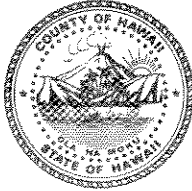


Stephen K. Yamashiro
Mayor



Virginia Goldstein
Director
Norman Olesen
Deputy Director

County of Hawaii

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25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252
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February 24, 1997

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Mr. Gary Gill, Director
Office of Environmental Quality Control
220 S. King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Gill,

Subject: Final Environmental Impact Statement (EIS)
Applicant: Hawaii Electric Light Company
SSPP Unit-71 12.47/7.2kV Overhead Distribution Line
TMK: 1-2-09:Portion of 3; 1-2-30 to 41, Puna, Hawaii

The Planning Department has reviewed the Final EIS for the subject project and find this document to be acceptable as it has been prepared pursuant to Chapter 343, Hawaii Revised Statutes and Chapter 200, Title 11, Administrative Rules, Department of Health, Environmental Impact Statement Rules. Please publish notice of availability for this project in the March 8, 1997, OEQC Environmental Notice.

Please find attached a completed OEQC Environmental Public Notice Publication Form and four copies of the Final EIS.

Should you have any questions, please contact me or the applicant's consultant, Ms. Colette Sakoda of R.M. Towill Corporation at 842-1133.

Sincerely,

Virginia Goldstein
Planning Director

SG:pak
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Attachments

Feb. 1997 (FEIS)

HECO 12.47/7.2 KV

overhead Distribution system in Puna

OEQC LIBRARY

FINAL

ENVIRONMENTAL IMPACT STATEMENT

for

**SSPP UNIT-71 12.47/7.2 KV OVERHEAD
DISTRIBUTION SYSTEM PROJECT**

Puna, Hawaii

February 1997

Applicant:

Hawaii Electric Light Company, Inc.
Hilo, Hawaii

Prepared by:

R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817

**FINAL
ENVIRONMENTAL IMPACT STATEMENT**

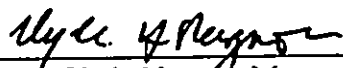
for the

Special Subdivision Project Provision (SSPP) Program
Unit-71 12.47/7.2 KV Overhead Distribution System
Tax Map Key Nos.: 1-2-09:03 (Portion); 1-2-30 to 41
PUNA, HAWAII

This document has been prepared pursuant to
Chapter 343, Hawaii Revised Statutes as amended, and
Chapter 200 of Title 11, Department of Health Administrative Rules

Applicant:

Hawaii Electric Light Company, Inc. (HELCO)
P. O. Box 1027
Hilo, Hawaii 96721-1027



Clyde Nagata, Manager,
Engineering Department, HELCO



Date

Accepting Authority:
Planning Department
County of Hawaii

Prepared By:

R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

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SECTION 1

SUMMARY

PROJECT SUMMARY

**SECTION 1
PROJECT SUMMARY**

1.1 OVERVIEW

APPLICANT: Hawaii Electric Light Company, Inc.
P. O. Box 1027
Hilo, Hawaii 96721-1027

ACCEPTING AUTHORITY: County of Hawaii
PLANNING DEPARTMENT
25 Aupuni Street
Hilo, Hawaii 96720-4252

FEE SIMPLE OWNERS: State of Hawaii*
County of Hawaii

PROPOSED PROJECT: Hawaii Electric Light Company, Inc. (HELCO) plans to energize a 12.47/7.2 kilovolt (KV) overhead distribution system to serve Special Subdivision Project Provision (SSPP) Unit 71 residential subdivisions in Puna, Hawaii. The project involves 2 phases: Tax Map Key No. 1-2-09: 03(por) is located on State-owned land. Tax Map Key Nos.: 1-2-30 to 41 through which the HELCO poles and lines have been located in County of Hawaii Rights-of-Way. GTE Hawaiian Tel will jointly use project poles.

PROJECT LOCATION: Kehena, Keekee Homestead, Puna, Hawaii

PROJECT AREA: Phase 1: 8,710 linear feet x 15 feet wide = 130,650 square feet or 2.9 acres
Phase 2: 61,350 linear feet throughout the 3 subdivisions.

STATE LAND USE DESIGNATION: Agricultural

GENERAL PLAN LUPAG: Orchards; Open

EXISTING ZONING: Ag-3A; Ag-1A; Open

PROJECT SUMMARY

PROJECT SUMMARY, Continued

**EXISTING APPROVED
USE:**

Utility Easement in favor of GTE Hawaiian Tel in Phase 1 portion; GTE Hawaiian Tel poles and lines in County of Hawaii Rights-of-Way in Phase 2

**SURROUNDING
LAND USE:**

Phase 1: Bounded by Highway 130 northwest (mauka) of the site; vacant and open to the north and south, and mauka areas. Phase 2: Bounded by Highway 137 along the coast; County road ROWs serve the 3 residential subdivisions that are proposed to be served by the project.

*: County will be responsible for the review and acceptance of the portion pertaining to State-owned land (see Appendix D, Agency Correspondences).

1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION

The Hawaii Electric Light Company (HELCO) is proposing a new 12.47/7.2 kilovolt (KV) line extension from the existing Puna switching station. The purposes of the new 12.47/7.2 KV overhead distribution system are to:

- ▶ Initiate grid electrical service to 188 customers of the Kalapana Seaview, Puna Palisades, and Kehena Beach Estates subdivisions who have requested service under the Special Subdivision Project Provision (SSPP) Program Unit-71.
- ▶ Provide grid electrical service capacity to accommodate the remaining residential lots in the three SSPP Unit 71 residential subdivisions.

PROJECT SUMMARY

Currently residents of the three subdivisions are operating their homes with the use of either generators or photovoltaic systems or both. Some intend to continue to live without grid electrical service provided by HELCO. Others have specifically intended their current energy systems to be strictly temporary. These residents have signed up for grid power from HELCO with the expectation that service would have commenced as early as 1994.

1.3 DETERMINATION

The County of Hawaii, based on a Final Environmental Assessment dated August 1995, determined that the project resulted in no significant environmental impact. In September 1995, the Friends of the Red Road (FORR) filed Complaints for Declaratory and Injunctive Relief against the County of Hawaii, HELCO, and the Board of Land and Natural Resources at the Circuit Court challenging the adequacy of the Final Environmental Assessment. In June 1996, the Third Circuit Court voided the County's administrative determination and ordered the preparation of an Environmental Impact Statement.

This Environmental Impact Statement (EIS) was prepared in accordance with Chapter 343 of the Hawaii Revised Statutes, as and Chapter 200 of Title 11, Administrative Rules for the Department of Health. This EIS provides detailed information on the proposed action, existing environmental conditions, and an assessment of probable impacts and mitigation measures.

1.4 PROJECT LOCATION

The project is located in the southeast portion of the Island of Hawaii. The Location Map, Figure 1-1, shows the study area location on Hawaii. It encompasses 1.72 square miles of land and the nearshore waters of Hawaii's Kalapana shore. The distribution line extends from HELCO's 12 KV distribution line on Highway 130, through state land that contains a telephone poleline within an easement, and through the three residential subdivisions within County rights-of-way.

1.5 SUMMARY OF IMPACTS AND MITIGATION MEASURES

HELCO has completed most of the project installation within the 8,710 linear foot long

PROJECT SUMMARY

State owned easement and the 61,350 linear foot long rights-of-way easements under County jurisdiction. However, none of the subdivisions have been energized yet.

1.5.1 Existing Uses and Proposed Development

With few exceptions, the alignment crosses through property that already contains telephone polelines that were installed in 1984. Because of this, the project has no significant impact on existing uses. The telephone poles are approximately 25 feet above ground. The electrical utility poles are approximately 40 feet above ground-- a net increase of 15 feet.

1.5.2 Views

The existence of electrical and telephone utility poles and lines within the same easement and rights-of-way is a temporary double impact on existing views. For the mauka or Phase 1 portion, some existing ohia trees throughout the easement are taller than the electrical poles. The impact of dual utility facilities will be reduced when the telephone polelines are removed in accordance with Joint Pole application 15683 that has been agreed to by both utilities. In 1993, the telephone company agreed to transfer and remove its existing facilities within four to six months after HELCO has completed its installation. Telephone pole removal has been delayed by the fact that the Circuit Court ruling in the summer of 1996 ordered a stop to any activity in the project area until the completion of the environmental review process.

Views toward the ocean through the makai or Phase 2 portion vary from one subdivision to another. Therefore, impacts on views vary. The southernmost subdivision, Kehena Beach Estates, is the largest portion of the project contained in the Special Management Area (SMA). Mature local foliage marks the street frontages within the SMA of this 30-year old subdivision. Because of this, the new service poles and lines generally blend in with the background. Impact on views in this subdivision is minimal.

The central portion is occupied by Puna Beach Palisades, developed in 1973. The SMA fronting this subdivision is limited to the makai side of the Kalapana-Kapoho Road (Highway 137). There is limited impact on ocean views since most polelines are

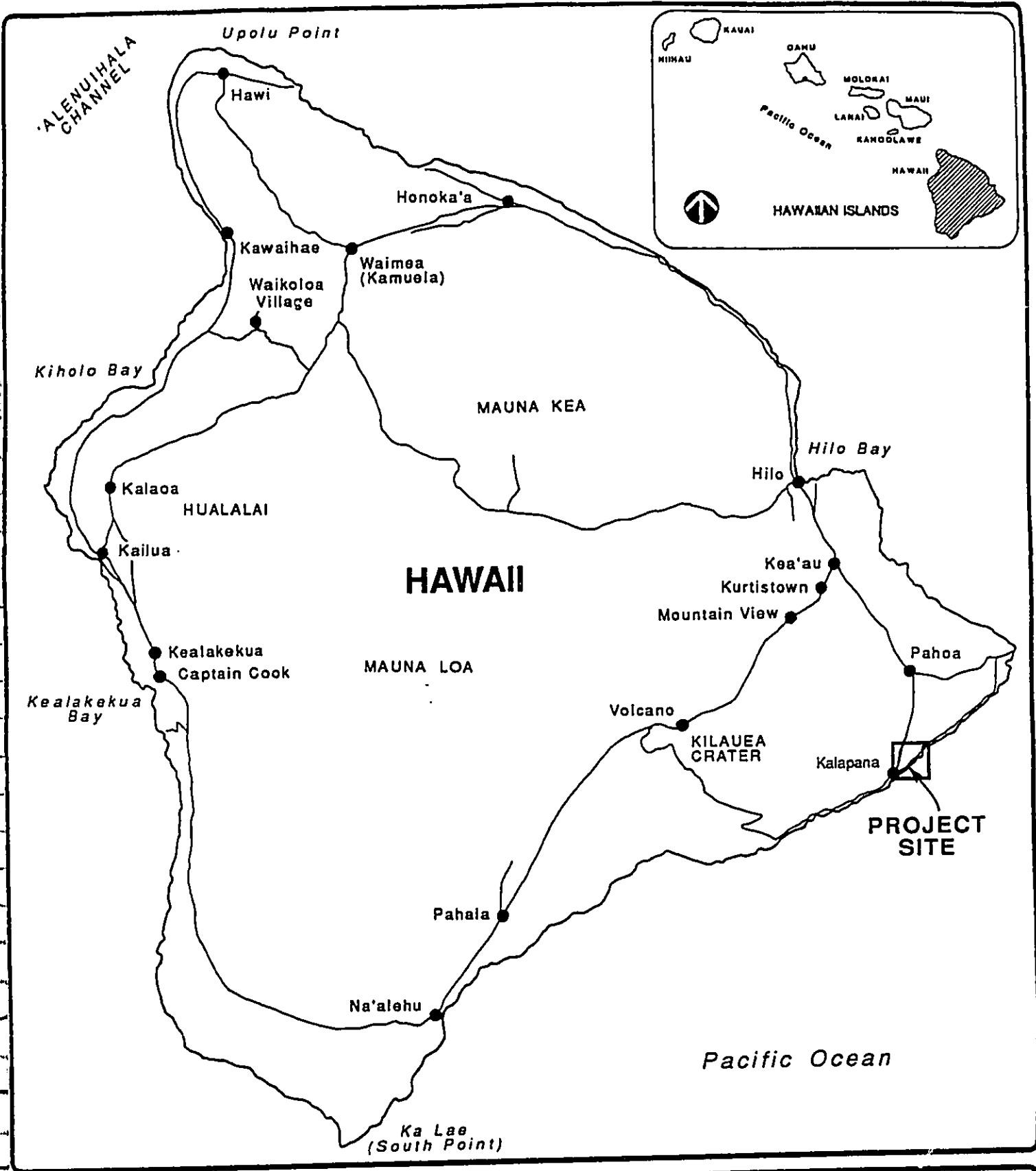
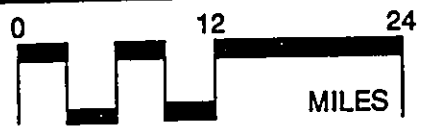


Figure 1-1
LOCATION MAP
SSPP Unit 71
Kehena - Keekee Homestead
Puna, Hawaii



R. M. TOWILL CORPORATION
 October 1996

PROJECT SUMMARY

located on the mauka side of Highway 137. Moreover, from the mauka side of the coastal road there are no long range views because of the sloping conditions of the land.

The project has had some impact on views in and from Kalapana Seaview Estates located at the northernmost portion of Phase 2 due to the subdivision's limited extent of development and foliage. The new three wire overhead service is in place, located mainly on the mauka side of Highway 137 to Kalihi Kai Road. Views are generally open. The resulting impact on the 24-year old subdivision is due to the addition of the overhead system compounding the numerous lateral service lines. The view impacts in the specific portion located in the SMA is minimal and will be ameliorated over time as vegetation matures.

1.5.3 Fauna and Avifauna

The low occurrence of birds observed utilizing the project site indicates that the project will have no significant impact on the federally threatened Newell's Shearwater. Further, although Hawaiian hoary bats were detected within the project site, it is highly unlikely that the project would impact this species. The placement of another line on the existing poles that descend from Highway 130 to the coast will have a negligible effect on the avian and mammalian species present on the project site.

A cumulative long term impact would be the potentially adverse impact of night street lighting from an increased number of homes within the project area. Night lighting can cause temporary blindness in young birds who may then collide with trees or utility wires. Should the County of Hawaii install street lights in the area, use of special luminare shielding, or indirect lighting will help mitigate this possible impact.

1.6 SUMMARY OF ALTERNATIVES CONSIDERED

The alternatives considered for this EIS evaluation include the "no project" option, underground location of the power distribution system, alternative geographic routes, and alternative energy sources. Taking no action is not considered to be a feasible alternative as it would result in continued lack of power choices to customers who desire grid service. The underground installation alternative is not a cost-effective

PROJECT SUMMARY

alternative and is not an option approved by the PUC insofar as the SSPP Rule 13-S program objective is to provide electrical service to outlying areas at affordable costs to subscribers.

1.6.1 No Action

In this scenario there would be no electricity through the overhead line extension. Residents would be forced to continue usage of generators and/or PV systems as power sources for their homes. Environmental conditions may worsen as noise disturbance from generators would continue or increase, air quality may worsen from fossil fuel burning to operate the home generator systems, and threats to polluting coastal waters due to leaching lead from improperly stored or disposed batteries needed to run the PV systems and store electricity.

This scenario would require the removal of poles and lines already installed. If this were to occur, adverse impacts during removal will include dust affecting ambient air quality, increased noise, and traffic slow downs and impediments caused by construction and hauling vehicles and equipment. Thus, this "no electricity" scenario may result in short- and cumulative, long-term adverse environmental impacts.

Because of these possible and undesirable conditions projected in the "no action" scenario, this would not be the preferred alternative.

1.6.2 Alignment Routes

Three other geographic routes were considered by HELCO. Alternative 1 would have required traversing State-owned land south of the existing telephone easement as well as through private property and land designated Conservation by the State Land Use Commission. This alternative required more extensive new construction and permits including a Conservation District Use Permit (CDUP) and SMA. From the standpoint of potential environmental impacts with respect to natural and archaeological resources, and cost, it was concluded that this alternative was not feasible.

Alternative 2 proposed a southern coastal approach from Kalapana along Highway 137

PROJECT SUMMARY

to the project site. The potentially greater environmental impact on views along the Red Road, and required construction along 2.5 miles from the Highway 130-Highway 137 intersection at a cost of \$80,000 per mile for installation, proved this to be an infeasible alternative.

Alternative 3 proposed an alignment that would provide limited services to Kalapana Seaview and Puna Beach Palisades. This route offered no clear access, and would require crossing through State-owned and privately-owned property. Initial discussions with the private owner of the property indicated that pole placement would not be acceptable. Therefore, this alternative was not pursued.

The selected alignment through the GTE Hawaiian Tel communication line easement on State-owned property and within County rights-of-way throughout the three subdivisions offered the most feasible alternative. Moreover, the alignment would result in minimal adverse impact on the existing environment.

1.6.3 Alternative Technologies Evaluation

1.6.3.1 Underground Cable

In evaluating alternatives to the proposed action, an underground line was considered. The principal advantages are the low level of visual impact and greater protection from hurricanes, lightning, and fires. The disadvantages include significantly higher construction and maintenance costs, and risk to botanical resources along the cable alignment. The estimated pro rata cost of \$32,500 per household would be required in an underground cable scenario. This would be about eleven times higher than the cost of the overhead distribution system, which is about \$2,820 per household in the proposed action.

The extensive excavation needed to construct an underground cable would also pose a greater risk to biological and cultural resources along the cable alignment than the proposed overhead line. Underground clearing and construction will lead to cutting and destruction of root systems, resulting in the destruction of more trees than were the installation of the proposed overhead line.

PROJECT SUMMARY

It was determined that the conventional overhead line technology is the most reasonable, cost-effective and environmentally sensitive technology for the proposed 12.47/7.2 KV distribution system. It should be noted that the SSPP was approved by the PUC for overhead distribution systems only.

1.6.3.2 Solar Energy

Photovoltaic (PV) system cost and electricity output are directly related to a number of variables including quality and type of components used; energy usage patterns and consumption levels of residents; type and number of appliances; design considerations with regard to generator use, and weather patterns in a given area, and other considerations.

The upfront capital cost to have a 1,000 watt array (which might power most of the needs of an average full-scale household) could range from \$15,000 to \$20,000. Again, this would be five to seven times the cost of the SSPP Unit 71 system. The selection of an alternative, off-grid system such as PV, is one of individual choice. For those individuals who expressed their choice as solar energy over the grid system offered by HELCO, the social costs of overhead poles and lines in proximity to the shoreline may be considered objectionable. Overall, residents will have a broader choice of options, if HELCO is allowed to energize its system.

1.7 UNRESOLVED ISSUES

When the needs of the community at large require an imposition upon a smaller neighborhood within that community, the question of social equity arises. Residents of the neighborhoods in which facilities must be placed may feel that their neighborhoods are being unfairly burdened with more than their fair share of facilities that may benefit others in the community, but not their own lots specifically, especially if they would prefer to maintain a "non-grid" energy system.

The objective of the project is and will continue to be one of expanding the choices of residential energy systems. Should an individual have a photovoltaic system (PV) operating and is perfectly satisfied with it, HELCO will not impose its project nor reduce that individual's ability to continue use of his/her PV system.

PROJECT SUMMARY

There are those in the community who may say that the only appropriate mitigation would be to place the lines completely underground. However, the question of social equity exists for underground alternatives as well. In the case of underground lines versus overhead lines, the Public Utilities Commission has approval authority, and in this case, has decided to approve the overhead line option known as the SSPP Rule 13S program for rural areas such as these southern Puna subdivisions. The decision was based on the decision that it would not have been appropriate to pass on to all users the significantly higher costs of underground placement, which benefits primarily the neighborhood through which the lines pass. This is especially true if a less expensive overhead line is a viable option. Moreover, in an area in which the environment, including trees and well-established vegetation are of high importance to residents, the construction of an underground system would be far more damaging to these community assets in the short- and long-term.

In order to improve visual quality along the alignments throughout the project area, GTE Hawaiian Tel has agreed to remove all existing telephone poles and transfer its facilities to HELCO pole once installation of the electrical poles is complete (JP 15683 and meeting minutes dated April 8, 1993).

The question of social equity, as it relates to both the neighbors directly affected by the distribution lines and poles and to the community at large, will continue to be an unresolved issue.

1.8 COMPATIBILITY WITH LAND USE POLICIES: PERMITS AND APPROVALS REQUIRED

1.8.1 Land Use Policies

The project is located within the State Land Use Agricultural District, and according to State Land Use Law (HRS Chapter 205), a distribution line is a permitted use in this district. Further, these lands are not agriculturally productive due to recent lava flows (1955). The County of Hawaii's General Plan LUPAG designates the project site as Orchards. The coastal portions are designated Open. The project is an allowed use within these County designations (Section 25-4-11a). The project site is zoned A-1a, A-

PROJECT SUMMARY

3a, and Open. Section 25-4-11(a) of the County Zoning Code allows communication, transmission and power lines of public and private utilities and government agencies use within any district.

About 9,100 linear feet of Phase 2 is located within the Special Management Area (SMA). An SMA Use Permit is required by the County of Hawaii. Phase 1 of the project is located on land owned by the State of Hawaii. An easement is required for use of State-owned property.

1.8.2 Permits and Approvals

The following are the permits and approvals that are required for the project.

1.8.2.1 State of Hawaii

Department of Land and Natural Resources

- ▶ Perpetual Easement for the use of State lands

1.8.2.2 County of Hawaii

Planning Department

- ▶ Special Management Area (SMA) Use Permit

SECTION 2

PROJECT DESCRIPTION

**SECTION 2
PROJECT DESCRIPTION**

2.1 BACKGROUND

In response to requests from community residents, Hawaii Electric Light Company, Inc. (HELCO) seeks to provide electrical service to three residential subdivisions -- Kalapana Seaview Estates, Puna Beach Palisades, and Kehena Beach Estates-- in the Kehena, Keekee Puna homesteads district of Puna on the island of Hawaii (see **Figures 2-1 and 2-2**, Location Map and Vicinity Map). With few exceptions, the electrical poles follow an existing GTE Hawaiian Tel utility line. The existing telephone poles, erected in 1984, are approximately 25 feet above ground. The electrical utility poles are approximately 40 feet above ground-- a net increase of 15 feet. The telephone company will transfer and remove their existing facilities within four to six months after HELCO has completed its installation (April 8, 1993 meeting minutes involving HELCO, GTE Hawaiian Tel and residents of project area regarding Joint Pole agreement 15683).

About 1,200 lots within the three subdivisions would be eligible for service upon completion of the project. The project, known as the Special Subdivision Project Provision (SSPP) Program Unit-71, in its entirety includes the installation of four 35-foot, 219 40-foot, 102 45-foot and two 55-foot poles, and 149 anchors. The project is a 12.47/7.2 kilovolt (KV) overhead electrical distribution system.

The objective of the SSPP Unit-71 program for rural electrification is for HELCO to provide line extension to qualifying residential lots within subdivisions developed before 1967 (PUC Rule 13-S).

HELCO has completed most of the project construction, yet none of the subdivisions

PROJECT DESCRIPTION

have been energized. From late 1994 to early 1995, much of the project was completed within the subdivisions along County of Hawaii rights-of-way. In May 1996, HELCO completed installation of 39 polelines within the portion over State land after HELCO was granted an easement by the State Board of Land and Natural Resources. Of the 1,200 lots in the project area, 112 are located in the SMA. Construction work that remains involves installation of wires.

2.1.1 Chronology of Community Consultation

The SSPP Unit-71 program was initiated through HELCO's contact with community residents since the late 1980s. A chronology of the various meetings with community residents and results of these meetings is summarized below.

| <u>Time Period</u> | <u>Action</u> | <u>Result</u> |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Late 1980s to 1989 | HELCO, including James Rauenhorst, (service area resident) met with interested parties as it was developing Rule 13-S, which seeks to provide electricity at affordable cost to participants; i.e., HELCO pays 1/3, and participants pay 2/3 of the project cost. Mr. Rauenhorst helped set up the groupings of subdivisions that would be cost-effective for the project to proceed. | The SSPP Unit-71 service area was to include the three subdivisions-- Kalapana Seaview, Puna Palisades, and Kehena Beach Estates. |
| Late 1992 | HELCO sent out its announcement to all property owners in the service area to determine the number of lot owners interested in sharing the cost. Responses from 428 lot owners were received by HELCO as "interested." HELCO then sent out contracts to all. More than 180 returned signed contracts at the time. HELCO and GTE Hawaiian Tel held a meeting with property owners within the service area. The intent was to ensure | GTE Hawaiian Tel agreed to transfer and remove their facilities within a reasonable time. |

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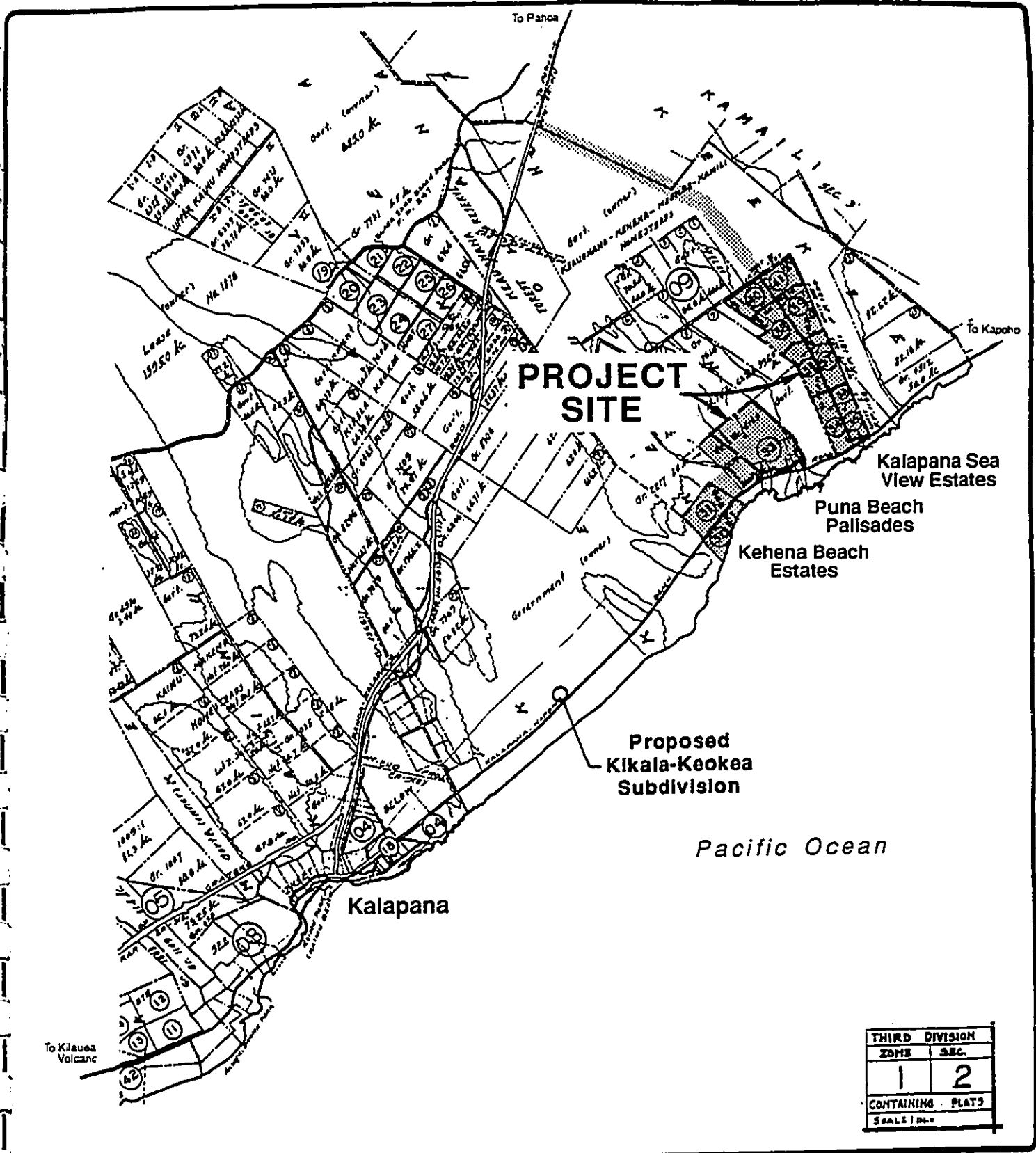
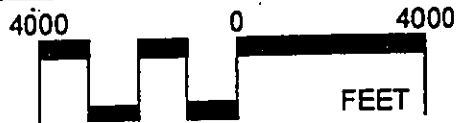


Figure 2-1
PUNA LOCATION MAP
 SSPP Unit 71
 Kehena - Keekee Homestead
 Puna, Hawaii



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 October 1996

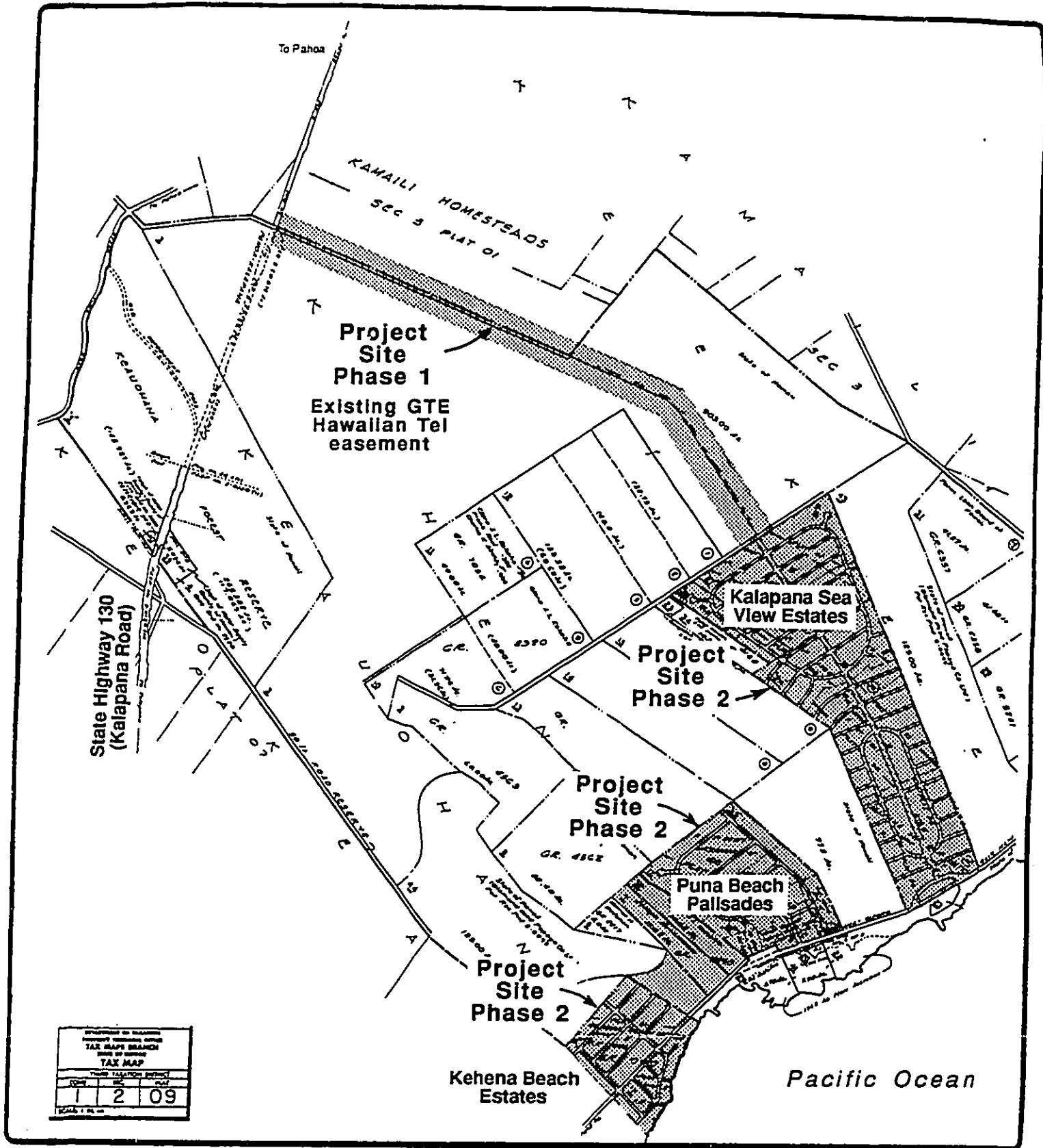
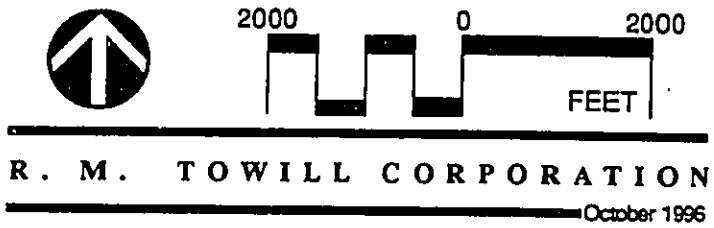


Figure 2-2
PROJECT PHASES MAP
SSPP Unit 71
Kehena - Keekee Homestead
Puna, Hawaii



PROJECT DESCRIPTION

| <u>Time Period</u> | <u>Action</u> | <u>Result</u> |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | that GTE Hawaiian Tel facilities would be transferred to the new joint pole eventually and could result in adverse visual impacts on their community with redundant poles throughout the subdivisions. | Also, the HELCO polelines location was changed to the mauka side (where the phone polelines are located) of the Red Road to preserve ocean views. |
| 1994 | When the construction work within the subdivisions proceeded, HELCO met with property owners on several occasions in response to residents' concerns about locations of specific poles, tree trimming activity by the contractor, etc. Specific poles were relocated more than once in response to a property owner's desires and concerns regarding proximity to her property. | HELCO decided to implement the use of tree cable methodology to minimize the amount of tree trimming in the project area. Further, the remaining poles were installed to demonstrate proposed locations of poles relative to the remaining trees in the subdivisions. |
| 1994-1995 | HELCO met with residents twice at the Pahoia Community Center. A number of attendees voiced opposition to the project, and HELCO representatives responded to questions ranging from cost of putting the line underground, to studying the effect of the project on whales. Others spoke in favor of the project. | A preliminary Draft EA was filed in December 1994. Friends of the Red Road filed a law suit in January 1995. |

2.2 NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)

2.2.1 Summary of Environmental Documentation and Discretionary Permits

In January 1995, a suit was filed by a group known as Friends of the Red Road in the Third Circuit Court to halt construction of the project. Both the County Planning Department and the Department of Public Works had informed HELCO by letter that the utility company was exempt from complying with the Special Management Area (SMA) Use Permit and environmental assessment requirement for installation of poles in County rights-of-way. An environmental assessment was filed for the use of a utility easement on lands owned by the State of Hawaii in December 1994. The Circuit Court ruled in late February 1995 that HELCO was prohibited from cutting down trees in the County's rights-of-way in the project area. The Court also ruled that HELCO was likely

PROJECT DESCRIPTION

not exempt from filing an SMA Use Permit or an Environmental Assessment, although the Court reserved judgement pending administrative appeals. The Court denied the Plaintiff's request for removal of the poles.

FORR filed a petition with the Board of Appeals in February 1995 to appeal the determinations that no SMA Use Permit or Environmental Assessment was required by the County. The case was dismissed by the Board of Appeals based on a Stipulated Agreement in May 1995. The agreement stated that HELCO agreed to 1) apply for an SMA Use Permit and 2) expand the scope of the Environmental Assessment from the use of State lands to include the use of County lands. The second and expanded Draft Environmental Assessment was issued in May 1995 for the entire project. Based on the Final Environmental Assessment dated August 1995, the County of Hawaii determined that the project resulted in no significant environmental impact. A request for a utility easement for use of State lands was then sent to the State Department of Land and Natural Resources (DLNR). In March 1996, an easement and right-of-entry for construction and maintenance were granted to HELCO by the Board of Land and Natural Resources (BLNR).

In September 1995, Complaints for Declaratory and Injunctive Relief against the County of Hawaii, HELCO and the Board of Land and Natural Resources were filed with the Circuit Court challenging the adequacy of the Final Environmental Assessment. In June 1996, the Third Circuit Court voided the County's administrative determination and ordered the preparation of an Environmental Impact Statement (EIS). The SMA Use Permit process already underway, the easement granted by the BLNR in March 1996, and the permit to work within State highway right-of-way were voided. However, existing HELCO poles and wires were allowed to remain pending appropriate review and permitting of the project.

PROJECT DESCRIPTION

2.3 Location

The project is located in the lower Puna district of South Pahoā. For descriptive purposes, the project has been apportioned into two phases (**Figure 2-3**). Phase 1 consists of an 8,710 foot long portion of the electrical distribution system that has been co-located within an existing GTE Hawaiian Tel easement within which an overhead telephone system was built in 1984. The existing 37 GTE Hawaiian Tel poles will be replaced by the 39 HELCO poles and the replacement system will be jointly utilized by both utility companies. At present, the telephone and electrical poles are co-existing within the 15-foot wide telephone easement. HELCO will request a 15-foot wide easement and right-of-entry from the BLNR for maintenance of the distribution line.

The mauka or Phase 1 portion of the project site is accessible directly from State Highway 130 (Pahoā-Kalapana Road), a north-south primary route in Puna between Keaau, Pahoā and Kalapana. The easement runs in a southeasterly direction toward the coast, perpendicular to Highway 130, servicing the residential subdivisions located in Kalapana and Keekee. This highway is a two-lane paved road within a 100-foot right-of-way.

Phase 2, or the makai portion of the project includes the County of Hawaii rights-of-way that serve the three residential subdivisions within which HELCO poles and lines have been partially installed. This phase involves a total of 288 electrical poles within about 12,140 lineal feet of County rights-of-way. GTE Hawaiian Tel will transfer their facilities to the new poles and the original polelines will be removed within four to six months of project implementation, according to an agreement between HELCO, GTE Hawaiian Tel, and service area residents. This portion of the SSPP project area is bounded on the south by Highway 137 (Kalapana-Kapoho Road), which is a two-lane road within a 60-foot right-of-way serving as access to the three subdivisions.

PROJECT DESCRIPTION

2.4 DEVELOPMENT STATUS OF SUBDIVISIONS

Kalapana Seaview Estates, Puna Palisades, and Kehena Beach Estates subdivisions were granted subdivision approvals between 21 to 30 years ago. Kehena Beach Estates has a total of 199 lots. Final Subdivision approval for these lots was secured from the Planning Department in two increments in 1964. Puna Beach Palisades secured Final Subdivision approval for a total of 150 lots in four increments from 1966 through 1975. Finally, Kalapana Seaview Estates secured Final Subdivision approval in four increments for 955 lots over the period from 1971 through 1973. Telephone service to the three subdivisions was begun approximately eleven years ago. Of the 1,200± houselots developed, the following is a summary of the number of homes, by subdivisions, that have been built to date:

**TABLE 2-1:
NO. OF HOUSELOTS VS. HOMES BUILT**

| <u>Subdivision</u> | <u>Number of Lots</u> | <u>No. of Homes as of April 1995</u> |
|--------------------------|-----------------------|------------------------------------------|
| Kehena Beach Estates | 199 | 46 |
| Puna Beach Palisades | 150 | 28 |
| Kalapana Seaview Estates | 955 | 84 |

Source: Hawaii Electric Light Company Inc., October 1996

2.5 LAND USE DESIGNATIONS OF PROJECT AREA

2.5.1 State Land Use and County of Hawaii Zoning Designations

Phase 1 of the proposed alignment is located entirely within the Agricultural district on State-owned land, and will be approximately 8,710 feet long within a 15-foot wide corridor already occupied by telephone polelines. According to the State Land Use Commission, the Phase 1 portion is in the Agricultural district. For the entire length of

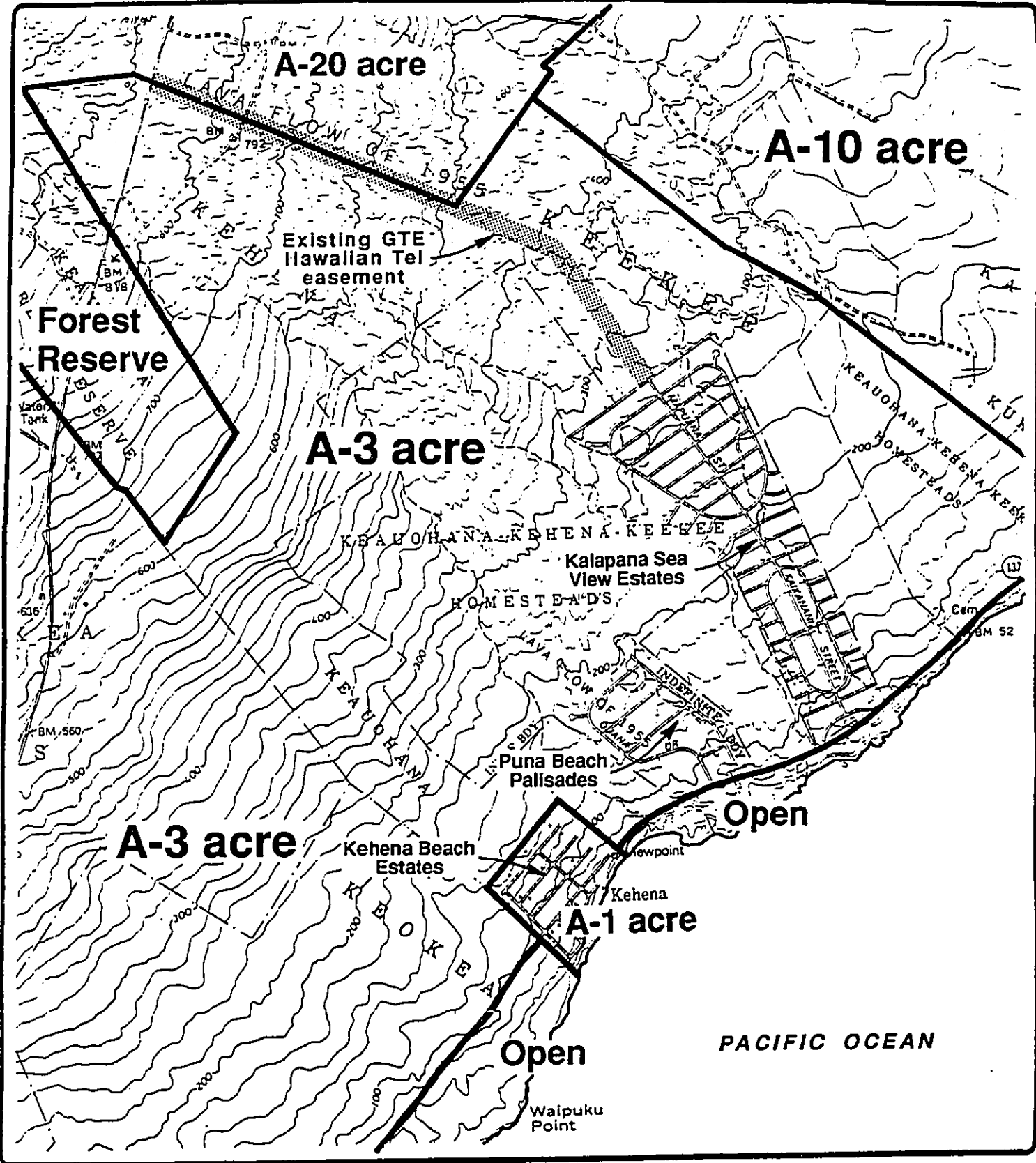
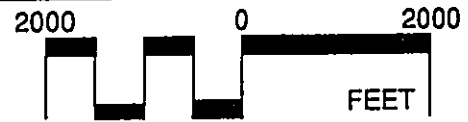


Figure 2-3
PUNA DISTRICT ZONING
SSPP Unit 71
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Puna, Hawaii



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PROJECT DESCRIPTION

this easement, new poles have been installed. These new HELCO polelines will house both HELCO and GTE Hawaiian Tel facilities through a joint pole agreement. The existing telephone poles within the easement will be removed in time.

Phase 2 of the proposed overhead distribution line project is located within the Agricultural district. County of Hawaii General Plan Land Use Pattern Allocation Guide (LUPAG) Map designates the project site as Orchards. The coastal portions are designated Open. Kehena Beach Estates subdivision is zoned Agricultural-1 acre (A-1a) by the County with the exception of TMK 1-2-30:1, which is located at the extreme northeast edge of Kehena Beach Estates and zoned Open. According to Section 25-5-160, the Open district applies to areas that contribute to the general welfare, the full enjoyment, or the economic well-being of open land type use which has been established or is proposed. The object of this district, according to Section 25-5-160, is to encourage development around it such as a golf course, country club, and protect investments which have been or shall be made in reliance upon the retention of such open type use, to buffer an otherwise incompatible land use or district, to preserve a valuable scenic vista or an area of special historical significance, or to protect and preserve submerged land, fishing ponds, and lakes (natural or artificial tide lands).

The portion of the overhead electrical distribution line project that is located within the Open district is allowed in accordance with Section 25-4 of the County of Hawaii Zoning Code. Section 25-4-11(a) states, "communication, transmission, and power lines of public and private utilities and government agencies are permitted uses within any district." The remainder of the area is zoned A-3a (see **Figure 2-3**).

2.5.2 Chapter 205-A, HRS, Special Management Area (SMA)

Although the entire project is being described and assessed, only portions of the

PROJECT DESCRIPTION

development fall within the SMA. Approximately 9,100 linear feet of Phase 2 is located within the County of Hawaii's Special Management Area. See **Figure 2-4**. A small makai portion of Kalapana Seaview Estates and a larger makai portion of Kehena Beach Estates are located within the SMA. No parcels within the Puna Beach Palisades are located in the SMA. A review of maps indicates a total of 112 lots are located within the SMA-- 31 lots in Kehena Beach Estates and 81 lots in Kalapana Seaview Estates. A total of 47 HELCO poles are located in the SMA. Of the 47 poles, 17 are located in Kehena Beach Estates, none (0) is in Puna Palisades, and 5 are in Kalapana Seaview Estates. The remaining 25 poles are in Highway 137 (Red Road), not fronting any of the three subdivisions.

2.5.2.1 Shoreline Setback Requirements

No project development has occurred nor is intended to occur within the 40-foot shoreline setback area. The closest utility pole is located over 50 feet from the shoreline (upper reaches of the wash of the waves), in Kehena Beach Estates. Therefore, neither the submittal of a certified shoreline map nor a shoreline setback variance (SSV) is required by the Planning Director.

2.6 PROJECT FEATURES

The 12.47/7.2 KV distribution system consists of primary aluminum conductors. These conductors are supported by horizontal post insulators or strings of suspension insulators on crossarms that extend 4.5 feet on each side of the pole line. The poles are spaced approximately 250 feet apart, depending upon physical conditions in the pole sites and various structural factors such as conductor tension, size and weight of conductors and wind loadings.

The distribution system is constructed with Class 3 wooden poles 39 feet above ground

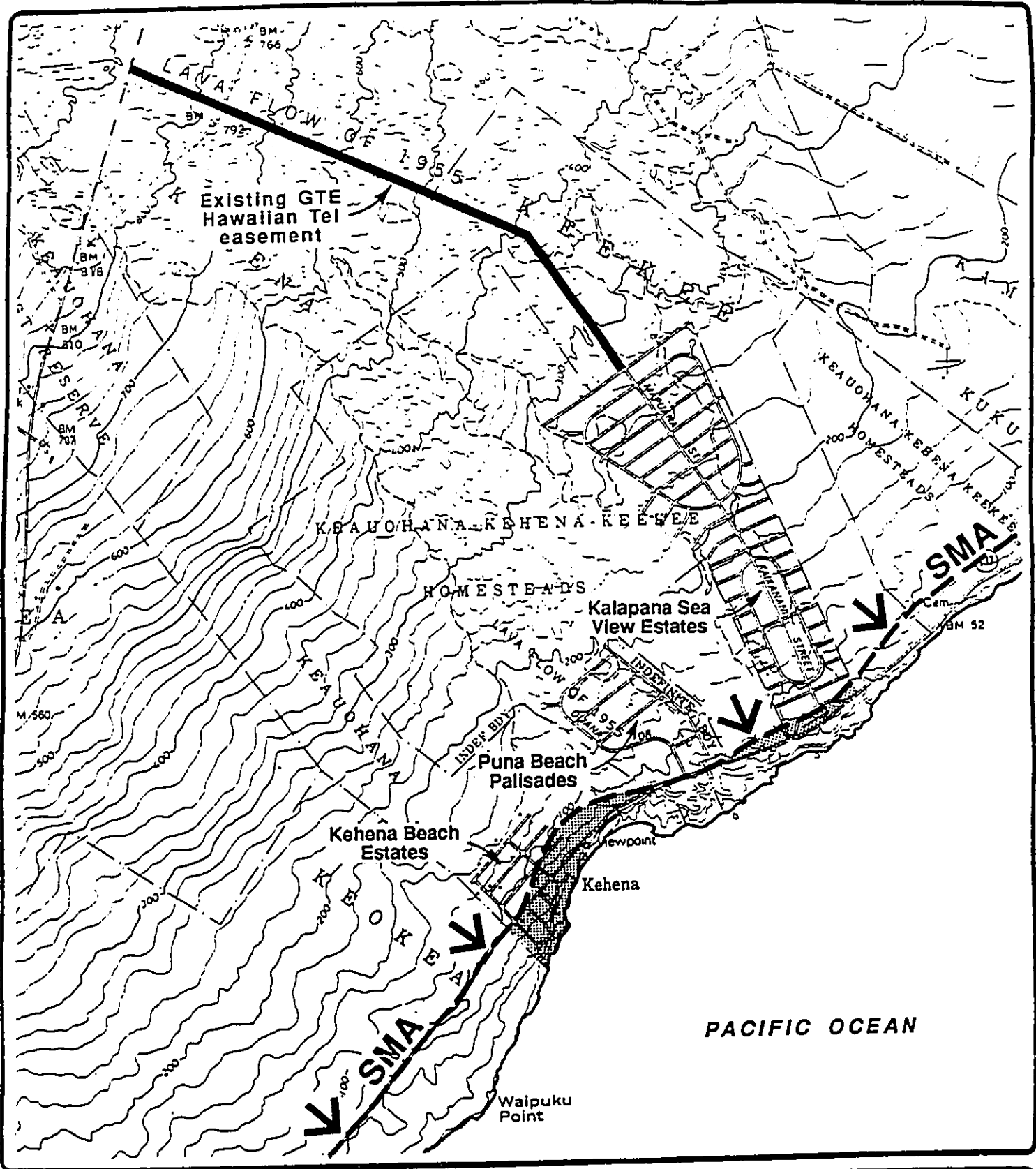


Figure 2-4
SMA MAP
SSPP Unit 71
Kehena - Keekee Homestead
Puna, Hawaii

2000 0 2000
FEET

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with 6 feet embedded in the ground. The poles have an approximate diameter of 11.4 inches at the base, tapering to approximately 7.5 inches at the top (Figure 2-5). The wood is fully treated against termite damage and rot. Guy wires and anchors are installed on some poles as necessary.

