CONSTRUCT WELLS (AIR)	Y	STATE	DOH	3	6	?	?	N
PERMIT TO OPERATE WELLS (AIR)	Y	STATE	DOH	1	2	N	N	N
AUTHORITY TO CONST. POWER PLANT (AIR)	Y	STATE	DOH	3	6	?	?	N
PERMIT TO OPERATE POWER PLANT (AIR)	Y	STATE	DOH	1	2	N	N	N
UNDERGROUND INJECTION CONTROL	N	STATE	DOH	3	3	?	?	N
VARIANCE FROM POLLUTION (WATER)	N	STATE	DOH	3	3	?	?	N
PREVENTION OF SIGNIFICANT DETERIORATION	Y	FEDERAL	EPA	12	18	Y	N	N
BUILDING PERMITS	Y	COUNTY	PW	1/2	1/2	N	N	N
TRANSMISSION — INLAND — HAWAII								
PUBLIC UTILITIES COMMISSION APPROVAL	Y	STATE	PUC	—	—	Y	Y	N
CONSERVATION DISTRICT USE PERMIT	N	STATE	DLNR	6	6	Y	Y	N
NATURAL AREA RESERVE SYSTEM	N	STATE	DLNR	6	9	?	N	N
HISTORIC SITES	N	STATE	DLNR	—	12	?	N	N
EASEMENT FOR STATE PARKS, FORESTS	N	STATE	DLNR	—	11	N	N	N
BUILDING PERMITS	Y	COUNTY	PW	1/2	12	N	N	N
TRANSMISSION — COASTAL ZONE — HAWAII								
WASTAL ZONE CONSISTENCY	Y	STATE	DBED	1 1/2	6	N	N	N
SPECIAL MANAGEMENT AREA PERMIT	Y	COUNTY	DLNG	4	?	Y	Y	N
SHORELINE SETBACK VARIANCE	Y	COUNTY	DLNG	4	?	Y	Y	N
TRANSMISSION — OCEAN — STATEWIDE								
U.S. ARMY CORPS OF ENGR. PERMIT	Y	FEDERAL	ARMY	2	?	Y	—	N
NATIONAL ENVIRONMENTAL PROT. ACT EIS	N	FEDERAL	CEQ	6	?	?	—	N
OCEAN WATERS CONSTRUCTION PERMIT	Y	STATE	DOT	2	3	?	?	N
NPDES	N	STATE	DOH	—	6	N	N	N
LEASE SUBMERGED LANDS	Y	STATE	DLNR	—	12	Y	N	N
TRANSMISSION — COASTAL ZONE — MAUI								
COASTAL ZONE CONSISTENCY	Y	STATE	DBED	1 1/2	6	N	N	N
SPECIAL MANAGEMENT AREA PERMIT	Y	COUNTY	PLNG	4	?	Y	Y	N
SHORELINE SETBACK VARIANCE	Y	COUNTY	PLNG	4	?	Y	Y	N
TRANSMISSION — INLAND — MAUI								
PUBLIC UTILITIES COMMISSION APPROVAL	Y	STATE	PUC	—	—	Y	Y	N
CONSERVATION DISTRICT USE PERMIT	N	STATE	DLNR	6	6	Y	Y	N
NATURAL AREA RESERVE SYSTEM	N	STATE	DLNR	6	9	?	N	N
HISTORIC SITES	N	STATE	DLNR	—	12	?	N	N
EASEMENT FOR STATE PARKS, FORESTS	N	STATE	DLNR	—	11	N	N	N
BUILDING PERMITS	Y	COUNTY	PW	1/2	12	N	N	N
TRANSMISSION — COASTAL ZONE — OAHU								
COASTAL ZONE CONSISTENCY	Y	STATE	DBED	1 1/2	6	N	N	N
SPECIAL MANAGEMENT AREA PERMIT	Y	COUNTY	DLU	4	?	Y	Y	N
SHORELINE SETBACK VARIANCE	Y	COUNTY	DLU	4	?	Y	Y	N
TRANSMISSION — INLAND — OAHU								
PUBLIC UTILITIES COMMISSION APPROVAL	Y	STATE	PUC	?	?	Y	Y	N
CONSERVATION DISTRICT USE PERMIT	N	STATE	DLNR	6	6	Y	Y	N
NATURAL AREA RESERVE SYSTEM	N	STATE	DLNR	6	9	?	N	N
HISTORIC SITES	N	STATE	DLNR	—	12	?	N	N
PUBLIC FACILITIES MAP AMENDMENT	Y	COUNTY	DGP	16	?	Y	?	N
BUILDING PERMITS	Y	COUNTY	BLDG	1/2	12	N	N	N
EASEMENT FOR STATE PARKS, FORESTS	N	STATE	DLNR	—	11	N	N	N

Director of Business and Economic Development
335 Merchant Street, Room 110
Honolulu, Hawaii 96813

Attention: Maurice H. Kaya, P.E.
Energy Program Administrator

NOTICE OF INTENT TO RESPOND

This is to inform you that:

ORGANIZATION'S NAME:

ADDRESS:

CONTACT PERSON:

TELEPHONE:

Intends to submit a proposal to perform master planning functions for the Proposed Geothermal/Inter-Island Cable Project, in accordance with the Request for Proposals dated March 10, 1989.

Name

Date

Title