GTE Hawaiian Tel poles will be eventually removed from the Phase 1 easement. In Phase 2, HELCO poles have been installed within the County rights-of-way in the subdivisions. For the most part, the electrical poles are erected alongside the GTE Hawaiian Tel poles that will eventually be removed. Both utility companies will share usage of the HELCO overhead system in Phases 1 and 2. All in all, pole replacement has been nearly one-to-one with the exception of Kalapana Seaview where the HELCO to GTE pole ratio is approximately 1.4 to 1. The replacement plan for the poles follows:

**TABLE 2-2:
HELCO TO GTE HAWAIIAN TEL POLE REPLACEMENTS**

| | <u>No. of HELCO Poles</u> | <u>No. of GTE Hawaiian Tel Poles</u> |
|------------------|---------------------------|------------------------------------------|
| Phase 1 | 39 | 37 |
| Phase 2: | | |
| Kalapana Seaview | 199 | 144 |
| Puna Palisades | 33 | 33 |
| Kehena Beach | 55 | 51 |

In Phase 2, an additional 55 HELCO poles were installed in Kalapana Seaview, mainly within the shorter streets of the residential subdivision. Previously, no GTE Hawaiian Tel poles existed in these short streets. It should be noted that a few poles in Puna Palisades will require replacement since GTE Hawaiian Tel installed approximately thirty 35 foot tall poles in anticipation of the joint pole facility arrangement at the time of installation.

2.6.1 Construction

Construction of Phase 1 of the project was completed in late spring 1996 following

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HELCO's receipt of an easement and right-of-entry from the State Board of Land and Natural Resources. The work that remains are installation of the wires and selected tree trimming in the SMA area of Phase 2. Thus, the remaining steps involve:

- o Stringing the conductors on the poles.
- o GTE Hawaiian Tel transfer of its facilities to the new poles.

A Traffic Control Plan was prepared for the anticipated construction and installation work; for example, flagmen were present to minimize disruption to traffic flow on Highways 130 and 137, as well as safety signs strategically placed (for easy visibility) along the road. Further, site safety measures included such things as covering of any holes with plywood boards at the end of each day of work in this area. The potential incidence of road blockages was minimized. No additional work is required, unless the Court orders removal of the polelines.

Lava tubes should not be a concern mainly because of the previous construction of the GTE Hawaiian Tel poles and line. However, as a precautionary measure, the construction crew will be prepared to seek out and repair any lava tubes or other cavities immediately adjacent to the embedded foundations. When a pole site is directly above a lava tube or cavity, HELCO's general procedure is to evaluate the size and depth of the opening to determine its feasibility for a pole foundation. If the opening is small, and not identified by an archaeologist to be preserved or repaired, HELCO will build a foundation in it by filling the opening with rock, soil, and/or concrete. If a cave or cavity is too large, it will be resealed, and another pole site selected.

For construction procedures in Phase 2, the work that remains is the stringing of the conductors in the County of Hawaii rights-of-way within the residential subdivisions.

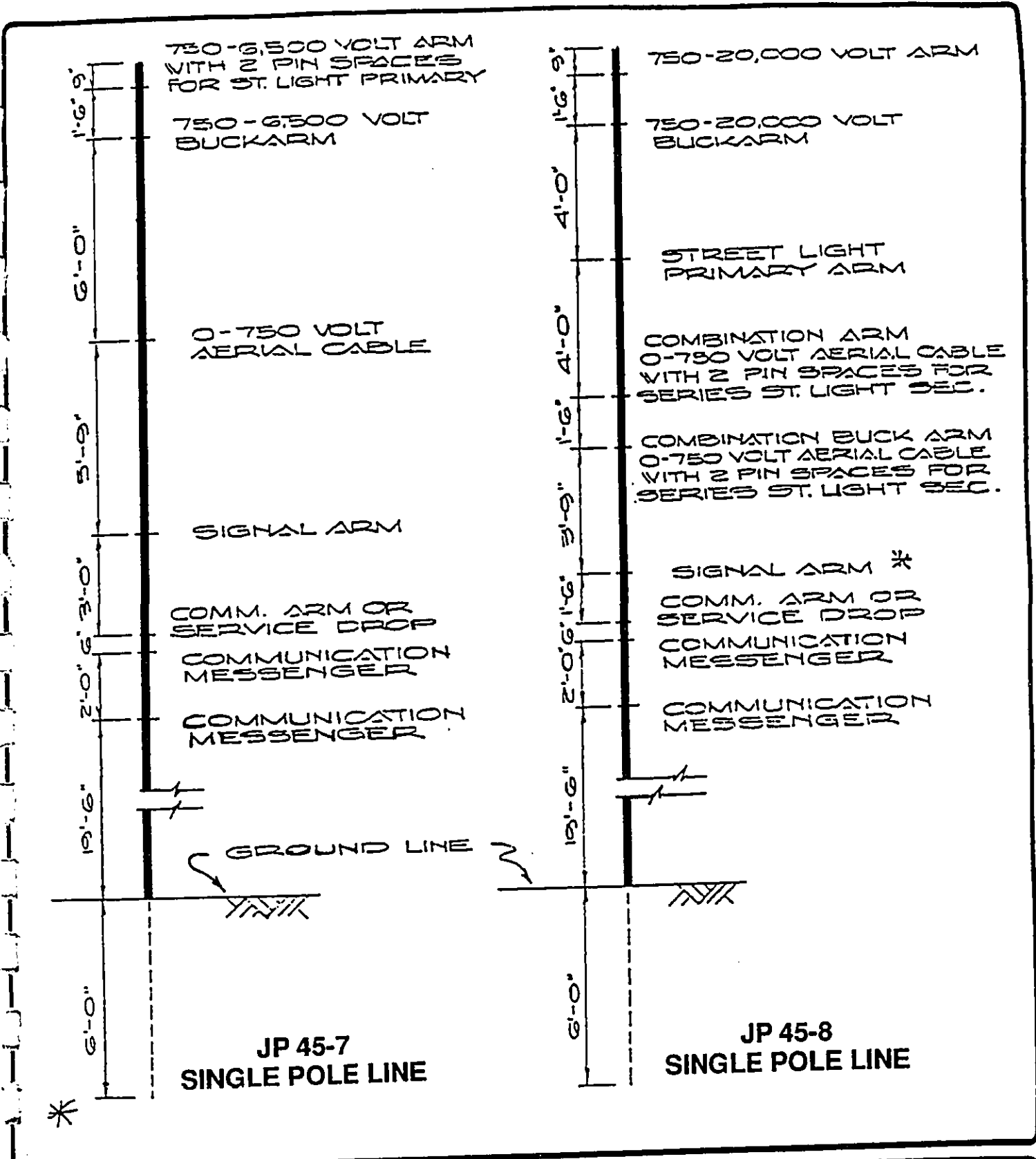


Figure 2-5
TYPICAL POLE OCCUPANCY

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Vehicular access to these sites will be from Highway 137. Tree cable design will be used in Kehena Beach Estates. The cable is protected with a polyethylene cover to minimize threats to power outages and fallen lines, and to prevent falling limbs, fronds, and coconuts from hitting pedestrians or automobiles. The contractor is required by HELCO to implement appropriate traffic and equipment management practices to ensure pedestrians' health and safety at all times. At minimum, safety signs will need to be placed along the roads, and contractor equipment will need to be stored away from driveways. See **Figure 2-6**. Also, indicated in this figure are numbers of lines/cables between poles, referred to as "phases"; e.g., a single line in Kehena Beach Estates is referred to as "single phased."

2.6.2 Schedule and Cost

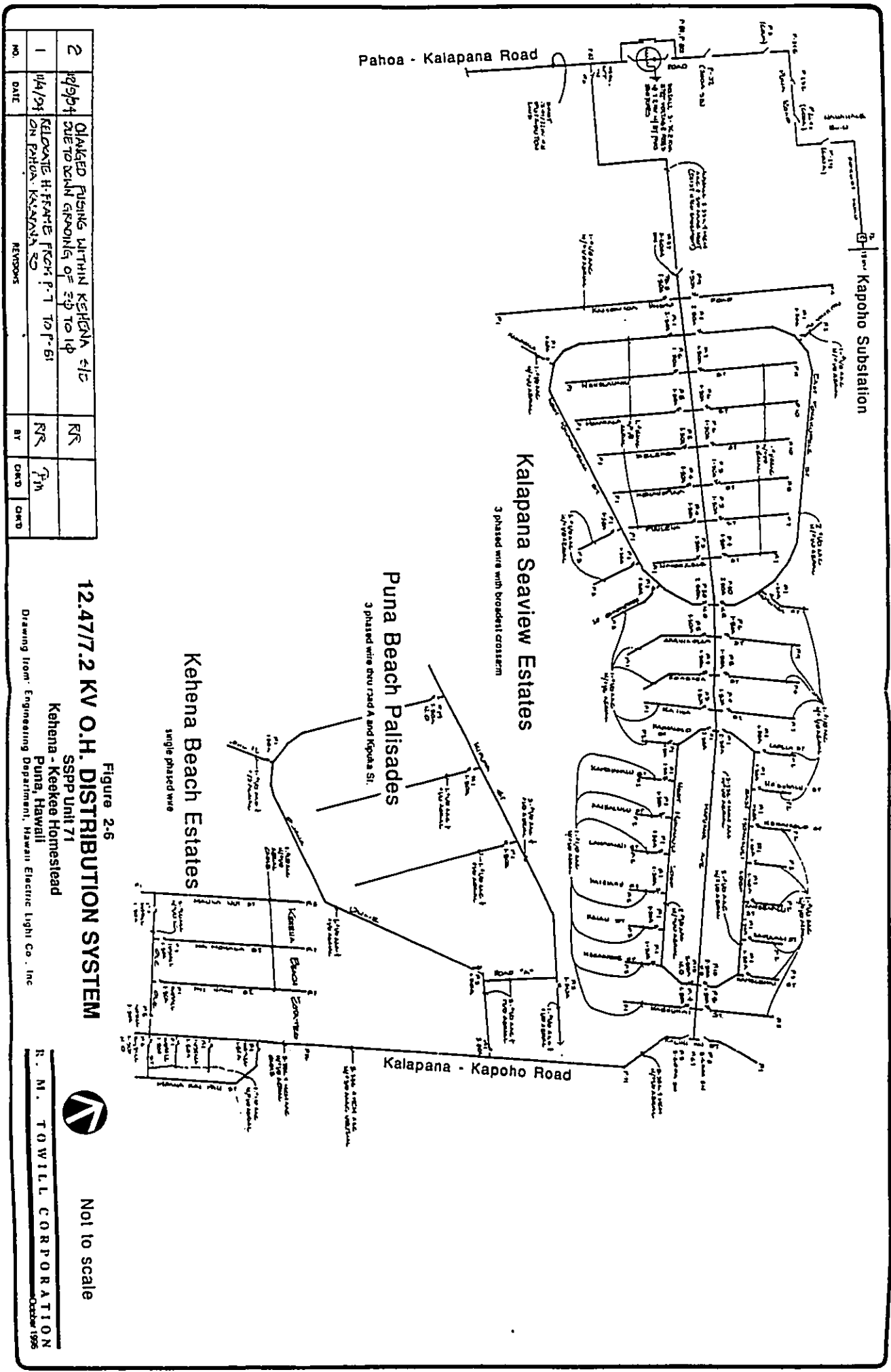
Work that remains for the project are installation of the polelines within the SMA area and actual energizing of the entire system. Work for Phase 2 is expected to take place after receipt of the SMA Use Permit from the County of Hawaii.

The design and construction of Phases 1 and 2 are expected to cost approximately \$1.83 million (1996 dollars).

2.6.3 Maintenance

Once the proposed 12.47/7.2 KV distribution system is built and in operation, the right-of-way will be used for maintenance purposes only. Vegetation will be allowed to grow back within the right-of-way, especially at the edges. Tree-trimming will be conducted as needed, to help avert threats to public safety and power outages due to overgrown branches.

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



| | | | | | |
|-----|----------|---------------------------------------------------------------------|----|------|------|
| NO. | DATE | REVISIONS | BY | CHKD | CHKD |
| 1 | 10/29/56 | RELOCATE H-FRAME FROM P-1 TO P-61 ON PAHOIA-KALAPANA RD | RR | Ph | |
| 2 | 12/5/56 | CHANGED PUSING WITHIN KEHENA SITE DUE TO SIGN GRABING OF 2' TO 1'4" | RR | | |

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DESCRIPTION OF THE AFFECTED ENVIRONMENT

SECTION 3 AFFECTED ENVIRONMENT

3.1 PHYSICAL CHARACTERISTICS

3.1.1 Geologic Characteristics

Identifying and evaluating possible geologic hazards is one of the principal roles of the U.S. Geological Survey (USGS) and its Hawaiian Volcano Observatory. When USGS scientists recognize a potential hazard, such as an impending eruption, they notify the appropriate government officials, who in turn are responsible for advising the public to evacuate certain areas or to take other actions to insure their safety.

The proposed alignment is located on the lower east slopes of Kilauea volcano. The lava flows have created an irregular, undulating landscape. Within the last 1500 years, many lava flows from the Kilauea summit have entered the corridor region. Most of the recent flows in the region have been emitted from Kilauea's east rift zone, including an 1840 and 1955 flow. "The project site is 2.5 miles from the eastern edge of the flow field that destroyed Kalapana in 1990. This flow field is the product of an ongoing, 14-year long eruption and is now over eight miles wide at the coast. Most of the flow field lies in lava flow hazard Zone 2, just as the project area does," according to Christina Heliker, Geologist at the Hawaiian Volcano Observatory, Nov. 26, 1996.

The general geology of the area is conducive to the formation of lava tubes and cavities, and they are present along the alignment. Soils consist primarily of organic and volcanic ash that is typically very rocky and less than 8 inches deep, and pahoehoe and a'a lava flows. Soils in the Puna region generally have rapid permeability, slow runoff, and slight soil erosion potential as rated by the Soil Conservation Service.

The majority of the project area is dominated by a 1955 lava flow. The easement extending from Highway 130 to Kalapana Seaview Estates is on the 1955 flow with only

DESCRIPTION OF THE AFFECTED ENVIRONMENT

few hundred feet within an older vegetated *kipuka*. Kalapana Seaview Estates and Puna Beach Palisades subdivisions are also on the 1955 flow, except for the extreme eastern edge of Kalapana Seaview which is on a flow that erupted in 1790 A.D.. Most of Kehena Beach is built on a flow that is 750 years old and surrounded by flows that are 200-400 years old (R.B. Moore and F.A. Trusdell, 1991, U.S. Geological Survey Map I-2225, "Geologic Map of the Lower East Rift Zone of Kilauea Volcano, Hawaii").

3.1.1.1 Lava Flow Hazard Zone

Maps showing volcanic hazard zones on the island of Hawaii were first prepared in 1974 by Donald Mullineaux and Donald Peterson of the U.S. Geological Survey and were revised in 1987 and 1992 (ref: "Volcanic and Seismic Hazards on the Island of Hawaii"). The current map divides the island into zones that are ranked from 1 through 9 based on the probability of coverage by lava flows. Hazard Zone 1 is the most hazardous and Zone 9 the least.

Hazard zones from lava flows are based chiefly on the location and frequency of both historic and prehistoric eruptions. "Historic eruptions" include those for which there are written records, beginning in the early 1800s, and those that are known from the oral traditions of the Hawaiians. Knowledge of prehistoric eruptions is based on geologic mapping and dating of the old flows of each volcano. The hazard zones also take into account the larger topographic features of the volcanoes that will affect the distribution of lava flows. Finally, any hazard assessment is based on the assumption that future eruptions will be similar to those in the past.

The project site is located in Lava-Flow Hazard Zone 2, with a small portion of the project site closest to Highway 130 located in Zone 1 (U.S. Geological Survey, Hawaiian Volcano Observatory, and Hawaii County Civil Defense, November 1996). About one-half of the island of Hawaii (much of southern Hawaii County, including Hilo town), is located in zones

DESCRIPTION OF THE AFFECTED ENVIRONMENT

1, 2, and 3. Zone 1 includes summits and rift zones of Kilauea and Mauna Loa, where vents have been repeatedly active in historical time. Recently compiled statistical data by the U.S. Geological Survey using digitized geologic maps show that since 1955, at least 35 percent of Zones 1 and 2 on the east rift of Kilauea Volcano have been covered (C. Heliker, November 1996). The new analysis shows that the lava coverage rates, and therefore the hazards, are somewhat higher than indicated on the published Lava Flow Hazard Map (USGS Map MF-2193), although the zonation remains at zone 2 (Volcano Observatory, October, 1995).

Zone 3 includes areas less hazardous than zone 2 because of greater distance from recently active vents and/or because of topography. One to five percent of zone 3 has been covered since 1800, and 15 to 75 percent has been covered within the past 750 years.

According to Christina Heliker of the USGS, the statistical probability of lava coverage occurring over the next 50 years in the following zones are: 75 percent in Zone 1; 65 percent in Zone 2; and 22 percent in Zone 3 (November 1996).

3.1.1.2 Earthquake Hazard

Most of Hawaii's earthquakes are related directly to volcanic activity. They occur before and during eruptions and during noneruptive underground movements of molten rock (magma). The project site is in the Kilauea east rift zone where there is a higher risk for potential lava flows and seismic hazards. The island of Hawaii is in seismic zone 4, where great earthquake damage may recur on the order of once every 500 years (Oak Ridge National Laboratory, Oct. 1994; and Hawaiian Volcano Observatory, Oct. 1995). Zone 4 is the highest earthquake zonation and is that of regions in California located near the San Andreas fault.

DESCRIPTION OF THE AFFECTED ENVIRONMENT

According to David Clague, former Scientist-in-Charge, Hawaiian Volcano Observatory, (Oct. 1995), "One of the most active earthquake zones in Hawaii is the south flank of Kilauea extending from Kalapana to Punalu'u. Although the area in question is outside this most active region, it is close enough that shaking from earthquakes such as magnitude 7.2 Kalapana earthquake in 1975 or the magnitude 6.1 Kalapana earthquake of 1989 cause damage in this area, particularly to poorly constructed buildings."

For the most part, earthquakes on the island of Hawaii are concentrated beneath Kilauea and Mauna Loa (C. Heliker, U.S. Geological Survey, 1990). The likelihood of a damaging earthquake on Kilauea or Mauna Loa probably increases with long-lived activity of the rift zones, but its precise time and magnitude are impossible to predict (ibid). Small, non-damaging earthquakes will be felt more frequently by people living on the slopes of these volcanoes. The effects of a large earthquake under Kilauea or Mauna Loa, however, will not be limited to the immediate area and may cause damage over much of the island (U.S. Geological Survey, 1990).

3.1.1.3 Subsidence

The coastal region along the entire south flank of Kilauea is subject to rapid and catastrophic subsidence related to the large earthquakes mentioned in section 3.1.1.2 Earthquake Hazard, above. Although the area of most severe subsidence during the 1975 earthquake was located within Hawaii Volcanoes National Park, subsidence at Kalapana and Kaimu was about 0.6 meter (nearly 2 feet) and decreased to the east. At Pohoiki the subsidence was still 0.4 m (one and a third feet), and at Kapoho, it was about 0.25 meter (8/10 of a foot). The much smaller earthquake in 1989 resulted in much smaller amounts of subsidence. In addition to the subsidence associated with earthquakes, the entire island of Hawaii is sinking at rates of about 4.5 millimeters per year relative to sea level. Such rates seem small but accumulate to significant amounts of subsidence (about 9 inches in 50 years) (Ref: David Clague, Hawaiian Volcano Observatory, October 1995).

DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1.1.4 Tsunami

The coastal region is also the region that has been impacted by tsunami. There are two types of tsunami in the project area. The first is generated by large earthquakes anywhere around the rim of the Pacific Basin. In historic times, large damaging tsunami of this type have occurred repeatedly, the most recent large ones occurred in 1946 and 1960. The second type is also generated by earthquakes, but these are the same large local earthquakes discussed in section 3.1.1.2, "Earthquake Hazard" above. There have been two specific cases, in 1868 and in 1975, when tsunami impacted the south coast of Hawaii and caused significant damage and loss of life. Future earthquakes beneath the seismically active south flank of Kilauea have a high likelihood of producing such "local" tsunami (Hawaiian Volcano Observatory, 1995).

3.1.2 Streams and Drainageways

There are no well-defined streams in the vicinity of the project site. Rainfall percolates rapidly into the well-drained soils and highly permeable lava flows.

At present, the approximately 158 individual residential units are utilizing either photovoltaic (PV) energy or individual electrical generators to manage and operate their home electrical systems. Batteries are required to store the electricity that is generated by these non-grid systems. At the end of a battery's useful life, there exists a potential danger if it is disposed of improperly. In addition, if lubricating oil from generators is disposed of in the ground, a possible danger to the environment exists. Given the proximity to the ocean, lead leaching from discarded batteries and oil leaking from generators can eventually reach the ocean. Unless such equipment and materials are disposed of properly, environmental damage may worsen. Photo 3-1, taken in 1996 illustrates an existing condition of improperly disposed batteries in the project vicinity.

DESCRIPTION OF THE AFFECTED ENVIRONMENT



Batteries that were improperly disposed of near Hwy 137 Transfer Station in Kaimu

3.1.3 Climate

The Puna region has a relatively high annual rainfall. The project area between Pahoa town and the Puna Substation have any average annual rainfall of 150 inches, while the area east of Pahoa, near the project site, receives 75 to 100 inches of rain per year. By comparison, Kailua-Kona and downtown Honolulu receive 20 to 30 inches of rain per year.

Temperatures in the area are quite uniform throughout the year, with the monthly means ranging from 71 to 76 degrees. The wettest and coolest month in Puna is December, while the hottest and driest months are June and July.

Winds are affected by Mauna Loa where the onshore flow provides an upslope wind by day and a counter downslope wind develops at night and in the early morning. The latter flow predominates. Average wind speeds range between 7 and 8 miles per hour, with slightly stronger winds in mid-afternoon and light winds in the evening hours.

Tropical Cyclones. The majority of tropical cyclones approach the island of Hawaii from the easterly direction. Historically, average wind speeds due to tropical depressions have typically been 25 to 30 knots with gusts up to 40 knots per hour (G. Barns, Meterology

DESCRIPTION OF THE AFFECTED ENVIRONMENT

Department, University of Hawaii Manoa, September 1996). While historical records indicate that storms that finally reach the east coast of Hawaii arrive as down-graded storms or tropical depressions, east Hawaii is still vulnerable to a major tropical cyclone in the future (G. Barns, *ibid*).

3.1.4 Air Quality

The present air quality in the Puna area is good most of the time since the area is not highly urbanized. Air quality is primarily affected by sulfur dioxide (SO₂) emissions from volcanic activities at Kilauea summit. Studies conducted between 1983-1985 were summarized by the Department of Planning and Economic Development (DPED, currently known as Department of Business, Economic Development and Tourism) in Baseline Air Quality - Kilauea East Rift, Executive Summary, 1985, which indicates that the majority of the time, atmospheric concentrations of SO₂ in the project area are relatively low. However, during periods of vigorous volcanic activity or periods of unusual meteorological conditions, such as winds from the south, episodes of high concentrations do occur.

Adding to these episodes of pollution from volcanic sources (vog), is acid rain which is caused by chemical reaction to form sulfuric acid from SO₂. Particulate matter has also been monitored along the Kilauea East rift and was found to be very low. The particulate concentrations of the area are much lower than state and the U.S. Environmental Protection Agency national ambient air quality standards.

There are no available readings for carbon monoxide (CO) levels in the region, but they are expected to be low because of the region's rural character and lack of significant traffic.

Air quality in the Puna area is also affected by the Puna Geothermal development, which is located approximately 5 miles north of the proposed project site. Gases emitted from geothermal wells and associated with geothermal steam are similar to volcanic fume,

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except that all the sulfur in geothermal steam is in its unoxidized form, i.e., hydrogen sulfide. It oxidizes to SO₂ when it mixes with air (Draft Puna Community Development Plan, Community Management Associates, Inc., 1992). Due to the toxicity of hydrogen sulfide at high concentrations, the State of Hawaii Department of Health has been studying hydrogen sulfide levels produced by geothermal power plants for the past 14 years. State standards for hydrogen sulfide are contained in HAR 11-59-4.

Presently, except for automobile exhaust and volcanic pollution, a major source of air pollution in these subdivisions is from frequent and unregulated use of privately owned fossil fuel burning generators. Of the 158 homes that exist throughout the three subdivisions, 88 are being powered by the use of generators. It should be noted that the balance-- 70 homes-- use solar systems. However, a large portion of the solar-powered homes use generators for their electrical appliances. If the proposed electrification project is approved, use of generators is likely to decline.

3.1.5 Noise Levels

Due to the rural character of the region and the relative absence of urban uses and highway traffic, noise levels throughout much of the project area are quite low. Prevalent noise during the daytime hours is from distant traffic, wind, birds, and insects.

An occasional yet persistent source of noise pollution in the subdivisions is the occasional use of generators on most days and the constant, widespread use of generators during rainy, cloudy periods when solar panels are ineffective. Hilo Police Records indicate that in 1996, five (5) Miscellaneous Public (MP) Complaints filed dealt specifically with "loud generators," being turned on in the early morning hours. Three complaints came from Kehena Beach Estates, one from Puna Palisades, and one from Kalapana Seaview Estates (source: Hilo Police Department, January 1997). The "prevalence of generators in this and similar areas has become a noise problem as well as requiring trips to town to

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refill gasoline cans; another hazard," reports G. Curtis, University of Hawaii Environmental Center (December 1996).

Use of generators has been known to result in noise levels of 72 dBA to 80 dBA, which is 20 dB higher than acceptable levels in residential areas (according to the Federal Housing Administration, Day-Night Sound Level is approx. 60 Ldn, 1990). These uncomfortable noise conditions can occur at all times of the day, according to residents in the project area. This may be considered a temporary noise condition; if the SSPP Unit 71 project receives approvals, noise levels caused by generators may decline as residents convert to grid power.

Note: 72 dB reading is based on a generator with a rating of 10 kw, Honda model, gas-operated; 80 dB reading is based on a generator with a rating of 12 kw, Honda model, diesel-operated.

3.2 Biological Characteristics

3.2.1. Flora

Field surveys were conducted for endangered plant species and unique biological communities in and adjacent to the proposed distribution line in late March and early April 1995. A summary of the findings follows, and a complete report is included in the document as Appendix A.

The project area surveyed included powerline routes within and between the three subdivisions. A corridor 50 feet wide extending from Highway 130 to the mauka end of Kalapana Seaview Estates along the existing telephone line was also surveyed. The majority of the land surface in the telephone line easement is utilized as an access/service road. Two botanists surveyed the entire project area on foot. Adjacent sites of botanical interest were also examined for rare plants.

No plant species listed as endangered or threatened under the U.S. Endangered Species

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Act or the State of Hawaii endangered species program were found in the survey area. Unusual native plants were found in the study area but none have legal status requiring planning considerations.

Results: Rare Plants.

One federally listed endangered plant species, *Ischaemum byrone*, occurs on coastal bluffs near the survey area approximately one-half mile south of Kehena Beach Subdivision, but this population appears to occur on a different type of lava flow than found in the project area. No *Ischaemum byrone* occurs in the subdivisions or in the State-owned portion of the proposed utility easement. The species is not expected to occur mauka of the beach road since it is always confined to the immediate coast in the spray zone wherever it is found.

The Hawaiian ko'oko'olau (*Bidens hawaiiensis*) was found in the lower portions of the existing telephone easement and on the northeast edge of the Kalapana Seaview subdivision area and southward into Hawaii Volcanoes National Park. The updated Listed and Candidate Species List (March 1996) designates this as a "species of concern" under the U. S. Endangered Species Act (U.S. Fish & Wildlife Service, 1996). The state Department of Land and Natural Resources (DLNR) Forestry and Wildlife has been consulted as part of the EIS process regarding this species within the project area. On January 14, 1997, a state DLNR Forestry and Wildlife representative accompanied Dr. Evangeline Funk, botanist, to the project site. Findings are documented in Appendix A, in a letter report dated January 16, 1997. No special treatment of the Hawaiian ko'oko'olau was recommended as the project will not result in any significant impact on this resource.

Other rare plants. Pilo (*Coprosma rynchocarpa*) was found in kipukas just outside of the proposed utility corridor mauka of Seaview subdivision. A species of 'akia (*Wikstroemia phyllyreifolia*) confined to Puna and Kau was also found in the kipukas on the south side

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of the proposed utility corridor. A distinctive population of maile (*Alyxia oliviformis*) was also found in the kipuka on the south side of the proposed corridor.

Unique biological communities were found in forested portions of Kehena Beach and Seaview subdivisions and approximately 60 meters south of the proposed utility easement in the form of forested kipuka. Except for the lowest, these kipuka will not be affected by the proposed action. The lowest kipuka on the proposed easement contains 'ohi'a/hala forest already affected by the existing telephone line. Further, the addition of the HELCO line has had no significant adverse impact on this resource.

3.2.2 Fauna

A pending Federal law suit alleges that the project will harm endangered and threatened species, most particularly Newell's Shearwater, A'o (*Puffinus newelli*). Given these concerns an extended discussion is warranted. Based upon the evaluation of surveys conducted for the project, project characteristics and empirical data from other studies on Kauai and at Waipio Valley, the project will have no significant adverse impact on resources within the project area.

An initial faunal survey was conducted by Rana Productions in early April 1995. A four-day radar and visual survey of seabirds was conducted along the project alignment by ABR, Inc. and Rana Productions from July 10 to July 13, 1995 during the height of the nesting season of Newell's Shearwater and Dark rumped petrels, the two listed species of concern in this project. The results of both surveys are summarized below, and the reports are included as Appendix B.

3.2.2.1 Initial Survey

The purposes of the initial survey were to: 1) document what bird and mammal species occur on the site, or are likely to occur given the type of habitat available; 2) provide

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baseline data on the relative abundance of the species found and 3) determine the presence of any native species, particularly any that are listed as threatened or endangered by either the United States Fish and Wildlife Service (USFWS) or the State of Hawaii, Department of Land and Natural Resources (DLNR); 4) determine if there was any nesting activity by Hawaiian Hawks (*Buteo solitarius*) on the subject property.

Study Methods. One transect was laid through the north-south right-of-way and another along the east-west (shoreline) right-of-way. Count stations were placed 150 meters apart along these transects. Eight minute unlimited distance circular plot counts (Reynolds et al. 1980) were made at each of the count stations. Field observations were made with the aid of Leitz 10x40 binoculars and by listening for vocalizations. Counts were concentrated during the early morning hours-- (between 0600 hrs and 1100 hrs)-- peak bird activity time. Four separate crepuscular counts were made in an attempt to locate Hawaiian hoary bats (*Lasiurus cinereus semotus*) and seabirds. Time on site not spent either laying or counting was spent "prospecting" in pockets of vegetation away from the transects, in an attempt to locate any species not recorded during count periods. A thorough search for Hawaiian Hawk (*Buteo solitarius*) nests was also made. In addition Michelle Reynolds, an avian biologist with the USFWS who has experience surveying for seabirds and bats in Puna, was contacted for additional information on the avian and mammalian fauna, especially seabirds of the surrounding area. Observations of feral mammals were limited to visual and auditory detection, as well as observation of scat, tracks and road kills. No trapping was conducted to obtain data on their relative abundance.

A total of 548 birds of 16 species representing 12 families were detected during the course of this survey. Of these 16 species, 2 are endemic Hawaiian Honeycreepers (native and unique to Hawaii), 1 indigenous migrant shorebird (native to but also found elsewhere), 1 native seabird and the remaining 11 are introduced species. During subsequent site investigations (May and June 1996) an additional bird species, Red-billed Leiothrix was

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detected. None of the birds recorded are listed as either endangered or threatened by either the USFWS or by the State DLNR.

During the course of the April 1995 survey 6 mammalian species were detected. Five of these were terrestrial species all introduced by man and the sixth was an indigenous whale species. None of the mammals detected are listed as either endangered or threatened by either the USFWS or the State DLNR.

Although no threatened or endangered avian or mammalian species were detected during the April survey it is expected that there is some usage of the site by four listed species. These species are the Hawaiian Hawk, I'o (*Buteo solitarius*), Newells' Shearwater, A'o (*Puffinus newelli*), Hawaiian Dark-rumped Petrel, 'Ua'u (*Pterodroma phaeopygiga sandwichensis*) and Hawaiian hoary bat, Ope'ape'a (*Lasiurus cinereus semotus*) (U.S. Fish & Wildlife Service, 1992).

3.2.2.2 Radar and Visual Survey, July 1995

A radar and visual survey was conducted July 10 to July 14, 1995 by ABR, Inc. and Rana Productions. A follow-up study was conducted by ABR, Inc. and Rana Productions during the known nesting season of the Newell's Shearwater. The purpose of the survey was to collect baseline information on seabird abundance and flight behavior over the proposed overhead distribution line route.

Methods: Sampling Strategy and Radar Equipment

Two types of sampling were conducted: surveillance radar and visual sampling. Visual sampling was conducted concurrently with radar sampling. The mobile laboratory consisted of a small marine radar mounted in the back of a pick-up truck. This surveillance radar scanned the entire area around the mobile lab and was used to obtain information on flight paths, movement rates, and ground speeds of seabirds and bats detected.

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The surveillance radar (Furuno Model FCR-1411, Furuno Electric Company, Nishinomiya, Japan) is a standard marine radar transmitting at 9410 MHz (i.e., X-band) through a slotted wave guide 2 m long; the peak power output is 10 kW. This radar can be operated at a variety of ranges from 0.5 km to 133 km. Pulse length can be set at 0.08, 0.6, or 1.0 μ sec, depending on the range setting used. At the shorter pulse lengths, echo definition is improved (giving more accurate information on target location and, hence, distance), whereas, at longer pulse lengths, echo detection is improved (increasing the probability of detecting a target). An echo is a picture of a target on the video display screen; a target is one or more birds that are flying so closely that the radar detects them as one echo on the display screen. This radar has a digital, color display with several scientifically useful features, including color-coded echoes (to differentiate the strength of return signals), on-screen plotting of a sequence of echoes (to depict flight paths), and True North correction for the display screen.

Radar sampling was conducted between 10 and 14 July. The radar was operated during the evening (1900-2130 h) and morning (0430-0600 h), the peak period of seabird movement. Radar data was not collected during periods of rain because the adjustments required removal of echoes of the precipitation which would have simultaneously removed bird-caused echoes. Visual sampling was conducted during daylight and crepuscular hours with 10X binoculars, and at night with a 5X Noctron-V night-vision scope. Visual data also include any birds heard but not seen. Sampling occurred during the evening (1900-2159 h) and morning (0430-0559 h), peak periods of movement to and from nesting colonies and the sea by seabirds.

3.2.2.3 Study Findings

The results of the survey are reported in terms of frequency of birds per hour. The four-day survey indicated that seabirds were detected at a very low rate of 0 to 1.6 per hour. Surveyors concluded that the low number of birds observed was not unexpected, given the

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generally low nesting density of seabirds known inland from the study site. Radar and visual observations at other coastal areas in Puna (e.g., Kapoho, Kahakai) also suggest that the numbers of seabirds transiting the coastline are relatively low (B. Cooper, pers. obs.). In contrast, radar and visual observations in the Waipio Valley of Hawaii and on the eastern and northern coasts of Kauai indicate that relatively high numbers of seabirds fly inland over those areas (Cooper and Day 1994; Day and Cooper, 1995; B. Cooper, pers. obs.).

Flight directions of birds were consistent with birds moving inland during the evening and seaward in morning. A similar pattern has been observed on Kauai (Cooper and Day 1994; Day and Cooper, 1995). The morning flights observed came from the NNW. Iilewa Crater is located approximately 6 km toward the NNW from the Eastern sample site. While birds may nest in the crater which is located on privately-owned lands, no survey has been conducted to determine if seabirds breed in the crater. It should be noted, however, that cinder mining of this crater has been actively conducted since at least 1980 (Councilperson A. Smith, 1996). Under a new lease held by Sanford Cinder Mining Company since August 1995, cinder mining continues.

Flight altitude is an important variable for determining the likelihood of bird collisions with proposed powerlines. However, because bird densities were so low during the course of the survey, no flight altitude data was obtainable (i.e., no visual observations of listed seabirds). Data from a similar study conducted on Kauai during the summer of 1993 may provide some insight into flight altitudes in the Kehena area (Cooper and Day 1994; Day and Cooper, 1995). Two of the most heavily sampled sites on Kauai, Wailua and Kealia, were very similar to the Kehena area. Both sites were located within 100 m of the coast and were not directly adjacent to large mountains. At Wailua, mean flight altitudes (\pm SD) of all seabirds combined was 159 \pm 95 m agl (meters above ground level) during the evening and 43 \pm 28 m agl in the morning. At Kealia, mean flight altitudes of all seabirds

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combined was 93 ± 64 m agl during the evening and 37 ± 18 m agl in the morning. Assuming that seabird flight behavior is similar between the sites on Kauai and the Kehena site, these data suggest that the majority of seabirds in the Kehena study area usually fly above the proposed powerline height (~15 m agl), especially during the evening hours.

Other Findings: During the survey in July three (3) Hawaiian hoary bats were visually detected.

3.2.2.4 Additional Investigations, 1996

Two additional site investigations of the project area were conducted by Dr. Robert H. Day, Senior Scientist of ABR, Inc. and Reginald E. David of Rana Productions, Inc. on May 14, and June 18, 1996. Observations and conclusions are included in Appendix B, and is entitled a "Report on Mortality Risk to Newell's Shearwaters at Helco Powerline Project, Puna, Hawaii," by Robert H. Day, Ph.D., ABR, Inc., dated 5 September 1996. Salient findings are summarized below.

SW Radar/Night-Vision Site. The site is located to the SW of the main part of the study area and to the SW of the SW end of the powerline section located at Milepost 20.8 along Highway 137. The surveyors found this as the best possible radar site. For conducting night-vision sampling, surveyors looked for birds crossing the road (i.e., to the NE and SW, or along the Red Road). Visibility was deemed excellent. There appeared to be little background light to the NE in the evening, and a 1,250,000-candlepower spotlight was used everywhere after dark.

NE Radar/Night-Vision Site. This site is located at the bottom of Seaview Estates, by the mailboxes along Kalihikai Street. It is <100 m from the ocean. The radar screen was clear to the NE because of the slight rise there. There was very little ground clutter overall. There was excellent visibility on the night-vision scope here, in that the area was primarily

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open and had lighting conditions similar to those at the SW site.

Review of Several Aspects of the July 1995 radar and visual survey. Dr. Day reviewed several assumptions, judgements and decisions made during the July 1995 radar survey. The survey results were published previously in the Final Environmental Assessment (August 1995) for the project. They include the (1) rained out sampling periods, (2) length of the study, (3) choice of the added SW survey location, and (4) choice of minimal cutoff speed for radar targets.

Clarification of Rained-out Sampling Period. Only 3 of 32 sampling sessions were rained out, and 2 of those 3 were not completely rained out. In the 2 lost sessions on the nights of 10-11 July, surveyors started sampling again as soon as possible after the rain stopped to minimize the amount of sampling time lost.

1. The lost session at 19:35-20:00 (all darkness in this session) on 10-11 July was lost when a rain squall came in off the ocean at 19:45. Because the rain was not heavy, Mr. David was able to continue the night-vision sampling without interruption. No radar targets were seen during the 10-min. period when sampling was done with radar.
2. The lost session at 20:00-20:25 (all darkness in this session) on 10-11 July was rained out. No sampling was possible.
3. The lost session at 05:35-06:00 (all daylight in this session) on 11-12 July was due to a very wet, low-lying cloud that the radar interpreted as rain, but it was not raining. Visual sampling was conducted, but no birds were seen.

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(2) Reasons for location of the SW site. (1) It was a different habitat from the NE site (it consisted of a denser ohia scrub than of the sparse ohia and lava at the other site); (2) There was no seabird action at the NE site, so they wanted to see if birds might be coming inland elsewhere (i.e., was there an anomalously low rate at the NE site?); and (3) It was believed that birds flying to and from the ocean with the destination of Heiheiahulu colony probably were doing so somewhere along this coast.

(3) Flight Speeds of Birds. Minimal cutoff speed for radar targets was 35 mph. This speed was greater than the 30 mph that was used on Kauai. Surveyors indicated that 3 target 30-35 mph were seen but not recorded because they were thought to be (1) a Wedge-tailed Shearwater flying parallel to the coast, (2) a Black Noddy doing the same, and (3) an owl, based on flight direction and flight characteristics.

The surveyors used 35, rather than 30, mph as the cutoff speed because of their experience in the Pohakuloa Training Area (PTA) of inland Hawaii, where they had been working just prior to the July 1995 HELCO sampling. At PTA, they switched to 35 mph because most moths were traveling at 30 mph. To avoid problems with moths in the HELCO study area, they retained the minimal cutoff speed that they had used in PTA.

The winds during the course of the survey were predominantly out of the northeast at speeds of under 10 miles an hour. Corrections were not made for head or tail winds since the winds encountered were light cross winds which, in the surveyors' opinion, did not affect the flight speeds of targets.

3.3 Historical and Archaeological Resources

There are no known historical, cultural, architectural and/or archaeological resources in Phase 1, or the State-owned portion that are listed on the Hawaii Register and/or the

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National Register of Historic Places, or that have been determined eligible for inclusion on the National Register of Historic Places (Memorandum from Division of State Parks, DLNR regarding GTE Hawaiian Tel's easement request, 1984, to the State Board of Land and Natural Resources).

An Archaeological Impact Study was conducted by Cultural Surveys Hawaii of Phases 1 and 2 project areas in April 1995. The results of the study are summarized in this section, and the report in its entirety is found as Appendix C of this document.

The objectives of the archaeological assessment were: 1) Conduct a literature review of past research of the project site to identify sensitive areas and previously identified archaeological sites as well as historic context and previous land use; 2) Conduct fieldwork involving assessment level survey of the powerline route and the three subdivisions with special emphasis on the area within the County of Hawaii Special Management Area; 3) Prepare a report that included the results of the historic background research as well as fieldwork results.

Background research conducted as part of this study has identified a general zonal pattern for the Puna District. Recent research by International Archaeological Research Institute, Inc. (Burtchard 1994) has attempted to summarize archaeological and historic literature to better define the zonal pattern. The zonal pattern of land use and settlement that would be representative of the project area ahupua'a includes: 1) coastal settlement zone, characterized by "highest density, variety and complexity of prehistoric surface features. Primary aggregations of residential, ceremonial, garden and associated features at sheltered embayments with adjacent inland agricultural soils" (Burtchard 1994); 2) coastal margin agricultural zone characterized by "moderate to high density and variety of surface features spatially linked to coastal settlement and agriculturally productive sediments" (Ibid.); 3) inland agricultural zone characterized by "moderate to low density of surface

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features linked to agricultural land use, possibly in isolated pockets of suitable agricultural sediments. Trails link agricultural areas with coastal settlements" (Ibid.); 4) upland forest exploitation zone characterized by a "very low feature density consisting of isolated agricultural and short-term and lava tube residences" (Ibid.).

Three of these zones, coastal settlement, coastal margin agricultural and inland agricultural would be represented within the overall project, if not for the 1955 lava flow and the subdivision and highway construction. The proposed easement extending makai from roughly the 900 ft. elevation would have, based on the above zonal pattern, traversed through the inland agricultural zone to the coastal margin agricultural zone. The three subdivisions are in what would have been the coastal settlement and coastal margin agricultural zones.

Survey Methods and Findings.

The field survey was initiated at the northern (mauka) end of the proposed easement where it intersects Highway 130. The proposed easement, which is an existing telephone easement, includes a bulldozed road and telephone poles and lines. Additionally, virtually the entire length of the easement is on the 1955 lava flow, except for a small kipuka near the makai end, some 2,000 feet mauka of Kalapana Seaview subdivision. Survey of the easement consisted of a combination of walking and driving. The kipuka area, near the makai end of the easement was specifically checked for historic remains. No historic sites of any kind were observed within the proposed/existing easement.

The remainder of the project area was surveyed utilizing the same methods described above. Special attention was placed on the following areas, with findings detailed as appropriate:

- 1) Eastern portion of Kalapana Seaview because it consists of older (ca 1840-

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1950; Burchard 1994) more vegetated lava. No historic sites of any kind were observed within this subdivision which has been entirely altered for roadway and housing construction.

2) Area fronting the same subdivision was walked to check for sites and possibly a remnant of the Kehena Beach Trail (-2540). The area, like the subdivision has been entirely bulldozed and is presently a maintained lawn with no historic sites.

3) A field check of previously identified sites (Cordy 1987) to the east of Kehena Beach Estates was undertaken. The field check confirmed site locations and that apparently there has been major changes at least at the sites as observed. Sites visited included -10922, 10925 and 10926, a trail, agricultural complex, and cemetery respectively. The archaeological survey team assumes that by the construction style, orientation and previous research that Trail Site 10922 is another section of trail Site 2540 (Bevacqua and Dye 1972). The trail is an impressive, well-constructed stepping stone trail oriented roughly parallel to the coastline. The trail is bulldozed out at the extreme eastern edge of the subdivision and thus pole placement has no adverse affect as they are on the edge of the existing paved roads.

All in all, the Cultural Surveys Hawaii study confirmed the absence of historic sites within the proposed distribution line. Virtually the entire length of the proposed distribution line has been disturbed by human induced disturbance and recent lava activity.

3.4 Land Use/Land Ownership

Major land uses in the project area include residential subdivisions and vacant lava fields. Phase 1 of the project site is owned by the State of Hawaii. The only existing use in the

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project site is the Hawaiian Telephone service line which was constructed ten years ago. The 8,710 foot-long portion has been cleared for the telephone utility poles and lines. Because of this, the corridor has been disturbed for the installation of the telephone utility system. With this exception, the terrain remains in its natural state with minimal grading or leveling due to construction of the GTE Hawaiian Tel line.

Phase 2 of the project site includes three residential subdivisions east (makai) of Phase 1. These subdivisions were developed between 21 to 30 years ago. Currently 46 homes exist in Kehena Beach Estates, 28 homes in Puna Palisades, and 84 exist in Kalapana Seaview Estates. All road rights-of-way are under County of Hawaii jurisdiction.

Despite the extensive agricultural zoning in the Puna district and the emphasis on agriculture in the County General Plan, the project site and lands in the vicinity are not productive due to the recent (1955) lava flow. Large portions of the Puna district, especially upper Puna, have been subdivided into fee simple residential lots. The subdivisions in the project area are zoned agricultural by the County and are in the State Land Use Agricultural District. For the most part, however, they are not in agricultural use, but are predominantly in residential use. Yet, they do not conform to current subdivision standards for lot size and infrastructure developments (roads, sewer, water, utilities), because they were developed prior to enactment of the County subdivision and zoning codes.

Much of the area consists of vacant, undeveloped land with sparse, natural vegetation. Natural vegetation is also the predominant cover type within the residential subdivisions except where small parts of these areas have been cleared for roads and residences.

3.4.1 DLNR SITE FOR RELOCATION OF VICTIMS OF KALAPANA LAVA FLOW

A 150-acre residential subdivision known as Kikala-Keokea is being developed by the

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State of Hawaii for the purposes of providing relocation assistance to persons of native Hawaiian ancestry who were displaced by the Kalapana lava flow that began January 3, 1983. Identified as a portion of Tax Map Key no. 1-2-07:02, the project area is located south and adjacent to the Kehena Beach Estates subdivision.

The proposed project's major development will be a leasehold residential subdivision of 60 house lots, with lot sizes ranging from a minimum of one (1) acre to a maximum of two (2) acres. A portion of the project area will be designated as community park for the use by the residents of this subdivision. The proposed subdivision project includes bulldozing of vacant land, trenching and installation of a new water line, and construction of lots and homes. An environmental assessment was prepared for information purposes only because according to Act 314, SLH 1991, the project is exempt from the requirements of Chapter 343, HRS, as amended.

Infrastructure improvements planned (September 1993 Environmental Assessment prepared by the State DLNR) are as follows: Vehicular access to the subdivision will be from the Kalapana-Kapoho Beach Road (Highway 137). A minimum of four (4) ingress/egress points will be provided for the development. Each lot will be serviced by a septic tank and leach field system. A utility corridor(s) will be created as a conduit(s) for the placement of a 3-inch water transmission pipeline, and overhead electricity and telephone lines, poles and anchors. One of the options being studied is the creation of a utility corridor, 50 feet wide, extending from the Paho-Kalapana Road (State Highway 130) right-of-way, and through a State-owned parcel, Tax Map Key no. 1-2-07:30, to the development. Drainage improvements are to be determined by an engineering study.

Status of Kikala-Keokea Subdivision (G. Abe, DLNR September 1996): Planning for the subdivision is progressing. The access road from Highway 137 into the future subdivision has been built. A preliminary cost estimate to develop and connect the proposed 3-inch

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water transmission line to the closest existing water line is approximately \$2 million. The Office of Hawaiian Affairs (OHA) is also assisting DLNR in the development process of this subdivision.

With respect to electrical utility service, HELCO has not yet received any inquiry or requests for electrical service from the State agency coordinators. Whether a request is forthcoming or not, there are no plans to expand the subject project area. Therefore, a discussion on impacts from this relocation subdivision are not included in the EIS. The SSPP Unit 71 project was planned and designed specifically to service the subdivisions of Kalapana Seaview, Puna Palisades, and Kehena Beach Estates. The only indication of the desire of the future residents for this subdivision is contained in a letter dated June 25, 1995 to the Department of Public Works, County of Hawaii, from Robert Kelihoomaluu. Mr. Kelihoomaluu states that the Kalapana Ohana Organization wishes to be solar powered as is the Hawaiian village of Miloli'i (see Attachment #6, to letter dated December 23, 1996, from Athena Peanut, in Section 12, Comments and Responses, in this document). The system which powers Miloli'i does not depend on HELCO service.

3.5 INFRASTRUCTURE

3.5.1. Roads

State Highway 130 is the primary route in Puna between Keaau and Pahoehoe and Kalapana. The highway is a two-lane paved, all-weather road in good to excellent condition. The highway right-of-way varies from 50 feet to 110 feet.

As the primary route in the Puna region, Highway 130 is travelled by commuting residents as well as tourists, having an adjusted average daily traffic count of 19,994 on November 18, 1994 (State Department of Transportation).

Highway 130 at Keaau was reported in 1986 to provide a level of service (LOS) D, with

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10,398 vehicles per day, and is projected to build to 22,900 vehicles per day by 2010, with a LOS of F (gridlock), unless improvements are made. Widening of Highway 130 to four undivided lanes is projected to provide no significant improvement in the LOS, while a projected by-pass is expected to improve flow through Keaau town to LOS C with 10,600 vehicles per day and the remaining on the bypass at LOS D (DOT: Technical Report IV). The projections by DOT include the maximum build-out of the three subdivisions (1,200 lots) of the project area. No specific mention is made in the state plan concerning reconstruction of the sections of Highway 130 destroyed by lava. The plan apparently assumes that those sections will be rebuilt to connect the Chain of Craters Road to the state system, as 2,000 vehicles per day are projected for 2010 along Highway 130 beyond Kalapana (ibid).

Highway 130 would be the major route for transporting construction equipment and a crew between Hilo and the project site.

The other major roadway in the region is Highway (Route) 137 which is under County of Hawaii jurisdiction. Highway 137 runs along the coast and provides access to the residential subdivisions. This is a two-lane, narrow road in a 60-foot wide right-of-way.

Highway 137, also called the "old county road" and "Red Road." This narrow, undulating and often potholed road has been the subject of several proposals for widening into a major artery, but is currently not being actively considered because of the coastal hazards, including subsidence and tsunamis. A number of community groups that live along this road have lobbied against widening, although some are also concerned about the need for a reliable escape route.

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3.5.2. Electrical and Communication

Electricity is provided by the Hawaii Electric Light Company through a series of subtransmission lines in the Puna district. A 34.5 KV subtransmission line between Keaau and Kalapana, along Highway 130, feeds the Kapoho substation which presently services the Kalapana region. HELCO's main power grid is located at the Puna switching station, and lines servicing residential and other properties in Puna receive power from the switching station.

The existing subtransmission system in the area is providing approximately 9 megawatts (MW) of power daily to HELCO customers. The proposed 12.47/7.2 KV line is capable of providing 2.5 MW of demand to residents in the service area.

In addition to subtransmission lines, there is an existing network of electric distribution lines in the Puna area, typically along roadways. HELCO has franchise rights to use public right-of-way for power lines, although State and County agency regulations must be adhered to. In areas where existing HELCO lines are not along roads, easements have been acquired. An easement is required for this proposed distribution line because the route occurs over State-owned property.

The energy sources of the overhead electrical system project are varied. In 1995, HELCO's system electricity production source load was divided as follows: steam/baseload (oil) was 42.3%, geothermal 23.9%, diesel (oil) 18.5%, coal 9.9%, hydroelectric 3.8%, and wind was 1.6%. In other words renewable energy resources including hydroelectric, wind and geothermal supplied approximately 29% of the island of Hawaii's electricity requirements last year.

GTE Hawaiian Tel's line is located within the easement as HELCO in Phase 1 of the site. HELCO proposes to replace GTE Hawaiian Tel's poles with its new poles thereby enabling

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both utilities to use the same easement as well as in the County rights-of-way in the Phase 2 area. Sharing of the same utility poles within subdivisions often occurs between the two utility companies.

3.6 Visual Character

The Puna region has a rural visual character as exemplified by the natural vegetation and low-density development. Most of Phase 1 of the project area's gentle sloping topography allows wide-angle or panoramic views across areas with scrub vegetation and recent lava flows. Some of the ohia trees are as tall as or taller than the existing GTE Hawaiian Tel poles within the easement corridor.

Coastal views in the Phase 2 area are somewhat limited by the undulating topography. Views of existing GTE Hawaiian Tel polelines have been part of the scene of the entire project area for approximately ten years. Recently introduced HELCO polelines that are about fifteen feet taller than the telephone polelines now vary in visibility throughout the residential subdivisions. The HELCO poles are dwarfed by existing trees in Kehena Beach Estates as some of the trees are as tall or taller than the electrical poles. However, the overhead polelines are highly visible along Mapuana Avenue through Kalapana Seaview Estates due to sparse vegetation along this corridor.

Overhead electrical poles and lines that have been installed (but not yet energized) between late 1994 and early 1995 have been introduced into the landscape alongside existing telephone polelines. HELCO pole lines are approximately 15 feet taller than co-existing GTE Hawaiian Tel pole lines throughout the three subdivisions and along the mauka portion of the Highway 137 right-of-way. Existing views in the makai or Phase 2 portion of the project area are shown in Photos 3-2 to 3-5.

The SMA area extends along the coastal frontages of three residential subdivisions. The

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southernmost portion, Kehena Beach Estates, is the largest portion of Phase 2 contained in the SMA. There are 17 HELCO poles installed within the SMA in this subdivision. Mature local foliage marks the street frontages within the SMA of this 30-year old residential subdivision. See **Photos 3-6 and 3-7**. Besides the existing phone poles and lines, new electrical poles have been installed. To complete the installation of the proposed overhead distribution system, new distribution lines need to be installed, and existing telephone poles need to be removed. Due to the existence of mature vegetation, the new service poles and lines generally blend in with the background. There are very few instances in which poles and lines are silhouetted against the skyline. There will be some improvement as compared to the present, with completion of the project since existing telephone lines will be removed.

The central area of Phase 2 is occupied by Puna Beach Palisades subdivision, developed in 1973. The SMA fronting Puna Beach Palisades is limited to the makai side of the Kalapana-Kapoho Road. Therefore, no HELCO pole in this subdivision located in the SMA. The new overhead system is in place with both one and three line configurations, mostly on the mauka side of Highway 137, with some located on the makai side. Vegetation varies, with some mature and some portions open. See **Photos 3-8 and 3-9**. There will be limited impact on ocean views since most polelines are located on the mauka side of Highway 137 (Kalapana-Kapoho Road). Moreover, from the mauka side of the coastal road there are no long range views to begin with because of the sloping conditions of the land.

The project will have some impact on views in and from Kalapana Seaview Estates located at the northernmost portion of Phase 2 due to the subdivision's limited extent of development and foliage. See **Photo 3-10**. The new three wire overhead service is already in place, located mainly on the mauka side of the coastal road to Kalihi Kai Road. There is limited foliage in this area, and views are generally open. The resulting impact on

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

DESCRIPTION OF THE AFFECTED ENVIRONMENT

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Photo 3-2 Area Fronting Kalapana Seaview Estates



Photo 3-3 Area Fronting Kalapana Seaview Estates



Photo 3-4 Pole Placements Within Highway #137 Right-of-Way



Photo 3-5 Pole Placements Within Highway #137 Right-of-Way



Photo 3-6 Looking mauka across Kalapana-Kapoho Road.
subdivision.



Photo 3-7 Looking makai from Kehena Beach Estates



Photo 3-8 Central area, looking south on Kalapana-Kapoho Road.



Photo 3-9 Central area looking south on Kalapana-Kapoho Road.



Photo 3-10 On Kalapana-Kapoho Road, looking mauka and north-toward Kalapana Scaview Estates.

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the subdivision is due to the addition of the overhead system compounding the numerous lateral service lines. There is a total of 5 HELCO poles in this subdivision that are located in the SMA. The view impacts in the specific portion located in the SMA is minimal and will be ameliorated over time as vegetation matures in this 24-year old subdivision.

3.7 SOCIO-ECONOMIC CHARACTERISTICS

3.7.1 Overview

The following summary discussion on the socio-economic conditions of the project area is substantially drawn from the Draft Puna Community Development Plan Technical Reference Report, January 1992 and the County of Hawaii Data Book, 1995.

The proposed distribution line is within Census Tract 211 (Pahoa-Kalapana) of the Puna district of Hawaii. Throughout the island of Hawaii and the Puna district, the population increased significantly between 1970 and 1980. Island-wide there was a 45 percent increase over the 1970 population, from about 63,500 to 92,000. In Puna, there was an increase of 128 percent from 5,150 to 11,750. In the period from 1980 to 1990, Puna had a growth rate of 76.8 percent, with an estimated 1990 population of 20,781. Census tract 211 grew from 4,696 to 6,702 between 1980 and 1990. This indicates a percentage change of 42.7 points. Likewise, the number of residential HELCO customers has increased dramatically in Puna. The meter count between 1970 and 1980 increased 68% island-wide and 123% in the Puna district.

3.7.2 Ethnicity and Birth and Death Rates

Puna's rapid population growth during the 1970s resulted in large part from in-migration, partially due to the abundant supply of relatively low-priced land for residential and /or agricultural purposes. Ethnically, Puna changed from a largely Japanese to a largely Caucasian area. Also, more than half of Puna's net population growth from 1970 to 1980

DESCRIPTION OF THE AFFECTED ENVIRONMENT

was not Hawaii-born.

Table 3-1 shows the numbers of births and deaths through the 1980s for various ethnic groups (according to the group identified by the mother), featuring Census Tract 211, Pahoia to Kalapana, the project area.

TABLE 3-1
Census Tract 211: 1989 Births/Deaths

| | <u>1989 Births/Deaths</u> | <u>1989 Births per Death</u> |
|-----------------------|---------------------------|------------------------------|
| Caucasians | 128/ 61 | 2.10 |
| Hawaiian & part Haw'n | 120/ 15 | 8.00 |
| Filipino | 62/ 20 | 3.10 |
| Japanese | 19/ 15 | 1.27 |
| <u>Other</u> | <u>39/ 4</u> | <u>9.75</u> |
| TOTAL | 369/115 | 3.44 |

Source: Dept. of Health, Office of Health Status Monitoring

3.7.3 Household Size, Age Distribution

Available 1990 Census data show that the size of Puna's average household decreased during the 1980's. While the average household size decreased in both Hilo (2.85) and the island as a whole (2.86), Puna now has larger households than either of these areas, with 2.91 persons in the average home.

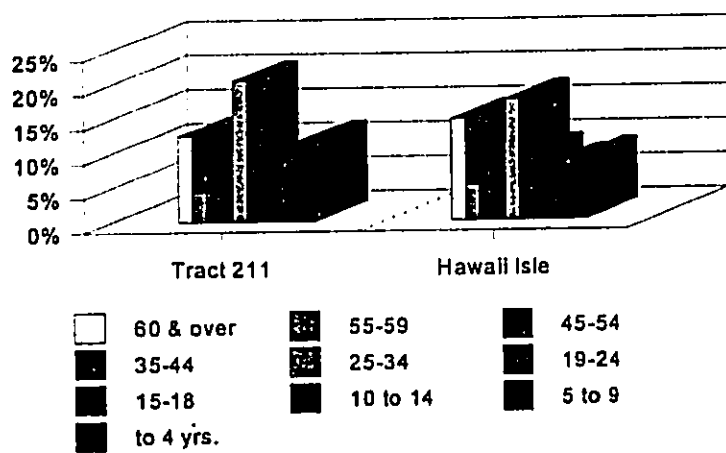
The median ages for Puna residents in Census Tracts 210 (Keaau-Volcano) and 211 (Pahoia-Kalapana) in 1980 were as follows:

| | <u>Total</u> | <u>Male</u> | <u>Female</u> |
|------------------|--------------|-------------|---------------|
| Census Tract 210 | 30.2 | 30.1 | 30.4 |
| Census Tract 211 | 27.0 | 27.9 | 26.3 |

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A comparison of 1980 Census age distributions in Graph 3-1a on the left shows the relatively high number of Puna residents, compared to the island as a whole, in the 25 to 34 age group born between 1945 and 1955. In 1990, the bulge was in the 35 to 45 age group, in Puna as well as islandwide (and nationwide).

**Graph 3-1a
Age Distribution, 1980 Census**



Significant growth is expected to continue in the Puna district, particularly in terms of the district's role within the County. Hawaii County Planning Department projections for the year 2005 consider Puna to have a larger percent of the island's total population than in the past - 23% as compared to about 13% in 1980.

The projected population, based on a "medium" growth rate, is nearly 50,000 for Puna and 217,000 for the island of Hawaii.

As has been the case in the past, additional population growth will generate housing development in Puna rather than vice-versa. Since there are no proposals for major residential home development in this area, the general prospect is for continued development of single homes on undeveloped subdivision lots.

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3.7.4 Income

Reported income levels in Puna are among the lowest in the state, with average incomes lower toward the Puna coast. Table 3-2 below shows household incomes in the census tracts of Puna compared to the rest of Hawaii County.

**Table 3-2
Household Income Levels, 1980 Census**

| <u>Tract or Location</u> | <u>Median</u> | <u>Mean</u> |
|----------------------------------------------------------------------------------|---------------|-------------|
| Tract 210 (Hilo side half of Puna to makai boundary of the central subdivisions) | \$15,364 | \$18,634 |
| Tract 211 (Kalapana, Pahoia, including Hawaiian Beaches) | \$12,728 | \$16,124 |
| Hilo (all 4 tracts) | \$16,278- | \$21,153- |
| | \$26,622 | \$28,281 |
| Hawaii County | \$16,975 | \$20,398 |

Per capita income in Census Tract 211, project area, was \$5,003, compared to \$6,538 to \$7,898 in Hilo census tracts. Paralleling national trends, the lowest incomes in the Puna area in the 1980 Census were attributed to female householders, with no husband present, and with children under eighteen. Preliminary returns from the 1990 Census indicate that the number of single-mother households has continued to increase.

3.7.5 Economy/Employment

Employment in Puna changed and expanded in the 1980s. Data from the early 1980s indicates that Puna residents were more likely to work in farming, fishing, forestry, crafts, repair and labor and were less likely to be in service, managerial and technical jobs or to work for the government than people in Hilo or the state as a whole.

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During the eighties, Puna Sugar Company closed. At the same time many more people moved into Puna. Many of them found jobs in Hilo, but a sizeable number also created new jobs in Puna. Many of those new jobs were small home businesses, such as bed and breakfasts, computer work, construction and maintenance, and other services for the continuing boom of in-migration and new home construction. Many of them also farmed diversified crops.

3.7.5.1 Tourism

While Puna still has no tourism industry, a number of people in Puna do make their living from tourism, as self-employed or freelance providers of lodging, food, flowers, arts, crafts and guide-services, and also as commuter employees to resort areas.

One retreat style resort exists in Opihikao/Kehena, just north of the Kalapana Seaview Estates subdivision. Kalani Honua, a nonprofit cultural center has four two-story cedar lodges, with rooms and living areas. It can accommodate "individuals, couples, families and groups of 100 or more." Kalani Honua is also a cultural resource in Puna, offering both visitors and residents "an annual performing arts festival, workshops in the visual arts, health and sports conditioning, language institutes, spiritual retreats, children's programs and seminars for alternative lifestyles." In addition to eleven full-time and ten to twenty part-time employees, Kalani Honua supports a rotating program of about twenty working scholars at any given period (Shedlo, Draft PCDP, 1992).

3.7.6 Public Health and Safety Concerns

Despite the potential for varied economic activity in the project area, the Kehena-Kalapana area has experienced incidents that indicate a lack of basic public health and security services. As communicated by the State Department of Health in October 1996, the following two file documents describe serious sanitation and public health episodes on Kehena Beach:

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- (1) March 2, 1995 Memorandum from Dr. Lawrence Miike, State Director of Health (DOH) to State DLNR Chairperson Michael Wilson, regarding the closure of "Kehena Beach and the surrounding areas due to the Hepatitis A outbreak in that area." Further, replacement of Health hazard signs posted at Kehena Beach was stopped on March 10, 1995 because "beachgoers have been destroying the signs after being replaced every other day."

"We continue to have great concerns about the lack of sanitary facilities in the Kehena Beach area. Even prior to this outbreak, our inspectors have observed and have treated exposed human feces along the beach area. The Department of Health recommends that the lack of sanitary facilities at this heavily used beach be addressed and that some sort of resolution be made," Dr. Miike concluded.

- (2) June 24, 1992 letter to Councilmember Helene Hale from then DOH Director Dr. John Lewin that there has been continuing health concerns at Kehena Beach: "...complaints from neighboring residents and the Kehena Community Association have prompted periodic field investigations. Our primary concerns relate to human wastes identified in the area and inadequate sanitary facilities... without these facilities, I would like to recommend that the beach not be used as a public gathering place."

Another incident cited by a resident (telephone conversation with Mrs. J. Rauenhorst, October 1, 1996) reflected concerns that responses to her call for police response to the burglary of a generator from her home in 1995 during daylight was delayed. The closest police station is fifteen miles away in Pahoa.

Additionally, the nearest fire station to the project area is fifteen miles away in Pahoa. Because a number of households are totally dependent on electricity generated from their generators, the use of gasoline (to operate the equipment) places a risk of fire hazards for transportation to and storage at the property. There have been two structural fires and one person has been severely burned because of fires from generators. Other houses were damaged or destroyed because of the use of candles or kerosene lamps.

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3.7.7 Other Puna Lifestyle Descriptions

The following describes and defines what "rural" lifestyle might mean to Puna residents (source: Pohoiki Geothermal Transmission Lines EIS, 1989). Other independent lifestyle values are also operating in the community. For example:

- o Jobs. Residents in Puna are seriously concerned about the district's economic future. A commonly reported problem in survey conducted in 1982 was lack of job opportunities.

- o Services. Although the Puna lifestyle image is one of independence and a pioneering spirit, the residents are demanding better infrastructure and services.

- o Education. Residents in the Puna area place a high value on education. Education is usually associated with upward mobility and economic success.

- o "Off-Grid" Energy. Because of its undeveloped, off-grid subdivisions and the do-it-yourselfers attracted to such remote locations, approximately 25% of the homes depend on energy supplied by individual "off-power" systems (comparing Census dwelling counts against electric meter counts; Puna Community Development Plan, 1992). This discussion is expanded in Section 6, Alternatives to the Proposed Action.

In the updated Draft Puna Community Development Plan of October 1995, specific concerns of the Puna Community are summarized as follows:

Section 2.9.1: "Many Puna residents live independently of the energy grid and are actively involved in promotion and development of alternative energy for domestic and transportation use. At the same time many residents who are currently 'off the

DESCRIPTION OF THE AFFECTED ENVIRONMENT

grid' would probably desire to tap into the grid if it is made available at reasonable hook-up cost. Sometimes residents with similar sentiments are grouped together, sometimes not."

Since publication of the Draft Environmental Assessment on December 23, 1994 for the subject project, comment letters were received from Puna residents and other concerned individuals. The concerns expressed reflected a desire among some residents to maintain an independence from the more traditional "grid system" of electrical energy service that HELCO is proposing to provide through the subject project. Further, publication of the project Environmental Impact Statement Preparation Notice (EISPN) spurred additional public response with focus on concerns regarding secondary and cumulative impacts, such as population growth.

These present values are expected to continue in the future with or without the proposed project.

3.8 Electric and Magnetic Fields (EMF)

An electric field is caused by the voltage generated by an object such as a power line, storm cloud, or household appliance. A magnetic field is created by an electric current flowing in any conductor (electric equipment, household appliance or otherwise). Magnetic fields are generally expressed using a Gauss (G). A gauss is a measure of the intensity of a magnetic field over a given area or unit. As with electrical fields, magnetic field strength diminishes rapidly with distance from the source.

At present, residents are being subjected to EMF's from their individual power systems such as generators, batteries, inverters, and solar panels.

Table 3-3 summarizes measurements taken from several appliances.

DESCRIPTION OF THE AFFECTED ENVIRONMENT

**TABLE 3-3:
APPLIANCES and GENERATOR EMFs**

| Item Measured | Distance from Object (C.L. ft) | Magnetic Field (mG) |
|-------------------------------|--------------------------------|---------------------|
| APPLIANCES | | |
| Refrigerator | 1 | 0.3 - 3.0 |
| Iron | 1 | 1.0 - 3.0 |
| Hand Mixer | 1 | 6.0 - 100 |
| | | |
| Washer (at motorhousing) | 0.5 | 38.0 |
| Toaster (at inverter) | 0.5 | 34.0 |
| Blender | 0.5 | 14.0 |
| Inverter (for home Generator) | 0.5 | 10.0 |

Sources: HECO & HELCO

The general findings of the study taken in 1987 indicate that the values of electric and magnetic field exposure will be comparable to that which results from normal use of household appliances.

In September 1996, EMF readings were taken at a residence in Kehena Beach Estates. The home is equipped with eight solar panels, storage batteries and a back up generator. Readings were taken at several locations using a gaussimeter. The objective was to help determine whether EMF exposure to non-grid power sources such as a generator would be different from levels of exposure from HELCO's 12.47 KV overhead distribution line.

The set of readings were taken at the power source, which was at the inverter where the D.C. energy from the battery or the generator is converted to 120 volts (V) AC. The inverter without any load showed a reading of 1-2 mg at a distance of six inches. With the

DESCRIPTION OF THE AFFECTED ENVIRONMENT

washer operating, the reading increased to 10 mg (average because the readings varied according to the cycle the washer was in). When the toaster was operating the reading was 34 mg. The reading was standardized at six inches.

A reading at the washer which was fed directly from the generator produced 38 mg. A reading at the generator registered at 48.4 mg and 724 mg. on the side that houses the windings. These were taken at a distance of six inches. At a distance of three feet, the reading showed 13 mg.

The EMF readings taken at the appliances receiving power from the generator were as follows:

| <u>Appliance</u> | <u>EMF</u> |
|--------------------------------------------------|------------|
| Washer (at the controls) | 1.0 mg |
| Washer (at the bottom- where motor is housed) | 16.0 mg |
| Blender (osterizer) | 14.0 mg |

It can be concluded that EMF readings for a given appliance within a home would not differ whether it is being powered by a generator or from HELCO's system since the voltage and cycle are the same.

Heavy appliances in the home such as water heater and range were all gas.

According to these findings and other research to date, there is no established cause and effect relationship between EMF exposure and cancer or other disease. Although adverse health effects have not been clearly demonstrated, HELCO's policy is to design or place power lines to minimize public exposure to electric and magnetic fields where it is feasible and reasonable in cost. This is consistent with the state Department of Health's policy statement on electric and magnetic fields. HELCO, however, will continue to review research to ascertain if there are long term consequences from exposure to EMFs.

SECTION 4

PROBABLE IMPACTS
& MITIGATION MEASURES

PROBABLE IMPACTS AND MITIGATION MEASURES

**SECTION 4
PROBABLE IMPACTS AND MITIGATION MEASURES**

4.0 OVERVIEW

The proposed construction of the project within Phase 2, located within the Special Management Area, is expected to result in minimal adverse impact on the existing environment because construction is within an existing right-of-way currently occupied by a GTE Hawaiian Tel communication line. Most of the adverse impacts are short term and construction related, including noise and localized dust. Existing disturbed views that include GTE Hawaiian Tel overhead communication lines through the Kalapana Seaview subdivision have been impacted by the introduction of the taller pole lines installed by HELCO. This view impact will be minimized in time with two expected changes: (1) maturation of vegetation, and (2) removal of telephone polelines.

A positive long term impact will be that the new system will provide an opportunity to the residents of the Kalapana Seaview, Puna Beach Palisades, and Kehena Beach Estates subdivisions to choose HELCO as their electricity provider. Other positive impacts include an anticipated reduction of noise from generators that are presently being used by residents in the absence of the overhead line extension service, and improved air quality due to the reduction of generator usage that requires frequent burning of fossil fuel (oil) for operation. There may also be a reduction in the number of improperly disposed batteries that are currently needed to store electricity for individual photovoltaic (PV) systems in the absence of grid electricity.

The potentially adverse and beneficial impacts are discussed further in this section.

4.1 Geologic Hazards

Geologic hazards in the project area include earthquakes, lava tubes and cavities, and lava flows. The likelihood of encountering unidentified subsurface lava tubes and

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cavities along the alignment is minimal since existing Hawaiian Telephone poles demarcate the alignment and subsurface conditions. No additional installation of poles is anticipated in the project area.

Although seismic events are probable throughout the alignment, the lateral loads due to seismic conditions are not used as a criteria for design. A probable impact on the project would be, "wires and poles, either directly by winds or by trees affected by strong winds," resulting from tropical storms (County Civil Defense, Nov., 1996). Thus, HELCO uses a wind load factor of 56 mph as design criteria for poles of this kind. Should the project area be subjected to volcanic lava inundation, seismic event or tsunami inundation, it can be assumed that utilities as well as homes will be affected. In the case of the Kalapana lava inundation that began in January 1983, 175 residents of the area were displaced as a result of this event. The State of Hawaii is now developing a relocation subdivision for these residents adjacent to the project area.

The project will have no direct adverse impacts on the ever present geologic hazards in this project area. On the other hand, if evacuation of residents in the project area were necessary due to imminent lava inundation, earthquake, or tsunami event, Highway 137 may be inadequate as the only evacuation route. With or without the HELCO project, an evacuation plan for the project area, prepared and maintained by the County of Hawaii, would help mitigate any potential problems in effectuating an efficient and safe evacuation of residents in the future. According to the University of Hawaii Environmental Center's George D. Curtis (December 1996), "tsunamis are not a factor; earthquakes and hurricanes are a natural hazard to the homes in the region regardless of the type of electrical service."

As a possible positive impact of the project, the availability of electricity will enhance the ability of County Civil Defense officials to communicate with residents of the area. Emergency evacuation procedures, changes in the imminent dangers, etc. will be more

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effectively and efficiently communicated with the HELCO electrical system in place as it will maximize operations of existing repeaters that facilitate telecommunication systems.

4.2 Flora

Possible impacts on flora will be limited to flora along the immediate alignment, because some clearing and tree trimming will be required. Direct effects of the proposed project on endangered plants and unique biological communities will be minimal. Disruption of the existing vegetation has been minimized by locating the proposed distribution system within an existing communication line easement, and existing roads and jeep trail will be used to access the pole sites by construction and maintenance crews. Some removal of vegetation may occur when a pole may have to be located in a new site within the existing GTE Hawaiian Tel easement.

Kehena subdivision is the only subdivision which may require any tree removal (coconut palms), and these trees are not indigenous to the area. The developers of the Kehena subdivision planted three hundred coconut palms to delineate lot lines. The palms lie within the County of Hawaii easements, and over the past 30 years the palms have multiplied from the original 300 to approximately 1,300. Falling fronds and coconuts from the increasing number of palms along the narrow streets of the Kehena subdivision pose a safety hazard to pedestrians.

Between poles 27 and 31 the existing telephone line easement passes through a portion of an extensive kipuka containing a stand of lowland hala/ohi'a forest. The kipuka is already affected by the existing telephone line. Tree removal in the kipuka was kept to a minimum by GTE Hawaiian Tel.

Consultation with the State Department of Land and Natural Resources Forestry and Wildlife Division was conducted with regard to possible impacts of the project on the

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existing botanical resources along the alignment. A site visit was conducted in mid-January 1997 during which DLNR Forestry and Wildlife staff, H. Horiuchi, accompanied botanist consultant E. Funk, Ph.D., to investigate two specific segments within Phases 1 and 2 of the project site. With respect to Phase 1, the segment between Poles 27 and 31 containing a kipuka was investigated. The botanist's and DLNR's conclusions are that, 1) *Bidens hawaiiensis* (ko'oko'olau) is common in this area, and is probably over harvested by local healers, and 2) the vegetation of this segment consists of plants common to other dry to mesic lowland areas in this part of the Island of Hawaii.

The second segment, located in Phase 2, consists of a swath along both sides of West Pohakupele Street between Moaniala and Wehealuniu Streets in Kalapana Seaview Estates. Conclusions by the botanist and DLNR are that the weedy melochia trees, which is the single vegetation type found here, "were aerially seeded in this area in 1928 and have become naturalized (E. Funk, Ph.D, January 1997)." She continues, "they can be found along many of the streets in this subdivision where they seem to thrive whether powerlines are present or not."

Because of the less-than-one-acre sizes of the residential lots in the project area subdivisions (1/5 acre to 1/2 acre), homeowners must now remove trees that might otherwise remain as part of the area's natural resource, due to the trees' shade that prevents full use of solar panels. It has been reported by a resident that it is common to have native kukui trees cut down by owners of neighboring lots because of the impracticality of solar collection on a narrow 60 to 70 foot wide lot in a tall tree canopy area. The proposed project may thus save trees and allow for a cooler shaded environment for properties not dependent on solar energy.

Other than the effects of direct physical disturbance to areas along the proposed alignment during construction and maintenance activity, the distribution line's probable

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impact on nearby ecosystems is expected to be negligible. The possibility of fire due to arcing or spark discharge from conductors is extremely remote.

4.3 Fauna

Based on the findings of the radar and visual surveys conducted in July 1995, together with the Kauai studies and the Robert Day report, the low occurrence of birds detected within the project site indicates that there is an extremely low population of the Newell's Shearwater within the lower Puna district. Given the low density of Newell's Shearwater and the low probability of additional utility structures, this project will not adversely impact the Newell's Shearwater.

Hawaiian hoary bats were detected within the project site. However, given the current knowledge and understanding of the abundance, distribution and biology of this species, it is highly unlikely that the project will impact this species. The placement of another line on the existing poles that descend from Highway 130 to the coast will have a negligible effect on the avian and mammalian species present on the project site. In the Kalapana subdivision there are already poles and lines.

Vegetation height also influences the potential for seabird collisions with powerlines. In Kauai, seabirds flying over the coast on their way to or from their colonies rarely if ever flew lower than the surrounding vegetation (Cooper and Day, 1994). The area from approximately 0.6 km to 1.2 km west of the Eastern site has a relatively dense forest that is approximately 15 m tall. It is unlikely that seabirds will fly below the canopy in this area and be exposed to the powerline. The rest of the proposed powerline corridor along the coast has scattered trees, or low growing trees, where it would be possible for seabirds to fly at or below the powerline height. In the long term, however, as foliage matures in the Kalapana Seaview subdivision the potential threat of seabird and powerline collision will diminish.

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The principal potential cumulative impact to listed seabirds will be increased electrification of this area over the long term. Lighting can result in fledging birds being disoriented on their way to sea. When disoriented seabirds may collide with man made structures and if not be killed outright, the dazed or injured birds are easy targets of opportunity for feral mammals or are subsequently hit by automobiles.

There are no current plans for street lights. Should the County decide to install street lights in the future, they should be shielded. Indirect lighting will reduce the threat of seabird interaction with structures. Mitigation measures suggested by the U.S. Fish and Wildlife Service (letter dated September 6, 1996) were: burial of power lines in treeless sections or the planting of mature coconut trees to eliminate potential flight corridors; shielding on streetlights (if any were planned in the future by the County of Hawaii), programs to recover and rehabilitate injured or "fallout" birds, or predator trapping to reduce predation of downed but uninjured birds. In an earlier letter (February 17, 1995), the USFWS recommended use of "orange marker balls" on powerlines to help birds avoid collisions.

The viability of the burying power lines is discussed in section 6.2, "Underground Cable" of this EIS. Cost for placement of the cable underground was determined to be at least seven times higher than the overhead system. Thus, the alternative of undergrounding has been determined as infeasible. The recommendations of planting of trees and shielding on streetlights are included as mitigation measures in this section and section 4.11, "Visual Quality," of the EIS. Programs to recover and rehabilitate injured or "fallout" birds, and the use of "orange marker balls" are not being considered as viable options at this time.

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4.3.1 Puna Study Findings Relative to Kauai and Waipio Valley Findings

Studies have been conducted on the island of Kauai where the largest populations of Newell's Shearwaters are found. The Kauai studies evaluated the factors that contribute to mortality from utility structure collisions, and the findings are instructive in evaluating the risk from HELCO's project. Through comparative analysis of the research conducted at the other sites, it can be concluded that Newell's Shearwater populations in the Puna district are relatively low compared to Kauai and to other areas of the island of Hawaii. Radar surveys conducted at Waipio Valley, located approximately 100 miles north of the project site in Hamakua, detected approximately 150 targets per hour. Conversely, Puna surveys detected an average of one target per day. The Kauai studies reported similar sampling rates generally comparable to those at Waipio Valley.

Based on data collected from Kauai studies, most of the collisions were associated with structures much taller than the HELCO poles in the project site. The risk of mortality from utility structures in the project area is exceedingly low. Based on data collected from the Kauai studies, it is estimated that there were 5,500 powerline crossovers for every collision on Kauai, where structures were much taller than at the HELCO project site. Robert Day, one of the researchers for the Kauai radar studies, concluded that project mortality rates should approach the very low rates observed for the approximately eight meter above ground level power lines on Kauai, which was essentially zero. Based on this information, the project will have minimal impact on the species.

Similarly, the project is not significant when compared to the height of the powerlines on Kauai. The 69 KV transmission lines on Kauai are approximately 16 to 30 meters above ground level. By contrast, the project power lines are approximately 10.5 meters above ground, which is a substantially lower height. It has been concluded through

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these Kauai studies that mortality was not associated with structures of less than 15.2 meters (Dr. D. Ainley, trans. of Proceedings at 63-64, Friends of the Red Road v. County of Hawaii, Dec. 6, 1995).

Shearwater studies on Kauai demonstrated that certain physiographic features function as "flight corridors" and by following these, the birds are at greater risk of collision with utility structures. The habitat of the Puna site differs markedly from that on Kauai. It is characterized by gently rising terrain and lacks physiographic features that might funnel the birds. Given the above considerations, this project will have at best, minimal impact on the Newell's Shearwater.

At least one biologist, David Ainley, argues that the potential loss of even one bird per year will drastically affect the survival of Newell's Shearwater whose population is currently estimated at slightly over 60,000 birds.

The project power lines have been present within the project site since January 1995. Despite this, no downed birds have been reported from within the project area. Historically, two dead Shearwaters have been reported beneath powerlines in the Puna district. The cause of death was not ascertained because the carcasses were not necropsied. The powerlines under which these carcasses were found are not those of the subject HELCO 12.477.2 KV distribution line project. The polelines are those found along Highway 130 which are taller than those of this project.

4.3.2 Long Term Cumulative Impacts

The principal potential cumulative impact to listed seabirds will be the increased electrification of this area over the long term. Lighting can result in fledging birds being disoriented on the way to sea. When disoriented, seabirds can collide with man made structures. The County of Hawaii Department of Public Works is responsible for the

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determination of the need for street lights in subdivisions. In the case of lighting along Highway 130, Hawaii State DOT-Highways is responsible for deciding whether and when night lights are necessary for vehicular safety. The following mitigation measures should be taken by the County of Hawaii and DOT-Highways to minimize these potentially hazardous occurrences in the future:

- Use of large high-intensity floodlights located upon building tops or poles will be avoided;
- The use of shielded lights, cut-off luminaires, or indirect lighting will be used.

4.4 Air Quality

Temporary and very localized negative impacts on air quality will occur during construction of the remainder of the SMA portion of the distribution line located in Phase 2. Fugitive dust emissions from construction are a factor of rainfall and the soil silt content. Since much of the project corridor consists of paved County rights-of-way with little or no soil cover, dust emissions will be minimal in these areas.

Since there is only slight potential for fugitive dust, and the disturbed areas will be small and localized, adequate control measures should not be difficult to employ. Further, travelling speeds along unpaved trails within one mile of residences and roadways will be restricted to 20 mph. This will reduce dust generation by 65 to 80 percent. Should dry periods occur, dust control could also be accomplished through frequent watering of construction areas near the roadway and residential areas where dust may be an annoyance or problem. It is anticipated that at no time will State or Federal ambient air quality standards be exceeded.

Long term operation and maintenance of the line will have no effect on air quality.

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The project may result in a positive impact on local air quality as the use of fossil fuel operated generators by individual home owners may decline in the long run. These individual generators may be replaced by line extension connection to HELCO's 12.47/7.2 overhead distribution system which overall has less impact on neighborhood air pollution.

4.5 Noise Levels

There will be temporary and localized noise level impacts during construction of the remainder of the project; however, all pertinent State noise control regulations and ordinances will be complied with.

Noise generated by the construction equipment will contribute to the noise along the roadways in the SMA part of the project area of Phase 2. Although this noise generation will be of short duration, the levels will be substantially higher than ambient noise levels along much of the alignment. Noise emissions generated by various pieces of equipment such as trucks, backhoes, and jack hammers range from 70 to 95 dBA at 50 feet from the source. These outdoor noise levels will be loud enough to interfere with human speech within approximately a half-mile of the construction site.

Other construction noise will be controlled and mitigated as required to meet State standards.

After construction, there will be no long term or permanent noise impacts. Further, the project will probably result in a reduction of noise pollution from loud (levels of 72 dBA to 80 dBA) generators currently impacting residents. As the project is put in place and generators are replaced with the HELCO project, noise levels that are known disturbances to homeowners and neighbors will be reduced.

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4.6 Historical and Archaeological Resources

The proposed project is not expected to have a negative impact on known historic or archaeological resources. The majority of the project area is recent (1955) lava and the remainder is within existing bulldozed areas of the three subdivisions or within the Highway 137 right-of-way. In the event that any unanticipated sites or remains such as artifacts, shell, bone or charcoal deposits; human burials, rock or coral alignments, pavings, or walls are encountered during construction, the contractor will stop work and contact the Department of Land and Natural Resources Historic Preservation Division immediately.

Further, as indicated by the DLNR (memorandum dated January 27, 1983, Appendix C1), there are no known historical or archaeological sites of concern within the project area.

4.7 Electric and Magnetic Fields

The preponderance of scientific research indicates that there are no adverse health effects associated with EMF from electrical power lines. The State Department of Health has indicated as a matter of policy that they do not consider EMF standards to be appropriate at this time. The EMF exposure from the proposed distribution line will be comparable to that which results from normal use of household appliances.

With the reduction in the use of generators due to the implementation of the HELCO project, chances of greater EMF exposure from a power source located on individual properties may decline.

Although adverse health effects have not been clearly demonstrated, HELCO's policy is to design or place power lines to minimize public exposure to electric and magnetic fields where feasible and reasonable in cost. HELCO will continue to review research

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to ascertain if there are long term consequences from exposure to EMFs.

4.8 Traffic

4.8.1 Short Term Impacts

Construction of the proposed line will create short-term impacts on traffic conditions along Highway 137 in the vicinity of Keekee and Kalapana. The most frequent and regular type of vehicle trip will be the transporting of workers and materials to various locations along the alignment under construction.

Construction-related traffic will be limited to weekday daylight hours. Slow-moving, large transport vehicles carrying poles and other heavy materials may delay other drivers from time to time. However, increased traffic resulting from the project will not generally be noticeable on the major highway except during installation of the line.

4.8.2 Long-Term, Cumulative Traffic Conditions

A possible indirect secondary impact of the project is the increase in traffic volume due to population growth in the three subdivisions. At the time the County of Hawaii government granted approvals to developers of the three subdivisions some 20 to 30 years ago, public road improvements to accommodate a maximum buildout of 1,200+ lots were taken into consideration. Internal roadway systems serving the three subdivisions were approved on the basis of maximum development of 1,200+ homes.

An increase in vehicular traffic volume by up to approximately 1,000 cars can be expected should the project area subdivisions experience build-out. This assumes that about 150 homes that exist currently each have one vehicle (in 1990, a ratio of one car per two persons was indicated by an SMS survey). In the maximum buildout scenario, each home can then be assumed to have one vehicle. Highway 137 would be inadequate as the main public access into and out of the project area. However, the

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sentiment expressed by residents against widening of the Red Road (according to the 1992 Draft Puna Community Development Plan), has prevented any further consideration for such action.

There would probably be an increase in automobile exhaust emissions as a result of the increase in the number of vehicles in the neighborhoods. However, with the project area's ocean breezes and tradewinds and the continuing rural environment of the area, ambient air quality is not expected to exceed federal or state ambient air quality standards. Air quality impacts from volcanic activity and from generators that exist on individual properties for electrical power backup systems may be greater than impacts from cars, etc.

Due to the threat of geologic hazards in the project area and the apparent inconvenience of the distance from urban amenities, maximum buildout of the three subdivisions is highly unlikely as these conditions may cause potential residents to seek out other places on the island, such as Volcano or Waimea, to build a home. This scenario is further discussed in Section 4.13 Secondary Impacts.

4.9 Other

4.9.1 Public Health and Safety

The implementation of the project helps provide infrastructure systems that facilitate expansion of sanitation, fire fighting, and police services to the project area. As a potential indirect benefit of the implementation of the project, Kehena Beach may receive regular maintenance to help prevent public health and sanitation threats as have been occurring due to neglect and isolation from general public use.

Virtually all households must use fossil fuel generators at some periods when solar power is unavailable or inadequate (e.g., to run power tools, washers, and even gas

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dryers). A number of households are totally dependent on electricity generated from their private generators. Use of these generators most often requires gasoline (though more expensive generators may use diesel fuel or propane). Fossil fuels offer a fire hazard both for transportation to and storage at the property.

The new distribution line will provide the choice of electrical power to residential lots of Kalapana Seaview, Puna Beach Palisades, and Kehena Beach Estates who desire such service from HELCO.

A major advantage of HELCO provided electricity is the lack of maintenance required of the users/customers. Neither solar nor generator power is maintenance free. At some point, residents may become ill or too infirm to keep up the alternate power sources. Older members of the community may be forced to move from their homes because they can no longer maintain and operate their non-grid systems. Health care providers may need to evacuate ill patients because the patients would be incapable of operating their electrical equipment alone. Basic requirements such as water for bathing is unavailable if electrical pumps cannot be operated, thereby exacerbating the situation when ill residents cannot operate the energy sources to run the pumps. Some of the sophisticated medical equipment that these patients may need cannot be run off of uncertain sources of electricity. It is expected that the implementation of the project will help mitigate these problems.

4.10 Surrounding Land Uses

The project will not significantly impact existing land uses in the immediate vicinity of the proposed alignment. Since HELCO will acquire an easement rather than a fee-simple right-of-way for the distribution line, existing land ownership patterns will not be affected. The use will be restricted by safety requirements applying primarily to buildings and structures. A secondary impact is that the project may promote

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development. Of the total 1,200 residential lots in the project area's three subdivisions, 158 homes have been built as of October 1, 1996. More lots within these subdivisions may be developed with the availability of electrical power.

In the future, the adjacent Kikala-Keokea residential subdivision for Kalapana relocatees may require electrical line extension service to provide grid electricity to those who desire such. There are no plans to expand the subject project area. Therefore, discussion on impacts from the relocation subdivision are not included in this EIS.

4.11 Visual Quality

4.11.1 Phase 1 State Owned Easement

For the mauka or Phase 1 portion, the HELCO distribution line is within an existing 8,710 linear foot easement occupied by an overhead line owned and maintained by GTE Hawaiian Tel. The wide-angle or panoramic views across areas with scrub vegetation and recent lava flows are already broken by this row of wooden poles. The electrical poles are 15 feet taller than the existing telephone poleline, and, as shown in Figure 4-1, are topped by cross arms and a three-wire configuration.

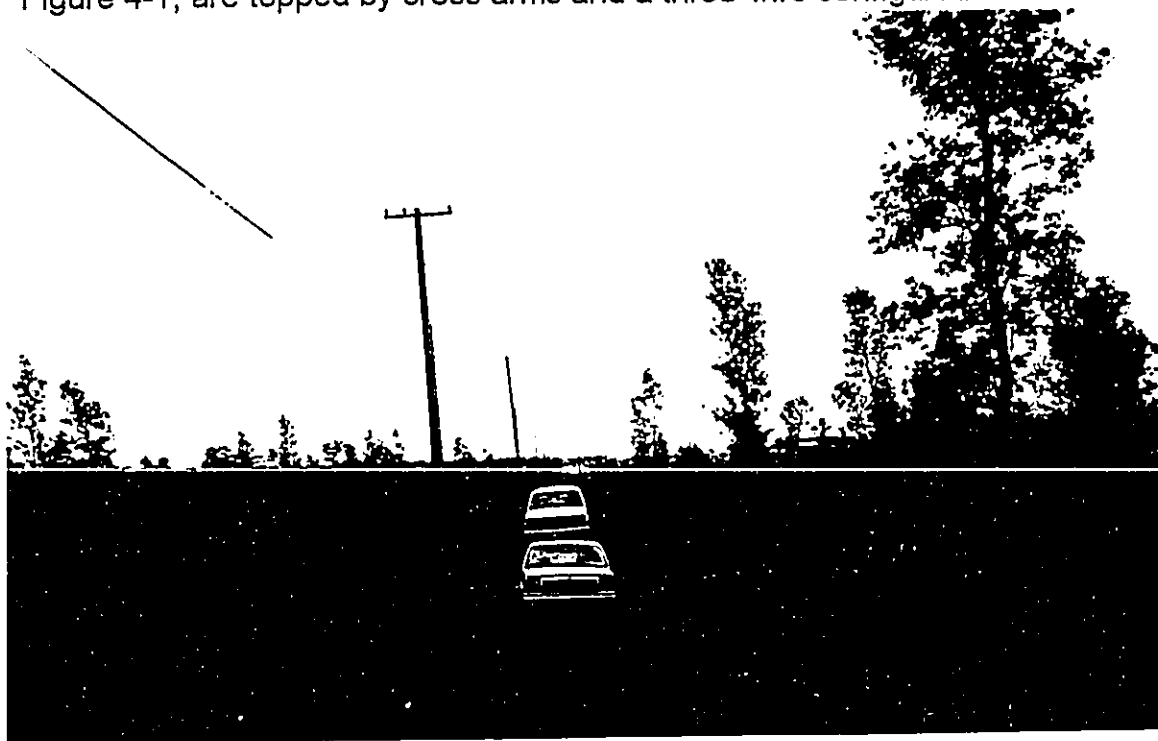


Figure 4-1
View from
State ease-
ment looking
makai

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However, there are some existing ohia trees throughout the easement that are taller than the electrical pole heights. The proposed project has minimal impact on the existing views in the Phase 1 project site. Currently, there is a double impact as both telephone and electrical polelines exist within the easement. However, the impact will be reduced when the telephone polelines are removed in accordance with Joint Pole application 15683 that has been agreed to by both utilities. This agreement has been documented in April 1993 in which the following is stated: "The telephone company shall transfer and remove their existing facilities within four to six months after HELCO has completed its installation." This action has been delayed, however, by the Circuit Court ruling in the summer of 1996 which ordered the stop to any activity in the project area until the completion of the environmental review process.

4.11.2 Phase 2 Residential Subdivisions

Coastal views through the makai or Phase 2 portion vary. Clear, open panoramic views toward the ocean from within the residential subdivisions are disrupted, as they have been by telephone polelines since around 1984. Overhead electrical poles and lines that have been installed (but not yet activated) between late 1994 and early 1995 have been introduced into the landscape alongside existing telephone polelines. View impacts on each of the three subdivisions vary, and the following discusses the details.

Phase 2: Kehena Beach Estates

The SMA area extends along the coastal frontage of this subdivision, and 81 out of the total 199 lots in Kehena Beach Estates are contained in the SMA. Among the three subdivisions, Kehena constitutes the largest portion contained within the SMA. At the same time, this subdivision is least affected with respect to views due mainly to the abundance of mature trees and various types of vegetation throughout the subdivision and along the segment of Highway 137 that fronts Kehena. At segments along Highway 137 right-of-way travelling in a northerly direction, coastal views are that of thick vegetation and an occasional home, and not of the ocean.

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Besides the existing telephone poles and lines, new electrical poles have been installed. To complete the installation of the proposed overhead distribution system, new distribution lines need to be installed, and existing telephone poles need to be removed. The electrical line configuration planned for Kehena is a single line. Due to the existence of mature vegetation, the new service poles and lines are silhouetted against the skyline. Residential lots located makai of Highway 137 probably have the clearest ocean views. There will be some improvement with completion of the project since existing telephone lines will be removed.

Phase 2: Puna Palisades

The central area is occupied by Puna Palisades. The SMA fronting this subdivision is limited to the makai side of Highway 137. The new overhead system is in place with both one and three line configurations, mostly on the mauka side of Highway 137, with some located on the makai side. Vegetation varies, with some mature and some portions open. There is minimal impact on ocean views since most polelines are located on the mauka side of Highway 137. Moreover, from the mauka side of the coastal road there are no long range views because of the sloping conditions of the land.

Phase 2: Kalapana Seaview Estates

The project has some impact on views in and from Kalapana Seaview Estates located at the northernmost portion of this phase due to the subdivision's limited extent of development and foliage. Thirty-one of the total 955 lots are within the SMA. The new three wire overhead service is already in place, located mainly on the mauka side of the coastal road to Kalihi Kai Road. HELCO polelines are approximately 15 feet taller than the telephone polelines which are 25 feet in height. There is limited foliage in this subdivision, and views are generally open view planes. The resulting impact on the subdivision is due to the addition of the overhead system compounding the numerous lateral service lines. The overhead polelines are highly visible and the linear view along

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Mapuana Avenue has been impacted with the additional overhead pole lines due to sparse vegetation along this main corridor.

Ocean views from ground level along Highway 137 are still possible. The change in views with the proposed project is a qualitative difference from views without the proposed electrical polelines. The continuous view of the pole lines would be softened with expected maturation of vegetation in the long term as has occurred in Kehena Beach Estates. The visual impact will be further softened when telephone polelines are removed as agreed between the two utility companies in accordance with joint pole application 15683, and delineated in meeting minutes dated April 8, 1993. According to DLNR Forestry and Wildlife Division, soil can be supplemented with humus to facilitate vegetative growth by property owners. Also, planting of quick growing trees and plants such as Indian Mulberry (noni), true Kamani and false Kamani, and dwarf coconut trees has been recommended by DLNR to hasten mitigation of view impacts.

4.12 Social and Economic Impacts

The creation of direct jobs requiring specialized construction-related work and the purchase of supplies and materials for construction will support jobs locally through the multiplier effect.

Construction jobs may result from implementation of the project as a secondary impact. With more homes being built, more maintenance work may be generated. Employment opportunities will be generated for skilled carpenters, electricians, painters as well as for less skilled laborers that may even be available for younger residents, such as yard and garden maintenance.

Environmentally low impact economic activities such as bed and breakfast inns, and small scale manufacturing and food processing, will benefit from the project because

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equipment and communications options will increase with the existence of grid electricity.

Household appliance retailers may benefit through potential increase in sales of items such as refrigerators, color televisions, and stereo systems. Such sales would also generate excise tax revenues to county and state governments.

4.13 Secondary Impacts

A significant number of people are inhibited from developing home businesses in the project area because of lack of electricity and inadequate telephone service. There are a number of computer professionals, including programmers, who would consider this area as home if good telecommunications and dependable electrical service were available. This would mean an increase in well-paying, environmentally clean jobs. Government and private industry workers alike may be able to "telecommute" once electricity and upgraded telephone services are provided.

As another secondary impact, installation of the proposed electrical distribution system may facilitate development of the residential dwellings within the three subdivisions that the project was intended to serve.

Three other residential subdivision developments in the Puna district for which SSPP projects have been implemented were studied to determine the likely rate of population growth the project area's three subdivisions, Kehena Beach, Puna Palisades, and Kalapana Seaview, may experience. Increases in numbers of houses after the SSPP projects were installed were examined at Hawaiian Paradise Park, Orchid Land and Fern Forest residential subdivisions.

The following discussion describes the housing growth experienced by the three

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residential subdivisions for which the SSPP program was implemented. For Hawaiian Paradise Park (HPP) the total lots available are 8,843. Since 1988 when SSPP was first installed and available, a total of 417 houses have come on line as of 1996; i.e., these homes have requested hook up to the overhead line extension service. This indicates a four percent increase in the number of homes in the Hawaiian Paradise Park Subdivision which could be considered more desirable due to its closer proximity to Hilo and urban amenities compared to the project area's three subdivisions. The second is Orchid Land (OLE) which has a total of 2,661 lots. Since 1988 when SSPP service was first made available, 219 homes have come on line to request HELCO line extension service. This translates to a housing increase of 8%. The third residential subdivision studied is Fern Forest (FFVE) with a total of 2,590 lots. The SSPP program was implemented in 1994. Since then 66 homes have been built and have requested HELCO service. This indicates an increase in the number of homes by 2% as of 1996.

The following table summarizes the findings of this examination:

**Table 4-1
No. of Homes Built Since Introduction of SSPP**

| <u>Subdivision</u> | <u>Total Lots</u> | <u>First Year</u> <u>SSPP Begun</u> | <u>Homes Built</u> | <u>% Increase</u> <u>Since SSPP</u> |
|------------------------------|-------------------|----------------------------------------|--------------------|----------------------------------------|
| Hawaiian Paradise Park (HPP) | 8,843 | 1988 | 417 | 4.0 |
| Orchid Land Estates(OLE) | 2,661 | 1988 | 219 | 8.0 |
| Fern Forest (FFVE) | 2,590 | 1994 | 66 | 2.0 |

Source: HELCO, September 1996.

Following the logic of the growth trends of the three subdivisions examined above, the

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increase in population can at best be anticipated to grow by perhaps eight percent by the year 2003, assuming the SSPP Unit-71 project were implemented in 1997 following receipt of approvals and permits. This would mean the addition of approximately 96 new homes to the existing inventory of 158 homes throughout the three subdivisions. This increase in homes and population should not significantly aggravate requirements on public infrastructure nor would they lead to significant environmental impacts.

Furthermore, by contrast the three developments examined offer the potential resident closer proximity to the urban center of Hilo and consumer services, which means overall convenience and improved, stabilized infrastructure. The added deterrent to potential residents of the project area are the existing geologic hazards, the perceived uncertainty of safety, and difficulty in obtaining homeowners insurance and mortgage loans.

SECTION 5

*LAND USE PLANS, POLICIES
& CONTROLS*

**RELATIONSHIP TO LAND USE PLANS,
POLICIES AND CONTROLS**

**SECTION 5
RELATIONSHIP TO LAND USE PLANS, POLICIES AND CONTROLS**

5.1 State Land Use Designation

The project is located within the State Land Use Agricultural District, and according to the State Land Use Law (HRS Chapter 205), a distribution line is a permitted use in this district.

5.2 County General Plan Designations

The County of Hawaii's General Plan land use designations are embodied in the Land Use Pattern Allocation Guide (LUPAG) Map. The project site is designated on the LUPAG map as Orchards. The coastal portions are designated Open. The project is an allowed use within these County designations (Section 25-4-11a), as HELCO has franchise rights to use public rights-of-ways for power lines, although State and County agency regulations must be followed.

The Hawaii County General Plan (1989) contains goals, policies and objectives that guide decision makers on County matters. The following policy regarding electricity is discussed:

- Power distribution shall be placed underground when and where feasible. The County shall encourage developers of new urban areas to place utilities underground.

The SSPP program received PUC approval in 1991 (Rule 13S) as a rural overhead electrical distribution system for qualified subdivisions developed prior to 1967. In evaluating alternatives to the proposed action an underground line was considered. Some discussion was conducted with affected members of the community regarding the

**RELATIONSHIP TO LAND USE PLANS,
POLICIES AND CONTROLS**

undergrounding alternative to the proposed action. The principal advantages are the low level of visual impact and greater protection from hurricanes, lightning, and fires, than overhead lines.

The County and State plans encourage developers of new urban subdivisions to place utilities underground, but these are rural residential subdivisions which were created in the 1960's. They are not subdivisions so the requirements do not apply, and it is not feasible economically as will be discussed below and in Section 6- Alternatives.

Other disadvantages include significantly higher risk to botanical resources along the cable alignment. The extensive excavation needed to construct an underground cable will lead to the cutting and destruction of root systems thereby resulting in the destruction of more trees than would the installation of the proposed overhead line. If the underground facility were located within the center of the right-of-way, the costs of trenching through pavement and subsequent repaving and restriping would increase the cost. Further, traffic circulation during the construction period on the only access into and out of the project area (Highway 137) would be adversely impacted. HELCO estimates the cost of installing the line underground would be approximately seven times the cost of the proposed overhead system. Also, locating and repairing faults in an underground system would be more costly and time-consuming than for an overhead line. The costs of an underground cable therefore, would be higher than those of an overhead line. Thus, the cost of undergrounding the cable in the project area is considered not feasible.

The County General Plan (1989) also contains the following goals and policies related to Public Utilities. The subject request conforms with the following:

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- Ensure that adequate, efficient and dependable public utility services will be available to users.
- Maximize efficiency and economy in the provision of public utility services.
- Encourage the clustering of developments in order to reduce the cost of providing utilities.

HELCO's SSPP Unit 71 project for the three residential subdivisions was approved by the PUC to provide grid electricity at affordable cost to users. The clustering of the three subdivisions of Kehena Beach, Puna Palisades, and Kalapana Seaview Estates conforms to the policy statement above because the cost of providing electrical service is reduced by this grouping of the subdivisions.

5.3 County Zoning

Kehena Beach Estates subdivision is zoned Agricultural-1 acre (A-1a) by the County of Hawaii with the exception of TMK 1-2-30:1, which is located at the extreme northeast edge of Kehena Beach Estates and zoned Open. The remainder of the area is zoned A-3a. The project is an allowed use within these zoning designations because of HELCO's franchise rights to use public rights-of-ways for power lines. Further, Section 25-4-11(a) of the County of Hawaii Zoning Code allows communication, transmission, and power lines of public and private utilities and government agencies use within any district.

Existing zoning is inconsistent with these project subdivisions. As reflected in the Draft Puna Community Development Plan (1995), it is recommended that these subdivisions be zoned "rural," which more appropriately reflects the character and use of the lands in

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Kehena-Keekee.

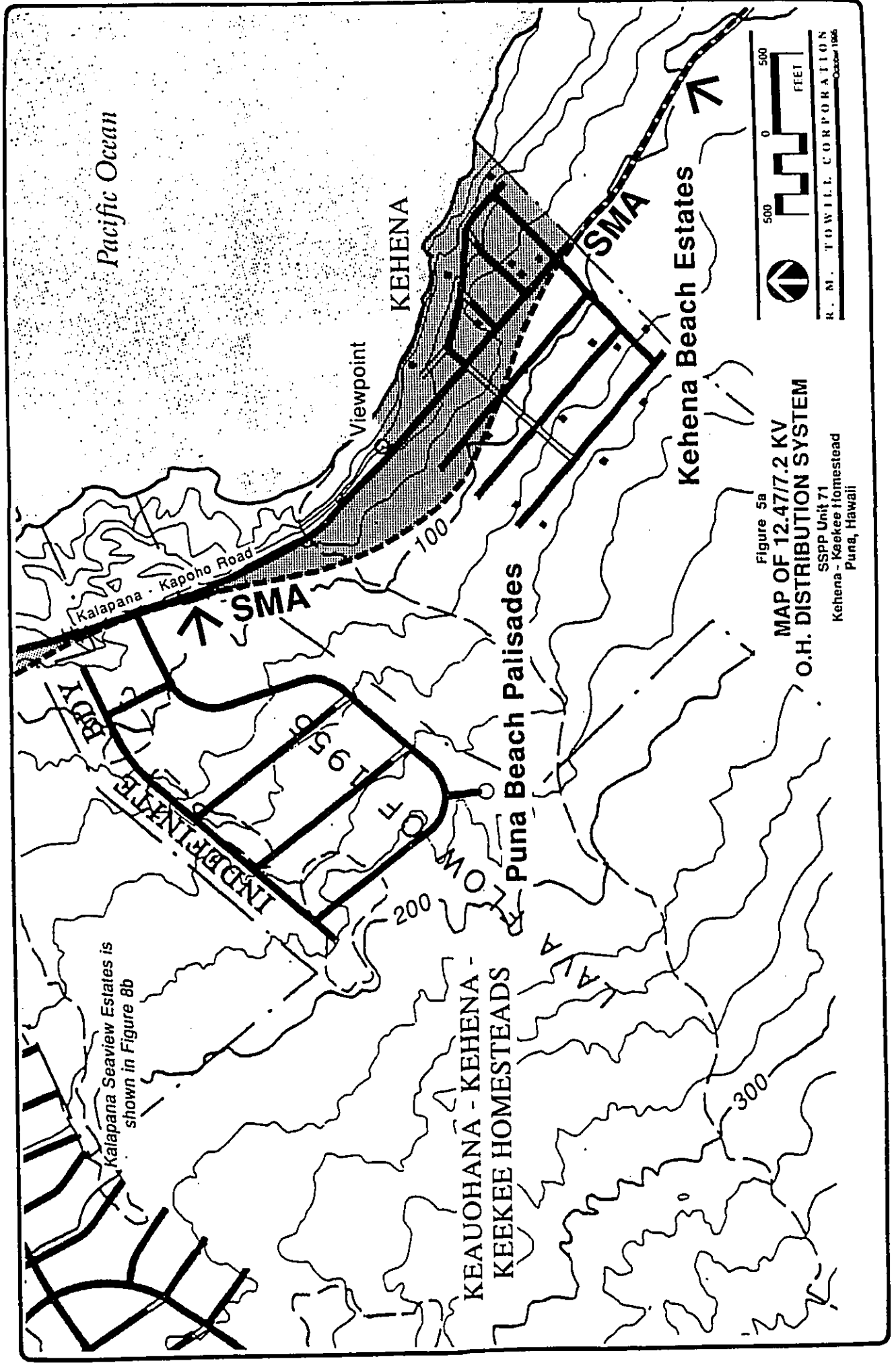
5.4 Coastal Zone Management Law, 1975 (Figures 5a and 5b)

As part of the Hawaii Coastal Zone Management program the County of Hawaii Planning Department designates and administers the Special Management Area (SMA) along the coast of Hawaii. Approximately 9,100 linear feet of Phase 2 is located within the Special Management Area. The SMA Rules and Regulations require that any project proposed within the SMA boundaries must be consistent with the Objectives and Policies of Chapter 205A, HRS, relating to Coastal Zone Management, which are: 1) Maintenance of access to recreational resources; 2) Identification and maximization of information retention of historic resources; 3) Protection, preservation of scenic and open space resources; 4) Protection of coastal ecosystems; 5) Provision of public and private facilities and improvements important to the State's economy in suitable locations; and 6) Compliance with requirements of the Federal Flood Insurance Program to reduce exposure to coastal hazards.

Rule 9.6 of the Planning Commission's Rules and Regulations contains the complete list of Objectives and Policies. The following discusses the project with respect to the SMA guidelines to be used by the County of Hawaii for projects proposed in the SMA:

- (a) Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles.

The project will in no way impede access to beaches, recreation areas, or natural reserves. The project has been sited to avoid permanently affecting any rights-of-way for pedestrians or vehicles. The HELCO overhead distribution system is being sited where GTE Hawaiian



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Tel has been in existence for approximately ten years.

- (b) Adequately and properly located public recreation areas and wildlife preserves are reserved.

The project is not a consumptive use of land. Uses that are compatible with distribution line safety and security, including recreation, will continue within the distribution line easement and rights-of-way.

- (c) Provisions are made for solid and liquid waste treatment, disposition, and management that will minimize adverse effects upon Special Management Area resources.

The project will not generate solid or liquid waste other than any excess backfill from pole excavations in Phase 1 and telephone poles, which will either be reused in other forms or trucked to a landfill.

Section 205A-2 of the Hawaii Revised Statutes sets out the objectives and policies of the Coastal Zone Management program and the Special Management Areas.

- (1) Maintenance of access to recreational resources.

The project will not interfere with the use of any existing recreational areas or with the development of future recreational areas. Kehena Beach is under the jurisdiction of the State Department of Land and Natural Resources. While the beach may be considered a public recreational resource by some, it has been documented as having had public health problems due to misuse (see Section 3.7.6 of this document).

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The shoreline that fronts the Phase 2 project area is used for fishing and ocean viewing. The project will not reduce the size of the beach or other areas useable for public recreational activities including fishing and ocean viewing.

- (2) Protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area.

As discussed in Section 4, there will be no impacts to known cultural resource sites. If any remains or evidence of archaeological resources are discovered during the remainder of the installation of the system, appropriate measures will be taken.

- (3) Identify valued scenic and open space resources; preserve, maintain shoreline open space and scenic resources.

Among the three residential subdivisions that are expected to receive HELCO service, Kehena Beach Estates will be the least affected by views of the overhead system because existing trees are taller than the HELCO poles which have already been installed. The majority of the 9,100 linear feet of the affected SMA area of the project is located at the makai portion of Kehena Beach Estates. Kalapana Seaview Estates, located at the northern end of the project site can be considered to be the most affected by the introduction of the overhead system due to the fact that there is minimal vegetation to soften the visual impacts of a series of poles and lines. Ocean views from within Kalapana Seaview, however, are limited because of the rolling topography from the subdivision to the shore. Actual scenic ocean viewing exists only from the makai side of Highway 137. The long term impact within the subdivision will be minimized by growth of trees and foliage in Kalapana Seaview Estates.

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The replacement of the existing GTE Hawaiian Tel polelines with the HELCO overhead system will help reduce the number of poles and lines within the rights-of-ways. Although the HELCO poles are approximately 15 feet taller than the telephone poles, mature trees will mitigate the impact.

(4) Protect coastal ecosystems.

As documented in Section 3 of this environmental impact statement, biological surveys (flora and fauna) of the project area revealed few areas of natural plant or animal communities within or adjacent to Phases 1 and 2. Between poles 27 and 31 the existing telephone line easement passes through a portion of an extensive kipuka containing a stand of lowland hala'ohi'a forest. The kipuka is already affected by the existing telephone line. Tree removal in the kipuka will be kept to a minimum.

With regard to the Newell's Shearwater or 'A'o seabird, a four-day radar survey conducted in July 1995 (known nesting season) revealed a siting rate of 0 to 1.6. Based on available information, the project is not expected to result in a significant adverse impact on this species.

Other offshore ecosystems that offer recreational activities such as fishing, will not be impeded by the project.

(5) Provide public or private facilities and improvements important to the State's economy in suitable locations.

As documented in Section 2 of this environmental impact statement, the project is essential for electrical power distribution to serve local requirements.

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- (6) Reduce hazard to life and property from coastal hazards.

The coastal portion of the project area up to Highway 137 is located in an area subject to tsunami. County Civil Defense will be consulted regarding the possible need of an evacuation plan. The three subdivisions are located on cliffs of sufficient height such that while storm waves and erosion occur at the base of the cliffs, impact from such may be of little concern.

In summary, the project's impacts relative to the following four criteria specifically highlighted for protection in the SMA are:

a. Recreational Resources

Kehena Beach is under the jurisdiction of the State Department of Land and Natural Resources. The beach has been documented as having had public health problems due to misuse (see Section 3.7.6 of this document). The shoreline that fronts the Phase 2 project area is used for fishing and ocean viewing as well. The proposed project will not reduce the size of the beach or other areas useable for public recreational activities including fishing and scenic viewing.

b. Historic Resources

The proposed project is not expected to have a negative impact on known historic or archaeological resources. The majority of the project area is recent (1955) lava and the remainder is within existing bulldozed areas of the three residential subdivisions or within the Highway 137 right-of-way. In the event that any unanticipated sites or remains such as artifacts, shell, bone

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or charcoal deposits; human burials, rock or coral alignments, pavings, or walls are encountered during construction, the contractor will stop work and contact the State Department of Land and Natural Resources Historic Preservation Division immediately.

c. Scenic and Open Space Resources

The proposed project will have varying short term impacts on existing views in the SMA area of Phase 2.

The SMA area extends along the coastal frontages of three residential subdivisions. The southernmost portion, Kehena Beach Estates, is the largest portion of Phase 2 contained in the SMA. Mature local foliage marks the street frontages within the SMA of this 30-year old residential subdivision. See Photos 1 and 2. Besides the existing phone poles and lines, new electrical poles have been installed. To complete the installation of the proposed overhead distribution system, new service lines need to be installed, and existing telephone poles need to be removed. Due to the existence of mature vegetation, the new service poles and lines generally blend in with the background. There are very few instances in which poles and lines are silhouetted against the skyline. There will be some improvement with completion of the project since existing telephone lines will be removed.

The central area of Phase 2 is occupied by Puna Beach Palisades subdivision, developed in 1973. The SMA fronting Puna Beach Palisades is limited to the makai side of the Kalapana-Kapoho Road. The new overhead

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system is in place with both one and three line configurations, mostly on the mauka side of Highway 137, with some located on the makai side. Vegetation varies, with some mature and some portions open. See **Photos 3 and 4**. There will be limited impact on ocean views since most polelines are located on the mauka side of Highway 137 (Kalapana-Kapoho Road). Moreover, from the mauka side of the coastal road there are no long range views to begin with because of the sloping conditions of the land.

The project will have some impact on views in and from Kalapana Seaview Estates located at the northernmost portion of Phase 2 due to the subdivision's limited extent of development and foliage. See Photo 5. The new three wire overhead service is already in place, located mainly on the mauka side of the coastal road to Kalihi Kai Road. There is limited foliage in this area, and views are generally open. The resulting impact on the subdivision is due to the addition of the overhead system compounding the numerous lateral service lines. The view impact in the specific portion located in the SMA is minimal and will be ameliorated over time as vegetation matures in this 24-year old subdivision.

d. Coastal Ecosystem

As discussed earlier, the coastal waters offer fishing activities along the shoreline of Phase 2. Off the coast of Puna are active fishing grounds. Reported catches include Ahi Yellowfin, Ahipahala, swordfish, Ono, Kahala, Ehu, Ulua, Uhu, Uu, Taape, and Opihi (DLNR, Kokubun). The project is not expected to result in adverse impacts on the coastal ecosystem. As indicated, construction will occur mostly within existing rights-of way currently

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occupied by GTE Hawaiian Tel communication facilities. Therefore, the proposed project will neither alter existing drainage patterns nor impact water quality.

5.5 Draft Puna Community Development Plan (1992, updated 1995)

The purpose of the Draft Puna Community Development Plan is to "show how the (County) General Plan will be implemented in Puna," (Introduction, 1992). In the effort to implement the County General Plan goal to "establish the Big Island as a demonstration community for the development and use of natural energy resources," the Draft Puna Community Development Plan Technical Reference Document expresses the need to continue to strive toward efficient use of available energy resources.

In accordance with PUC approved Rule 13, HELCO is attempting to respond to 188 potential participants through the SSPP Unit 71 program. The Draft Puna Community Development Plan recognizes alternative energy systems as part of the array of consumer choices. As Puna is part of HELCO's SSPP service area, those who desire traditionally supplied electricity need to be serviced.

Simultaneously, steps are being taken to develop an Integrated Resource Planning (IRP) process, which for communities should mean increased opportunity for participation in the utility planning process. For utilities, IRP will provide a mechanism for recovering costs associated with the promotion of more efficient energy use or the utilization of resources that have lower social costs.

In the updated Draft Plan dated October 1995, the sentiment of the Puna community is not reflected as a unified or singular opinion. Like any community, it is made up of individuals

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with differing desires and lifestyle choices. The statements contained in the Draft Plan reflects the diverse mood as follows:

Many Puna residents live independently of the energy grid and are actively involved in promotion and development of alternative energy for domestic and transportation use. At the same time many residents who are currently 'off the grid' would probably desire to tap into the grid if it is made available at reasonable hook-up cost. Sometimes residents with similar sentiments are grouped together, sometimes not.

5.6 FEMA (1990 Report)

FEMA-864-DR-HI, October 1990 was a "Hazard Mitigation Team Report for the Kilauea Volcano Eruption, Hawaii County, Hawaii," prepared by the State and Federal Hazard Mitigation Team. The recommendations in the report called for Federal, State and County agencies to not promote or encourage higher density development in the Lava Flow Hazard Zones 1 and 2 in the east rift zone. The recommendations are directed to County, State, and Federal government officials who are responsible for making land use policy decisions and regulations. As a public utility HELCO is responsible for providing electrical service to residents upon request wherever they live. HELCO is cognizant of these recommendations but remains legally obligated to provide electrical power upon request, by the terms of its franchise.

5.7 State Permits and Approvals

Phase 1 of the overhead distribution line project is located within areas designated by the State Land Use Commission as part of the Agricultural district. The project will not require any change to the State's Land Use Boundary.

However, the corridor within which the utility line has been installed requires an Easement

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for construction and maintenance purposes. The request for an Easement has been made to the State DLNR and action may be taken by the Land Division following completion of the Chapter 343, HRS, environmental review process by the applicant. A right-of-entry is also necessary for work to be conducted within State-owned property. One has been granted by the Board of Land and Natural Resources (BLNR) for preliminary studies that were conducted for the environmental documents prepared for the project. An extension of the right-of-entry will be requested along with the Easement application for the after-the-fact construction work and for maintenance work should the EIS receive approval.

For work in State of Hawaii highways, a permit was received from the Department of Transportation for the construction work related to Phase 1.

5.8 County of Hawaii Permits

A County of Hawaii Special Management Area (SMA) Use Permit will be required for the portion of Phase 2 located within the SMA established under the Coastal Zone Management Program. The permit application is submitted to and reviewed and processed by the Planning Department. The Department will forward its recommendation to the County Planning Commission, which is the approving authority.

SECTION 6

ALTERNATIVES

ALTERNATIVES TO THE PROPOSED ACTION

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6.0 OVERVIEW

The alternatives considered for this evaluation include the "no project" option, underground location of the proposed distribution system, alternative routes, and alternative energy sources. Taking no action is not considered to be a feasible alternative as it would result in continued lack of power choices to customers who desire grid service. The underground installation alternative is not a cost-effective alternative and is not an option approved by the PUC when the SSPP Rule 13S program's objective was to provide electrical service to outlying areas at affordable costs to subscribers.

6.1 No Action

The no action alternative would result if the distribution line was not built. The existing GTE Hawaiian Tel line would remain intact with no foreseeable construction occurring within the easement. For those potential customers who have been anticipating HELCO service, the no action alternative would be an undesirable alternative.

In the "no action" alternative, residential properties in the three Kalapana subdivisions would be foregoing electricity from HELCO as a power source thereby necessitating residents to seek alternative forms of energy. The SSPP program was created to address the needs of residents in qualifying rural subdivisions who wanted to receive electrical service but could not afford to pay the entire cost of a line extension to their property. This program allows the community to share in the cost of overhead line extensions which front their properties, making these extensions affordable and fair to all lot owners. Should existing lines located at a greater distance from the residential lots need to be tapped for service due to the no action option, the cost of acquiring electric service may be higher than anticipated .

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In this scenario in which there would be no electricity through the overhead line extension, residents would be forced to continue usage of generators and/or PV systems as power sources for their homes. This means that environmental conditions may worsen as noise disturbance from generators would continue or increase, air quality may worsen from fossil fuel burning to operate the home generator systems, and threats to polluting coastal waters due to leaching lead from improperly stored or disposed batteries needed to run the PV systems and store electricity. In this scenario, the electrical polelines would need to be removed (since installation of all poles and most lines has already been completed). If this were to occur, adverse impacts during removal will include dust, increased noise, and traffic slow downs and impediments caused by construction and hauling vehicles and equipment. Thus, this "no electricity" scenario may result in short- and long-term adverse environmental impacts.

Because of these possible and undesirable conditions projected in the "no action" scenario, this is not the preferred alternative.

6.2 Underground Cable

In evaluating alternatives to the proposed action an underground line was considered. The underground cable technology has both advantages and disadvantages. The principal advantages are the low level of visual impact and greater protection from hurricanes, lightning, and fires, than overhead lines.

The disadvantages include significantly higher construction and maintenance costs than required for a conventional overhead line, and risk to botanical resources along the cable alignment. HELCO estimates the cost of installing the line underground would be approximately seven times the cost of the proposed overhead system. Also, locating and repairing faults in an underground system would be more costly and time-consuming than for an overhead line. The costs of the underground cable installation therefore, would be

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about seven times higher than those of the overhead distribution system.

The following is a summary of the cost estimate prepared for an underground system for electrical distribution in the project area:

| UNDERGROUND CABLE PROJECT COST SUMMARY | |
|--------------------------------------------------------------------|------------------------|
| <u>Item</u> | <u>Cost</u> |
| Total Material | \$ 754,367.67 |
| Total Labor | \$ 1,301,345.28 |
| Transp. Vehicle maint. | \$ 179,269.83 |
| Outside Material | \$ 334,206.68 |
| Hauling | \$ 9,542.00 |
| Outside Contract (trenching, ductlines, tree trimming, etc.) | \$ 9,433,360.32 |
| Subtotal | \$12,012,091.78 |
| Engineering & Admin. | \$ 1,632,443.27 |
| TOTAL COST | \$13,644,535.06 |

6.2.1 Underground versus Overhead Cost Comparison

As earlier discussed, the cost of the proposed overhead distribution system is estimated at \$1.83 million. In this scenario, the customer pays two-thirds of the cost and HELCO subsidizes one-third. The estimated pro rata cost of \$2,820 was determined as the customer's share in the SSPP Unit 71 overhead distribution project (original count of interested customers was 400; thus, the customers' share was pro-rated over 400 potential customers).

In the underground scenario, Rule 13S does not apply; therefore the total cost is to be borne by the SSPP unit. In other words, the cost of more than \$13 million needs to be paid for by the subscribers of the underground system. Assuming the number of customers in all three subdivisions is the same as that for the SSPP Unit 71 overhead system (interested

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customers = 400), the approximate cost per household would be \$32,500. Furthermore, as opposed to the SSPP program, no financing is available for the underground cable scenario.

The extensive excavation needed to construct an underground cable would also pose a greater risk to biological and cultural resources along the cable alignment than the proposed overhead line. Some residents are concerned about the removal of existing trees on the makai portion of the distribution system, but the amount of underground construction and clearing work necessary to install the underground duct bank will lead to the cutting and destruction of root systems, resulting in the destruction of more trees than would the installation of the proposed overhead line.

A resident in the project area suggested that the underground cable could be located in the center of the right of way. This would be an additional cost item to the underground system project cost estimate since construction would need to include trenching through asphalt as well as repaving, resurfacing and repainting of striping, etc. The underground system construction would also mean a significant impediment to vehicular access on the only public roadway into and out of the three residential subdivisions of the project area.

With respect to maintenance, the physical accessibility to the line itself is hampered because it is buried underground, making it difficult for fault location and subsequent repair.

In conclusion, after reviewing distribution line alternatives, HELCO determined that the conventional overhead line technology is the most reasonable and cost-effective technology for the proposed 12.47/7.2 KV distribution line. It should be noted that SSPP was approved as an overhead distribution system only.

6.3 Alternative Routes

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Besides the current route, three different geographic routes were considered by HELCO. The alternative routes are shown in **Figures 6a and 6b**.

Alternative Number 1 proposed use of State-owned land for access shown as "50-foot Road Reserve" on Tax Map Key 1-2-09, located south of the existing GTE Hawaiian Tel easement (labeled Alternative Number 4 in Figure 6a). The road reserve is only a "paper road," (does not exist on the ground but on the tax map records only) and access and an easement from the State of Hawaii would have been required. If this route were selected, HELCO would only be able to service Kehena Beach Estates thereby limiting the number of potential participants. The proposed installation of poles and lines through property that had no previous construction activity would have necessitated baseline studies and the possibility of preparation of a State Conservation District Use Permit application. Given the amount of resources necessary to plan and install the overhead distribution line for a small number of participants, HELCO concluded that this alternative would not be feasible.

Alternative Number 2 proposed a southern (coastal) approach from Kalapana along Highway 137 to the project site (shown in Figures 6a and 6b). This route would have involved an extension of about 2.5 miles from the Highway 130-Highway 137 intersection, at a cost of \$80,000 per mile for installation. This alternative is not feasible because of the potentially high upfront planning and engineering costs of routing the alignment along a portion of Highway 137 that fronts so few properties that may or may not potentially utilize HELCO service.

Alternative Number 3 proposed an alignment that would provide limited services to Kalapana Seaview and Puna Beach Palisades. This route offered no clear access, and would have required HELCO to cross through State-owned land as well as a privately owned lot (Tax Map Key no. 1-2-09: 13). Accesses and easements would have been required for use of State and private properties. Initial discussions with the private owner

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of the affected property indicated that pole placement in that lot would not be acceptable. Therefore, this alternative is not a viable one.

As a result of this consideration and analyses of alternative alignments, the alignment through the existing GTE Hawaiian Tel communication line easement on State-owned property (Alternative Number 4) and in County rights-of-ways through Kalapana Seaview Estates and along Highway 137 offers the most feasible alternative. Further, the alignment would result in minimal adverse impacts on the existing environment.

6.4 Solar Energy, Biomass, and Wind Power

6.4.1 Solar Energy

Two means of converting solar radiation into energy are solar thermal power and photovoltaics (PV). Solar thermal power is heat energy obtained by exposing a collecting device to the rays of the sun. A solar thermal system makes use of the warmth absorbed by the collector to heat water or another working fluid, or to make steam. PV is a renewable energy technology that converts sunlight directly into electricity. Sunlight shining on specially treated cells or film produces direct-current electricity.

To encourage the installation of these systems for residential applications, the State of Hawaii offers a 35 percent tax credit or \$1,750, whichever is less for the purchase and installation of PV and other solar equipment. Also, PV and solar water heaters installed when a home is built may be financed by the home mortgage. However, even with these incentives, only a little less than one fourth of all single family homes in Hawaii have solar water heaters (Solar Water Heater Attitude Survey, 3237, December 1994). This may be due to the high initial cost of solar water heating systems.

Optimizing the cost of living with a residential-size photovoltaic (PV) system requires implementing energy efficiency and conservation measures whenever possible, in addition

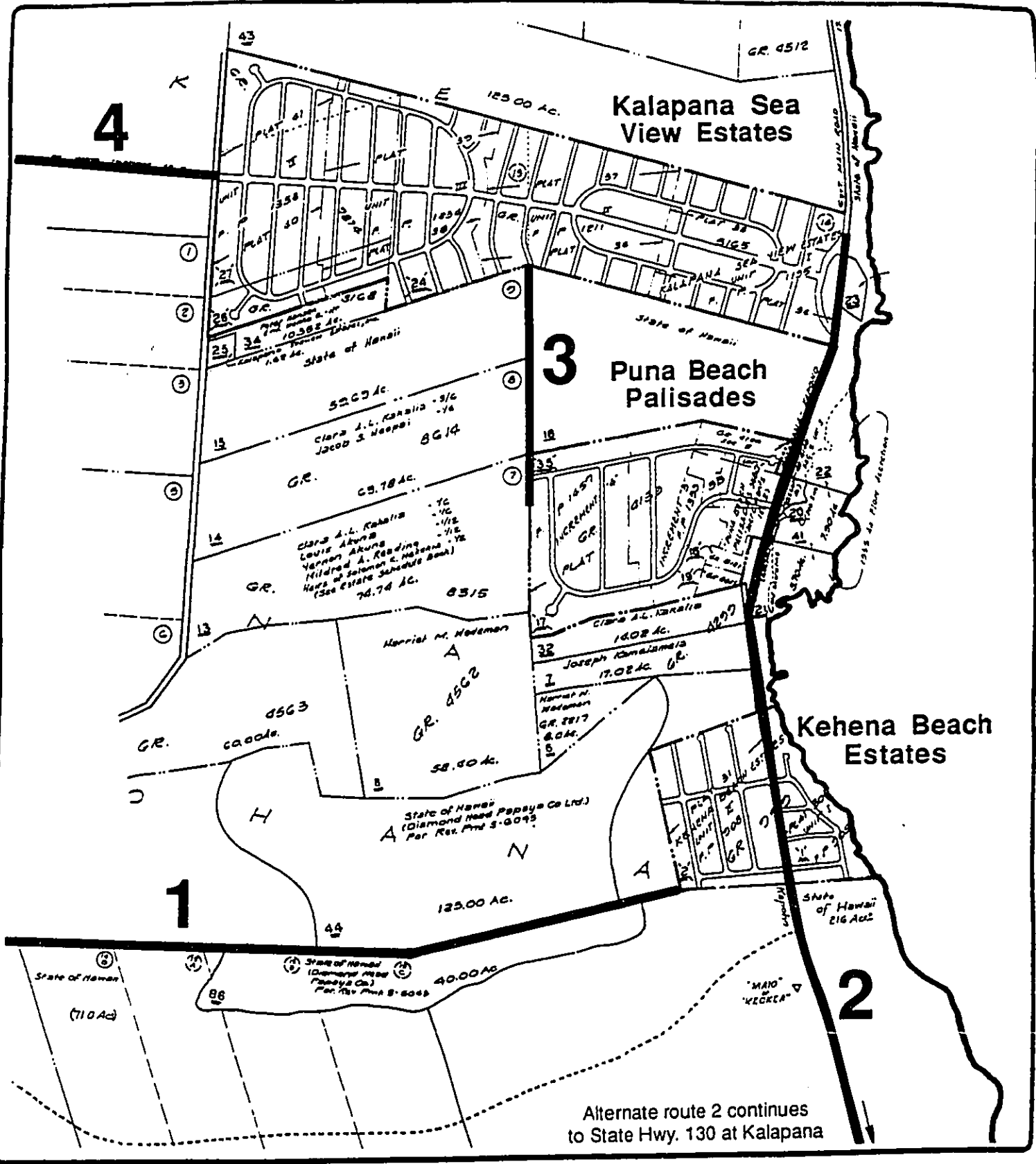


Figure 6a
ALTERNATE ROUTES
 SSPP Unit 71 - Rauenhorst
 Kehena - Keekee Homestead
 Puna, Hawaii

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 October 1996

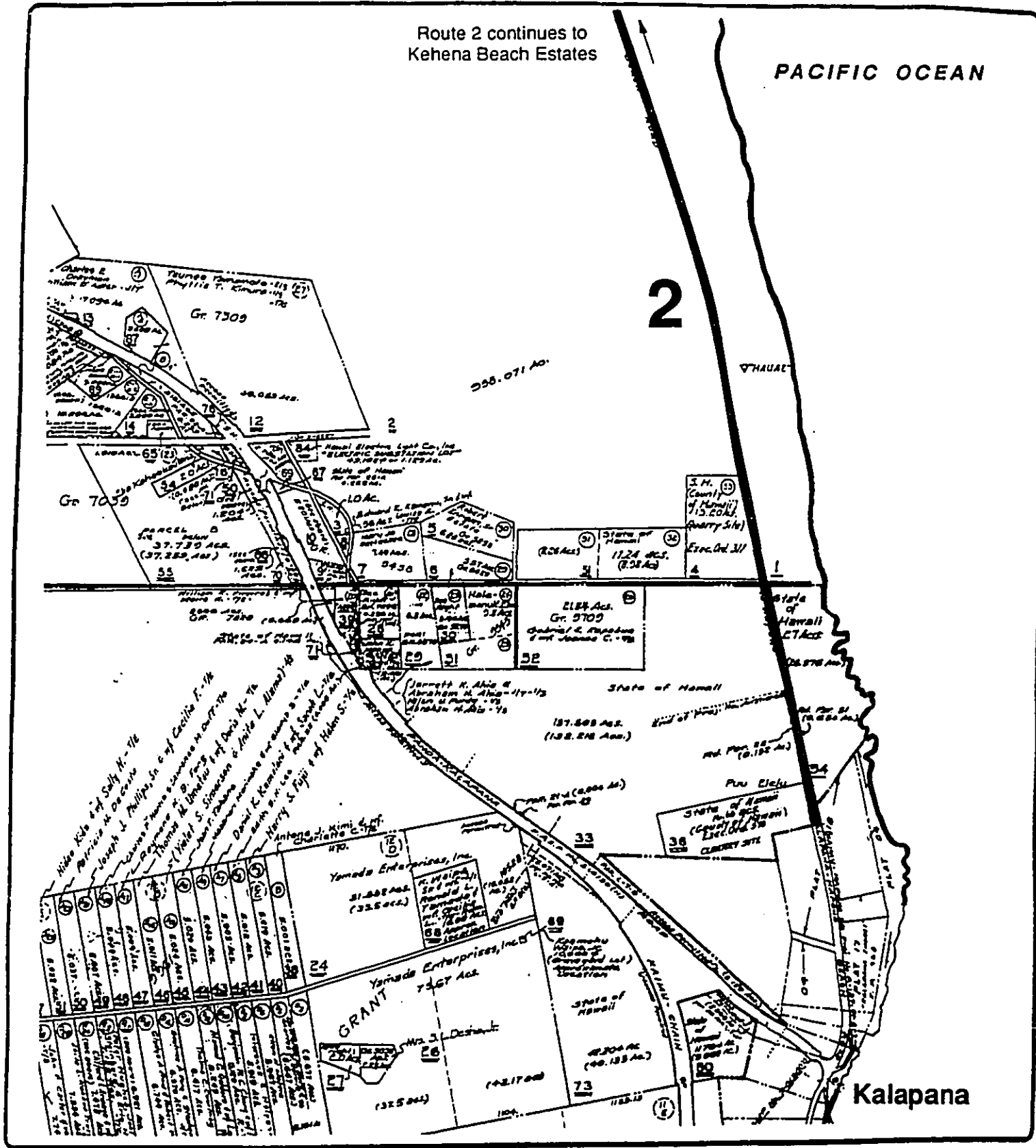
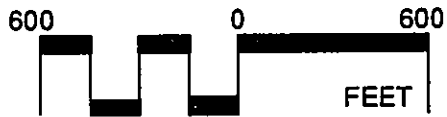


Figure 6b
ALTERNATE ROUTES
SSPP Unit 71 - Rauenhorst
Kehena - Keekee Homestead
Puna, Hawaii



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to using non-electric or high efficiency electric appliances as a substitute for high consumption electric appliances (such as the water heater, stove/oven, clothes dryer and refrigerator). These measures help to reduce the upfront capital costs of the PV system. Weather patterns in a given area not only influence the design of the system, but may also influence how the system is used with respect to energy conservation practices. This differs from living with electricity supplied by the utility grid, which can power a house with all electric appliances and which requires little special attention to when the electricity is used or what the weather conditions are.

PV system cost and electricity output are directly related to a number of variables including quality and type of components used; energy usage patterns and consumption levels of residents; type and number of appliances; how long the generator needs to be run, and the weather patterns in a given area.

A PV system with a 1000 watt array might power most of the needs of the average, full-scale household that implements energy efficiency and uses non-electric or high efficiency electric appliances. The upfront capital cost to have a system of this size installed could range from \$15,000 to \$20,000.

Over the 20 year life of a PV system additional costs would be involved, including necessary replacement of the batteries, fuel for the generator and maintenance and replacement requirements for the generator.

All solar electric systems must be reviewed and approved by the County Public Works Department prior to installation.

Commercial-scale power plants using alternative energy resources (i.e., PVs, solar thermal concentrators, wind, etc.) are not being considered in this environmental assessment since

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line extensions into the residential areas from the power plant would still be required.

6.4.2 Biomass

Biomass consists of growing plants or the remains of growing things (i.e. trees, grasses, manure, paper etc.). Biomass can be treated with chemicals, converted by microorganisms, or put under high pressures and temperatures to produce liquids, gases and solids which offer the possibility of replacing petroleum-based fuels. Small-scale biogas digesters can be used to supply some of the energy needs of Puna residences. Currently however, these systems are not commonly utilized.

While biomass crops have the potential to replace oil for the large-scale production of electricity in Puna, further research is needed to reduce the costs of production of biomass-based fuels. "There are a number of alternative biomass crops, from eucalyptus trees to napier grass, that are being tested by the Hawaiian Sugar Planters' Association (HSPA). Each behaves differently in different locations; has different burning qualities according to type and moisture content; requires large acreage to be profitable; and presents a number of logistical problems in harvesting, transporting and processing. In addition, since many have "turn around" times of several years, the property tax disincentives to grow trees, as opposed to pasture or annual crops, also apply to many biomass crops" (Puna Community Development Plan, 1992).

6.4.3 Wind Power

Wind power is generated by harnessing the wind with turbines to produce mechanical power or electricity. Similar to solar systems, prior to installation all wind machines must be reviewed and approved by the County of Hawaii Public Works. The primary reasons for selecting wind machines as an alternative energy source are their low cost and lack of emissions or chemical wastes.

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The main disadvantages of wind machines are their visual impacts, maintenance requirements and need of sustained winds. Wind plants are mounted on top of towers 30 to 85 feet high in order to take maximum advantage of prevailing winds, and the height of the towers impacts the surrounding views. The height of the towers also makes wind plants difficult to repair, and it can be expensive. Mechanical maintenance of wind plants includes providing regular lubrication of rotating parts and repair of damaged parts from high winds or lightning.

Unlike Kohala or South Point, Puna does not have the sustained continuous winds needed for large-scale wind power, at least 12-14 miles per hour (Puna Community Development Plan, 1992). Most Puna residents can only use wind power for a portion of their total energy needs, and the other portion must be supplied from another source.

All in all, the selection of an alternative energy system is one of individual choice. For those individuals who expressed their choice as solar energy over the "grid system" offered by HELCO's SSPP project, the social costs of overhead poles and lines in proximity to the shoreline may be considered objectionable. Overall, the long term impact is that the resident will have a broader choice of options, assuming HELCO will be allowed to energize its system.

SECTION 7

*IRREVERSIBLE & IRRETRIEVABLE
COMMITMENTS OF RESOURCES*

**IRREVERSIBLE & IRRETRIEVABLE
COMMITMENTS OF RESOURCES**

**SECTION 7
IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

The proposed 12.47/7.2 KV distribution line project will require an irreversible commitment of capital, labor, construction materials and energy. Financial, material and manpower resources will be irretrievably committed to the construction of the final portion of Phase 2, and the energizing of the system. The facilities, once installed, will remain there for the life of the project and will require periodic maintenance. Some of the construction materials could be recycled if the facilities were dismantled, such as the copper and aluminum used for conductors, the steel used for guy wires and anchors and the wood poles used for supports.

**THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE
ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT
OF LONG-TERM PRODUCTIVITY**

Residents will continue to require electricity for an indefinite time into the future. Distribution lines are a necessary means of distributing electricity from its source to its area of use. Because the availability of a reliable energy source is critical to so many activities, there is a direct relation between a properly functioning electrical distribution system and long-term productivity.

Because the varied power sources represent an important contribution to the island's generating capacity, the ability to send this power through the system is crucial in order to maintain long-term productivity.

**SECTION 8
UNRESOLVED ISSUES**

Social Equity

Since publication of the first Draft Environmental Assessment on December 23, 1994 for the project, numerous comment letters received from Puna residents and concerned individuals in the area. The concerns expressed reflected a desire among some to maintain an independence from the more traditional "grid system" of electrical energy service that HELCO is proposing to provide through the overhead distribution system proposed.

When the needs of the community at large require an imposition upon a smaller neighborhood within that community, the question of social equity arises. Residents of the neighborhoods in which facilities must be placed may feel that their neighborhoods are being unfairly burdened with more than their fair share of facilities that may benefit others in the community, but not their own lots specifically, especially if they would prefer to maintain a "non-grid" energy system.

The objective of the project is and will continue to be one of expanding the choices of residential energy systems. Should an individual have a photovoltaic system (PV) operating and is perfectly satisfied with it, HELCO will not impair that individual's ability to continue use of his/her PV system.

There are those in the community who may say that the only appropriate mitigation would be to place the lines completely underground. However, the question of social equity exists for underground alternatives as well. In the case of underground lines versus overhead lines, the Public Utilities Commission has approval authority, and in this case, has decided to approve the overhead line option known as the SSPP Rule 13S program for rural areas such as these southern Puna subdivisions. The decision was based on the conclusion

UNRESOLVED ISSUES

that it is not appropriate to pass on to all users the significantly higher costs of underground placement, which benefits primarily the neighborhood through which the lines pass. This is especially true if a less expensive overhead line is a viable option. Moreover, in an area in which the environment, including trees and well-established vegetation are of high importance to residents, the construction of an underground system would be far more damaging to these community assets.

A decision to have ratepayers bear the cost of placing the project's 12.47/7.2 kV distribution line underground could set a precedent for placing all electrical lines underground. Over time, the cost of electricity to customers to place overhead lines underground could be many times higher than today's cost.

In order to improve visual quality along the alignments throughout the project area, GTE Hawaiian Tel has agreed to remove all existing telephone poles and transfer its facilities to HELCO pole once installation of the electrical poles is complete (JP 15683 and meeting minutes dated April 8, 1993).

The question of social equity, as it relates to both the neighbors directly affected by the distribution lines and poles and to the community at large, will continue to be an unresolved issue.

SECTION 9

PREPARERS OF THE EIS

PREPARERS OF THE EIS

SECTION 9
PREPARERS OF THE EIS

| <u>NAME</u> | <u>COMPANY</u> | <u>TITLE</u> |
|-------------------------|--------------------------|--------------------------|
| Colette Sakoda | R. M. Towill Corporation | Planning Project Manager |
| Chester Koga | R. M. Towill Corporation | Project Planner |
| Jonna Meamber | R. M. Towill Corporation | Staff Planner |
| Julie Leneghan | R. M. Towill Corporation | Graphics Designer |
| | | |
| Rexford E. Palmer, Ph.D | Botanical Consulting | Botanist |
| Evangeline Funk, Ph.D. | Botanical Consulting | Botanist |
| | | |
| Reginald E. David | Rana Productions, Ltd. | Wildlife Biologist |
| Brian A. Cooper | ABR, Inc. | Scientist |
| Robert H. Day, Ph.D. | ABR, Inc. | Senior Scientist |
| | | |
| Hallett Hammatt, Ph.D. | Cultural Surveys Hawaii | Principal |
| Douglas Borthwick | Cultural Surveys Hawaii | Principal |

SECTION 10

PARTIES CONSULTED

PARTIES CONSULTED

SECTION 10
PARTIES AND AGENCIES CONSULTED FOR THE
PREPARATION OF THE ENVIRONMENTAL IMPACT STATEMENT

10.1 PARTIES AND AGENCIES CONSULTED

The following parties commented on the Environmental Impact Statement Preparation Notice (EISPN). Subsequently, a copy of the DEIS was sent to each consulted party.

County of Hawaii

Department of Research & Development
Department of Public Works
Planning Department
Civil Defense

State of Hawaii

Department of Land and Natural Resources
Office of Hawaiian Affairs (OHA)
Department of Transportation

Federal

U.S. Department of the Interior, US Fish & Wildlife Service
National Biological Service, Michelle Reynolds

Others - Organizations

GTE Hawaiian Tel
HOPE
Moku Loa Group, Sierra Club
Isaac Hall for Friends of the Red Road
Athena Peanut for Friends of the Red Road

Others - Individuals

Greg Ball
Sabrina Ludwig
Rose Jeranium
Duane Cariaga
Paul Farage
David Bell
Adrian Barber
Dennis Cooper
Kristine Kubat
Samadhi Ami

PARTIES CONSULTED

Mea Wolfgram
Agam Parsons
Joseph Sprinkel
Michelle Meeks
Aaron Anderson
Suzanne Lynn Stjern
Gregory Smith
Andre Solger
Juliette Provance
Dolan D. Dolan
Thomas Aitken
Joyce Folena
Anna Reinhardt
David Wolfgram
Thomas Erlenbach
Bettie Van Overbeke
Mark Greenberg
Monica Godisak
M. Young
Morgan Britt
Douglas Miller
Amy Lux
Gerald C. Hillman
Jessica Taruni
Brad Sorte
Beth Lederer
Brenda Amick
Lorienne West
Donald Moore
Jeff Berk
Elissa Ruddy
Madhan Biabolyski
Jennifer Johansen
Yves Boutin
Anakura Melemai Day
Gerald P. Thomas
Richard Constand
Lorn Douglas
Norman Olesen

10.2 PARTIES WHO COMMENTED ON DEIS

A copy of the DEIS was sent to each of the following. Comments on the DEIS were

PARTIES CONSULTED

received from those as indicated by a check (✓) to the right of each DEIS recipient:

County of Hawaii

Commented on DEIS

- Department of Research & Development ✓
- Department of Public Works Replied w/No Comment
- Planning Department ✓
- Civil Defense ✓
- Parks and Recreation Department

State of Hawaii

- Department of Land and Natural Resources
 - Land Division
 - State Historic Preservation Division ✓
- Office of Hawaiian Affairs (OHA) ✓
- Department of Transportation
- Dept. of Business, Econ. Dev. & Tourism
 - Office of Planning ✓
 - State Energy Office
- University of Hawaii Environmental Center
- Dept. of Accounting & General Services
- Dept. of Health ✓
- Office of Environmental Quality Control ✓

Federal

- U.S. Department of the Interior, US Fish & Wildlife Service ✓
- National Biological Service, Michelle Reynolds
- U.S. Geological Survey
 - Hawaiian Volcano Observatory ✓
 - Water Resources Division Replied w/No Comment
- Directorate of Facilities Engineer
 - U.S. Army Support Command
 - Environmental Management Office
- U.S. Department of Agriculture Natural Resources Conservation Service
- Environmental Protection Agency Pacific Islands Contact Office

Others - Organizations

- GTE Hawaiian Tel
- HOPE ✓
- Moku Loa Group, Sierra Club
- Isaac Hall for Friends of the Red Road
- Athena Peanut for Friends of the Red Road ✓

PARTIES CONSULTED

Commented on DEIS

Others - Individuals

- Greg Ball
- Sabrina Ludwig
- Rose Jeranium ✓
- Duane Cariaga ✓
- Paul Farage
- David Bell
- Adrian Barber
- Dennis Cooper
- Kristine Kubat
- Samadhi Ami
- Mea Wolfgram
- Agam Parsons
- Joseph Sprinkel
- Michelle Meeks
- Aaron Anderson
- Suzanne Lynn Stjern
- Gregory Smith
- Andre Solger
- Juliette Provance
- Dolan D. Dolan
- Thomas Aitken
- Joyce Folena
- Anna Reinhardt
- David Wolfgram
- Thomas Erlenbach
- Bettie Van Overbeke ✓
- Mark Greenberg
- Monica Godisak
- M. Young
- Morgan Britt
- Douglas Miller
- Amy Lux
- Gerald C. Hillman
- Jessica Taruni
- Brad Sorte
- Beth Lederer
- Brenda Amick
- Lorienne West
- Donald Moore

PARTIES CONSULTED

Commented on DEIS

Jeff Berk
Elissa Ruddy
Madhan Biabolyski
Jennifer Johansen
Yves Boutin
Anakura Melemai Day
Gerald P. Thomas
Richard Constand
Lorn Douglas ✓
Norman Olesen

10.2.1 Others Who Commented on Deis
The following parties, who had not requested copies of the DEIS, provided comments on the document.

Amelia Myers ✓
Puna Outdoor Circle ✓
Ken Klempan ✓
David Ghee ✓
Steven Stickney ✓
P.R. Productions ✓
Richard Hahn ✓

REFERENCES

**SECTION 11
REFERENCES**

- 1) Puna Geothermal Area Biotic Assessment. Puna District. Final Report April 1985, Department of Botany, University of Hawaii at Manoa.
- 2) Pohoiki Geothermal Transmission Line Environmental Impact Statement, August 1989, DHM, Inc.
- 3) State of Hawaii Grant of Easement Non-exclusive easement to GTE Hawaiian Tel, June 5, 1985, Board of Land and Natural Resources.
- 4) Draft Puna Community Development Plan Technical Reference Report, January 1992, Community Management Associates, Inc.
- 5) Draft Puna Community Development Plan, October 1995, Community Management Associates, Inc.
- 6) U.S. Geological Service Hazard Zone Map, Island of Hawaii, Map MF-2193, 1992.
- 7) Kalani Honua Direct Sale of Utility Easement Environmental Assessment, March 1993.
- 8) "Botanical Resources Survey", Rex Palmer & David Paul, April 1995.
- 9) "Faunal Survey of HELCO SSPP Unit-71 - Rauenhurst, Kehena-Keekee Homestead, Puna, Hawaii," Rana Productions, Ltd., April 1995.
- 10) "Radar and Visual Survey of Seabirds in the HELCO SSPP Unit 71, Puna, Hawaii, During July 1995," Brian A. Cooper and Reginald David, ABR, Inc., Rana Productions, Ltd., July 1995.
- 11) "Report on Mortality Risk to Newell's Shearwaters at HELCO Powerline Project, Puna, Hawaii," Robert H. Day, Ph.D., ABR, Inc., 5 September 1996.
- 12) "Archaeological Resource Assessment," Cultural Surveys Hawaii, April 1995.
- 13) Data Book, 1995, County of Hawaii, Department of Research and Development.
- 14) "Volcanic and Seismic Hazards on the Island of Hawaii," Christina Heliker, U.S. Department of the Interior, U.S. Geological Survey, 1990.

REFERENCES

- 15) "Environmental Resources of Selected Areas of Hawaii: Geological Hazards," ORNL/TM-12857, William Staub, Robert M. Reed, Oak Ridge National Laboratory, October 1994.
- 16) State Department of Land and Natural Resources (DLNR), Tom Telfer, Wildlife Biologist, Island of Kauai, August 1996.
- 17) "Environmental Assessment for the Kikala-Keokea Residential Subdivision," Department of Land and Natural Resources, September 1993.
- 18) Botanical Consultants, "SSPP Unit-71 12.47/7.2 kV Overhead Distribution System Project DEIS," letter report by Evangeline Funk, Ph.D., January 16, 1997.
- 19) Hawaii Police Department, Records and Identification, County of Hawaii, letter report, "Miscellaneous Public Complaints," January 10, 1997.
- 20) University of Hawaii Environmental Center, George D. Curtis, "Comments on DEIS for Overhead Electrical Distribution Project for Kalapana Area of Puna District, Hawaii Island," 12/19/96.
- 21) "Patterns of Movement of Dark-rumped Petrels and Newell's Shearwaters on Kauai," Condor 97; 1011-1027.
- 22) General Plan, County of Hawaii, November 1989, Ordinance No. 89-142.

COMMENTS AND RESPONSES TO EISPN

R. M. TOWILL CORPORATION

120 WAIKAMUI RD #411 HONOLULU HI 96817-4041 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Brenda Amick
RR2 Box 3970
Pahoa, HI 96778

Dear Brenda Amick:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 22, 1996. On behalf of HELCO the following has been prepared in response to your comments.


- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in IAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
- 4) The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 5) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISPN has been noted.

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

B. Amick
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
 - 7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.
 - 9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.
 - 10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.
 - 11) A copy of the DEIS will be sent to local authorities on solar energy for comment.
- You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: AUG. 17, 1996

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEA, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Polts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,



Name: DONALD B. MOORE

Address: RR 2 BOX 4531 PAHOA, HI 96718

Phone:

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813



R. M. TOWILL CORPORATION

410 WAIKAMANI RD #411 HONOLULU HI 96817-4941 (808) 942-1133 FAX (808) 942-1937

October 1, 1996

Donald B. Moore
RR2 Box 4531
Pa'aoa, HI 96778

Dear Donald Moore:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.


- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
 - 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
 - 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
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Construction Managers • Environmental Services

Donald Moore
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs in the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
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- 11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

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Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: 8-17-96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

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Sincerely,

Name: Jeff Berk
Address: P.O. Box 1403 Keanu, HI, 96749
Phone:

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

8-17-96 10:00 AM

R. M. TOWILL CORPORATION

120 Waikamalo Rd #411 Honolulu HI 96817-4041 (808) 848-1133 Fax (808) 848-1037

October 1, 1996

Jeff Berk
P.O. Box 1403
Keaau, HI 96749

Dear Jeff Berk:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.

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Jeff Berk
October 1, 1996
Page 2

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Sincerely,


Collette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEOC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: August 17, 1996

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

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Sincerely,

Name: Elissa Ruddy
Address: Box 1559 Pahoa HI 96778
Phone: 965 9656

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720
Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817
OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

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R. M. TOWILL CORPORATION

420 WAIKAMUI RD #411 HONOLULU HI 96817-4041 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Elissa Ruddy
Box 1559
Pahoa, HI 96778

Dear Elissa Ruddy:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N). Puna, Hawaii

We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.


- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISP/N has been noted.

Elissa Ruddy
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
- 7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.
- 9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.
- 10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.
- 11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

420 WAIKANAHI RD #411 HONOLULU HI 96817-4941 (808) 848-1133 (808) 848-1037 FAX (808) 848-1037

October 1, 1996

Madhan Biabolski
P.O. Box 1025
Pepeekeo, HI 96778

Dear Madhan Biabolski:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
 - 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
 - 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
- The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
 - 5) Your opinion regarding the adequacy of the EISPN has been noted.

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Construction Managers • Environmental Services

Madhan Biabolski
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

420 Waiakamilo Rd #411 Honolulu HI 96817-4941 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Jennifer Johansen
RR#2 Box 3931
Pahoa, HI 96778

Dear Jennifer Johansen:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N). Puna, Hawaii

We have received your letter of August 12, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel polelines since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.

The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.

- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISP/N has been noted.

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Jennifer Johansen
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.


7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: 8-17-96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEAs, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Heico and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Heico. I look forward to hearing from you.

Sincerely,



Name: Yves Bouvin
Address: RR #2 Box 6265, Paikahi, 96778

Phone:

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

AUG 21 1996

R. M. TOWILL CORPORATION

420 WAIKAMUI RD #411 HONOLULU HI 96817-1041 (808) 648-1133 FAX (808) 648-1037

October 1, 1996

Yves Boutin
RR#2 Box 6265
Pahoa, HI 96778

Dear Yves Boutin:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii


We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
 - 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
 - 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
- The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
 - 5) Your opinion regarding the adequacy of the EISPN has been noted.

Engineers • Planners • Programmers • Surveyors
Construction Managers • Environmental Services

Yves Boutin
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
 - 7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.
 - 9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.
 - 10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.
 - 11) A copy of the DEIS will be sent to local authorities on solar energy for comment.
- You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: 8/11/76

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, EISPN First Notice

Dear Sir:

Yes, I wish to be a consulted party in the EIS process.

Residents have struggled 1-1/2 years in court to have a truthful, detailed study of the effects this project is having and will have in the future on the last pristine coastal road in the nation that has never had major infrastructure. Why is this important fact not being addressed in the OEQC Bulletin? Can we have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment?

In reviewing both the bulletin and the EISPN it is amazing to read about this project as if it had barely begun. In reality the project is 98% completed without any permits whatsoever. The EISPN has numerous misrepresentations and distortions. For example, see EISPN, 2-2, page 2-3, Determination. "The proposed project will affect one (EIS trigger) the use of State lands." On June 26, Judge Riki May Amano ruled that the Environmental Assessment did not address the EIS triggers of secondary impacts and geologic hazards. How can the Judge's ruling be so easily overlooked? Actually this project clearly triggers 9 of the 11 EIS triggers. Will all of the impacts be studied in depth? Be paid attention to at all? How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?

I would like the study to show analyses plus costs to State, County and Federal tax payers for 3, 5 and 10 years after implementation of the project. Costs to include a coastal highway (the Red Road, Hwy 137 is a substandard county road barely supporting present traffic) access roads (Hwy 130 is the longest known continual declared disaster zone at Kalapana-6 years), water, sewage and sewage treatment plant, school, police, fire, public transportation, etc. How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island? How much money did the Kalapana coast the State, County and Federal governments? How much money did the 1955 flow cost the public?

I would like to see an in-depth study done on the endangered species of this area. The previous studies are inadequate and editorially biased. Residents know this area is habitat for Newell's Shearwater, Hawaiian hawk, Hawaiian owl, Dark-rumped petrel, Band-rumped Storm petrel, Hawaiian Hoary bat, Hawaiian Monk seal, Green Sea turtle, Hawk's Bill turtle, Spinner dolphins, Pacific Bottle nose dolphins and Humpback whales. How can we be assured this study will be undertaken in the best interests of the endangered species unless supervised by the National Biological Service and U.S. Fish and Wildlife?

The EISPN also ignored the Judge's ruling on geologic hazards not addressed. I want real studies. Enough consultant paperwork exercises that are meaningless. Who will do the geologic hazards studies?

In the mitigation area, an unbiased study of solar energy is crucial. Helco and company obviously have a conflict of interest. Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or island experts will be retained to do this study?

In summation, Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously will only benefit them, not necessarily the public. I look forward to hearing from you on the above concerns.

Sincerely,

Anakua Melnui Day

Name
Address P.O. Box 1509 Kaa'au, Hawaii 96749
Phone# 968-8158

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 Waiakamohi Rd #411 Honolulu HI 96817-9941 (808) 948-1133 Fax (808) 948-1937

October 1, 1996

Anakura Melemai Day
P.O. Box 1509
Keaau, HI 96749

Dear Anakura Day:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

We have received your letter of August 11, 1996. On behalf of HELCO the following has been prepared in response to your comments.

Paragraph 1. "...last pristine coastal road...that has never had major infrastructure." The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"? The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.

Paragraph 2. You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.

The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.

Paragraph 3. The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense.

Anakura Day
October 1, 1996
Page 2

and not at government expense. Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

Paragraph 4. Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

Paragraph 5. Please refer to the quote from the circuit court ruling in "Paragraph 2" above. Geologic hazard designations of the project area were disclosed in the environmental assessment and will be restated in the EIS. Existing county zoning and subdivision approvals enable residential growth in the project area.

Paragraph 6. A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodstill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

120 Waiakamilo Rd #411 Honolulu HI 00017-4041 (808) 942-1133 Fax (808) 942-1037

October 1, 1996

Mr. Richard Constand
Box 543 University Station
2440 Campus Rd
Honolulu, HI 96822

Dear Mr. Constand:

Subject: SSPP Unit 71 12 477 2 KV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND), Puna, Hawaii

We have received your letter postmarked August 30, 1996. The following has been prepared in response to your comments and questions.

Environmental Impacts of Above-ground versus Below-ground Systems
The advantages and disadvantages with respect to environmental concerns will be discussed in the DEIS.

Installation Cost Differentials between Above-ground and Below-ground Systems
Upfront cost differentials and impacts on potential ratepayers in the service area will also be discussed in the DEIS.

Long term Maintenance Cost Differentials between Above-ground and Below-ground Systems
Financial implications of the long term maintenance of above-ground versus below-ground systems will be addressed. Comparisons of both cost to present and future ratepayers and impact on the environment will also be considered.

Added Costs

An updated estimate of the cost of connection to the proposed service will be provided.

A copy of the DEIS will be sent to you. Your comments are appreciated.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEOC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEOC First Notice
Consulted Party Status

Dear Sir:

I wish to be a consulted party in the EIS process.

I would like to have the differential impact on the environment assessed under either an above-ground or below-ground power delivery system. All environmental issues raised by other concerned parties should be addressed within the context of the advantages/disadvantages of underground delivery systems over the pole based above ground delivery system that is currently planned.

I would also like the EIS process to address the up-front installation cost differentials between above-ground and underground transmission line installation. The impact on other ratepayers in the state and on potential ratepayers in the service area should be considered an important issue associated with environmental impact.

I would also like the EIS to address the financial implications of above-ground transmission lines verses underground transmission systems over the long term. Comparisons of both cost to present and future ratepayers and impact on the environment should be addressed.

Finally, as a potential Helco power customer that owns a house in Kehena Beach Estates, I am interested in knowing the added costs to the original estimates of connecting to the planned service that have accrued because of this protracted legal battle. Specifically, I would like an updated estimate of the cost of connection to the proposed service. I understand that certain of the legal and research costs associated with the EIS process and current legal action cannot be passed on to existing ratepayers but must be passed onto the new service subscribers if the projected is completed. I am sure other potential customers in the service area would be interested in the updated cost to connect.

Sincerely, *R. Constand* Box 543 University Station
Richard Constand 2440 Campus Rd.
TMK (3) 1-2-31-100 Honolulu HI 96822
Lot 95 Mauka Nui Place

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEOC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813



Date: *Aug. 16, 1976*

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC First Notice *7/23 Consulted*
Party Status

Dear Sir:

Yes, I wish to be a consulted party in the EIS process.

Residents have struggled 1-1/2 years in court to have a truthful, detailed study of the effects this project is having and will have in the future on the last pristine coastal road in the nation that has never had major infrastructure. **Why is this important fact not being addressed in the OEQC Bulletin? Can we have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment?**

In reviewing both the bulletin and the EISPN it is amazing to read about this project as if it had barely begun. In reality the project is 98% completed without any permits whatsoever. The EISPN has numerous misrepresentations and distortions. For example, see EISPN, 2.2, page 2-3, Determination. "The proposed project will affect one (EIS trigger) the use of State lands." On June 26, Judge Riki May Amano ruled that the Environmental Assessment did not address the EIS triggers of secondary impacts and geologic hazards. **How can the Judge's ruling be so easily overlooked? Actually this project clearly triggers 9 of the 11 EIS triggers. Will all of the impacts be studied in depth? Be paid attention to at all? How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?**

I would like the study to show analyses plus costs to State, County and Federal tax payers for 3, 5 and 10 years after implementation of the project. Costs to include a coastal highway (the Red Road, Hwy 137 is a substandard county road barely supporting present traffic) access roads (Hwy 130 is the longest known continual declared disaster zone at Kalapana-6 years), water, sewage and sewage treatment plant, school, police, fire, public transportation, etc. **How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island? How much money did the State, County and Federal governments? How much money did the 1955 flow cost the public?**

I would like to see an indepth study done on the endangered species of this area. The previous studies are inadequate and editorially biased. Residents know this area is habitat for Newell's Shearwater, Hawaiian hawk, Hawaiian owl, Dark-rumped petrel, Band-rumped Storm petrel, Hawaiian Hoary bat, Hawaiian Monk seal, Green Sea turtle, Hawk's Bill turtle, Spinner dolphins, Pacific Bottle nose dolphins and Humpback whales. **How can we be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?**

The EISPN also ignored the Judge's ruling on geologic hazards not addressed. I want real studies. Enough consultant paperwork exercises that are meaningless. **Who will do the geologic hazards studies?**

In the mitigation area, an unbiased study of solar energy is crucial. Helco and company obviously have a conflict of interest. **Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts will be retained to do this study?**

In summation, Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously will only benefit them, not necessarily the public. I look forward to hearing from you on the above concerns.

Sincerely,

Sabrina Ludwig
Name *Sabrina Ludwig*
Address *PO Box 1910, Pahoa, HI 96778*
Phone# *965-9336*

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIAKAMAHI RD #111 HONOLULU HI 96817-1041 (808) 942-1133 FAX (808) 942-1037

October 2, 1996

Sabina Ludwig
P. O. Box 1910
Pa'hoa, Hawaii 96778

Dear Ms. Ludwig:

Subject: SSPP Unit 71 12.4772 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EIS/ENP), Puna, Hawaii

We have received your letter of August 16, 1996 regarding the subject project. On behalf of HELCO the following has been prepared in response to your comments.

Paragraph 1. "...last pristine coastal road...that has never had major infrastructure." The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"? The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.

Paragraph 2. You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.

The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.

Paragraph 3. The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense,

S. Ludwig
October 2, 1996
Page 2

and not at government expense. Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

Paragraph 4. Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

Paragraph 5. Please refer to the quote from the circuit court ruling in "Paragraph 2" above. Geologic hazard designations of the project area were disclosed in the environmental assessment and will be restated in the DEIS. Existing county zoning and subdivision approvals currently enable residential growth in the project area.

Paragraph 6. A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodskill et al
DLNR, Land Management

Date: August 21, 1996

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEA, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Poits in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,

your Jeremiah

Name: R. JERANIAM
Address: RR2 Box 6276 PAHOA, HI 96778
Phone: none

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720
Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817
OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIAKAMII RD #411 HONOLULU HI 96817-4041 (808) 648-1133 FAX (808) 648-1037

October 2, 1996

Rose Jeranium
RR2 Box 6276
Pahoa, HI 96778

Dear Ms. Jeranium:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your two letters of August 21, 1996. On behalf of HELCO the following has been prepared in response to your comments. Although 98% of the contents of the first letter re-appear in the second letter, only in a different format, we have prepared two response letters anyway.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
 - 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
 - 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
 - 4) The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.


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Construction Managers • Environmental Services

R. Jeranium
October 2, 1996
Page 2

- 5) Your opinion regarding the adequacy of the EISPN has been noted.
- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
- 7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.
- 9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.
- 10) Geologic hazard of the project area was disclosed in the environmental assessment and will be restated in the DEIS.
- 11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

420 WAIKAMILLO RD #411 HONOLULU, HI 00817-4041 (808) 848-1133 Fax (808) 848-1937

October 1, 1996

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC, 7/23 Notice,
Consulted Party Status.

Dear Sir:

Yes, I wish to be a consulted party in the EIS process.

Sincerely, *Jessica Taruni*

Name *Jessica Taruni*
Address *P.O. Box 2109, PAHOA, HI. 96778*
Phone# *(965) 6497*

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St.,
Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411,
Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400,
Honolulu, Hawaii 96813

Jessica Taruni
P.O. Box 2109
Pahoa, HI 96778

Dear Jessica Taruni:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND) Puna, Hawaii

We have received your request to be a consulted party dated August 19, 1996. A copy of the DEIS will be sent to you.

Sincerely,

Colette Sakoda

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

420 WAIKAMILLO RD #411 HONOLULU, HAWAII 96817-4931 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Gerald Hillman
Box 1765
Pahoa, HI 96778

Dear Gerald Hillman:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND), Puna, Hawaii

We have received your request to be a consulted party dated August 18, 1996. A copy of the DEIS will be sent to you.

Sincerely,

Colette Sakoda
Colette Sakoda

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date:

8/18/96

Clyde Nagata
Helco

P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC, 7/23 Notice,
Consulted Party Status.

Dear Sir:

Yes, I wish to be a consulted party in the EIS process.

Sincerely, *Gerald C. Hillman*

Name *GERALD C. HILLMAN*

Address *Box 1765*

Phone# *808 965-9487*

PAHOA, HI 96778

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St.,
Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waikamilo Rd. Suite 411,
Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400,
Honolulu, Hawaii 96813

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R. M. TOWILL CORPORATION

420 WAIKAMULO RD #411 HONOLULU HI 96817-1041 (808) 948-1133 FAX (808) 948-1037

Lorn Douglas
RR2 4544
Pahoa, Hawaii 96778
(808) 965-8121
chopsticks@aloha.net

October 1, 1996

Aug 31, 1996

Mr. Lorn Douglas
RR2 4544
Pahoa, HI 96778

Clive Nagata, HELCO
PO 1027
Hilo, HI 96720

Dear Mr. Douglas:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N). Puna, Hawaii

re: SSPP-71, OEQC 1" notice, 9/23 consulted party Status

We have received your request to be a consulted party dated August 31, 1996. A copy of the DEIS will be sent to you.

Aloha,
Yes I wish to have consulted party status in the above referenced EIS process. I just returned from several weeks on the mainland on Sat. and found out about this process. Please include me even though I am getting this in a day or two late.

Sincerely,

Colette Sakoda
Colette Sakoda
Project Manager

LS
Lorn Douglas

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

cc: Virginia Goldstein
County of Hawaii, Planning Dept.
25 Aupuni St.
Hilo, HI 96720

Colette Sakoda
RM Towill Corp.
420 Waiakamilo Rd #11
Honolulu, HI 96817

OEQC
220 S. King St.
Central Pacific Plaza #400
Honolulu, HI 96813

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ADRIAN BARBER

Fax : 808-965-6050

Aug 30 13:39

R. M. TOWILL CORPORATION

420 Waiakamilo Rd #411 Honolulu HI 96817-4941 (808) 948-1133 Fax (808) 948-1037

October 1, 1996

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC, 7/23 Notice,
Consulted Party Status.

Date: 8-30-96

Dear Sir:

Yes, I wish to be a consulted party in the EIS process.

Sincerely,

Name ADRIAN BARBER
PRESIDENT, PUNA MALAMA PONO INC
Address P.O. BOX 263
PAHOA, HI. 96778
Phone# 808- 965- 6050

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St.,
Hilo, Hawaii 96720
Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411,
Honolulu, Hawaii 96817
OEQC, 220 South King St., Central Pacific Plaza, Suite 400,
Honolulu, Hawaii 96813

Adrian Barber
President, Puna Malama Pono Inc.
P. O. Box 263
Pahoa, Hawaii 96778

Dear Adrian Barber:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND), Puna, Hawaii

On behalf of HELCO, this letter acknowledges receipt of your request to be a consulted party dated August 30, 1996. A copy of the DEIS will be sent to you upon publication.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Planning Department
OEQC
HELCO
D. Sherman, Goodstill et al
DLNR Land Management

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Construction Managers • Environmental Services

R. M. TOWILL CORPORATION

420 WAIKAMILLO RD #411 HONOLULU, HI 96817-4941 (808) 848-1133 Fax (808) 848-1037

Date: 8/22/96

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC, 7/23 Notice,
Consulted Party Status.

Dear Sir:

Yes, I wish to be a consulted party in the EIS process.

Sincerely, *Agam Parsons*

Name *Agam Parsons*
Address *P.O. B. 2109 Pahoa, HI. 96778*
Phone# *(808) 965-6497*

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St.,
Hilo, Hawaii 96720
✓ Colette Sakoda, R.M. Towill Corp., 420 Waikamilo Rd. Suite 411,
Honolulu, Hawaii 96817
OEQC, 220 South King St., Central Pacific Plaza, Suite 400,
Honolulu, Hawaii 96813

October 1, 1996

Agam Parsons
P.O. Box 2109
Pahoa, HI 96778

Dear Agam Parsons:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your request dated August 22, 1996 to be made a consulted party in the EIS process. You will be sent a copy of the DEIS.

Sincerely,

Colette Sakoda

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management



KAZUYASU-NO
TAKI
KAZUYASU-NO
TAKI
KAZUYASU-NO
TAKI

Ms. Colette M. Sakoda
Page 2

HWY-PS 2.1841

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
859 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

DEPARTMENT OF TRANSPORTATION
HWY-PS
2.1841

SFP 16 1996
SEP 16 1996

Ms. Colette M. Sakoda
R. M. Towill Corporation
420 Waikamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

Dear Ms. Sakoda:

Subject: Environmental Impact Statement Preparation Notice,
SSPP Unit-71 12.47/7.2 kV Overhead Distribution
System Project, Hawaii Electric Light Company, Inc.
Puna, Island of Hawaii
TMK: 1-2-09: 03 (Por.) and 1-2-30 to 1-2-41

Thank you for the opportunity to review the subject notice and
for extending the deadline for our response.

We have the following comments and recommendations:

1. We are starting a State Scenic Byways program to preserve, protect and enhance scenic public roads. We will work or partner with utility companies statewide to keep the poleless scenic routes free from overhead lines as a way to enhance the traveling experience. Roads in the project area may be proposed as Scenic Byways.
2. Section 7, Alternatives to the Proposed Action, should include a cost analysis (total cost and cost per mile) and current (1996) costs to the consumer per kilowatt hour for each alternative route and technology.
3. In Section 3.5.1, Roads, the highway right-of-way width and the average daily traffic (ADT) should be corrected and updated. The highway right-of-way width varies from 50 feet to 110 feet. The ADT on November 18, 1994 on Highway #130 was 19,994. The report mentioned an ADT count of 12,819 vehicles in 1988.

4. Section 4, Probable Impacts, should assess the traffic impact of induced housing development.
5. Plans for construction work done within our highway rights-of-way must be submitted for our review and approval.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

R. M. TOWILL CORPORATION

420 WAIKAMAHIO RD #411 HONOLULU HI 96817-4041 (808) 943-1133 FAX (808) 648-1037

October 1, 1996

Kazu Hayashida, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813-5097

Dear Mr. Hayashida:

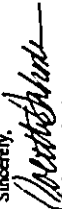
Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N) Puna, Hawaii

I am in receipt of your letter dated September 13, 1996. The following has been prepared in response to your comments.

1. Your information has been noted. However for your information the affected public right-of-way, Highway 137 ("Red Road"), is under County of Hawaii jurisdiction. As a result of a follow-up phone conversation this morning with Mr. Ron Tazaki of your staff, he agreed that the State Scenic Byways program, when enacted, would not apply to Highway 137.
2. A discussion of cost per mile and current (1996) costs to the consumer per kilowatt hour for each alternative will be included in the section on Alternatives to the Proposed Action of the EIS, if available.
3. Updated information provided for the discussion on highway right-of-way width and average daily traffic (ADT) is appreciated, and will be included in the DEIS.
4. The section on probable impacts will include a discussion on the traffic impact of induced housing development as an indirect, secondary effect of the project.
5. Plans for construction were submitted for work anticipated within Highway 130 right-of-way for review and approval. Approvals were granted and work was completed in spring 1996. However, a circuit court ruling nullified all previous actions excluding the removal of the poles in the project area that included Highway 130.

Thank you for your input in this process. A copy of the DEIS will be sent to you.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS Ecoregion
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: JMB

Collette Sakoda
R.M. Towill Corporation
420 Waikamilo Road, Suite 411
Honolulu, HI 96817-4941

SEP 06 1996

Re: Notice of Intent to Prepare an Environmental Impact Statement for the SSPP Unit-71
12.4777.2 kV Overhead Distribution System, Puna, Hawaii.

Dear Ms. Sakoda:

The U.S. Fish and Wildlife Service (Service) has reviewed the Final Environmental Assessment/Environmental Impact Statement Preparation Notice (EISP/N) for the SSPP Unit-71 12.4777.2 kV Overhead Distribution System in Puna, Hawaii. The project sponsor is the Hawaiian Electric Light Company, Inc. (HELCO). The proposed project would establish electrical service to three subdivisions by placing or replacing 345 utility poles and stringing aluminum conductors a total of 70,060 linear feet. The Service offers the following comments for your consideration.

Three Federally listed species are known to occur in the project area: the Federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) and Hawaiian hawk (*Buteo solitarius*), and the Federally threatened Newell's shearwater (*Puffinus newelli*). The bat and hawk are wide-ranging species for which the project poses negligible risk. However, the survey conducted in July 1995 (EISP/N Section 3.2.2.2) showed that Newell's shearwaters traverse the project area and could potentially collide with the project's power lines. This collision potential exists not only along coastal portions of the project, as stated in Section 4.3, but also along portions of the Phase I corridor where the new poles would extend above the height of the sparse tree canopy. In addition to collisions with power lines, Newell's shearwaters could be indirectly affected by the project through "fallout" (disorientation, fatigue and grounding) induced by the increased street and residential lighting that is a reasonably foreseeable consequence of the project.

Both collision and fallout of Newell's shearwater due to the project would constitute "take" under the Endangered Species Act of 1973 [16 U.S.C. 1531 *et seq.*; 87 Stat. 884], as amended (Act). Take is defined in the Act as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or

to attempt to engage in any such conduct" with an endangered or threatened species. Because a demonstrated potential exists for the project to cause death or injury to a species protected by Federal and State law, the Draft Environmental Impact Statement (DEIS) should discuss how this risk of take could be substantially reduced or eliminated.

Measures that would eliminate the potential of take from the project would be preferable to measures that would only reduce the probability of take. Examples of the former would be the burial of power lines in treeless sections or the planting of grown coconut palms to eliminate potential flight corridors. Examples of the latter would be devices to increase power line visibility, shielding on streetlights, programs to recover and rehabilitate injured or "fallout" birds, or predator trapping to reduce predation of downed but uninjured birds.

One section (Section 4.3, Probable Impacts to Fauna) of the EISP/N contains a significant error. The first paragraph of Section 4.3 incorrectly implies that the only change to current conditions in the Phase I corridor would be the addition of a single line on existing poles, while several other sections (e.g., Section 2.3) state that three conductors will be placed on new poles 39' above ground (approximately 10' higher than the existing poles).

The Service appreciates the opportunity to provide comments on the EISP/N and looks forward to reviewing the DEIS. Our office is available for technical assistance on measures to reduce potential harm to threatened or endangered species. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Jeff Burgett at (808) 541-3441.

Sincerely,

Brooks Harper
Field Supervisor
Ecological Services

cc: DOFAW, Honolulu
DOFAW, Hilo

R. M. TOWILL CORPORATION

420 WAIKIKIA RD #411 HONOLULU HI 96817-4041 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Brooks Harper, Field Supervisor
Ecological Services
U.S. Department of the Interior
Fish and Wildlife Service
300 Ala Moana Blvd., Room 3108
Honolulu, HI 96850

Dear Mr. Harper:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii


I am in receipt of your letter dated September 6, 1996. The following has been prepared in response to your comments.

Impacts from overhead utility lines in the project area have been under observation since 1985 when GTE Hawaiian Tel polelines were erected along the same alignment as the HELCO project.

Your concerns and reference to the Endangered Species Act are noted. The potential for cumulative impacts from increased street and residential lighting due to added households in the three subdivisions is an issue that requires discussion in the DEIS.

A copy of the DEIS will be sent to your office.

Sincerely,


Collette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management
DOFAW, Honolulu
DOFAW, Hilo

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services



Stephen K. Yamashiro
Mayor

Virginia Goldstein
Director

Norman Olsen
Deputy Director

County of Hawaii

PLANNING DEPARTMENT

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252
(808) 941-8288 • Fax (808) 941-9615

Ms. Colette M. Sakoda

Page 2

August 22, 1996

August 22, 1996

Ms. Colette M. Sakoda
R.M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

Dear Ms. Sakoda:

Environmental Impact Statement Preparation Notice (EISPN)
for the Special Subdivision Project Provision (SSPP) Program
Unit - 71 12.47/7.2 kV Overhead Distribution System
Tax Map Key: 1-2-09; Portion of 3 & 1-2-30 to 41
Kelehena & Keekee Homestead, Puna, Hawaii

Thank you for forwarding us a copy of the above-referenced EISPN. We have reviewed the document and would like to recommend that the following information be included in the Draft Environmental Impact Statement:

Section 2 - Project Description

We recommend that Section 2.1 - Background and Location be separated into two sections and further elaborated. By further expanding the Background section, the reader would be provided with some historical background and insight as to the process of why and how this proposal, to install the overhead electrical distribution system to serve the three subdivisions, was originally initiated. This information would provide an added perspective in solidifying the need for the project.

Similarly, an explanation of events involving the prior submittal of a Special Management Area (SMA) Use Permit application and a Draft Environmental Assessment and the outcome of a ruling by the Third Circuit Court would bring us up to date as to why this EISPN is being filed with the Office of Environmental Quality Control (OEQC). This was briefly covered in Section 2.2 Determination, but should be further expanded upon to provide a better understanding as to the reasons for filing the EISPN.

We recommend that the section on Location be further clarified. Although the entire service area needs to be described to provide a comprehensive review of the impacts from the project and improvements, a clear distinction should be made providing details of the proposed work to be completed within the SMA. For example, approximately how many poles are to be actually located within the SMA?

Also, relating to improvements within Phase 1 (which are actually outside of the SMA), please provide an update as to the status of securing an easement from the State of Hawaii. Please also include information on HIELCO's relationship with GTE Hawaiian Tel and whether any agreements have been made.

We also offer the following information regarding the affected subdivisions. The Kelehena Beach Estates has a total of 199 lots. Final Subdivision Approval for these lots was secured from the Planning Department in two increments in 1964. The Puna Beach Palisades secured Final Subdivision Approval for a total of 150 lots in four increments from 1966 through 1975. Finally, Kalapana Sea View Estates secured Final Subdivision Approval in four increments for 955 lots over the period from 1971 through 1973.

Section 3 - Description of the Affected Environment Section 4 - Probable Impacts and Mitigation Measures

The weight of these two sections in the Draft Environmental Impact Statement will be determined by the concerns, issues and impacts expressed by the consulted agencies or persons. We recommend that should major concerns be raised in regards to environmental impacts, whether it be to the Newell's Shearwater, geologic hazards or to coastal viewplanes, that the applicant clearly address these concerns or probable impacts in the document. Any specific mitigative measures that the applicant is willing to participate in to minimize environmental or ecological impacts should also be clearly outlined.


Please also discuss if any development is to take place within the 40-foot shoreline setback area.

We suggest that you include a section on Community Involvement. Documentation should be provided on meetings that have been held with the community and any positions expressed in terms of support and opposition to the project. We also recommend that you continue to consult with residents and community associations within the subdivisions, including the Friends of Red Road, during the EIS review process.

Ms. Colette M. Sakoda
Page 3
August 22, 1996

Thank you for the opportunity to review the EISPN. Should you have any questions or require further assistance, please contact Susan Gagonik or Alice Kawaha of our Department at 961-8288.

Sincerely,


VIRGINIA GOLUBSTEIN
Planning Director

SG:pak
f:\wpwin60\hrlco01.skg

R. M. TOWILL CORPORATION

180 WAIKAMANI RD #111 HONOLULU HI 96817-5041 (808) 842-1133 FAX (808) 842-1037

October 1, 1996

Ms. Virginia Goldstein, Director
Planning Department
County of Hawaii
25 Aupuni Street, Room 109
Hilo, HI 96720

Dear Ms. Goldstein:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND) Puna, Hawaii

We have received your letter dated August 22, 1996 regarding the subject EISPND. Responses to your recommendations have been prepared as follows.

Section 2 - Project Description

The DEIS will contain separate sections for the Background and Location. These sections will be elaborated appropriately as suggested. The events involving the prior submittal of a Special Management Area Use Permit and Draft Environmental Assessment and the outcome of a ruling by the Third Circuit Court will be documented in the DEIS. The documentation will include a discussion of the status of Phase 1 and the related securing of an easement from the state of Hawaii. Status of the agreement between HELCO and GTE Hawaiian Tel regarding transfer of facilities will be included in the DEIS.

The information offered on the three affected subdivisions is appreciated and will be included in the DEIS.

Section 3 - Description of the Affected Environment

Section 4 - Probable Impacts and Mitigation Measures

Major concerns with respect to environmental impacts will be clearly addressed in the DEIS. Further, the issue of the 40-foot shoreline setback area will be addressed.

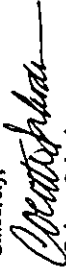
A section on community involvement will be included in the DEIS. This will include a history of HELCO's consultation with residents in the project area since 1989. This chronology will also discuss the changes to the project that resulted from the residents' various concerns and recommendations. More than sufficient opportunity for comment has been provided the community associations since the beginning of the environmental review process in 1994. Even more is being offered now as we proceed through the EIS process.

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Ms. V. Goldstein
October 1, 1996
Page 2

Your comments and input at this stage of the project are appreciated.

Sincerely,


Colette Sakoda
Project Manager

cc: OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

NATIONAL BIOLOGICAL SERVICE

P.O. Box 44 Hawaii Field Station
Hawaii National Park, HI 96718
(808) 967-7396
Fax

Michelle Reynolds
Wildlife Biologist
National Biological Service
P.O. Box 44 Hawaii Field Station
Hawaii National Park, HI 96718

August 20, 1996

Colette Sakoda
R.M. Towill Corp.
420 Waiakamilo Rd., Suite 411
Honolulu, HI 96817

RE: comments for EISPN

Dear Colette Sakoda:

After reviewing only section 3.2.2 and 4.3 of the EISPN for SSPP Puna Hawaii, I have several comments:

- 1) I should not be named as part of the methods in section 3.2.2.1 INITIAL SURVEY/STUDY METHODS. I was not part of this study's methodology therefore shouldn't be mentioned by name in the methods section or elsewhere unless the report is citing a specific reference (scientific reference or report). I was contacted through my agency, NBS which was misidentified in the text as USFWS. If in the acknowledgments or under the heading of section 9.0 Parties and Agencies Consulted (I did not see this section) you mention the information provided by NBS, please state that the National Biological Service was consulted for *existing* data on species of concern in Puna and the vicinity of the proposed project. By mentioning my "experience surveying seabirds and bats in the Puna areas", the report appeared to suggest I was part of this project, which I was not. Thank you for making these corrections.
- 2) In the study's findings section it states that the nesting densities of the seabirds inland from the study site was generally low. To my knowledge, no one has determined the occurrence of inland nesting areas from the project site or the densities of nesting seabirds. This is an area where very little data exists, largely due to the Newell's shearwater's rarity and nocturnal habits. Newell's shearwater were only just discovered to be nesting in the Puna District in 1993, so very little is known about its distribution or nesting densities. This should be reworded so as not to reflect information that is not known.
- 3) The EISPN section 4.0 Probable Impacts and Mitigation measures for the faunal section 4.3 does not appear to address the possibility of cumulative impacts or address mitigating the possible impacts to threatened Newell's shearwater. I had several suggestions, questions, and concerns for this portion of EIS. The report states that a portion of the proposed coastal powerline lacks tall vegetation thus

Colette Sakoda
Page 2
August 20, 1996

increasing the possibility of low flying seabirds. Have the project developers considered strategic tree planting (not all "tolerant" matures to 15 m) as a means to ensure "diminished powerline collision risks" in the area where vegetation is low or scattered? Is it possible more lines will be strung as demand for electricity increases? As electricity becomes available, residents of the area may utilize flood lights or bright street lights which present an attraction to Newell's shearwater. Will these types of secondary impacts be considered in the EIS? Will future additions to the proposed or existing "overhead distribution" system be considered?

I hope future modifications and additions to the utility infrastructure in Puna will continue to consider the height, configuration, and placement of all new utility lines to minimize risks to laterally protected night flying seabirds regardless of their rarity or abundance. Advanced planning for the overhead distribution system, especially in the coastal areas, will help avoid potential conflicts with Hawaii's unique wildlife.

Thank you for the opportunity to comment on EISPN. I would be interested in reviewing additional reports (especially since my name appeared in this one!), as my schedule allows.

Sincerely,



Michelle Reynolds
Wildlife Biologist

R. M. TOWILL CORPORATION

420 WAIKAMUI RD #411 HONOLULU HI 96817-4941 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Michelle Reynolds
Wildlife Biologist
National Biological Service
P. O. Box 44 Hawaii Field Station
Hawaii National Park, HI 96718

Dear Michelle Reynolds:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND), Puna, Hawaii

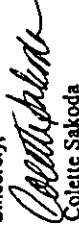
I am in receipt of your letter dated August 20, 1996 regarding the subject EISPND. The following has been prepared in response to your concerns.

- 1) The DEIS will properly reflect the name of your agency as NBS. I was referred to you by representatives of Friends of the Red Road because they told me you were a wildlife biologist who had up to date information and data on the reported seabird populations in the project area because of your recent research. I recall being told by you that that information was not available at the time, and you referred me to USFWS for further assistance. I am aware that the researchers who conducted the studies for the proposed overhead distribution line did include review of your research, methods and findings in their literature research and data gathering phase. The DEIS will properly reflect your role in the subject project.
- 2) Your comments and recommended language have been taken under advisement. We have been informed that the location of suspected nesting sites is possibly on private land for which access has been denied. I am quite certain you are aware of that fact also. Thus, it should also be stated that while attempts have been made to investigate these areas, efforts have been turned down by the private land owner.
- 3) The DEIS will include discussions on feasible mitigation measures where necessary. The proposed 12.477.2 kV overhead distribution system is sized to service the entire 1200+ lots. In the discussion of cumulative impacts with respect to potential additional flood lights or night lighting, mitigation measures that are being used in other residential areas will also be included. Your questions regarding secondary impacts and any additions to the proposed system will be addressed in the DEIS.

M. Reynolds
October 1, 1996
Page 2

Your remaining comments regarding modifications, configurations, and placement of future utility lines have been taken under advisement. Thank you for your participation in this process. You will be sent a copy of the DEIS.

Sincerely,



Colette Sakoda
Project Manager

cc: Rana Productions, Reggie David
USFWS
Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodskill et al
DLNR, Land Management

Stephen K. Yamashiro
Mayor



Donna Fay K. Kiyooki
Chief Engineer

Jiro A. Sumada
Deputy Chief Engineer

Letter to Ms. Colette Sakoda
August 22, 1996
Page 2

County of Hawaii

DEPARTMENT OF PUBLIC WORKS
25 Airport Street, Room 203 • Hilo, Hawaii 96720-4132
(808) 961-8121 • Fax (808) 969-7138

August 22, 1996

MS COLETTE M SAKODA
R M TOWILL CORPORATION
420 WAIKAMILO ROAD SUITE 411
HONOLULU HAWAII 96817-4941


SUBJECT : ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

SSPP Unit-71 12.4777.2 KV Overhead Distribution System
Puna, Hawaii
TMK: 1-2-09: 003(por), 1-2-30 to 1-2-41

As requested, our comments concerning the subject project are as follows:

1. Any building construction shall conform to all requirements of code and statutes of the County of Hawaii.
2. Any work within the County right-of-way shall be in conformance with Chapter 22, Streets and Sidewalks, of the Hawaii County Code.
3. Traffic sight distances at all street intersections shall not be compromised by this improvement.
4. Application should be submitted to the Planning Department for their review and comments.
5. All utility poles and underground utility construction within the County right-of-way shall be in conformance with the policies of the Department of Public Works. This includes, but is not limited to the following.
6. All traffic control devices within the County right-of-way shall be in conformance with the current edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways."

Should there be any questions concerning this matter, please feel free to contact Mr. Casey Yanagihara in our Engineering Division at 961-8327.


Galet M. Kuba, Division Chief
Engineering Division

KG

xc: Planning Department

R. M. TOWILL CORPORATION

420 WAIAKAMAHO RD #111 HONOLULU HI 96817-1041 (808) 548-1133 FAX (808) 548-1037

October 1, 1996

Mr. Galen Kuba, Division Chief
Engineering Division
County of Hawaii
25 Aupuni Street, Room 202
Hilo, HI 96720


Dear Mr. Kuba:

Subject: SSPP Unit 71 12 47/7 2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPEN) - Puna, Hawaii

We have received your letter dated August 22, 1996 regarding the subject EISPEN. Responses to your comments and recommendations have been prepared as follows:

1. Project construction will conform to all requirements of code and statutes of the County of Hawaii.
2. Project-related work within the County right-of-way will conform with provisions of Chapter 22, Streets and Sidewalks, of the Hawaii County Code.
3. Traffic sight distances at all street intersections will not be compromised by this improvement.
4. All project documents have been and will continue to be submitted to the Planning Department for staff review and comment.
- 5&6 All utility poles and underground utility construction within the County right-of-way will be in conformance with the policies of the Department of Public Works, which includes but is not limited to, the current edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways."

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OECC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services





MOKU LOA GROUP

SIERRA CLUB • HAWAII CHAPTER

Hawaii Electric Light Co.
P.O. Box 1027
Hilo, Hawaii 96720
Attn: Mr. Clyde Nagata

August 21, 1996

Dear Mr. Nagata,

Sierra Club wishes to be a consulted party in the Special Subdivision Project Provision Program Unit - 71 environmental impact statement process. We would like to see the following list of concerns addressed and mitigation discussed.

1. Impacts of the project to threatened or endangered plants and animals (especially sea birds) within the project area and in the vicinity,
2. Cultural and archeological impacts within and adjacent to the project,
3. Impacts to any cave systems and biota living within them,
4. What energy source will power the lines i.e. oil, geothermal, coal, etc. and what is the added environmental impact of powering this line extension project?
5. How could the above environmental impacts be mitigated by the continued use of solar power in the communities to be served?
5. How does adding this new electrical load correlate with the goals of the Integrated Resource Planning Process mandated by the Hawaii Public Utilities Commission,
6. Will residents hooking up to electrical power be required to install and use high consumption electrical appliances i.e. electric water heaters,
7. Would the new residential customers within the Program Unit be eligible for all the energy saving devices and programs being offered under the IRP process?
8. What are the alternatives to hooking up subscribers of this SSPP program to a central power grid i.e. how much more expensive is dispersed photovoltaics for these rural customers?
9. Who is bearing the costs for this electrification program. Please delineate the costs and its allocation by group. Are federal funds being used and if so, where and how.
10. This electrification is being proposed for a high volcanic hazard area, what is Heleco's policy for bearing the costs if these geologic hazards destroy this project?

Thank you for the opportunity to participate in this EIS process.

Nelson Ho

Nelson Ho for the Conservation Committee

J.C. R.M. Towill P.O. BOX 1137 • HILO • HAWAII • 96721

R. M. TOWILL CORPORATION

420 WAIKANAHI RD #411 HONOLULU HI 96817-4041 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Mr. Nelson Ho, Conservation Committee
Moku Loa Group, Hawaii Chapter, Sierra Club
P. O. Box 1137
Hilo, HI 96721

Dear Mr. Ho:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

We have received your letter dated August 21, 1996 regarding the subject EISP/N. On behalf of HELCO, responses to your concerns have been prepared as follows.

1. Botanical and fauna and avifauna studies have been conducted for the project and will be included and discussed with respect to possible impacts and appropriate mitigation in the DEIS.
2. An archaeological resource study was conducted for the project and findings as well as the entire report will be included in the DEIS.
3. As part of the archaeological study referred to above, a site reconnaissance was conducted by the archaeological survey team. No cave systems were found. Further, the researchers' conclusion was that because the project area has been disturbed with the development of the subdivisions, roadway system, and pipelines, the likelihood of any cave systems existing is very low.
4. The energy source of the overhead electrical system project cannot be specified. In 1995, HELCO's system electricity production source load was divided as follows: Steam/Baseload (oil) was 42.3%, Geothermal 23.9%, Diesel (oil) was 18.5%, coal 9.9%, Hydroelectric 3.8%, and Wind was 1.6%. In other words, renewable energy resources including hydroelectric, wind and geothermal, supplied approximately 29% of the Big Island's electricity needs last year. A similar proportionate source load can be expected in 1996. Environmental impacts will be discussed in the DEIS.
5. Solar powered systems will be discussed as one of the alternatives to this project in the DEIS.

(As identified in your letter) The goals of integrated resource planning (IRP), as specified in the PUC framework for integrated resource planning dated May 22, 1992, is the identification of the resources or the mix of resources for meeting the near and long term consumer energy needs in an efficient and reliable manner at the lowest reasonable cost. Adding any new electrical service to the system is one of the inputs that needs to be considered in the forecasting element of the IRP process. The forecast is what drives the need to consider new generating resources or demand side management programs or a mix of

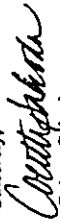
Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Mr. N. Ho
October 1, 1996
Page 2

both. Therefore, the addition of this new load only correlates to the goal of IRP in that this new load should be provided for in an efficient and reliable manner at the lowest reasonable cost.

6. HELCO will not require residents to install and use high consumption electrical appliances.
7. Yes, they would, provided that the new residential customers met the qualifications of the program.
8. One of the alternatives currently under investigation by HELCO is the provision of stand-alone packaged photovoltaic (PV) systems as an option to customers currently not living on the utility grid system. While HELCO does not yet have accurate estimates of the full cost of electrical service associated with these proposed packaged PV systems, a ballpark figure that is typically used is roughly \$1.00 per kWh. This includes equipment capital costs, installation, permitting, equipment replacement costs over the expected life of the system, backup generator operating and maintenance costs, and costs of servicing/maintenance for the system. How much more expensive this cost is versus the costs associated with the receiving power via utility lines will vary depending upon the kWh consumption rate for each customer, the assumed energy escalation rate, and over what period of time the comparison is conducted.
9. The cost for this project is being shared between HELCO, its customers, and this project's subscribers. No federal funds are being used. Costs and its allocation will be discussed in the DEIS.
10. HELCO is bound by its monopoly agreement with the state Public Utilities Commission to provide service upon demand from residents. In the event of a natural disaster like lava inundation, the utility company will restore a resident's request for service.

Sincerely,


Colette Sikoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

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Stephen K. Yamashiro
Attorney



Diane S. Quitiquit
Director

Colette M. Sakoda
Page 2
August 21, 1996

County of Hawaii

DEPARTMENT OF RESEARCH AND DEVELOPMENT
25 Ahupuni Street, Room 219 • Hilo, Hawaii 96720-4253 • (808) 941-4144 • Fax (808) 935-1205
KIHA (808) 935-5276 • Fax (808) 326-5661

August 21, 1996

Ms. Colette M. Sakoda
R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

Dear Ms. Sakoda:

Re: EIS Preparation Notice for SSPP Unit-71 12.47/7.2 kV
Overhead Distribution System located in Puna Hawaii.

Thank you for the opportunity to comment on the referenced
EIS Preparation Notice as follows:

1. Quite recently a new sub-division has been created at Kikala Keo Kea, west of Kehena Subdivision, consisting of approximately 60 1-acre lots for those of Hawaiian ancestry who have been displaced from Kalapana by lava flows. If the referenced project is likely to be the most cost effective source of utility electricity for this new sub-division, this should be mentioned in the EIS.
2. Under Section 3.7, Socio-Economic Characteristics, there is mention of comment letters received from Puna residents subsequent to publication of the Draft Environmental Assessment on December 23, 1994. The Red Road Community also prepared the 'Red Road Status Report' dated April 6, 1995. This 87-page report may merit recognition as a reference of community concerns in an appropriate section of the EIS.
3. In Section 3.8, Electric and Magnetic Fields (EMF), Table 3-1 presents measurements of electric and magnetic fields for appliances and distribution lines. The values for kV/m and mG at 0 (zero) feet from the center line of a 12.47 kV distribution line are both lower than those for a distance of 10 feet. Is this correct?

Also in Section 3.8, it is stated that "there is no established cause and effect relationship between EMF exposure and cancer or other disease". However, only one reference is provided, the Pohoiki Geothermal Transmission Line Environmental Impact Statement of August 1989. I believe that there is a body of work carried out since 1989 on this subject and more recent references would be in order in the EIS.

4. Section 4.5 indicates that there will be no long term or permanent noise impacts due to the project. This may not be the case; installation of the HELCO distribution system can be expected to result in lower noise levels in the affected subdivisions, especially at night, due to reduced usage of generators after utility power is made available.

5. Section 4.11 deals with the visual impacts of the proposed electrical poles. It is felt that these impacts are understated in this discussion in regard to Kalapana Seaview subdivision.

As stated in the text, the continuous view of the pole lines would be softened with the expected maturation of vegetation in the long term. Consideration should be given to the planting of young trees by the utility as a mitigation measure designed to hasten this maturation.

Yours truly,

Raymond Carr
Economic Development Specialist

xc: Diane Quitiquit, Director

R. M. TOWILL CORPORATION

420 WAIKAMAHIO RD #411 HONOLULU HI 96817-4041 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Mr. Raymond Carr, Economic Development Specialist
Department of Research and Development
County of Hawaii
25 Aupuni Street, Room 219
Hilo, HI 96720-4252

Dear Mr. Carr:


Subject: SSPP Unit 71 12.4777 2 KV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

We have received your letter dated August 21, 1996 regarding the subject EISP/N. Responses to your comments and recommendations have been prepared as follows.

1. A discussion of Kikala Keo Kea will be included in the DEIS.
2. Section 3.7, Socio-Economic Characteristics. Expanded discussion in the DEIS will include, but not be limited to, community concerns as expressed by the Red Road community.
3. Section 3.8, Electric and Magnetic Fields (EMF). Response to your questions and comments regarding measurements shown in Table 3-1, and references regarding studies on the relationship between EMF exposure and cancer or other diseases, will be reflected in the DEIS.
4. Section 4.5. Your comment regarding a possible positive impact on noise levels is noted, and will be considered for inclusion in the DEIS.
5. Section 4.11. Your comment with respect to the visual impact discussion has been noted, and possible mitigative measures will be reviewed with HIELCO for consideration in the DEIS.

Your participation in this process is appreciated.

Sincerely,


Collette Sakoda
Project Manager

cc: Diane Quilquit, Director
Virginia Goldstein, Director, Planning Department, County of Hawaii
OECC, Gary Gill, Director
HIELCO
David Sherman, Goodwill et al
DLNR, Land Management

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Greg Ball
Attorney at Law

(808) 889-7000
Fax (808) 889-7007

August 27, 1996

Ms. Colette M. Sakoda
R.M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

re: DEIS for Helco's SSPP Unit-71

Dear Ms. Sakoda:

My constructive criticism of your EISPN is advocacy on behalf of my clients, Friends of the Red Road, and is not intended to include the undersigned as a consulted party.

My client is pleased to see County of Hawaii Civil Defense as a consulted agency; why not also consult with the Hawaii Volcano Observatory, upon whom Harry Kim testified he depends for his geologic information? Doing so could help you correct your persisting lack of focus on the fact two of the three subdivisions are in Zone 1 hazard areas, rendering immaterial your comment at the bottom of page 3-1 about other areas of the island.

Likewise, your comment at page 4-1 that the project is "at sufficient enough distance from the Kilauea east rift zone to reduce any risk of damage from lava....", is so historically and geologically false as to simulate criminal negligence. Please finally understand that Zone 1 is the rift zone where vents have been repeatedly active in our time and lava flows will originate in the future. [Quoting from the "Volcano Watch" of the Hawaii Volcano Observatory, the published May 28, 1995.] I enclose two specimens of the "Volcano Watch" about this area, since you don't seem motivated to get them yourself. Since corporations are paper entities without a soul or conscience, I ask you: personally: Do you want it on your conscience that your EIS would be quotable by those who would lure innocent people to move into this area thinking it is safe because you guys say so or imply that it's relatively safe?

Finally, those of your comments which beg the issue, such as saying reduce a risk without making any scientific effort to quantify the reduction, are evasions of your responsibility to fully declare the "impact" under Section 11-200-16, which states in pertinent part: "The contents shall fully declare the environmental implications of the proposed action and shall discuss all relevant and feasible

Greg Ball

Kohala Trade Center, Suite 200
Hawi, Hawaii 96719

Mailing Address: P.O. Box 1567
North Kohala, HI 96755

Ms. Colette M. Sakoda
August 27, 1996

consequences of the action." Surely helping to lure families with children into a zone 1 hazard area should be fully discussed as a secondary impact of the proposed project, where providing utility power to this area is the equivalent of piping ice water to the Titanic and making it easier for more to board. These subdivisions need self-reliant people, not those who will be dependent on outside services subject to being severed whenever Kilauea burps again in that direction. On the other hand, if all subscribers to SSPP Unit-71 will contract to personally live there, not sell to outsiders, and post a bond with Harry Kim to defray all public costs of evacuation, that would be a different secondary impact. Thank you for correcting any of the deficiencies noted.

Sincerely,

Greg Ball
Greg Ball
Co-Counsel to Friends of the
Red Road

cc: Hawaii Volcano Observatory
Clients

Hawaii Tribune-Herald
Nov. 28, 1995

1975 Kalapana earthquake likely to reoccur

likely to reoccur

Tomorrow marks the 20th anniversary of the 1975 Kalapana earthquake, the largest earthquake to strike Hawaii since 1868.

Residents were awakened at 3:35 a.m. by a magnitude-5.7 earthquake located a few miles inland of Lih'e'apuka on Kilauea's south coast. A little more than one hour later, at 4:47 a.m., the main shock struck with a magnitude of 7.2. The epicenter was located at Keanoouao, just a few miles east, and close to the shoreline, from the forehook.

Much of the south coast of Hawaii Island slid horizontally towards the ocean and subsided. The maximum horizontal displacement, near Keanoouao, was about 26 feet. The displacements decreased to the east and west from this area.

Volcano Watch

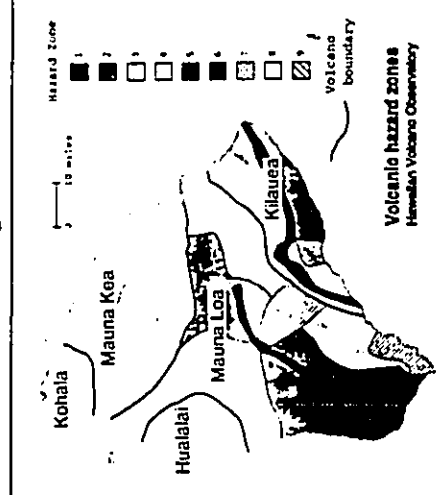
The area of sea floor inferred to have uplifted is about 70 kilometers along the coast and 30 kilometers perpendicular to the coast. This entire offshore region rose about 3.9 feet. The tsunami, with a maximum height of 20 feet at Hialepa, arrived at Punaluu a mere 84 seconds after a seismic sensor located there recorded the strong ground motion of the earthquake.

Losses from the earthquake and tsunami were two deaths, injuries to 28 people, and about \$4.1 million property damage. Both deaths, all the injuries, and roughly a third of the property losses, were attributed to the tsunami. Of the property losses, about \$2.1 million was by private property and \$2 million to public property (a combination of county, state, and federal facilities and infrastructure). As there were

Similarity, subsidence of the coast was greatest in this same area and amounted to about 11.5 feet. The amount of subsidence rapidly decreased to the west, and at Punaluu, the shoreline actually uplifted by about 4 inches. To the east, subsidence was about 9.8 feet at Hialepa, 3.6 feet at Keanoouao, 2.6 feet at Kaimu, 1.3 feet at Pohohi, and 0.8 feet at Kapoho. At Hialepa, the subsidence resulted in submergence of a large stand of palm trees.

The coastline was not the only area that was altered as a result of the earthquake. The summit of Kilauea subsided about 3.9 feet and moved towards the ocean about the same amount. A small, short-lived eruption broke out inside the caldera. The eruption was probably triggered by the shaking, which causes gas bubbles to form in the magma. The effect is similar to opening a

Volcanic hazard maps updated



the same scale. The hazard map is currently for sale at "Biscuit Books" bookstore in Hilo. The lava-flow hazard zones are based solely on geological criteria, including the location of eruptive vents, past lava flow coverage, and the topography of the volcanoes. Hazard zone boundaries are approximate, and the change in degree of hazard from one zone to the next is generally gradual rather than abrupt.

The current map divides the island into nine zones based on the likelihood of coverage by lava flows. Zones 1, 3 are limited to the active volcanoes of Kilauea and Mauna Loa. Zone 2, the most hazardous, includes the summits and rift zones of Kilauea and Mauna Loa where vents have been repeatedly active in historic time and lava flows will originate in the future. Areas adjacent to and downslope of active rift zones make up zone 2. All of the 181

Volcano Watch

houses destroyed in the 1983-present eruption of Kilauea were located in zone 2, about 8 miles from the vent. Zone 3 includes areas geographically less hazardous than zone 2 because of greater distance from recently active vents or because the topography makes it less likely that flows will cover these areas. Zone 4 comprises all of Hialepa, where the frequency of eruption is lower than on Kilauea and Mauna Loa. Hialepa is in a single zone because its slopes are steep and flows could readily cover the dis-

Correction

The grand opening of an office of InterLink Hawaii Inc. is

reduce the risks to life and property posed by these hazards. Our best tools for reducing risk are proper land-use planning, which limits development in high hazard areas, and education, which gives people a rational basis for deciding where to build a home, develop commercial property, or locate a public facility.

ST. JUDE NOVENA
MAY THE SACRED HEART OF MARY BRING YOU THROUGH THE WORLD OF PAIN AND SUFFERING TO THE HEAVENLY JOY OF PARADISE. PRAY FOR US, ST. JUDITH, WOMEN OF SUFFERING MAY FOR US, ST. JUDITH, WOMEN OF SUFFERING MAY FOR US, ST. JUDITH, WOMEN OF SUFFERING MAY FOR US.

PICTURE FRAME SHOP
1475 Kalia Road, Honolulu, HI 96813
Tel: 848-2222

Civil Plaintiff
95-014
147

EXHIBIT 146

Hawaii Tribune-Herald
Nov. 28, 1995

1975 KALAPANA EARTHQUAKE
Likely to Recur - cont.

only a few dozen residences located within 10 miles of the epicenter, the structural damage caused by shaking in the general area of the epicenter was surprisingly light. Damage to Hilo, about 45 miles from the epicenter, was fairly heavy and included damage to Hilo Hospital and several other large engineered buildings. We learned much about the structure of Kilauea Volcano from this earthquake and we are now able to forecast future activity more accurately than we could before. For example, we now know that the large earthquakes along the Hawaii's south flank occur on a nearly flat-lying fault plane and that the pressures from within the magma system at Kilauea, and probably from within Mauna Loa, as well, provide the push on the flank.

We know that such large events occur more frequently than every hundred years, on average -- they have occurred in 1823(?), 1868, and 1975 -- and that smaller (but still damaging) earthquakes occur in this region even more frequently (the last in 1989).

Today, we are measuring the rates of movement of the south flank using satellite technology. These measurements show us that energy is accumulating in the south flank. The accumulated and stored energy will eventually be released during the next large earthquake in this region.

In planning for future earthquakes, it is worth remembering that the population of the island in 1975 was less than half of what it is today, and that the population close to the epicenter and along the south coast of Hawaii, where the effects of ground subsidence and tsunami were large, has grown enormously.

A similar earthquake and tsunami today will cause far greater casualties and property losses than occurred in 1975. Such an event will occur again. Will we have planned our community growth and infrastructure to minimize life and property losses? Will we have built buildings that will withstand the ground shaking? Will we each have prepared for the next earthquake by maintaining emergency supplies in our homes?

Volcano Watch is a website feature provided by scientists at Hawaiian Volcano Observatory.

R. M. TOWILL CORPORATION

420 WAIKAIHIO RD #411 HONOLULU HI 96817-4041 (808) 842-1133 FAX (808) 842-1937

October 1, 1996

Mr. Greg Hall
P O Box 1567
North Kohala, HI 96755

Dear Mr. Hall:

Subject: SSPP Unit 71 12.47/7.2 KV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND), Puna, Hawaii

This is to acknowledge receipt of your letter dated August 27, 1996

With respect to your recommendation to include Hawaii Volcano Observatory on the list of agencies to be consulted, a copy of the DEIS will be sent to staff for review. However, your remark regarding the need to consider the discussion on page 3-1 (of the EISPND) as "immaterial" is your opinion. According to records, the 1984 Mauna Loa eruption resulted in lava flow that threatened the properties of Hilo town and its residents. The lava flow came to within 4 miles of Kaunama City, which had residents on alert during this period.

Your concern regarding the project's distance from the Kilauea east rift zone has been noted as part of the DEIS preparation process. Your enclosed copies of "Volcano Watch" are appreciated although I do happen to have these as well as all other Volcano Watch articles at the office. Your reference to a disclosure document as containing language that "would lure innocent people to move into this area," has been noted. The developers and real estate agents of the three subdivisions were successful in selling the properties in this project area since county subdivision approvals were granted some 20 to 30 years ago.

The DEIS will contain discussion of environmental implications of the proposed action and shall discuss relevant and feasible consequences of the action in accordance with HAR Section 11-200-16. If you or your clients are able to offer insight and information regarding motivations of any potential future residents of the three subdivisions that differ from those that "lured" your clients, your input is welcomed. Your remaining comments regarding the Titanic and Kilauea burping have been noted for the record and will be shared with the public.

It has been noted that you haven't requested a copy of the DEIS or to be a consulted party.

Sincerely,

Collette Sakoda
Collette Sakoda
Project Manager

cc: Hawaii Volcano Observatory
Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

ISAAC DAVIS HALL

ATTORNEY AT LAW
2087 WELLS STREET
WAILUKU, MAUI, HAWAII 96793
10081 244-9017
FAX (808) 244-8775

August 27, 1996

| | |
|-----------------|-----|
| DK | KIS |
| AUG 29 1996 RMT | |
| P/75 | |

OF COUNSEL
RICHARD GESCH

Mr. Clyde Nagata
Hawaii Electric Light Company, Inc.
PO Box 1027
Hilo HI 96720

Re: EISPN Notice for HELCO 12.47/7.2kV Overhead Distribution System
in Puna

Dear Clyde Nagata:

This letter is written on behalf of Friends of the Red Road and Athena Peanut. Thank you for sending me a copy of the "Environmental Impact Statement Preparation Notice" ("EISPN"). What follows are some of our comments on this EISPN.

1. Purpose of EISPN Mistaken

The content requirements for an EISPN are set out in H.A.R. §11-200-11(c). The EISPN must contain a concise statement of the reasons why an EIS is being prepared. It has been determined that this project may have a significant effect on the environment. The EISPN should have acknowledged as much. Instead, the EISPN is nearly identical to the Final Environmental Assessment dated August, 1995 which was submitted for HELCO. The intent of the Final Environmental Assessment was to prove that the project would not have any significant adverse impacts. This document is particularly ill-suited for HELCO's new enterprise which is to study in greater detail the impacts which may occur.

2. Determination of the Accepting Agency

The accepting authority for the EIS must be identified and designated pursuant to H.A.R. §11-200-4. The accepting authority rests with the agency initially receiving the request for an approval. HELCO has now substituted the County of Hawaii Planning Department as the approving agency for the County of Hawaii Department of Public Works. §8.1 of the EISPN describes the permits and the Planning Department is not listed as an approving agency for any permit. Only agencies issuing permits can be accepting authorities. Once again, the accepting authority appears to have been mis-designated. The EISPN should demonstrate why it is believed that the County of Hawaii Planning Department is the agency receiving the initial request for an approval.

3. Scoping Function not Performed in EISPN
One of the purposes of the EISPN is to begin to address the scope of the EIS. According to H.A.R. §11-200-14:

... the EIS involves more than the preparation of a document; it involves the entire process of research, discussion, preparation of a statement and review. The EIS process shall involve at a minimum: identifying environmental concerns, obtaining various relevant data, conducting necessary studies, receiving public and agency input, evaluating alternatives, and proposing measures for minimizing adverse impacts.

HELCO has received the comments of Friends of the Red Road and its members on many occasions. HELCO has mostly ignored statements in these comments about probable adverse impacts of the project, necessary studies which must be conducted, the evaluation of reasonable alternatives and minimizing adverse impacts.

The EIS must "fully declare the environmental implications of the proposed action and shall discuss all relevant and feasible consequences of the action." H.A.R. §11-200-16. The full range of responsible opinion on environmental affects, including responsible opposing views, on significant environmental issues must be addressed also. H.A.R. §11-200-16.

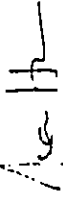
The EIS must contain "a rigorous exploration and objective evaluation of the environmental impacts of all reasonable alternative actions, particularly those that might enhance environmental quality or avoid or reduce some or all of the adverse environmental costs." This analysis of alternatives must be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action in each reasonable alternative. H.A.R. §11-200-17(f).

By the EISPN, it appears that HELCO plans to prepare another Environmental Assessment. This will be totally inadequate. HELCO must change its attitude and begin seriously studying and evaluating the possible impacts of this project. The EIS Rules are very clear on the content requirements for an adequate EIS. These Rules must be complied with in full.

Without repeating all of the comments which have been submitted by Friends of the Red Road and its members in the past on the significant adverse impacts caused by this project, reasonable alternatives and important mitigation measures, these are all hereby incorporated by reference as a basis upon which the broad scope of this EIS can be established.

Please contact me if you have any questions about any of the above. I
look forward to hearing from you.

Sincerely yours,



Isaac Hall

IH/jp Friends of the Red Road
cc: OEGC
Hawaii Planning Commission
R.M. Towill

R. M. TOWILL CORPORATION

420 WAIKEMAHU RD #411 HONOLULU HI 96817-4041 (808) 948-1133 FAX (808) 942-1037

October 1, 1996

Mr. Isaac Davis Hall
2087 Wells Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Hall:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter dated August 27, 1996 regarding the subject EISPN. On behalf of HELCO, responses to your concerns have been prepared as follows.

1. Purpose of EISPN Mistaken

An EIS is being prepared because the circuit court on July 10, 1996 ordered that one be done since the county "failed to consider the significance criteria, as set in HAR Section 11-200-12, prior to issuing a Negative Declaration." Your concern regarding what the EISPN should have said has been noted. The events involving the prior submittal of a Special Management Area Use Permit, Draft Environmental Assessment, Final Environmental Assessment, and the outcome of a ruling by the Third Circuit Court will be documented in the DEIS.

2. Determination of the Accepting Agency

Section 8.1 of the EISPN includes preparation of a Special Management Area (SMA) Use permit in the discussion. Preparation of an easement request is also included. Neither the County of Hawaii Planning Department nor the State Department of Land and Natural Resources is mentioned. Because the County of Hawaii has jurisdiction over a majority of the project area, the Planning Department has been designated as the accepting authority. As the lead authority, the Planning Department will coordinate a simultaneous review with the DLNR to ensure that the state agency has its input during the review process. The DLNR, following consultation with the state Office of Environmental Quality Control (OEQC), requested that the Planning Director take on the responsibility of lead accepting authority (letter dated August 29, 1996).

3. Scoping Function not Performed in EISPN

When you were sent a copy of the EISPN in July, a transmittal letter accompanied the document. It stated:

"On behalf of the Hawaii Electric Light Company, Inc. (HELCO) we are

I. Hall
October 1, 1996
Page 2

preparing an Environmental Impact Statement (EIS) for the SSPP Unit-71 12.477.2 kV Overhead Distribution System project located in Puna, Hawaii. Enclosed is a copy of the Final Environmental Assessment/EIS Preparation Notice (EISPN) for your review. Please indicate whether you wish to be a consulted party in the EIS process. Any additional data or information you can provide would be appreciated at this time."

These statements reflected the purpose of the EISPN in accordance with HAR Section 11-200-14.

All public comments have been considered and responded to during the project planning and environmental review processes which began in 1989. HELCO has addressed the potential significant impacts and will restate these and appropriate mitigation measures in the EIS.

Your concerns with respect to the content requirements of the EIS (HAR Sections 11-200-16 and 11-200-17) have been taken under advisement.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodstill et al
DLNR, Land Management



Civil Defense Agency

County of Hawaii • 920 Ululani St. • Hilo, Hawaii 96720 • (808) 935-0031 • Fax (808) 935-4460

Stephen K. Yamashiro
Mayor

September 4, 1996

Colette M. Sakoda
R.M. Towill Corporation
420 Weikamilo Road, Suite 411
Honolulu, HI 96817-4941

SSPP UNIT-71 12.47/7.2 KV OVERHEAD DISTRIBUTION SYSTEM

Thank you for the opportunity to review and comment on this project. Listed are comments related to the project:

SECTION 4

General Comments

The project makes no mention of tropical cyclone hazards. The majority of tropical cyclones approach the island of Hawaii from the easterly direction. Most probable impact on the project would be the wires and poles, either directly by the winds or by trees affected by strong winds.

Specific Comments

4.1 Geologic Hazards

1. Earthquakes should be listed as a geologic hazard for the area. The EIS does state that there is a higher risk for potential lava flows and seismic hazards near the Kilauea east rift zone. This project is in the east rift zone.
2. The statement made in regards to the proposed alignment being at " . . . sufficient enough distance from the Kilauea east rift zone to reduce any risk of damage from lava . . ." is not understood. The project is within the lava flow hazard, Zones 1 and 2. This, as defined, is the greatest risk area and, as stated in the EIS, most of the proposed project is located in areas affected by the 1955 east rift zone eruption.
3. Statement on " . . . the lateral loads due to seismic conditions would be expected to be less than that due to wind loads" is questioned due to the magnitude of earthquakes in the Kilauea south flank 7.2 (1975); 6.5 (1954); 6.1 (1989).

Should there be any questions on these comments, please call me at 935-0031.

Harry Kim
HARRY KIM, ADMINISTRATOR

dy

R. M. TOWILL CORPORATION

420 WAIKAMILO RD #411 HONOLULU HI 96817-4941 (808) 935-1133 Fax (808) 935-1037

October 1, 1996

Mr. Harry Kim, Administrator
Civil Defense Agency
County of Hawaii
920 Ululani St.
Hilo, HI 96720

Dear Mr. Kim:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of September 4, 1996. The following has been prepared in response to your comments.

General Comments Section 4
Tropical cyclone hazards will be included in the discussion of possible natural hazards to the area. Your information is appreciated.

Specific Comments Section 4.1 Geologic Hazards
The discussion regarding geologic hazards in the DEIS will reflect your comments and information.

A copy of the DEIS will be sent to you. Your participation in this phase of the project is appreciated.


Sincerely,

Colette M. Sakoda

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodskill et al
DLNR, Land Management

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services



| | |
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| DATE | TIME |
| AUG 19 1996 | 12:24 |

H.O.P.E.
 Home Owners Preferring Electrification
 Telephone 808 965-0239

c/o Ron Overman
 RR2 Box 4743
 Keheha Beach, HI 96778
 19 August, 1996

Mr. Clyde Nagata
 Hawaii Electric Light Company, Inc.
 P.O. Box 1027
 Hilo, Hawaii 96720

Dear Mr. Nagata:

"HOPPE" is an informal organization of home and property owners in Kalapana Seaview Estates, Puna Beach Palisades, and Keheha Beach Estates who support the overhead distribution of electrical services by HELCO to our subdivisions. As such, we wish to take this opportunity to request that we become "consulted parties" with respect to the Environmental Impact Statement which HELCO is preparing. Further, we enclose the following comments for your consideration in preparation of the EIS. If you have any questions concerning the request to be designated consulted parties or our comments, please contact us at the above address or telephone number.

Comments on Environmental Impact Statement Preparation Notice for SSPP Unit 71 12.47/7.2 kV Overhead Distribution System

As indicated above, we support the extension of electrical services as proposed by HELCO. Our principal concern is that the EIS Preparation Notice either understates or misses entirely the positive effects this project will bring to our communities.

It is also essential that the EIS detail the history of this project going back to initial hearings which HELCO had with interested parties in the 1980's. These include the initial public meeting in April of 1989 in Kalapana, letters to all property owners since that date, meetings with homeowners associations and with Friends of the Red Road, and public meetings in Pahoia in 1994. As a result of all this community involvement, HELCO made numerous changes to the project such as joint pole agreements with GTE and more expensive insulated wire to reduce tree trimming. These are just a few examples of community involvement that we remember. There are further efforts which are documented in HELCO files. It is essential that HELCO include everything it has done with respect to community involvement in the EIS. We would appreciate your providing us, independent of the EIS, with a copy of this history so that we may better support this project.

Our other comments are raised in the context of the specific points as listed in the Preparation Notice.

Section 2.1 Background and Location. The Notice indicates that "existing Hawaiian Tel poles will be replaced with the HELCO poles" (para. 3, p. 2-1). During the June hearing before the Third Circuit Court in Hilo, questions were raised about whether HELCO and GTE had signed a formal agreement to this effect with a deadline for when GTE would remove its poles. If such an agreement has been signed, it should be stated, if it has not been signed, HELCO should pursue this as soon as possible.

This might be a good point to note that the upgrade of telephone service to provide private line telephones and their associated advanced service options to those who are currently unable to obtain them has been delayed three years while the dispute over this project has continued. With the resolution of this situation, GTE will presumably proceed with the provision of upgraded service to our communities.

On page 2, (and stated again in section 3.4), the Notice indicates that these subdivisions were developed about 30 years ago. It is important at this point to note that the County government approved these developments with the proposed densities and the implied impacts of that development of 1200+ lots at that time - i.e. prior to present environmental laws. Owners invested in these lots because they were approved by the County government for such development. Efforts now to restrict development as advocated by Friends of the Red Road amount to seizure of properties rights from these owners.

Further, HELCO is under an obligation to provide electricity to any group that requests it under its monopoly agreement with the State of Hawaii. Federal law also provides for rural electrification. Property owners acted because of this assurance - a number of homeowners built specifically because HELCO was going to provide the electrical services. Again, to deny owners electricity in 1996 takes away the values of property and building investment without due compensation.

Table 2-1 should be updated. Also, why not list the number of lot owners who have signed contracts and begun paying for immediate connection to electricity - nearly 200? How many signed the initial survey indicating that they would want electricity if available - approximately 425.

2.3.3 Re: Tree-trimming, note that this will not only enhance public safety by minimizing the number of power outages and fallen lines, but also by preventing falling limbs, fronds, and coconuts from hitting pedestrians or automobiles.

3.1.3 It should be pointed out here that under the current system of photovoltaic energy or individual electrical generators, the weakest part is also the most hazardous to the environment - i.e. the batteries required to store the electricity. These batteries are

relatively short lived and are usually disposed of improperly. A major source of lead poisoning in Maui, for example, is discarded batteries. In addition, lubricating oil from generators is also frequently disposed of in the ground. Given the proximity to the ocean, it is possible this lead and oil actually reaches the ocean. By eliminating the need for batteries, this project will lessen the environmental degradation from these sources.

3.1.5 Air Quality: Presently, excepting perhaps automobile exhaust and the volcanoes when the winds blow from the right directions, the major source of air pollution in these subdivisions comes from the frequent and unregulated use of privately owned fossil fuel burning generators. Again, this project will lessen if not completely eliminate this pollution source. This point should be repeated in section 4.4.

3.1.6 Noise: A major source of noise pollution in the subdivisions is the occasional use of generators on most days and the constant, widespread use of generators during rainy, cloudy periods when solar panels are ineffective. This project will thus result in a net diminution of noise in these areas. This point should also be made in section 4.5

3.2.2.2 Fauna Radar and Visual Survey Study Findings: In the 18 months since the HELCO installation of new, taller poles and wires, there has been no report of any bird or bat fatalities due to the wires. Further, Friends of the Red Road argue that lights at night may be a hazard for the young seabirds, but the neighborhood has 146 homes with lights on at night right now (from batteries and generators). There is even a 35 foot tall lighthouse tower, and no bird deaths have been reported.

3.5.1 Roads (p. 3-14) It is stated that "there are private roads primarily within the subdivisions." This is wrong. All roads in the subdivisions are County-owned and maintained.

3.8 EMF: Presently residents are being subjected to higher than normal (and certainly higher than from the transmission lines) EMF's from their individual power systems such as generators, batteries, inverters, and solar panels. Provision of electrical services from HELCO will thus lower exposure to EMF's for most individuals in the subdivisions, not increase it. This point should be reiterated in section 4.7.

Table 3-1 Why not show the EMF data for generators (1000 watts, 2000, 3000, etc.), inverters (several levels) solar panels, and banks of batteries.

4.1 Geologic Hazards: As noted in the trial in June by the head of the County Civil Defense Office, the availability of electricity will enhance the ability of Civil Defense Officials in communicating with residents, etc. [see trial transcript].

4.2 Flora Because of the very small size of the residential lots in these subdivisions (1/5th to 1/2 acre) homeowners must now remove many trees which might otherwise remain

because the trees' shade prevent full use of solar panels. It is not uncommon to see native kukui trees being cut down by owners of neighboring lots because of the impracticality of solar collection on a narrow 60-70 foot wide lot in a tall tree canopy area. The proposed project would thus save trees and allow for a cooler shaded environment for properties not dependent on solar energy.

4.9 Other benefits. This section is totally inadequate. Virtually all households must use fossil-fuel generators at some periods when solar power is unavailable or inadequate (e.g. to run power tools, washers, and even gas dryers). A number of households are totally dependent on electricity generated from their private generators. Use of these generators most often requires gasoline (though more expensive generators may use diesel fuels or propane). Fossil fuels offer a great fire hazard both for transportation to and storage at the property. We are 15 miles from the nearest fire station. There have already been two structural fires and one person has been severely burned because of fires from generators. Other houses were damaged or destroyed because of the use of candles or kerosene lamps. By bringing in electricity, HELCO will greatly mitigate this danger.

As importantly, a major advantage of HELCO provided electricity is the lack of maintenance required by the users. Neither solar nor generator power is maintenance free. Some people are incapable of maintaining these power sources. Further, at some point, we may become ill or too infirm to keep up the power sources. Older members of our community are being forced from their homes because they can no longer maintain and operate their systems. Visiting health providers have had to evacuate ill patients because the patients were incapable of operating their electrical equipment alone. Basic requirements such as water for bathing is unavailable if electrical pumps cannot be operated—and these ill patients could not operate the energy sources to run the pumps. Some of the sophisticated medical machinery that these patients may need cannot be run off of uncertain sources of electricity. HELCO electricity will mitigate this problem.

4.12 Social and Economic Impacts. On page 3-17, the Notice reports that the major concerns for people in Puna are lack of job opportunities and inadequate infrastructure and services. Section 4.12 should discuss the positive contributions this project would make to these concerns. Specifically, the report indicates a secondary impact will be more development of residential dwellings. This requires workers—building jobs will be increased significantly. In addition, construction projects will be less burdensome to the environment since currently all construction must be done with a noisy, polluting generator for power tools. Also, with more houses, more maintenance work will result. Employment opportunities will be created for skilled carpenters, electricians, painters etc. as well as for less skilled laborers which may even be available for juveniles—e.g. yard and garden maintenance.

A significant number of people are inhibited from developing businesses in the area because of lack of electricity and inadequate telephone service. There are a number of computer professionals (programmers, etc.) who would look to this area as a home site if

good telecommunications and dependable electrical service were available. These are well-paying, environmentally clean jobs. Those already working by using access to Internet will have their jobs made easier. Government and private industry workers alike may be able to "telecommute" once electricity and decent telephone services are provided. These are just a few examples of the types of new job opportunities that will be opened up with the provision of electricity. Thus, secondary impacts will be enormously positive and should be listed.

5.2 County General Plan. The lands in the project site are not agriculturally productive due to recent lava flows (1955). The County and State plan encourages developers of new urban areas to place utilities underground, but these are rural residential subdivisions which were created in the 1960's. They are not new subdivisions so the requirements don't apply, and it is unrealistic economically and may in fact be more damaging to the environment to put the utilities underground here.

5.3 County Zoning: Zoning is very flawed and very misleading in these subdivisions. County and State officials are in a quandary over how to apply laws associated with A-1a and A-3a zoning, because the lots in this project area are in reality 1/5th to 1/2 acre in size. They are totally impractical for agricultural use both because of their size and the soil conditions. It would make more sense to zone these lots as rural residential.

Again, if you have any questions, please contact us.

Sincerely,

[Signature]
Donald J. Overmann
James V. Setta
TMK 3-1-2-30-55

[Signature]
Gregg Buchner
TMK 3-1-2-30-30
3-1-2-30-31

[Signature]
Norman and Elizabeth Olesen
TMK 3-1-2-31-057
3-1-2-31-058

Daniel Bona
Rich Romo
TMK 3-1-2-31-47
3-1-2-33-131

Anita Weeks
TMK 3-1-2-30-51

Pat Rocco
TMK 3-1-2-35-12

[Signature]

David Ghoe
TMK 3-1-2-35-33
TMK 3-1-2-26-55

[Signature]
Gene Goldberger
TMK 3-1-2-31-49,50

Copy to: Virginia Goldstein
Colette Sakoda
OEQC

Tiwana Heiser
Cathy Heiser
SHARON 84 years
MALIN 84 years
STADLEY HEISER 34 years.

See Attached

Steve Stickney
Alfred Brandner
TMK

[Signature]
Helen and Karl Embrey
TMK 3-1-2-31-101

[Signature]
Wardalee Spolini
TMK 3-1-2-35-14

Larry Carter
LARRY CARTER
TMK 3-1-2-35-

R. M. TOWILL CORPORATION

420 WAIKANEHULO RD #411 HONOLULU HAWAII 96817-4941 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Home Owners Preferring Electrification
c/o Ron Overmann
RR2 Box 4743
Keleha Beach, HI 96778

Dear Mr. Overmann:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received a copy of your letter dated August 19, 1996 regarding the subject EISPN. On behalf of HELCO the following responses have been prepared.

Project's Positive Effects

The DEIS will include discussions of positive effects where appropriate.

History of Community Involvement

A chronology of the project that documents the extensive consultations HELCO conducted with the residents of the project area since 1989 will be included in the DEIS. The history will also discuss the changes to the project that resulted from residents' recommendations at these meetings. A preliminary copy of the history was sent to you under separate cover last week.

Section 2.1 Background and Location. The agreement between the two utility companies is that GTE Hawaiian Tel will remove all of its poles within a reasonable time following transfer of the phone facilities to the electrical system poles. The DEIS will include this issue as a possible temporary impact. Your recommendation to add discussion in the DEIS regarding the delay in telephone upgrade service is also noted.

Your comments regarding the "efforts to restrict development" of lots contained in subdivisions that were approved by the county some 30 years ago have been taken under advisement. The fact that the project is consistent with HELCO's response to residents' requests for electricity because of its monopoly agreement with the state of Hawaii has been discussed in the environmental assessment, and will be restated in the EIS.

The DEIS will include information about the initial number of respondents to the HELCO survey.

Section 2.3.3 regarding Tree-trimming. Your additional information has been noted.

HOPE
October 1, 1996
Page 2

Section 3.1.3 regarding photovoltaic energy or individual electrical generators. Your information and comments are being taken under advisement.

Section 3.1.5 Air Quality. Your comment has been noted.

Section 3.1.6 Noise. The same goes for comments regarding generators.

Section 3.2.2.2 Fauna. Your comments and key informant observations have been noted.

Section 3.5.1 Roads. The DEIS will reflect the change in this ownership identification.

Section 3.8 EME. Your comments and suggestions will be considered in the preparation of the DEIS.

Section 4.1 Geologic Hazards. The DEIS will include comments from County Civil Defense.

Section 4.2 Flora. Your comment and observations have been noted as the DEIS is being prepared.


Section 4.9 Other Benefits. Your suggestions and observations are noted.

Section 4.12 Social and Economic Impacts. Your comments regarding secondary impacts will be considered for the DEIS.

Section 5.2 County General Plan and Section 5.3 County Zoning. Your comments are so noted.

A copy of the DEIS will be provided to your group. Your continued participation in this process is appreciated.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management



H.O.P.E.

Home Owners Protecting Escalation Telephone 808 965-0230

elo Run Overman
Rt2 Box 4743
Kohala Beach, HI 96778

Steven Stickney
STEVEN STICKNEY

TMK # 1-2-033-118, 121

TMK # 1-2-033 - 39, 40

Alfred Brandner

Alfred Brandner

1-2-033-118, 121

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| 96778 | SEP 3 1996 | RECEIVED |
| 96778 | SEP 3 1996 | RECEIVED |

please see me first

12-447 La'au Loke Street, Keleha, Pahoa, HI 96778
 27 August 1996

Clyde Nagata
 Hawaii Electric Light Company, Inc.
 P. O. Box 1027
 Hilo, HI 96720

Re: SSPP-71, OEQC Bulletin 7-23-96 Notice
 Consulted Party Status

Dear Mr. Nagata,

I would like to be a consulted party in the EIS process.

My questions and concerns are as follows:

The document issued by the R. M. Towill Corporation, dated July, 1996, states that Kalapana Sea View Estates has "rolling" terrain and that the only part of that subdivision from which the sea is visible is "on the makai side of the highway."

The "Pahoa South, Hawaii" map published by the U. S. Geological Survey in 1980 and identified by the numbers N1922.5-W15452.5/7.5 shows twenty-foot contour intervals. At the intersection of Kaikanani Street and the Red Road this map shows the elevation to be eighty feet above mean sea level. The contour lines are evenly spaced up the entire length of Kaikanani Street, and continuing thus on up Mapuana Street to the end, where the elevation is 270 feet above mean sea level. Evenly spaced contour lines do not indicate "rolling" terrain, but a steady, flat, regularly sloping plain.

This morning I toured Kalapana Sea View Estates to confirm with my own eyes my belief that the Towill document is in error on this point. I stopped at the highest point, more than a mile mauka of the highway and 270 feet above mean sea level.

Looking seaward (through the maze of poles and wires), I noted that my view of the sea was about 80 degrees of scope. With my pickup out of gear, starting from a dead stop, I coasted down that mile-long constant, regular (not "rolling") slope, and as I did so, my view of the sea kept expanding laterally. I stopped while still mauka of the Red Road where the view of the sea was nearly 180 degrees of scope. "Maybe this is why they named it Sea View," I thought, "because the sea is visible from all parts of this subdivision."

The point I'm making is this: This part (at least) of the Towill document is obviously not true. It appears to have been written by someone unfamiliar with the subdivision--someone who has never even seen it--or by someone who is deliberately attempting to convince the reader(s) that the overhead installation of powerlines has no negative impact on the visual beauty of the area. My concern is that if the Towill document contains this blatant disregard for truth on this single point, then the entire document invites skepticism and doubt.

Another point that causes my concern is the Towill document's assertion that underground installation would cost ten times as much as overhead installation. An underground installation with the main trench dug in the center of the Red Road is the obvious solution to the whole controversy. It would rid our communities of the ugly poles, it would eliminate the life-threatening wires, and it would not disturb the plantlife bordering the roads and streets.

We have a unique opportunity for input from an expert on this point. A professional engineer sat on my lanai one evening about five years ago explaining to me and a group of my friends the standard procedure followed by the ever-growing number of communities where utilities are being placed underground. He said he personally performed a professional engineer's study comparing the cost of underground versus overhead installation. He stated that the conclusion of his study shows that underground installation pays dividends after only three years because of the decreased costs of maintenance.

I suggest that that engineer be invited to contribute his first-hand expert knowledge to the Environmental Impact Statement process. His name is Norman Olesen. He is the Deputy Planning Director of the County of Hawaii.

Sincerely,

Gerald P. Thomas

Copies to:

Virginia Goldstein, County of Hawaii Planning Department
 25 Aupuni Street, Hilo, HI 96720

→ Colette Sakoda, R. M. Towill Corporation
 420 Waiakamilo Road, Suite 411, Honolulu, HI 96817

OEQC, 220 South King Street, Central Pacific Plaza, Suite 400
 Honolulu, HI 96813

R. M. TOWILL CORPORATION

420 WAIKAMAHIO RD #411 HONOLULU HAWAII 96817-4041 (808) 548-1133 FAX (808) 548-1037

October 1, 1996

Gerald P. Thomas
12-447 La'au Loke Street
Kehena, Pahoa, HI 96778

Dear Mr. Thomas:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N) Puna, Hawaii

I am in receipt of your letter dated August 27, 1996 regarding the subject EISP/N. On behalf of HELCO, the following has been prepared.

While your original research and documented observations may have some merit, the real conclusion is that the contents of the discussion on views and view impacts as contained in the environmental assessment/EISP/N are valid. The statements with respect to rolling terrain apply to certain view points from within the Kalapana Seaview subdivision and along the Red Road. Because your pointed and detailed observations would lead one to question the views and view impacts discussion in the environmental assessment/EISP/N, your recommendation to consult with Mr. Norman Olesen for his first-hand knowledge was followed. I called him on September 3, 1996. Mr. Olesen confirmed that descriptions of views to which you had referred as "...not true," are in fact true and valid.

Mr. Olesen recalled the extensive amount of consultation HELCO conducted with the community with regard to placement of the polelines. In response to recommendations from the residents, HELCO changed its plans to place the polelines on the mauka side of the Red Road in the same alignment as the GTE Hawaiian Tel polelines, to preserve ocean views. On further negotiations with HELCO, they agreed to go to a joint pole construction. HELCO agreed to use tree cable (insulated) which would further mitigate the amount of trees to be removed.

Further, he said that through further exploration of the costs and impacts of the placement of the lines underground, Mr. Olesen found that the very need to preserve trees and other vegetation would be threatened because the extensive trenching and underground construction would destroy all vegetation along the easement and in addition destroy the root systems of trees on private properties. He added that since he introduced his undergrounding proposal, he learned that the SSPP program under Rule 13S that was approved by the state PUC specifically provides above ground electrification systems only. The purpose of this special provision was to allow


Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

G. P. Thomas
October 1, 1996
Page 2

HELCO to provide electrification at affordable cost to remote, rural subdivisions such as Kehena Beach Estates, Kalapana Seaview and Puna Palisades. Therefore, he concluded that the underground concept was not feasible.

A copy of the DEIS will be sent to you.

Sincerely,



Colette Sakoda
Project Manager

cc: Norman Olesen, Deputy Director, Planning Dept., County of Hawaii
Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodskill et al
DLNR, Land Management

Friends of the Red Road

P.O. Box 1610, Pahoa, Hawaii 96778

August 29, 1996



'A'o, Newell's Shearwater

Clyde Nagata
Helco

P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC First Notice 7/23,
Consulted Party Status

Dear Sir

Yes, I wish to be a consulted party in the EIS process.

Residents have struggled long and hard for 1-1/2 years in court to have a full-fledged, truthful, detailed study of the effects this project is having and will have in the future on the last pristine coastal road in the nation that has never had major infrastructure.

Why is this critical fact not being addressed in the OEQC Bulletin? How can we have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the consequences of action that have already occurred in this after-the fact project, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to law?

In reviewing the OEQC Notice it is amazing to read about this project as if it had barely begun. In reality the project is 98% completed without any permits whatsoever.

Why isn't this project designated AFTER-THE-FACT? How can the community be assured that this EIS is being taken seriously by the governing bodies if misrepresentations surrounding this project continue to be legitimized by OEQC publication from the very start?

To illustrate this statement I will quote one line from your notice page 20, paragraph 5, first sentence: "The 8,710-foot long portion of the project is located on land under State of Hawaii jurisdiction. Therefore, an easement request to the State Board of Land and Natural Resources is required for the installation and maintenance of the distribution line." **What is wrong with this picture?** This portion of the project is entirely completed.

1. On March 22, 1996, BLNR illegally granted Helco a 15-foot easement (copy attached) and refused "Friends" a contested case hearing. Subsequently, this easement was canceled by Judge Amano on July 8, 1996.

2. Three "Friends" including myself inspected the work on Phase I which Helco completed in April. We walked the entire line from Hwy 130 down to Seaview Estates. In several places Helco diverged more than 30-feet from the existing GTE line. It appears from their work which speaks for itself and the surrounding damage to 'ohi'a trees bent over and/or cut down that Helco had exercised their rights over a 50-foot easement instead of a 15-foot easement.

3. Last week I received a copy of the R.M. Towill EISPN. Mystery solved. Page 2-2, EISPN, last paragraph: "Phase 1 of the proposed alignment will be located entirely within the agricultural district on State-owned land, and will be approximately 8,710 feet long within a 50-foot wide right-of-way."

4. In December 1995, GTE notified Kalapana Seaview Community Association that they were applying for a 50-foot easement along their present easement with two small plots for equipment boxes to be later shared by Helco. The Community Association objected to GTE applying for a 50-foot wide easement. "Friends" attorney also filed an objection. GTE responded by resubmitting their application for an amended 15-foot easement which was granted (Copy attached.)

5. To summarize:

- a. GTE was granted a 15-foot easement by BLNR, 1984
- b. Helco wanted a 50-foot easement in 1995
- c. GTE applied for a 50-foot easement for a fiber optic installation
- d. The community objected
- e. GTE resubmits and is granted a 15-foot easement
- f. Helco applies for and gets a 15-foot BLNR easement shared with the GTE easement
- g. Helco subcontracts the work and proceeds to violate the 15-foot easement and operate AS IF they had a 50-foot easement
- h. Helco's consultant publishes EISPN citing a proposal to apply for a 50-foot easement before performing the work

Inspection of the site particularly at the lower end of Seaview blatantly illustrates all of the above. This matter needs to be addressed by the OEQC before we can proceed

the wealth of wildlife in this area particularly the Hawaiian Hoary Bat
(See USDI, National Biological Service, Jim Jacobi letter, 3/15/95, attached)

Another serious after-the-fact situation exists regarding the impact of poles installed more than 1-1/2 years ago in the kipuka lowland hala/ohi'a forest. Section 4.2 states "tree removal will be kept to a minimum. . . . probable impact on nearby ecosystems is expected to be negligible." This EIS provides the perfect opportunity to assess the damage and impacts quite evident in the project area NOW. We would like to see qualified botanists survey the impacts PRESENTLY QUITE VISIBLE in the kipuka areas. This writer specifically directs your attention to my street, upper Pohakupele Loop West, Seaview, where two ancient 'ohi'a trees were cut down 30 feet from the edge of the street and weed trees introduced by the project are rampant and threatening what endemic trees are left. This weed tree invasion only occurred after the electric poles were installed.

How can we proceed with the EIS process when (1) Phase 1 is not clearly designated as AFTER-THE-FACT in the OEQC Bulletin, (2) the EISPN refers to a 50-foot easement instead of a 15-foot easement and (3) the already completed work clearly happened over a 50-foot easement?

How can the OEQC fulfill its legally mandated responsibility to the public until this matter of blind reliance on misinformation supplied time and again by defendants, Helco and the County of Hawaii is addressed?

Other serious areas of concern are:

1. **Endangered Species**-All residents know this area is habitat for Newell's Shearwater, Hawaiian hawk, Hawaiian owl, Dark-rumped petrel, Band-rumped Storm petrel, Hawaiian Hoary bat, Hawaiian Monk seal, Green Sea turtle, Hawk's Bill turtle, Spinner dolphins, Pacific Bottle nose dolphins and Humpback whales. Helco's first draft EA cited no endangered species whatsoever. Later documents submitted did not make appreciable progress towards showing the complex biosphere of the project area. The EISPN further dilutes an already inadequate FEA faunal study.

How can we be assured a complete faunal study will be undertaken over the full period of one year to show the various creatures that inhabit this area on a full time or migratory basis. We want a complete study undertaken in the best interests of ALL of the endangered species known to inhabit this area and the CUMULATIVE and SECONDARY IMPACTS of the project on the whole mini biosphere of this unique coastal settlement zone.

This is known habitat for the Hawaiian Hoary Bat. Very little is known about this endangered species other than this is its habitat. This EIS is the opportunity to gather this information. By past performance, the consultant has not demonstrated the ability to undertake a study of this scope and importance. For the following reasons, we are asking that a one-year study be undertaken by qualified faunal biologists to catalog

a. Section 3.2.2.1 - Initial Survey - The study conducted was merely for a two-day period and is totally inadequate for any serious consideration in an EIS study

b. Section 3.2.2.2 - Radar and Visual Survey, July 1995 - The radar study was a four-day study that was rained out one-day, but this fact was not reported and the statistical information is flawed because of this. In either case these studies were totally inadequate.

c. A serious flaw of the radar study is that only birds flying at 35 m p.h and faster were recorded. (See Deposition of Dr. Robert Day, 5/27/96, Exhibit F, Pages 27 and 28.)

d. Contrasting an unpublished Waipio Valley study and a Kauai study with this alleged 4-day radar study is very unprofessional.

e. What little was observed in studies by the preparer only offers proof that the 1955 lava flow IS a flyway for the 'A'o up to nesting grounds on Iliwa crater. The path of the 1955 flow from the craters can readily be described as a lichen covered river bed. The birds fly in this barren space not the marginal forest canopies. To compare the topography of a 1955 lava flow with anything but another lava flow, much less Kauai, Wailua, Kealia or Waipio Valley is meaningless.

f. The smaller the endangered colony the greater the need for protection of the species. The preparer suggests the opposite of this over and over again. **What is the scientific basis for this conclusion?**

g. 4.3 - Fauna - The wires and poles are clearly a danger to Newell's Shearwaters in the project area. (See attached deposition of Dr. Robert Day, 5/17/96, Pages 80, 83, 118, and 123.)

h. The 2 and 3 day faunal studies noted in the EISPN in cannot be used in the EIS. U.S. Fish & Wildlife states in an EIS study " . . . would need to locate nesting populations of Newell's Shearwater in the area, estimate colony size and reproductive success, and determine flight altitude and direction of a much larger sample of birds." (See attached U.S. F&W letter, 6/12/96.)

i. The secondary impacts of population density, particularly increased coastal traffic, additional traffic corridors and increased potential of toxic chemical release on this yet uncataloged wildlife habitat need to be addressed. This cannot be done unless a complete faunal survey of the land and shoreline is conducted.

2. **Secondary Impacts & Geologic Hazards** - The Court specifically ordered that the FEA did not address the EIS triggers of Secondary Impacts and Geologic Hazards. (See copy attached Judge's Decision and Order, 7/8/96.) The EISPN totally ignores this most recent ruling.

In fact, the EISPN trivializes the issue of geologic hazards and the environmentally sensitive nature of the project area. Once again, the consultant does not demonstrate the ability or the willingness to read the rules as set out in HAR, Subchapter 7, 11-200-14 through 11-200-23, "Preparation of Draft and Final EIS" and to follow them.

a. Earthquakes - EISPN, Section 3, Description of the Affected Environment, 3.1.2, last paragraph states "Earthquake epicenters are also concentrated along the East Rift Zone and Section 4, Probable Impacts and Mitigation Measures, 4.1 states "Although seismic events are probable throughout the alignment, the lateral loads due to seismic conditions would be expected to be less than that due to wind loads. Wind loads have thus been used as the criteria for design."

Earthquakes are a daily event in this area. However, the usual, barely noticeable earthquakes are dramatically punctuated every couple of decades by major quakes that create much damage to property in the project area. (See Hawaii Tribune-Herald Article, 11/28/95, 1975 Kalapana Earthquake Likely to Reoccur.) **How will the current population of this area be affected in a major quake with greater population at risk, energized electric lines, greater traffic, no dependable evacuation route and a narrow county coastal road?**

b. Lava Flows - EISPN, Section 3, Description of the Affected Environment, 3.1.2, last paragraph states "Earthquake epicenters are also concentrated along the East Rift Zone. As a result there is a higher risk for potential lava flows near the Kilauea East Rift Zone." This is true. However, in the next section, Section 4, Probable Impacts and Mitigation Measures, 4.1, Geologic Hazards, "The proposed alignment is expected to be at sufficient and enough distance from the Kilauea East Rift Zone to reduce any risk of damage from Lava overrunning the line." This statement is absolutely untrue and should disqualify the preparer from further participation.

This project is on a 1955 lava flow in an area constantly being overrun by lava in recent history. (See attached Hawaii Tribune-Herald article 5/28/95 and U.S. Geological Survey, David Clague letter, 10/2/95.) This project is directly below the East Rift Zone on the way to the ocean and next door to the longest ongoing flow in history.

The question is not IF, it is **WHEN** will the lava overrun the project? Since the project will affect population density in the area, how will this increased population impact the safety of current residents scrambling to vacate the area? Harry Kim, Civil Defense Director has stated under oath there is no emergency evacuation plan for this area. (See attached Aloha O Kapoho, photo, Kalapana Flow burying live cable in asphalt to move church.)

c. Tsunami - EISPN Section 5, Relationship of the Project to Land Use Plans, Policies, and Controls, 5.4 CZM Law, 1975, (6) "The project is not located in any area subject to tsunami, storm waves, or erosion." This statement is quite confusing. Who is the community to believe when the entire Puna Coast has been under advisement to be on the alert for tsunami because of the thousands of offshore quakes emanating from Lo'ihl since mid-July, 1996? (See attached Hilo, Hawaii Tribune-Herald articles, 7/24, 8/2, 8/5, 8/11/96 and USGS, HVO, David A Clague letter, 9/21/95.) This coastline is so well known to be at risk due to tsunami. **Why is the Kehena Beach area featured on page 55, Civil Defense Tsunami Evacuation Map No. 5 of the current GTE Big Island telephone book? (Copy attached.)**

The Judge's order regarding the unaddressed EIS triggers of geologic hazards and secondary impacts demands more than a replay of the FEA and undocumented opinions of the preparer. **A detailed complete study by qualified experts is required. We want a thorough, qualified, unbiased study that will show the risks to residents created by SSPP-71, the ensuing population density that always follows overhead line extensions and the cumulative impacts. We wish to have this study show how installation of major infrastructure will affect our rights to emergency disaster funds in view of the 1990 FEMA Recommendation #2: "Federal, State and County agencies should not promote or encourage higher density development in Lava Flow Hazard Zones I & II in the east rift zone of Kilauea..." (See attached FEMA Hazard Mitigation Team Report, page 12.) FEMA based these recommendations on a U. S. Geological Survey assessment of volcanic hazards that essentially said no place in lower Puna was safe from deluge by lava. **Why isn't the U.S. Geological Survey, HVO, on the consulted agency list?****

The community wants a study showing the financial analyses including externalities of the cost to State, County and Federal TAXPAYERS for 3, 5 and 10 years after implementation of the project. **Costs to include a coastal highway, access roads, water, sewage and sewage treatment plant, school, police, fire, public transportation, etc.**

Are the Federal, State and County governments ready to commit millions of dollars of public funds for capital investment in the most active lava inundation area on the island? The community would like to see

century and is desperately struggling to remain solar. The outcome of this project assumes monumental importance when viewed from this perspective. Now is the time for Helco and the County to support rational energy use.

In view of the above and for the reasons listed below, can we be assured that an impartial solar experts such as Michael Potts, Caspar Institute, California or Amory Lovins, Rocky Mountain Institute will be retained to do this study?

a. Section 5.5 - Puna Community Development Plan - This plan distinctly recommends solar energy for our coastal community. (See attached PCDP, page 3-18, 2-37.)

With regard to PUC Rule 13 & 13-S Helco has not complied with many of the provisions of the regulation. 1) - **Undersubscribed** - Helco never received half of the 428 "expected" subscribers, and less than 12% of the total lots; and, 2) - **Underfunded** - Helco charged between \$2,700 and \$3,600 as a hookup charge, **LESS THAN 1/3** of the cost instead of the mandated 2/3 of the cost for pole installation. Helco changed all the rules and apparently the PUC is going along with the distortion of the rules. (See attached PUC letter, 3/16/95) Where so many basic rules are bent and changed to push through an unpopular project, the statement that Helco "is attempting to respond to 181 potential participants through the SSPP Unit 71 program" assumes profound proportions.

The way this project is being handled financially is a nightmare. Judge Amano stated in court that **extra costs such as the EIS, would not be borne by the rate payers. How can we be assured of this? Have the shareholders been made aware of the extra \$600,000 pole installation share plus all the legal and environmental studies' costs that they are paying for?** The community would like to see the paperwork reflecting these costs. We would like to see this issue clearly addressed in the EIS.

b. Any additional distribution line is going to require more power generation capacity somewhere on the island. Helco does not have adequate generation now. (See attached Hawaii Tribune-Herald article, 5/15/96.) **How can Helco sell what they do not have?**

c. Page 5-6 - The statement that the project is essential for electric power distribution is false. Solar energy has been used extensively and efficiently in the project area for decades. The most cost effective and efficient use of available energy resources is not an overhead line distribution system as Helco would have us believe. The community needs an independent, qualified financial analysis conducted as well as a survey of residents' solar use in the area as a part of the EIS study

these commitments made before this project is permitted to continue. "By May 1990, they (county and state) had tabulated estimates of nearly \$50 million in damages to private property and another \$15 million to public facilities. The cost of replacing the public and private road ways covered by the lava was put at more than \$32 million. Nearly \$3.5 million would be needed to rebuild the water systems." (See attached, Aloha O Kalapana, pages 127 - 130.) **How much money did the 1955 flow cost the tax paying public?**

How can the community continue to rely on the misrepresentations of the preparer that fails to note that our only access route passes through a 6-year ongoing FEMA declared disaster zone and that trivializes our Lava Hazard Zones I & II right under the East Rift Zone along the coastline? We want a geologic hazards study to be conducted by a qualified, impartial, surveyor who will address the effects of population density, increased traffic and greater population at risk in an area without an evacuation plan (as per Harry Kim, Director, Civil Defense). As concerned residents living in this sparsely populated area at risk due to the immediate secondary impact of population density what respected agency will conduct this crucial study?

4 **View Plain** - Section 5, Relationship of the Project to Land Use Plans, Policies and Controls, 5.4, CZM Law (3) "Ocean views from within Kalapana Seaview, however, are limited because of the rolling topography from the subdivision to the shore. Actual scenic ocean viewing exists only from the makai side of Highway 137."

These sentences are totally untrue. From the very back street of Kalapana Seaview, there was a clear, ocean panorama to the horizon. Now there is a clear panoramic vista of towering, cross-armed electric poles (42 poles to the mile) and miles of wires high above the horizon, effectually obscuring the horizon.

5 **Alternative Energy** - To date Helco has demonstrated a very confusing approach to solar installations. On the one hand, the preparer's documents for the past 1-1/2 years dismiss solar as an option because of costs, customer preference and alleged legal obligations. On the other hand, Helco has worked with the U.S. Department of Energy, received grants and awards for solar research and development, and has circulated documents at the industry/federal level promoting **PV service instead of traditional line extensions for remote locations.** (See attached PV Demonstration Project Paper, Steve Burns, Helco.) The EISPN concludes the section on alternative energy systems with statements that leaves the reader to assume that individual choice is paramount regardless of social, environmental or financial considerations. **Show us where this policy of personal choice is supported by State or Federal energy policy?**

The importance of careful consideration given to the Kehena Beach area as a PV solar demonstration model for the State and the Nation cannot be overlooked by this EIS. Public utilities are cajoling and paying communities to go solar on the mainland. Here we have a community that has been solar for more than a quarter of a

computer. If utility supplied solar units were offered to utility subscribers, our environmentally sensitive area would be least impacted.

Helco and R. M. Towill cannot continue to be relied upon as a source of impartial information and allowed to conduct and editorialize their own studies to their exclusive benefit. The EISPN offered is merely a rewrite of the FEA and is not in the spirit and letter of the law. The rules in Appendix C, EIS Rules, Title II, Chapter 200, Hawaii Administrative Rules, Department of Health, Subchapter 7, 11-200-14 through 11-200-23, "Preparation of Draft and Final EIS", contain a detailed description of what needs to be accomplished and what the rules require. The community expects this EIS to conform to these legal requirements and directs Helco to read and do what the rules require. In addition to the many aforementioned concerns we wish to conclude with the following:

1. The OEQC Bulletin needs to correct the information contained in the 7/23 notice.
2. Phase 1 of the project completed without permits and in a illegal manner by ignoring the 15-foot easement needs to be addressed in the OEQC Bulletin preliminary notice and investigated by the appropriate authorities.
3. A botanical study of existing impacts resulting from the after-the-fact construction of this project needs to be conducted.
4. Based on past and present performance, the community questions the ability and intention of the preparer and wants to know who else can be entrusted with this crucial study?
5. In view of Judge Amano's statement that she was "appalled at the cavalier manner" in which the County grossly mismanaged this after-the-fact project to date, how can the community be expected to rely on the County to have this EIS properly conducted? (See attached Hawaii Tribune-Herald article, 6/27.) On June 26, after the trial the Mayor promised several Keheha residents that "the electricity will be on in 90 days". Norman Oleson, holds the powerful position of Deputy Director of the Planning Department, is a property owner and part time resident in Keheha Beach Estates. He is the person who has pushed the Helco project for years, has a vested interest and clearly has a conflict of interest in this matter.

The Mayor and his representative, Norman Oleson, have made this electrification project a political campaign issue and have demonstrated much hostility to the concerned public, residents and property owners, who oppose the project. We implore OEQC to name the State as the receiving agent for this project. The Department of Land and Natural Resources is an impartial

d. Page 7-2 - The cost of underground installation IS 4 times the cost of overhead lines, not 10 times the cost Helco would have us believe. This initial installation cost is recovered very quickly. Repair maintenance was more costly 5-10 years ago. New equipment allows for pinpointing of faults. The community deserves the best available technology. Under grounding is the best available technology for conventional distribution lines. This is another example of Helco using 10+ year old data to justify an antiquated technology.

The high electrical rate on this island is mainly due to the huge cost of overhead line maintenance. The PUC approved billing the rate payers \$56 million in 1996 for line maintenance. It should be noted that Helco gets 13% of this astronomical amount. Very good for the shareholders but a disaster for the rate payers.

An unbiased financial study would show that underground installation in this remote community in a multi-geologically hazardous zone would be most cost efficient within 4 to 5 years, would remove the dangerous poles and wires to benefit an endangered species and would remove the physical threats posed to the community. (See attached Deposition of Dr. Robert Day, 5/27/96, Exhibit F, Page 88.)

e. Page 7-4 - The preparer states that "Even with (tax credit) incentives only less than 1/4 of all single family homes in Hawaii have solar hot water heaters." Helco has only just begun an advertising campaign this summer. Prior to this State and County officials in collusion with Helco sat on this information and refused to give incentives. The EIS blames the rate payers for not using solar appliances but the utility and planners are at fault.

f. Page 7-5 - The EISPN states the up front capital cost to have a system (of 1000 watt array) installed could range from \$15,000 - \$30,000. The true costs are in the \$10,000 - \$25,000 range. The reality is that most area residents find systems of 500W and smaller quite adequate and in a cost range of \$3,000 - \$5,000. The true cost of solar installations to meet the needs of most area residents is less than the 2/3's mandated costs for one electric pole to Helco subscribers.

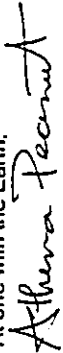
The EISPN also uses a 20-year life for PV systems. Thirty years is the standard the industry uses for system lifetime cost analysis. An unbiased study of solar energy is crucial. Helco and company obviously have a severe conflict of interest. This pristine coastal area has survived only because there is no major infrastructure as yet. This is already a solar community. This letter is being written on a solar powered

agency with considerably more expertise and access to agency resources with regard to impacts on threatened or endangered species, geologic hazards, secondary impacts and alternative energy.

We wish to become citizens with confidence in our government agencies and their ability to protect our interests and legal rights. Citizens of this community have suffered great hardships during this uphill struggle for an EIS. A true study of our concerns would do much to heal the breach between the community, Helco and the government. Our community wishes to go forward into the future as a model for sustainable energy use.

Thank you for the opportunity to express the above concerns.

At one with the Earth,



Athena Peanui, President
Friends of the Red Road

enc: BLNR, 3/22/96, Direct Grant of Perpetual Easement to Helco
GTE, letter, 1/15/95, 15-foot Easement Notification
USDI, National Biological Service, Jim Jacobi, letter, 3/15/95
Deposition of Dr. Robert Day, Exhibit F, pages 27 and 28
Deposition of Dr. Robert Day, Exhibit F, pages 80, 83, 118, and 123
U.S. F & W, Brooks Harper, letter 6/12/96
Third Circuit Court, Decision and Order, 7/8/96
Hawaii Tribune-Herald, article, 11/28/95
Hawaii Tribune-Herald, article, 5/28
U.S. Geological Survey, HVO, David A. Clague, letter, 10/2/95
Aloha O Kalapana, page 111, photo of live Helco lines being buried
Hawaii Tribune-Herald Articles, 7/24, 8/2, 5, 7, Tsunami Alert
U.S. Geological Survey, HVO, David A. Clague, letter, 9/21/95
GTE Hawaiian Telephone Book, page 55, Tsunami Warning Map
FEMA, Hazard Mitigation Team Report, page 12
Aloha O Kalapana, pages 127 - 130
PV Demonstration Project Paper, Steve Burns, Helco, Hilo
Puna Community Development Plan, pages 2-37 and 3-18
PUC, Ronald Nakanishi, letter 3/16/95
Hawaii Tribune-Herald Article, 5/15/96, Power Shortage
Deposition of Dr. Robert Day, Exhibit F, page 88
Hawaii Tribune-Herald Article, 6/27/96, Helco Ordered to Stop Work

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo,
Hawaii 96720
Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu,
Hawaii 96817
OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii
96813

/

12 11 10 9 8 7 6 5 4 3 2 1

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Land Management
Honolulu, Oahu, Hawaii 96813
March 22, 1996

Board of Land
and Natural Resources
State of Hawaii
Honolulu, Oahu, Hawaii

HAWAII
Subject: Direct Grant of Perpetual, Non-Exclusive Utility Easement to Hawaii Electric Light Company, Inc. (HELCO) for Electrical Transmission Line Purposes at Kehena and Keeke, Puna, Island of Hawaii - Tax Map Key: 3rd/1-2-09: Portion of 3.

STATUTE:

Section 171-95, Hawaii Revised Statutes, as amended

APPLICANT:

HAWAII ELECTRIC LIGHT COMPANY, INC. (HELCO)

FOR:

Perpetual, non-exclusive utility easement over and across State land for electrical transmission line purposes at Kehena and Keeke, Puna, Island of Hawaii, shown on the attached CSF Map No. 20,092 and also identified as Tax Map Key: 3rd/1-2-09: Portion of 3.

LAND TITLE STATUS:

Subsection 5(b) lands of the Hawaii Admission Act

STATUS:

The area requested is within the same easement granted to GTE Hawaiian Telephone Company, Incorporated (GTE) by the Board of Land and Natural Resources at its meeting of April 27, 1984 under Agenda Item F-5 and filed in the Land Division under Land Office Deed No. S-27504.

ZONING:

State Land Use Commission: Agricultural District
County of Hawaii CZO: AG-3a

AREA:

Approximately 130,060 ± square feet - as shown on CSF Map No. 20,092

BLNR-HELCO
Direct Sale of Utility Easement
Kehena, Puna, Hawaii
TMK: 3rd/1-2-09: Por. 03
March 22, 1996
Page 2

HAWAII

SPECIFIC USE:

Right, privilege, and authority to construct, use, install, maintain, repair, replace, or remove utility transmission poles, lines, and anchors.

COMMENCEMENT DATE:

Date of Land Board approval.

CONSIDERATION:

One time payment to be determined by an independent appraisal, same subject to review and approval by the Chairperson.

ENVIRONMENTAL REVIEW:

A Draft Environmental Assessment was prepared for this project and submitted to the Office of Environmental Quality Control (OEQC) and published in the June 8, 1995 OEQC Bulletin. The Final Environmental Assessment with Negative Declaration was published in the August 23, 1995 OEQC Bulletin.

REMARKS:

HELCO proposes to construct a 12,477.2 kilovolt (kv) overhead electrical distribution system that will serve three (3) residential subdivisions in the Kehena, Keeke Puna homesteads district of Puna on the island of Hawaii. A portion of their electrical line is proposed to cross over State land and be located within an existing perpetual, non-exclusive, transmission line easement which is issued to GTE Hawaiian Telephone Company under Land Office Deed No. S-27504. Existing poles will be removed and replaced with new poles that will be shared between HELCO and GTE Hawaiian Telephone Company.

DLNR has received letters signed by over 55 individuals who may or may not live in the area who want to stop the electrical poles from being introduced because they feel the affected area should be a solar or alternative-powered community. However, DLNR has also received many letters signed by over 130 property owners and/or permanent residents of the three (3) affected subdivisions: Kehena, Puna Beach Palisades, and Kalapana Seaview; who want electricity supplied to their residential lots, so they can start building and living there. These people write that they invested their future lives in this area on the promise that electrical service would be available. The lack of electricity has delayed their living plans several years behind schedule.

It should be noted that some protesters have indicated to the Division of Land Management that they are trying to stop the electrical poles from being put into the subdivisions because they feel that the poles are an "eye sore". Placement of the poles within the subdivisions falls under the

HAWAII

County of Hawaii's jurisdiction. The County has stated that they have no objections to the introduction of the electrical poles. For this reason, the protesters are trying to stop the easement from being issued over the State land hoping that this would stop the transmission line from entering the subdivision area. They have phoned the Division of Land Management with charges that the HELCO transmission line will endanger the environment of the State land although it would be placed in the same area as the already existing transmission line easement issued to GTE. A Final Environmental Assessment with a negative declaration was published in the August 23, 1995 OEQC Bulletin.

Upon being informed by OEQC that all requirements had been met, HELCO requested the use of the same easement alignment that the State of Hawaii granted to GTE Hawaiian Telephone Company under Land Office Deed No. S-27504 which was approved by the Land Board at its meeting of April 27, 1984 under Agenda item F-5. HELCO's plans call for installation of larger poles three feet from the old poles which will be used by both GTE and HELCO.

The protesters, identifying themselves as the Friends of the Red Road, filed a complaint for declaratory and injunctive relief challenging the adequacy of the Final Environmental Assessment prepared for HELCO, in the Circuit Court of the 3rd Circuit. Judge Riki Mae Amamo has not ruled on the plaintiff's motion for preliminary injunction which was heard on November 24, 1995.

However, the Attorney General's office has informed us that, at this time, we may proceed with the processing of the easement request, pending a ruling on the preliminary injunction filed in the Circuit Court of the 3rd Circuit by the Friends of the Red Road.

RECOMMENDATION:

That the Board:

- A. Authorize the direct sale of the previously-described easement to HELCO, subject to the terms and conditions previously-listed which are by this reference incorporated herein, including the following additional terms and conditions:
 1. All improvements shall be done by HELCO at no cost or expense to the State of Hawaii nor to the County of Hawaii.
 2. HELCO, its successors, permitted assigns or permitted devisees shall be responsible for its appropriate share of the maintenance and repair of the easement area. The maintenance and repair of the easement area shall be at no cost or expense to the State of Hawaii nor to the County of Hawaii, including periods of emergency.

HAWAII

3. HELCO shall provide the Hawaii District Land Office with a copy of the written agreement with GTE.
4. HELCO, its successors, permitted assigns or permitted devisees, shall procure, at its own cost and expense, and maintain during the entire period of this grant of easement, from an insurance company or companies licensed to do business in the State of Hawaii, a policy or policies of comprehensive general liability insurance, in an amount acceptable to the Chairperson, insuring the Grantor and Grantee against claims for personal injury, death, and property damage; in the minimum amount of \$100,000 for property damage, \$500,000 for each person for bodily injury or death, and \$1,000,000 aggregate for each accident for bodily injury or death; and that said policy shall cover the entire easement area, including all improvements and grounds and all roadways or sidewalks on or adjacent to the said easement areas in the control or use of the Grantee.
5. HELCO, its successors, permitted assigns or permitted devisees, shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any act or omission of HELCO, its successors, permitted assigns, permitted devisees, officers, employees, contractors, and/or agents under this easement or relating to or connected with the granting of this easement.
6. Reverter clause upon sooner termination or abandonment of specific purposes for which granted.
7. Standard relocation clause.
8. In the event any unanticipated sites or remains such as shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings or walls are encountered during construction, HELCO shall stop work immediately and contact the State Historic Preservation Division in Honolulu at 587-0047.
9. HELCO, its successors, permitted assigns or permitted devisees, shall comply with all applicable statutes, ordinances, rules, and regulations of the Federal, State and County of Hawaii governments.
10. HELCO, its successors, permitted assigns, or permitted devisees, shall submit construction plans for approval by the Chairperson prior to the commencement of any work activity.
11. All other terms and conditions of our standard Grant of Non-Exclusive Easement document; and,

BLNR-HELCO
Direct Sale of Utility Easement
Kehena, Puna, Hawaii
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Page 5

HAWAII

1.2. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.

B. That the Board authorize the issuance of an immediate construction right-of-entry to HELCO, subject to the following terms and conditions:

1. HELCO, its consultants and/or its contractors shall procure, at their own expense, and maintain during the entire period of this right-of-entry, from an insurance company or companies licensed to do business in the State of Hawaii, a policy or policies of comprehensive general liability insurance, in an amount acceptable to the Chairperson, insuring HELCO and the State of Hawaii against all claims for personal injury, death, and property damage; in the minimum amount of \$100,000 for property damage, \$500,000 for each person for bodily injury or death, and \$1,000,000 for each accident for bodily injury or death; and that said policy shall cover the entire right-of-entry area, including all improvements and grounds and all roadways or sidewalks on or adjacent to the said right-of-entry areas in the control or use of HELCO. HELCO shall furnish a like certificate upon each renewal of such policy, each such certificate to contain or be accompanied by an assurance of the insurer to notify the State of Hawaii of any intention to cancel any such policy sixty (60) days prior to actual cancellation.

2. HELCO, its consultants and/or its contractors, shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury, and death arising out of any act or omission of HELCO, its contractors, its consultants, officers, employees, and/or agents under this right-of-entry or relating to or connected with the granting of this right-of-entry.

3. In the event any unanticipated sites or remains such as shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings, or walls are encountered during construction, HELCO shall stop work immediately and contact the State Historic Preservation Division in Honolulu at 587-0047.

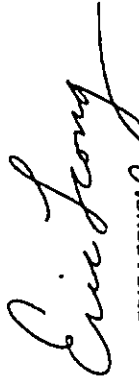
4. HELCO, its consultants and/or its contractors, shall submit construction plans for approval by the Chairperson prior to the commencement of any work activity.

BLNR-HELCO
Direct Sale of Utility Easement
Kehena, Puna, Hawaii
TMK:3rd/1-2-09:Pr. 03
March 22, 1996
Page 6

HAWAII

5. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.

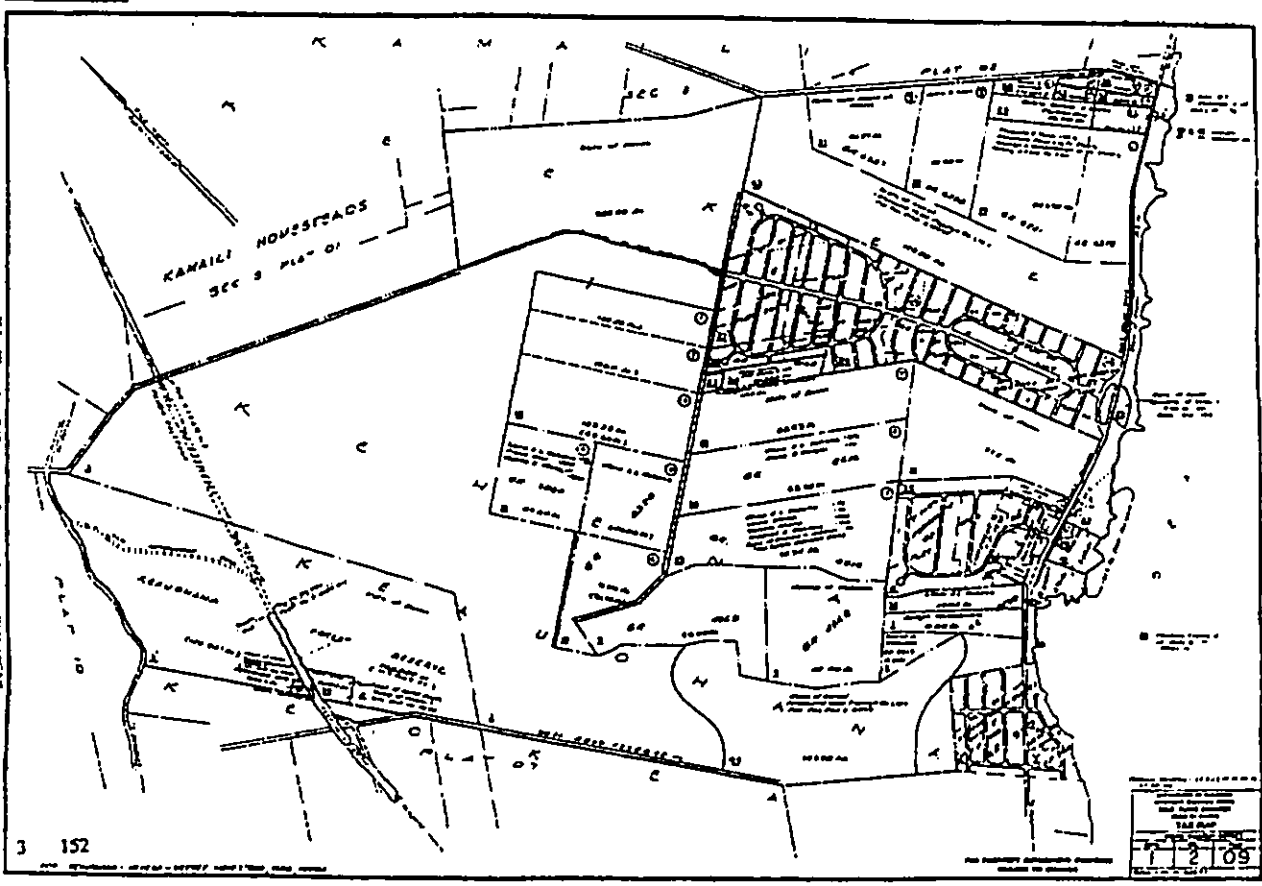
Respectfully submitted,


ERIC LEONG
Land Agent

APPROVED FOR SUBMITTAL:

MICHAEL D. WILSON, Chairperson

DOCUMENT CAPTURED AS RECEIVED





United States Department of the Interior
NATIONAL BIOLOGICAL SERVICE

Hawaii Field Station
P.O. Box 44
Hawaii National Park, HI 96718
Phone: (808) 967-7396 FAX: (808) 967-8568
March 15, 1995

Dear Dr. Hyson,

Thank you for your interest in the unique fauna and flora of Hawaii. In response to your request for information on specific native wildlife species occurring in the district of Puna, please refer to the table below for status, scientific, and common names.

Status of birds and bats found or potentially found in the District of Puna, Hawaii

| Common names | Species | Regulatory Status ¹ |
|------------------------------------|----------------------------------------------------|------------------------------------------|
| Hawaiian owl, Pueo | <i>Asio flammeus sandwichensis</i> | Not listed Federally, HE on Oahu only |
| Hawaiian hawk, ʻŌ | <i>Buteo solitarius</i> | FE, HE |
| Seabirds | | |
| Band-rumped storm petrel, Akeake | <i>Oceanodroma castro</i> | MB, HE |
| Hawaiian Dark-rumped petrel, 'Ua'u | <i>Pterodroma phaeopygia sandwichensis</i> | MB, FE, HE |
| Newell's shearwater, A'o | <i>Puffinus puffinus newelli</i> | MB, FT, HE |
| Bat | | |
| Hawaiian hoary bat, Ope'ape'a | <i>Lasiurus cinereus semotis</i> | FE, HE |

¹ Regulatory status of each species protected by the U.S. Migratory Bird and Endangered Species Acts. FE = Federally Endangered, FT = Federally Threatened, HE = State of Hawaii Endangered, MB = Migratory Bird

In 1993 and 1994, the U.S. Fish and Wildlife Service biologists confirmed the presence of the Hawaiian hoary bat, Newell's shearwater, and Hawaiian hawk in the District of Puna (including the vicinity of the proposed SSPP Rauenhurst Project). For a more thorough account of the flora, fauna, and potential impacts identified during these surveys, I am enclosing the following reports and surveys of Forest Bird Populations Found in the Vicinity of Proposed Geothermal Project Subzones in the District of Puna, Hawaii; Surveys on the Distribution and Abundance of the Hawaiian Hoary Bat in the Vicinity of Proposed Geothermal Project Subzones in the District of Puna, Hawaii; Surveys of the Distribution of Seabirds found in the Vicinity of Proposed Geothermal Project Subzones in the District of Puna, Hawaii; Surveys on the Distribution and Abundance of the Hawaiian Hawk in the Vicinity of Proposed Geothermal Project Subzones in the District of Puna, Hawaii.

The Newell's shearwater is attempting to breed in the Puna District (National Biological Service, unpublished data). New sites surveyed in 1994 with Newell's shearwater detected include areas near Kapoho, Kahakai, Heibehahulu, Opihikao, Puu Kaiu, Pohoiki, and Chain of Craters Road (USFWS, NBS, unpublished data). Hawaiian Dark-rumped petrel and the Band-rumped storm petrel are suspected of using Puna as a "flyway" to nesting sites at higher elevations.

The impacts of bright lights and coastal utility structures on the Newell's shearwater are documented on Kauai (Ainley, D., and R. Podolsky 1993; Cooper, B. and R. Day 1994; Telfer, T., et al 1987). Reports on this subject are available from the Electric Power Research Institute, 3412 Hillview Avenue Palo Alto, CA 94303.

The plant species you inquired about, *Ischaemum byrone* or Hilo ischaemum, is listed as endangered and known to have occurred sporadically along the Puna Coast. Surveys from 1985 report specimens near Honolulu Landing and Malama-Ki Forest Reserve (Lamoureux et al 1985, Puna Geothermal Area Biotic Assessment). Other rare or candidate endangered plant species that may occur in the lower elevations or coastal areas of Puna include; *Bidens hawaiiensis*, and *Bombaca timonioides*. The sword fern, *Nephrolepis exaltata*, is indigenous, but the hairy sword fern, *Nephrolepis multiflora* is an exotic species. Neither is considered endangered.

Please contact our office if you have additional questions concerning the natural resources of Puna.

Sincerely,

James D. Jacobi
Leader, Hawaii Field Station

1 IN THE CIRCUIT COURT OF THE THIRD DISTRICT

2 STATE OF HAWAII

3
4 FRIENDS OF THE RED ROAD and
5 MS. ATHENA PEANUT,

6 Plaintiff,

7 vs.

8 THE COUNTY OF HAWAII; THE HAWAII
9 ELECTRIC LIGHT COMPANY, INC.; THE
10 DEPARTMENT OF PUBLIC WORKS, COUNTY
11 OF HAWAII; JIRO A. SUHADA, in his
12 official capacity as Deputy Chief
13 Engineer, Department of Public
14 Works, County of Hawaii; THE COUNTY
15 OF HAWAII PLANNING COMMISSION;
16 VIRGINIA GOLDSTEIN, in her official
17 capacity as Planning Director,
18 County of Hawaii; THE BOARD OF
19 LAND AND NATURAL RESOURCES, STATE
20 OF HAWAII; MICHAEL G. WILSON, in
21 his official capacity as Chairperson
22 of the Board of Land and Natural
23 Resources, State of Hawaii,

24 Defendants.

25 DEPOSITION OF

ROBERT DAY, PH.D.

BURLINGAME, CALIFORNIA

May 17, 1996

CERTIFIED COPY

22 ATKINSON-BAKER, INC.
23 CERTIFIED SHORTHAND REPORTERS
24 300 Montgomery Street, Suite 1000
San Francisco, California 94104
1-800-288-3376

25 REPORTED BY: RICHARD N. RAKER, CSR NO. 3445
FILE NO.: 9609093

PLAINTIFF'S
EXHIBIT
F

1 what, it's 5 percent -- at least 5 percent,
2 right? Generally speaking, that's the
3 accepted term.

4 A. Okay. You've lost me on the
5 question here. Could you repeat it?

6 Q. Yes. We agree that your study
7 in Kauai shows that of the -- of all the
8 downed birds that you found and that
9 Dr. Ainley found --

10 A. Um-hmm.

11 Q. -- 93 percent of them were found
12 near power lines that were between 11 and 20
13 meters high; is that correct?

14 A. That's correct.

15 Q. Okay.

16 We agree that the Seaview wires,
17 for all the wires on the project area for that
18 matter, are approximately 13 meters high,
19 correct?

20 A. 12. Probably 12 to 13.

21 Q. Okay.

22 We agree that that 12 to 13

23 meters is within the range that you'd found 93
24 percent of your downed birds on Kauai,
25 correct?

PLAINTIFF'S
EXHIBIT
F

1 recorded target?

2 A. It becomes a recorded target.

3 Q. Okay.

4 How were those targets selected
5 for inclusion?

6 A. Which targets?

7 Q. Well, how was the criteria --
8 identify, if you could, the scientific basis
9 for the target criteria.

10 A. From experience on Kauai in
11 which we found that these birds consistently
12 flew -- these two species consistently flew
13 equal to or greater than the speed, and that
14 most other species that might be out at night
15 consistently flew at slower speeds.

16 Q. Did you do a study with Michelle
17 Reynolds with the Fish and Wildlife Service, a
18 1994 radar study with her?

19 A. Yes, I did.

20 Q. And what did you conclude was
21 the average speed of Shearwaters in that
22 study?

23 A. I believe it was around -- I
24 cannot recall.

25 Q. Was it 38? Does 38 miles an

PLAINTIFF'S
EXHIBIT
E

27

1 hour sound right?

2 A. It sounds fairly reasonable,

3 Yes.

4 Q. So the average rate -- and that
5 was for the study done on Hawaii, right?

6 A. Yes.

7 Q. So what you calculated to be the
8 average rate of flight speed for Newell
9 Shearwaters was only three miles an hour more
10 than the cutoff value that was used in this
11 survey; is that correct?

12 A. Yes.

13 Q. On page 6 of the faunal survey,
14 it says that along -- during the survey
15 sessions, the researchers checked wind speed,
16 wind direction, percent cloud cover,
17 et cetera.

18 How was the wind factor -- or
19 how was the wind speed factored into the
20 flight speed criteria for these surveys?

21 A. I don't know.

22 Q. Was it factored in?

23 A. From this document, I don't
24 know.

25 Q. Did you review any of the raw

PLAINTIFF'S
EXHIBIT
E

28

1 there's going to be birds killed by those
2 lines. It's just a question not of -- it's
3 more a question of how many, based on the
4 configuration of the lines and then -- and
5 that's -- is that correct?

6 A. I recall answering the question,
7 the first part of your question --

8 Q. Okay.

9 A. -- which was that I believe that
10 there's a possibility of mortality occurring
11 here.

12 Q. I didn't say possibility. I
13 said there's some -- is there a reasonable
14 certainty that there's going to be some
15 mortality? And that's what -- that's what I
16 asked.

17 A. Right. I believe that there's a
18 strong possibility. I believe there's a
19 possibility that birds may be killed by these
20 power lines.

21 Q. Okay.

22 So you're reasonably certain
23 that those birds will be killed by these power
24 lines?

25 A. Yes.

PLAINTIFF'S
EXHIBIT
F

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1 population into a tailspin, but cumulatively
2 they might. Is that a fair assessment?

3 A. Cumulative they might.

4 Q. Okay. And Mr. Sherman is
5 concerned, as am I, about the risk -- in your
6 professional opinion about the risk. You've
7 told me that you're reasonably certain that
8 some mortality's going to happen here, and we
9 can debate about what that means as far as
10 risk, but it sounds like you're sticking with
11 your initial point, and I respect you for
12 that, but I just want to make sure that you're
13 still standing by that, that you're reasonably
14 certain some mortality's going to happen?

15 A. Yes.

16 MR. SHERLOCK: Okay. That's

17 it. Thanks.

18 THE REPORTER: Do you want a

19 copy of this?

20 MR. SHERMAN: Right.

21 (Deposition concluded at 12:30

22 p.m.)

PLAINTIFF'S
EXHIBIT
F

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS ECOREGION
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: JMB

JUN 12 1996

Ms. Athena Peanut
Friends of the Red Road
P.O. Box 1610
Pahoa, Hawaii 96778

Re: Final Environmental Assessment for the SSPP Unit-71 Overhead Distribution System

Dear Ms. Peanut:

This letter is in reply to your recent inquiry regarding the position of the Fish and Wildlife Service (Service) on the proposed electrification of Kalapana Serwiew Estates, Puna Beach Palisades and Kehen Beach subdivisions by the Hawaiian Electric Light Company (HELCO). Specifically, you asked our opinion on the adequacy of the portion of the Final Environmental Assessment relating to the effects of the proposed project on the Federally threatened Newell's shearwater (*Puffinus newelli*).

As you are aware, the Service recommended that a radar/optical survey be conducted to provide information concerning the occurrence, abundance and collision potential of these birds within the project area. A survey was conducted which showed that this species does transit the area, although too few birds were observed over the relatively short survey to support robust conclusions regarding densities, the existence of flight corridors, or the presence or absence of collision potential. No data on flight altitude were obtained, which leaves open the possibility that powerlines above ambient canopy height would present a potential obstacle to transiting birds. Therefore, questions remain regarding the potential impact of this project on Newell's shearwaters.

However, the Service has no information at hand to indicate that the proposed project would have a significant short- or long-term impact on the population of Newell's shearwater in Puna. At this time, and based on limited information, the Service believes that predation on nesting birds and their young is a more immediate and serious threat to the Puna population of Newell's shearwater than is collision with powerlines. Because of this, we did not comment further on the project or recommend that an Environmental Impact Statement (EIS) be prepared.

If an EIS were to be prepared, further information would be required to determine whether collisions with powerlines in this area pose a threat to the shearwater population in Puna. In order to make such a determination, a study would need to locate nesting populations of Newell's shearwater in the area, estimate colony size and reproductive success, and determine flight altitude and direction of a much larger sample of birds. The Service would welcome such a study as an important addition to our knowledge of this threatened species on the island of Hawaii.

We appreciate your concern for threatened species and hope this letter has clarified our position. If you have any questions, please contact Fish and Wildlife Biologist Jeff Burgett at (808) 541-3441.

Sincerely,

Brooks Harper
Field Supervisor
Ecological Services

cc: R.M. Towill Corp.

injunction hearings, and after considering the arguments of counsel and the files herein, the Court hereby makes the following findings of fact, conclusions of law, and decision and order.

Isaac Hall, Esq.
Steven Christensen, Esq.
David Sherman, Esq.
Jordan Wagner, Esq.

1995 JUN -8 PM 4:16
CLERK OF COURT

I. FINDINGS OF FACT
Project Description

1. Defendant HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO") undertook plans to construct an overhead electrical distribution system to provide electricity to 1,287 lots within three residential subdivisions in the district of Puna, County of Hawaii. The operation is known as the Special Subdivision Project Provision Program Unit-71 (hereinafter referred to as the "Project").

2. The Project consists of two phases. Phase 1 is located on State of Hawaii land. Phase 2 is located on County of Hawaii ("County") land, and part of its construction falls within a Special Management Area ("SMA"). The Project as a whole includes the installation of six 35-foot, 235 40-foot, and 103 45-foot poles, one 55-foot pole, and 155 anchors.

Procedural History

3. HELCO was informed by the County that the portions of the Project to be located on County land were exempt from the Environmental Assessment ("EA") and SMA permit requirements.
4. On January 11, 1995, Plaintiffs filed a Complaint for Declaratory Judgment under Hawaii Revised Statutes ("HRS") §632-1 in Civil No. 95-14, alleging that an EA was required for

IN THE CIRCUIT COURT OF THE THIRD CIRCUIT
STATE OF HAWAII
FRIENDS OF THE RED ROAD,
et al.
Plaintiffs,
vs.
THE COUNTY OF HAWAII, et al.,
Defendants.

CIVIL NO. 95-14
DECISION AND ORDER
CIVIL NO. 95-454
(Consolidated)
Trial: June 17, 18, 19, 20
and 24, 1996
Judge: Riki May Amano

DECISION AND ORDER

A jury-waived trial was held in the above-entitled matter on June 17, 18, 19, 20 and 24, 1996. In addition, hearings on Plaintiffs' Motions for Preliminary Injunction were held in Civil No. 95-14 on January 17-19, 1995 and in Civil No. 95-454 on November 24 and December 6, 1995. Based on the testimony adduced and the evidence presented at trial and at the preliminary

the use of county land, and that a SMA permit was required for construction within the SMA portion of the Project.

5. By stipulation dated May 15, 1995, HELCO agreed to apply for a SMA permit, to expand the scope of the EA so as to include the use of both state and county land, and to halt the implementation of the Project until the environmental review process was completed.

6. HELCO subsequently withdrew its Draft EA and submitted an expanded EA which included the proposed use of both county and state land. In August, 1995, HELCO applied for a SMA permit.

7. On August 1, 1995, HELCO submitted a Final EA ("FEA") for the Project to the County's Department of Public Works. The County of Hawaii, Department of Public Works is the accepting agency for purposes of HRS Chapters 343 and 205.

8. JIRO SUMADA is the individual charged with evaluating and determining the need for an environmental impact statement, on behalf of the accepting agency. He did not review the FEA, including comments and attachments, in its entirety. Further, he relied on the representations of COLETTE SAKODA of R.M. Towill Corporation, who prepared the FEA, that all comments to the Draft EA had been addressed.

9. In a letter dated August 3, 1995 to the Office of Environmental Quality Control, MR. SUMADA signed a Negative Declaration (i.e., finding that the Project will not have a significant environmental effect) that was prepared and transmitted to MR. SUMADA by MS. SAKODA. The Negative

Declaration was published in the OEQC Bulletin dated August 23, 1995.

10. On September 22, 1995, Plaintiffs filed a Complaint for Declaratory Judgment under HRS §632-1 in Civil No. 95-454 to contest the adequacy of the FEA and to challenge the Negative Declaration.

11. Civil Nos. 95-14 and 95-454 were consolidated for trial.

12. On the first day of trial, the Court granted HELCO's motion for partial summary judgment, finding that the FEA was adequate as a matter of law.

Generally.

13. An actual controversy exists between Plaintiffs and Defendants.

14. Plaintiff ATHENA PEANUT and the members of Plaintiff FRIENDS OF THE RED ROAD are residents of the Puna District, County of Hawaii, who are directly affected by the implementation of the Project.

15. Plaintiffs' claims arose within the County and State of Hawaii.

16. HELCO relied in good faith on the exemptions granted by the County when HELCO proceeded to implement the Project without completing an EA or obtaining a SMA permit.

17. The Project involves substantial deviations from existing structures, as follows:

- a) The Project will replace 265 GTE Hawaiian Tel

poles, and will add 61 new poles.

b) The replacement poles will carry electrical wires in addition to the existing telephone wires.

c) Some of the new poles are approximately 15 feet taller than the replaced GTE Hawaiian Tel poles.

18. Implementation of the Project requires significant alterations in the condition of the vegetation due to tree trimming, tree cutting, and the clearing of vegetation with the use of herbicides.

19. The portion of the Project located within the SMA involves the construction, reconstruction, or alteration of the size of existing structures.

20. The Project lies on geologically hazardous land and is located in Lava-Flow Hazard Zones 1 and 2.

21. Final implementation of the Project may facilitate population growth in the three subdivisions to be provided electrical service.

II. CONCLUSIONS OF LAW

1. The Court has jurisdiction over this consolidated action for declaratory and injunctive relief. Haw. Rev. Stat. §603-21.5(3) (1985); Haw. Rev. Stat. §632-1 (1985); Haw. Rev. Stat. §205A-6 (1985).

2. Plaintiffs are "aggrieved" within the meaning of HRS §343-7(b), and therefore have standing to challenge the Negative Declaration.

3. Plaintiffs have standing to bring an action seeking an

agency's compliance with SMA permit requirements. Haw. Rev. Stat. §205A-6 (1985).

4. Venue is proper. Haw. Rev. Stat. §603-36(5) (1985).

5. The Project does not fall within the classes of actions set forth in Hawaii Administrative Rules ("HAR") §11-200-8(2) and (4) which are exempt from the EA requirement.

6. A SMA permit is required for the portion of the Project located in the SMA, inasmuch as the Project constitutes a "development" pursuant to HRS §205A-22.

7. The environmental review process mandated by law is designed to insure that legally sufficient data is provided to decision-making bodies to render informed decisions. Price v. Obayashi, 81 Haw. 171, 182, 914 P.2d 1364, 1375 (1996).

8. The County failed to consider the significance criteria, as set out in HAR §11-200-12, prior to issuing a Negative Declaration. Specifically, substantial secondary impacts such as possible population changes and the Project's effect in an environmentally sensitive area such as Lava-Flow Hazard Zones 1 and 2 were not considered.

9. By not reviewing the FEA in its entirety for consideration of the sum effects on the quality of the environment, and by improperly relying on the representations of the FEA preparer, the County's Public Works Department abdicated its statutorily mandated review responsibilities.

10. Where, as here, the relief sought by Plaintiffs is for declaratory judgment in an original action under §632-1, the

Court will make an independent review and determination of the salient facts. Hawaii's Thousand Friends v. City & County of Honolulu, 75 Haw. 237, 248, 858 P.2d 726, 732 (1993). In the case at bar, the Court concludes that circumstances warranting such judicial review are compelling, due to the deciding agency's failure to fully consider the information in the FEA, as required by law.

11. Applying the significance criteria set out in HAR §11-200-12, the Court concludes that the Project may have a significant effect on the environment; thus a full EIS is warranted. Haw. Rev. Stat. §343-5(c) (1985).

III. DECISION AND ORDER

Based on the foregoing findings of fact and conclusions of law, the Court hereby makes the following decision and order:

1. The entry of the Negative Declaration by the County shall be set aside.
2. Any and all permits, applications and processes relying on the Negative Declaration shall be rendered void.
3. An EIS shall be prepared.
4. There shall be no further implementation of the Project until the environmental review process is completed.
5. Existing poles and wires may remain pending appropriate review and permitting of the Project.

6. Each party shall pay their own fees and costs.

DATED: Hilo, Hawaii, JUL 0 8 1996



JUDGE OF THE ABOVE-ENTITLED COURT

EXHIBIT E

Hawaii Tribune-Herald
Nov. 28, 1995Hawaii Tribune-Herald
Nov. 28, 1995

1975 Kalapana earthquake

1975 KALAPANA EARTHQUAKE
Likely to Reoccur - cont

likely to reoccur

Tomorrow marks the 20th anniversary of the 1975 Kalapana earthquake, the largest earthquake to strike Hawaii since 1868.

Residents were awakened at 3:35 a.m. by a magnitude-5.7 earthquake located a few miles inland of Lao'apuki on Kilauea's south coast. A little more than one hour later, at 4:47 a.m., the main shock struck with a magnitude of 7.2. The epicenter was located at Kamoama, just a few miles east, and close to the shoreline, from the foreshock.

Much of the south coast of Hawaii Island slid horizontally towards the ocean and subsided. The maximum horizontal displacement, near Kauhau Landing several kilometers east of Halepe, was about 26 feet. The displacements decreased to the east and west from this area.

Similarly, subsidence of the coast was greatest in this same area and amounted to about 11.5 feet. The amount of subsidence rapidly decreased to the west, and at Punalu'u, the shoreline actually uplifted by about 4 inches. To the east, subsidence was about 9.8 feet at Halepe, 3.6 feet at Kamoama, 2.6 feet at Kairu, 1.3 feet at Poholiki, and 0.8 feet at Kapoho. At Halepe, the subsidence resulted in submergence of a large stand of palm trees.

The coastline was not the only area that was altered as a result of the earthquake. The summit of Kilauea subsided about 3.9 feet and moved towards the ocean about the same amount. A small, short-lived eruption broke out inside the caldera. The eruption was probably triggered by the shaking, which causes gas bubbles to form in the magma. The effect is similar to opening a

shaken can of carbonated soda. This change in gas pressure, coupled with newly formed ground cracks, allowed a small amount of magma to escape to the surface.

The earthquake also caused a moderate-sized tsunami. Tide gauge records indicate that the initial motion was upwards at all stations. This observation suggests that the sea floor offshore uplifted as the onshore section of the volcano down-dropped and moved outward.

Volcano Watch

The area of sea floor inferred to have uplifted is about 70 kilometers along the coast and 30 kilometers perpendicular to the coast. This entire offshore region rose about 3.9 feet. The tsunami, with a maximum height of 20 feet at Halepe, arrived at Punalu'u a mere 84 seconds after a seismic sensor located there recorded the strong ground motion of the earthquake.

Losses from the earthquake and tsunami were two deaths, injuries to 28 people, and about \$4.1 million property damage. Both deaths, all the injuries, and roughly a third of the property losses, were attributed to the tsunami. Of the property losses, about \$2.1 million was to private property and \$2 million to public property (a combination of county, state, and federal facilities and infrastructure). As there were

only a few dozen residences located within 10 miles of the epicenter, the structural damage caused by shaking in the general area of the epicenter was surprisingly light. Damage in Hilo, about 45 miles from the epicenter, was fairly heavy and included damage to Hilo Hospital and several other large engineered buildings.

We learned much about the structure of Kilauea Volcano from this earthquake and we are now able to forecast future activity more accurately than we could before. For example, we now know that the large earthquakes along the Hawaii's south flank occur on a nearly flat-lying fault plane and that the pressures from within the magma system at Kilauea, and probably from within Mauna Loa, as well, provide the push on the flank.

We know that such large events occur more frequently than every hundred years, on average — they have occurred in 1823(?), 1868, and 1975 — and that smaller (but still damaging) earthquakes occur in this region even more frequently (the last in 1989).

Today, we are measuring the rates of movement of the south flank using satellite technology. These measurements show us that energy is accumulating in the south flank. The accumulated and stored energy will eventually be re-

leased during the next large earthquake in this region.

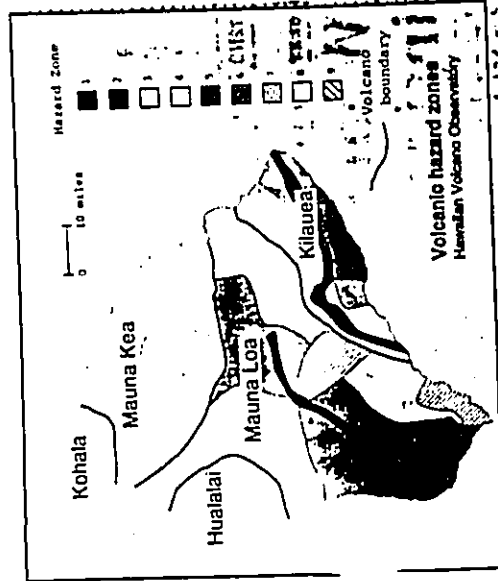
In planning for future earthquakes, it is worth remembering that the population of the island in 1975 was less than half of what it is today, and that the population close to the epicenter and along the south coast of Hawaii, where the effects of ground subsidence and tsunami were large, has grown enormously.

A similar earthquake and tsunami today will cause far greater casualties and property losses than occurred in 1975. Such an event will occur again. Will we have planned our community growth and infrastructure to minimize life and property losses? Will we have built buildings that will withstand the ground shaking? Will we each have prepared for the next earthquake by maintaining emergency supplies in our homes?

Volcano Watch is a weekly feature provided by scientists at Hawaiian Volcano Observatory.

Hawaii Tribune-Herald
May 28, 1995

Volcanic Hazard Maps Updated - CONT.



reduce the risks to life and property posed by these hazards. Our best tools for reducing risk are proper land-use planning, which limits development in high hazard areas, and education, which gives people a rational basis for deciding where to build a home, develop commercial property, or locate a public facility.

Zones 5 and 6 are areas on Kilauea and Mauna Loa currently protected from lava flows by the topography of the volcano. Zones 7-9 include the dormant volcanoes of Mauna Kea and Kohala. The younger part of Mauna Kea, which last erupted about 3000 years ago, makes up zone 7; the rest of the volcano is included in zone 8. Zone 9 consists of Kohala Volcano, which last erupted over 60,000 years ago.

Hawaii Tribune-Herald
May 28, 1995

Volcanic hazard maps updated

Maps showing volcanic hazard zones for the Big Island were first prepared in 1974 by the U.S. Geological Survey. The mapping project was investigated by the Department of Housing and Urban Development (HUD), which was required to consider natural hazards before extending its programs to new areas. At HUD's request, the USGS prepared maps delineating hazard zones for lava flows, ashfall from explosive eruptions, ground rupture, and ground subsidence.

The original map showing lava flow hazards was updated in 1987 because a wealth of new information was available from geologic mapping on Kilauea, Mauna Loa and Hualalai Volcanoes. By mapping and dating prehistoric flows, geologists now had a better idea of the eruption history of each volcano and of how often any given area had been overrun by lava.

The 1987 lava-flow hazard map was incorporated into a booklet entitled, "Volcanic and Seismic Hazards on the Island of Hawaii," published in 1990. This booklet is still available at no cost from the Hawaiian Volcano Observatory.

Partly in response to demand for a larger version of the lava-flow hazard zone map, it was revised slightly in 1992 on the basis of more information from geologic mapping and published in cooperation with the Hawaii Office of State Planning. The new map has a scale of 1:250,000 and can be overlain on the USGS topographic map of the Big Island, which is at

the same scale. The hazard map is currently for sale at "Basically Books" bookstore in Hilo.

The lava-flow hazard zones are based solely on geological criteria, including the location of eruptive vents, past lava flow coverage, and the topography of the volcanoes. Hazard zone boundaries are approximate, and the change in degree of hazard from one zone to the next is generally gradual rather than abrupt.

The current map divides the island into nine zones based on the likelihood of coverage by lava flows. Zones 1-3 are limited to the active volcanoes of Kilauea and Mauna Loa. Zone 4, the most hazardous, includes the summits and rift zones of Kilauea and Mauna Loa where vents have been repeatedly active in historic time and lava flows will originate in the future. Areas adjacent to and downslope of active rift zones make up zone 2. All of the 181

houses destroyed in the 1983-present eruption of Kilauea were located in zone 2, about 8 miles from the vent. Zone 3 includes areas geographically less hazardous than Zone 2 because of greater distance from recently active vents or because the topography makes it less likely that flows will cover these areas.

Zone 4 comprises all of Hualalai Volcano, where the frequency of eruption is lower than on Kilauea and Mauna Loa. Hualalai is in a single zone because its slopes are steep and flows could readily cover the dis-

Volcano Watch

**U.S. Geological Survey
Hawaiian Volcano Observatory**

P.O. Box 51

Hawaii National Park, HI 96718
Fax: 808-967-8890 email: dclague@hvo.wr.usgs.gov

Phone: 808-967-7328

Ms. Athena Peanut
P.O. Box 181
Pahoa, HI 96778

Dear Ms. Peanut:

Thank you for your inquiry about the various geologic hazards in the coastal zone between Kalapana and Kapoho. There are a variety of hazards in this particular region including lava flows, earthquakes, coastal subsidence, and tsunami. I shall briefly outline each of these hazards for you.

Lava flows: This region is directly downslope from the East Rift Zone of Kilauea Volcano and is classified as Lava Flow Hazard Zone 2. This zonation indicates a fairly high hazard with 15-25% covered by flows since 1800 and 25-75% covered within the last 750 years. We have recently compiled statistical data using digitized geologic maps that show that the average lava flow coverage in all of Zone 2 on Kilauea Volcano has been 34.4% in the last 200 years and 26.4% in the last 50 years. This new analysis shows that the lava coverage rates, and therefore the hazards, are somewhat higher than indicated on the published Lava Flow Hazard Map (USGS Map MF-2193), although the zonation remains at zone 2.

Earthquakes: This region is subject to earthquakes and the shaking caused by them, as are all parts of the island of Hawaii. The entire island of Hawaii is presently in earthquake zone 3, although a request has been submitted by State Civil Defense to the International Conference of Building Officials to increase the zonation to zone 4 for the entire island. Zone 4 is the highest earthquake zonation and is that of regions in California located near the San Andreas fault. In Hawaii, earthquakes are not randomly distributed. Instead they are concentrated in specific zones where activity is highest. One of the most active earthquake zones in Hawaii is the south flank of Kilauea extending from Kalapana to Punaluu. Although the area in question is outside this most active region, it is close enough that shaking from earthquakes such as the magnitude 7.2 Kalapana earthquake in 1975 or the magnitude 6.1 Kalapana earthquake of 1989 cause damage in this area, particularly to poorly constructed buildings.

Subsidence: The coastal region along the entire south flank of Kilauea is subject to rapid and catastrophic subsidence related to the large earthquakes mentioned above. Although the area of most severe subsidence during the 1975 earthquake was located within Hawaii Volcanoes National Park, subsidence at Kalapana and Kaimu was about 0.6 meter (almost 2 feet) and decreased to the east. At Pohoiki the subsidence was still 0.4 m (one and a third feet), and at Kapoho, it was about 0.25 meters (8/10 of a foot). The much smaller earthquake in 1989 resulted in much smaller amounts of subsidence. In addition to the subsidence associated with earthquakes, the entire island of Hawaii is sinking at rates of about 4.5 millimeters per year relative to sea level. Such rates seem small but accumulate to significant amounts of subsidence (about 9 inches in 50 years).

Tsunami: The coastal region is also the region that has been impacted by tsunami. There are two types of tsunami here. The first is generated by large earthquakes anywhere around the rim of the Pacific Basin. In historic times, large damaging tsunami of this type have

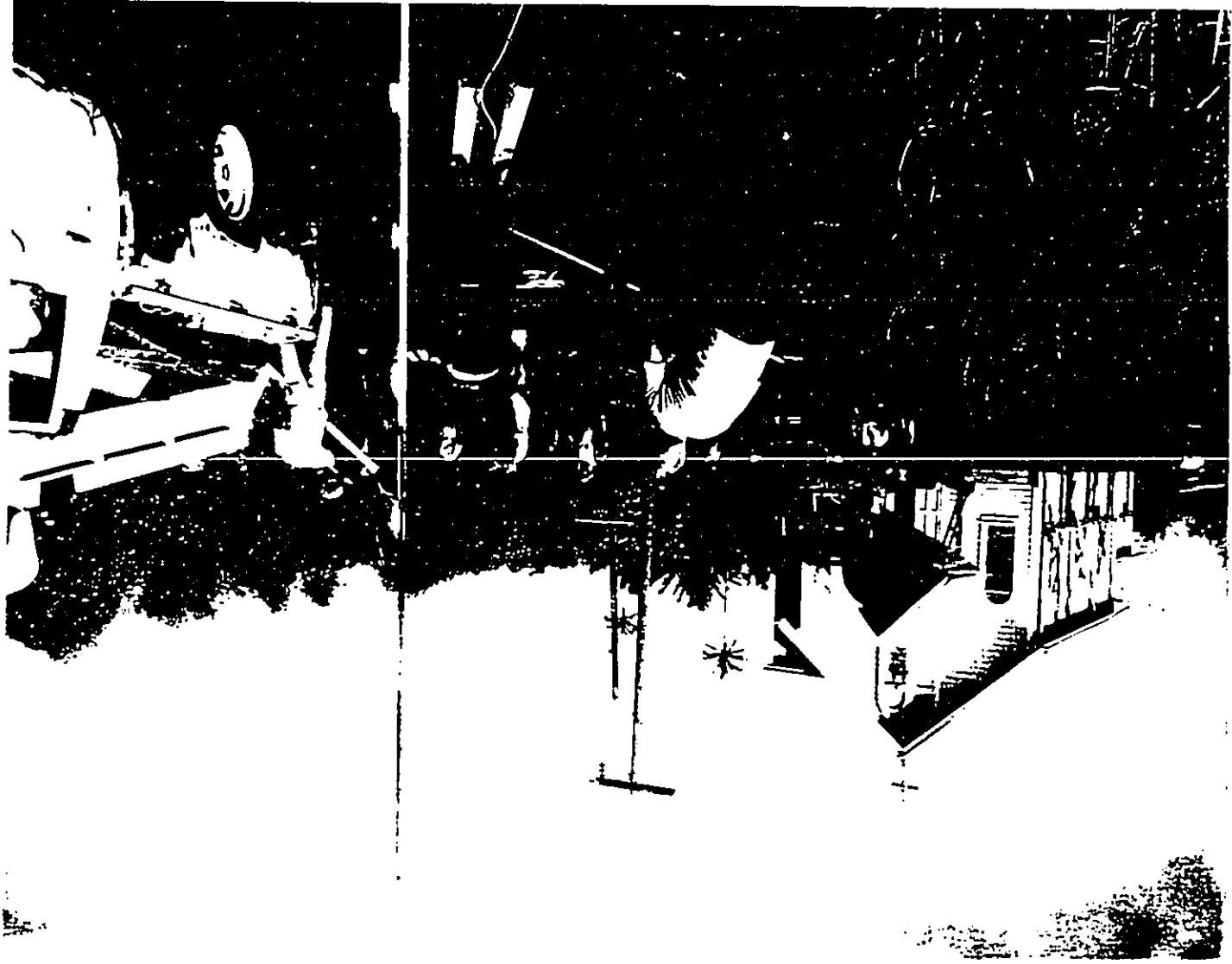
occurred repeatedly, the most recent large ones occurred in 1946 and 1960. The second type is also generated by earthquakes, but these are the same large local earthquakes discussed above. There have been two specific cases, in 1868 and in 1975, when tsunami impacted the south coast of Hawaii and caused significant damage and loss of life. Future earthquakes beneath the seismically active south flank of Kilauea have a high likelihood of producing such "local" tsunami again.

I hope this information answers your questions about the hazards in this geologically active region. If I can provide additional information, please feel free to contact me again.

Sincerely,



David A. Clague



With workmen preparing the way over the few remaining utility lines, the Painted Church began its journey down Beach Road, coming to rest briefly in front of Harry K. Brown Park. Hours later, it was taken to a site on the upper highway, where it still awaits a final decision on a new permanent location.

Kilauea's sibling Loihi rattles off temblors

3.1 magnitude 4.0 or larger quakes are recorded in two days

By Dave Smith, Tribune-Herald

Kilauea's baby sister is acting up. Scientists at Hawaiian Volcano

Observatory say a swarm of strong earthquakes at Loihi over the past week indicates something's going on at the next Hawaiian island. But they say it is too soon to tell if the activity is an eruption.

Located 20 miles southeast of Pahala in Ka'u, Loihi is an active volcano nearly 2 miles tall but with a summit still 3,000 feet below the surface of the ocean.

Beginning July 16, HVO seismographs began picking up large numbers of earthquakes from Loihi, with nearly 1,500 logged in the past week.

On Sunday, the tremors began strengthening. Arnold Okamura, HVO's deputy scientist-in-charge, on Tuesday said 31 temblors had been recorded in the past two days of magnitude 4.0 or greater.

One that occurred at 3:25 a.m. Tuesday had a magnitude of 4.9.

Okamura said Big Island civil defense officials have been notified because of the possibility that a bigger quake could set off a local tsunami. Okamura said anyone at the shoreline of Ka'u or Puna who feels an earthquake should immediately head for higher ground. HVO seismologist Paul Okubo

said the latest activity is the most pronounced since scientists began monitoring Loihi's activity in the early 1970s.

That includes what was believed to be an eruption in 1991, and strong swarms of submarine earthquakes recorded there in

See LOIHI, Page 12

LOIHI: 31 temblors recorded in last two days

From Page 1

October 1993 and April 1995.

"This is the most energetic of the Loihi swarms," Okubo said.

Okubo and other scientists say the quakes could mean an eruption is taking place at Loihi. But it also could indicate a large movement of the flank of the volcano, caused either by swelling from an intrusion of magma into a rift zone or perhaps a shifting fault zone.

But even if it is erupting, don't expect Loihi to appear above the surface any time soon. Scientists say it will be another 100,000 to 200,000 years before that happens.

Whatever the reason, the seismic activity has left scientists enthralled but without any means of immediately studying the phe-

nomenon further.

"It's exciting, but sort of frustrating" to sit on the sidelines, said Alex Malahoff, director of the University of Hawaii's Hawaii Undersea Research Laboratory.

Part of Malahoff's job is to place monitoring instruments on Loihi and then retrieve it a year later, "hopefully chock-full of information. But since the university's submersible research craft was being modified last year, Malahoff currently does not have any monitors on-site.

And the submersible is currently tied up on a biology study off Kona and not available for a trip to Loihi to see what's causing all of the excitement. Malahoff said the biology study was years in plan-

ning and can't be interrupted.

Meanwhile geologists will collect what information they can from instruments on dry land.

"Once we bag all the data then we will go through it with a fine tooth comb," Okubo said.

Scientists expect to eventually gain more information on Loihi from another UH endeavor. The HUGO project involves additional monitoring equipment placed on Loihi — connected to the Big Island's Ka'u coast with a 20-mile cable providing power and transferring data — and is expected to be up and running within a year.

Malahoff said he believes there is a strong parallel between Loihi and Kilauea, which has been erupting almost nonstop for the past 13

years. He said lava may be flowing out near Loihi's base, similar to flows from Kilauea currently being carried seven miles to the coast in an underground tube network.

An ongoing eruption on Loihi has never been observed. But Malahoff said instruments showed a deflation of some 2 feet at Loihi's summit after the 1991 episode, and a trip to the bottom of Loihi at a depth of 13,000 feet in the Russian submarine Mir later revealed a fresh lava flow.

Meanwhile, the latest activity has left geologists reeling.

"We might be having a summit eruption," Malahoff said.

"I'd like to take a look," he added wistfully.

H.I.O., HAWAII, MONDAY, AUGUST 5, 1996

Scientists monitor Lo'ihl's many rumblings

It was only 42 years ago that Lo'iki and four other seamounts were discovered during a bathymetric survey of the area south and southeast of the Big Island by the U.S.S. Patapsco.

Hawaiian language authorities Mary Pukui and Martha Hobb provided the Hawaiian names for the five seamounts — Papa'u, Lo'ihl, Wini, 'Apu'upu'u and Hononu. The names were based upon the physical characteristics of the seamounts, and Lo'ihl, as the name implies, is an elongated volcano.

Lo'ihl has a summit caldera and two rift zones which radiate to the north and to the south. There are two pit craters within the summit caldera, which is about 3,200 feet below the surface of the ocean. The base of Lo'ihl is difficult to determine because of submarine landslides and the dip of the sea floor down to the Hawaiian Deep. The height of Lo'ihl is between 10,000 and 13,000 feet, depending upon

Volcano Watch

where the base is placed.

The first earthquake activity definitely attributed to Lo'ihl occurred in 1971, but a portion of a large, offshore swarm in 1952 may have originated there. Lo'ihl experienced more earthquakes in 1972 and 1975, and in 1978 the first dredge samples and photographs of Lo'ihl were obtained by a team of geologists from the U.S. Geological Survey.

The first, glassy crusts of the rocks indicated the youthful age of the lava and furnished definitive proof that Lo'ihl was an active volcano. Surveys by University of Hawaii scientists in 1980 and 1981 acquired additional dredge samples and photographs that showed the presence of fresh lava flows in the south summit region.

The present swarm of earthquakes from Lo'ihl started on July 16. From then to the morning of August 2, the U.S. Geological Survey's Hawaiian Volcano Observatory seismographic network has recorded 4,229 earthquakes. Ninety five of the temblors had magnitudes of 4.0 or larger. Three of the largest quakes have been reported felt by residents of Ka'u. A magnitude 4.0 shaker was felt on July 23 at 3:25 a.m., and another magnitude 4.9 earthquake shook residents at 7:38 a.m. on July 24. The largest felt earthquake of the swarm registered a magnitude 5.0 on July 27 at 11:30 p.m.

Researchers at the University of Hawaii are responding to the current seismic activity by scheduling a survey of the area this week. Detailed SeaBeam sonar and sonobuoy data will be gathered, together with water temperature and chemistry measurements. If conditions allow, the submersible

PISCES will make three dives to Lo'iki. By the next article, we hope to know the cause of the earthquakes.

Eruption/Earthquake Update

The Kilauea eruption continues unabated, and flows enter the ocean in the Lae'apuki region. The lava pond within Pu'u 'O'o was sluggish during the past week, and the level was about 295 feet below the lowest part of the rim. A glow from the pond reflecting off the fume cloud over the cone often can be seen at night.

The three large Lo'ihl earthquakes mentioned above are the only ones reported felt during the past two weeks.

If you feel an earthquake, we would be interested in receiving that information. Please call HVO at 967-7328 and tell us when and where you felt the Earth move.

DOCUMENT CAPTURED AS RECEIVED

Hawaii Tribune-Herald August, 1996

Big Island report HTH 8-2-96 p.10

Loihi rumblings continuing

Loihi, the undersea volcano that scientists figure will someday become the next Hawaiian island, continues to rumble. Scientists from Hawaiian Volcano Observatory Thursday said instruments continue to register strong seismic activity from the seamount located about 20 miles southeast of the Big Island's Ka'u coast. A swarm of earthquakes that began July 16 has so far resulted in more than 4,000 recorded tremors. The swarm has included 60 quakes of 4.0 magnitude or greater. While most of the tremors have not been noticed on the Big Island, the largest one in the swarm, a 5.0 magnitude earthquake occurring at 11:30 p.m. Saturday, was felt by residents of Pahala and Maalehu. A University of Hawaii scientist is scheduled in October to use the university's submersible craft to take a look at Loihi and to place monitoring instruments on the seamount. Because of the threat from a locally generated tsunami, HVO scientists say anyone at the Ka'u or Puna shoreline who experiences an earthquake should immediately head for higher ground. Loihi's summit is roughly 3,200 feet below the ocean's surface. It is not expected to reach the surface for at least 100,000 years.

UH uses submersible to explore Loihi

In response to the intense offshore earthquake swarm that began on July 16, scientists at the University of Hawaii received funding for a research cruise to investigate possible changes at Loihi. On Friday, Aug. 9, the University of Hawaii research ship Kaimikai o Kanaloa launched the manned submersible vessel Pisces V for its second reconnaissance dive to the underwater volcano.

The large number of earthquakes and the numerous larger earthquakes suggest that Loihi

Volcano Watch

may have undergone significant changes. The first of the UH scientists to dive with the Pisces on Thursday reported seeing a new pit crater, indicating that a collapse of the Loihi summit region had occurred. This collapse occurs when magma is drawn from beneath the summit region of the volcano, leaving no support for the overlying rock mass.

Fortunately, during the past week, earthquake activity near Loihi has diminished, and it appears as though this episode is coming to an end. The Hawaiian Volcano Observatory seismographic network recorded a total of 4,377 Loihi earthquakes from July 16 through August 8.

As we have reported elsewhere, nearly 100 of these earthquakes were of magnitude 4 or greater. One of the larger earthquakes on Tuesday, Aug. 6, was felt through the hull of the Kaimikai o Kanaloa, and, if large earthquakes had con-

tinued, the shipboard scientists would not have been able to dive with the Pisces.

While the Loihi activity has been the recent focus of much of our attention, regional earthquake activity beneath the island of Hawaii, also continues. Two earthquakes were felt from beneath the Kilauea south flank, about 25 miles south of Hilo on the night of Aug. 8. The first of these earthquakes occurred at 10:25 p.m. and the second occurred at 10:36 p.m. Their magnitudes were 3.9 and 3.4, respectively. Small earthquakes like these continue to remind us of the ongoing geologic processes shaping the island, and of the ever-present need to be aware of the geologic hazards, such as volcanic eruptions, large earthquakes and tsunami that may be generated with large earthquakes.

Eruption/Earthquake Update The Kilauea eruption continues unabated, and flows enter the ocean only in the Lae'apuki

region. The lava pond within Pu'u O'o was sluggish during the past week, and the level was about 325 feet below the lowest part of the rim. A glow from the pond reflecting off the fume cloud over the cone often can be seen at night.

Television crews from programs on the Turner Broadcasting System, British Broadcasting Company, The Discovery Channel, and the Arts & Entertainment channel were filming operations of the U.S. Geological Survey's Hawaiian Volcano Observatory during the past week. HVO personnel were busy demonstrating various volcano monitoring techniques and providing interviews for the video productions.

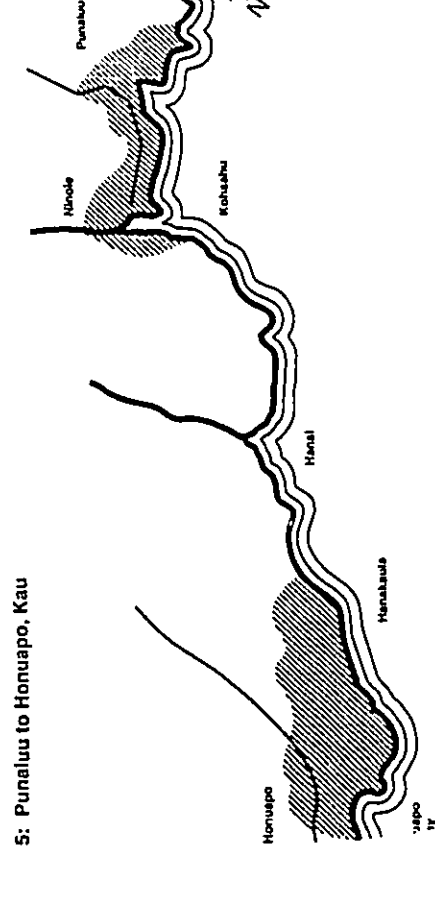
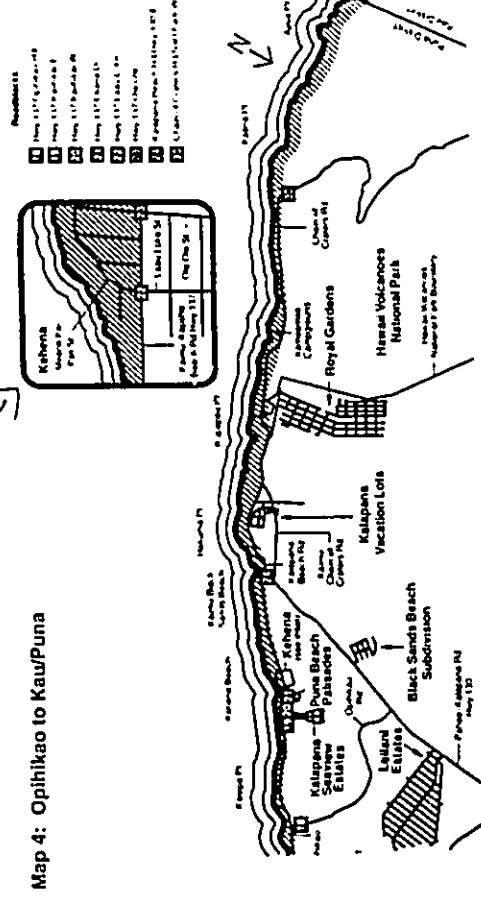
The two south flank earthquakes mentioned above are the only ones reported felt during the past week.

If you feel an earthquake, we would be interested in receiving that information. Please call HVO at 967-7328 and tell us when and where you felt the Earth move.

6-11-09 10:09 AM 100-80805781



CIVIL DEFENSE
Tsunami Evacuation Maps
 Evacuate all shaded areas.



U.S. Geological Survey
 Hawaiian Volcano Observatory
 P.O. Box 51
 Hawaii National Park, HI 96718
 Fkx: 808-967-8890 email: dclague@hako.wr.usgs.gov

Phone: 808-967-8819
 Mr. David Wright
 RR2, P.O. Box 4519
 Pahoa, HI 96778

Dear Mr. Wright:

Thank you for your inquiry about the lava flow hazards in the coastal zone between Kalapana and Kapoho. This region is directly downslope from the East Rift Zone of Kilauea Volcano and is classified as Lava Flow Hazard Zone 2. This zonation indicates a fairly high hazard with 15-25% covered by flows since 1800 and 25-75% covered within the last 750 years.

We have recently compiled statistical data using digitized geologic maps that show that the average lava flow coverage in all of Zone 2 on Kilauea Volcano has been 34.4% in the last 200 years and 76.4% in the last 50 years. This new analysis shows that the lava coverage rates, and therefore the hazards, are even higher than indicated on the published Lava Flow Hazard Map (USGS Map MF-2193).

I hope this information is of use to you. If I can provide any additional information, please feel free to contact me again.

Sincerely,

David A. Clague
 David A. Clague

12 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SUMMARY AND RECOMMENDATIONS

Preventive actions are needed to minimize the damage from lava flow hazards and to protect the public health, safety and welfare. Land use planning, public information, and warning and evacuation planning are important tools which should be used to mitigate lava flow disasters. The Kilauea eruption destroyed over 175 structures, caused over \$60 million worth of damage and caused emotional pain and suffering to those who lost homes, buildings and possessions. In addition, there could have been even greater damage if homes had been constructed on the approximately 2,500 empty lots which were covered with lava during the eruption.

Moreover, Kilauea is an active volcano. Approximately 30% of the area in Kilauea Lava Flow Hazard Zones 1 and 2 have been covered with lava since 1955. The hazards posed by volcanic eruption is a function of natural processes. Risk, by contrast, is directly tied to human activities. Risk increases as property is developed or people settle in areas having significant natural hazards. In such areas, land use decisions have no effect on the hazard but can increase or decrease risk.

Potential lava hazards should be an explicit consideration in land use planning along with other, more traditionally considered, physical and socioeconomic factors. In addition, such planning must take into consideration the needs and desires of the people affected both directly and indirectly by the lava flow hazard.

Hawaiian County Civil Defense relies on the Hawaiian Volcano Observatory to provide accurate and timely information to protect lives and property. Coordination between County Civil Defense and the Hawaiian Volcano Observatory has resulted in excellent warning, alerting and evacuation in the areas affected by this eruption. However, there are other geographic areas also subject to lava flow inundation, where warning, alerting and evacuation will be more difficult.

At the present time, the Hawaiian Volcano Observatory does not have adequate instrumentation on the southwest rift zone of Mauna Loa. An eruption there could pose a hazard to developed areas from both lava flows and earthquakes that could result in loss of life. Approximately nine villages and communities, including Hawaiian Ocean View, Hawaiian Ocean View Ranches and Moloa Beach, could be affected by flows in this area.

Scientists, who are monitoring volcanic activity in the field, need the capability to provide critical, time-sensitive lava flow information in a timely manner. Aerial evaluations are also required during lava flow events to produce critically needed information to make life saving decisions.

The following recommendations were made by the Hazard Mitigation Team to encourage Federal, State and County departments and agencies to continue to take a proactive role to reduce potential future problems associated with lava flow hazards.

RECOMMENDATION #1:

The State should assess the effectiveness of the State law requiring notification of hazards to potential purchasers to ensure that volcanic hazards are fully disclosed.

Responsible Agencies:

State Department of Commerce and Consumer Affairs

HAZARD MITIGATION TEAM REPORT

for the
KILAUEA VOLCANO ERUPTION
HAWAII COUNTY, HAWAII

FEMA-864-DR-HI

October 1990

Prepared by:

The State and Federal
Hazard Mitigation Team

RECOMMENDATION #2:

Federal, State and County agencies and departments should not promote or encourage higher density development in the Lava Flow Hazard Zones 1 and 2 in the east rift zone of Kilauea unless:

1. Information can be provided by the U. S. Geological Survey that the area in question is of lower risk to lava flow inundation or
2. A strong case can be made that to do otherwise would not be in the best public interest.

Responsible Agencies:

Federal, State and County of Hawaii departments and agencies involved in development decisions

RECOMMENDATION #3:

Hawaiian Volcano Observatory personnel will assist Federal, State and County departments and agencies to clarify issues regarding volcanic hazards.

Responsible Agency:

U. S. Geological Survey, Hawaiian Volcano Observatory

RECOMMENDATION #4:

The State and County should examine and review their land use policies and regulations with respect to development within high lava flow hazard areas in order to protect public safety and with due consideration to other objectives and policies in State and county land use policy documents

Responsible Agencies:

Office of State Planning
State Department of Land and Natural Resources
County Planning Department

RECOMMENDATION #5:

The State and the County of Hawaii should examine the appropriateness and feasibility of reclassifying lands in Kilauea Lava Flow Hazard Zone 1 to Conservation, giving consideration to existing uses in the area.

Responsible Agencies:

Office of State Planning
State Department of Land and Natural Resources
County Planning Department

RECOMMENDATION #6:

The State and County should examine existing land uses within Kilauea Lava Flow Hazard Zones 1 and 2 and the potential problems that increased development of these areas may create in terms of

The Finality

WELSH & SIMPSON

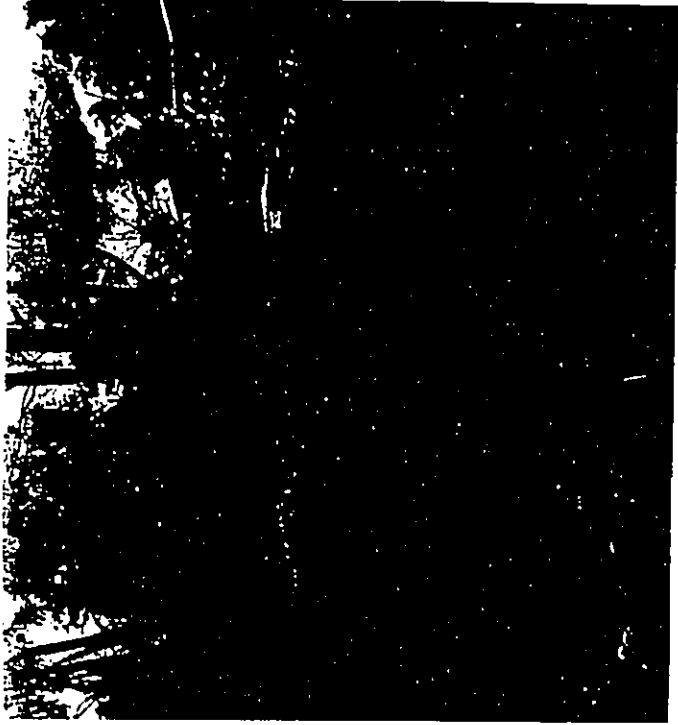
It was a lingering death for Kalapana. The isolated hub of the town remained standing for nearly a month as another pause in the volcanic outpouring followed the firestorm of April and early May. In the latter part of May, the volcano resumed eruptive activity, issuing wave upon wave of fluid lava which, solidifying as it cooled, stacked layer upon steaming layer of *pāhoehoe*. By summertime Kalapana was buried under fifty to seventy-five feet of fresh, hardening lava. One by one, the remaining homes in Kalapana's old and new communities went up in flames. On June 1, as midnight approached, the ever-tightening circle of lava set the humble Congregational church ablaze while four members of its congregation watched. The former site of the Star of the Sea Painted Church was next. The Catholic church's recreational building was consumed June 3 as the lava made its way to the ocean. And on June 6, Walter Yamaguchi's defiance of the volcanic odds met with defeat as the Kalapana Store and Drive Inn succumbed.

All that then remained of Kalapana was approximately a dozen homes scattered around the edges of the myriad flows. By summer's end only a handful of residences remained, and in its relentless cycle of destruction and construction, the volcanic steamroller had pushed eastward into Kaimū, reclaiming the world-famous Black Sand Beach as waves of lava filled in Kaimū Bay and thrust the island's coastline more than half a mile seaward.

Society has no means of calculating the true losses sustained by the communities of Kalapana, Kaimū, and Kapāhau as a result of Kīlauea's eruption at Pū'u 'Ō'ō and Kūpaianaha. In its inundation since 1983 of an area of approximately thirty square miles, the eruption destroyed 175 residences and forced the removal of

"It's God's will; it's not ours."

—BONNIE MCKEAN, Kalapana Island Kea Congregational Church

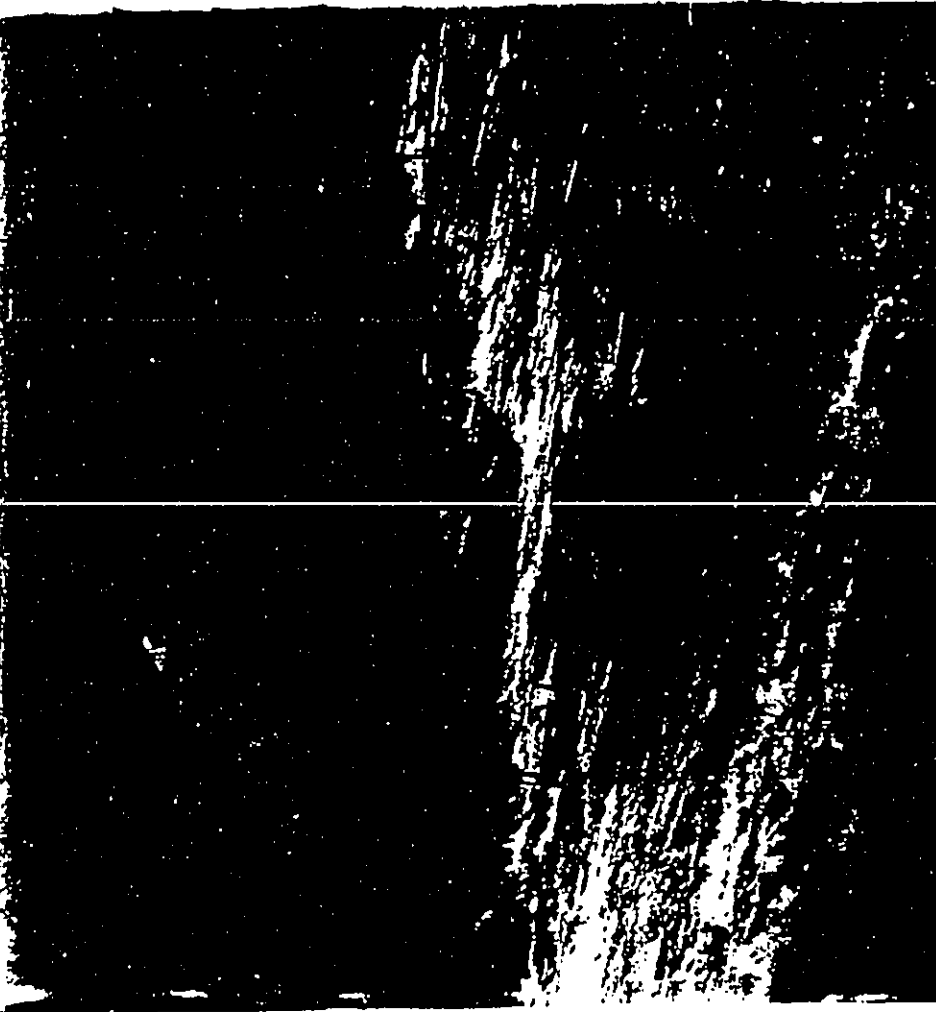


Lava finds its way into the ocean after setting the Star of the Sea's recreation building on fire (seen in the background). While government agencies tabulated the human-

twenty-one uninsured homes, as well as the Painted Church, made more than two dozen other homes uninhabitable, and covered more than one thousand residential lots. Some property owners were still paying for land that became buried under tons of lava, land which lost any real market value while property values elsewhere on the island were booming. A handful of businesses in Kalapana were directly affected by the eruption, and airborne volcanic pollutants had a detrimental impact on agricultural interests islandwide.

The task of putting a price tag on the damage done to private and public properties, facilities, roads, and utilities fell to the county and state governments. By May 1990, they had tabulated estimates of nearly \$50 million in damages to private property, and another \$15 million to public facilities. The cost of replacing the public and private roadways covered by the lava was put at more than \$32 million, nearly \$3.5 million would be needed to rebuild the water systems.

Impossible to reconcile on any accountant's ledger are the priceless intangibles — the unrecovered history of the homesteads



and the community that nurtured and sustained generations of islanders, the ancestral graveyards, the access to lands and oceanfront from Kamaoia to Kamae, the groves of fruit trees and beautiful flowering plants cultivated throughout the area, and the hopes and dreams of all who called Kalapana home.

The state and federal declarations of disaster made the town eligible for housing relocation assistance, tax relief, and low-cost loans. A task force made up of representatives from a variety of government agencies was convened to coordinate relocation

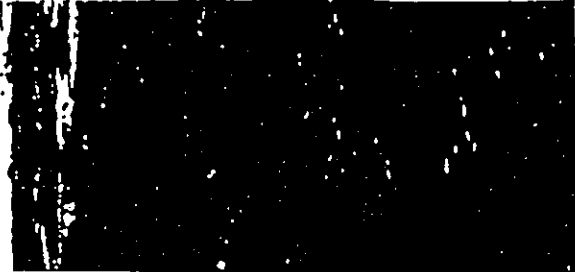
and the community that nurtured and sustained generations of islanders, the ancestral graveyards, the access to lands and oceanfront from Kamaoia to Kamae, the groves of fruit trees and beautiful flowering plants cultivated throughout the area, and the hopes and dreams of all who called Kalapana home.

Meanwhile, the federal government was providing temporary housing assistance to approximately fifty families and another twenty families were being helped in their relocation efforts by the American Red Cross. Some of the families displaced by the 1986-87 destruction at Kapa'ahu had already rebuilt after accepting developer David Wannall's offer of one-acre lots in the Puna subdivision of Hawaiian Paradise Park. Although most of the displaced residents stayed at least temporarily in East Hawaii, some of the Kalapana residents moved off-island, some relocating to the Mainland, some to foreign countries, according to Harry Kim of the civil defense

There is that percentage who cannot bear the thought of going back, who cannot accept a compromise between what they had and what may be developed for them," Kim said. "Those are the ones who said 'I'm going, I'm not coming back,' who never want to expose themselves to such trauma again. And they have been told, as long as they stay in the Kalapana area, that's a possibility."

There were others who, a year after the destruction, were still in a state of limbo. David Raddeley, Hawaii County Mental Health administrator, said many of the Kalapana residents suffered from a post-traumatic stress disorder similar to that experienced by veterans of war. The drawn-out nature of the catastrophe put the residents through a tortuously prolonged period of uncertainty, not unlike that faced by those living in a war zone. The hot lava incinerated and then obliterated almost everything, leaving many unable to even identify their former homesites in the new landscape. With the exception of a few sheets of metal roofing and the burned-out hulks of discarded vehicles captured in the fresh rock, the volcanic destruction left nothing for the residents to pick up in order to go on.

But there are those who want to return to the area and build anew. Those expressing the strongest desire to return to the land are Kalapana's native Hawaiians.



This document clearly indicates Helco's interest in PV application. It is passed out at all their major conferences. AP

A DEMONSTRATION PROJECT TO EVALUATE THE POSSIBLE PROVISION OF COST-EFFECTIVE REMOTE PHOTOVOLTAIC SERVICE BY HAWAII ELECTRIC LIGHT COMPANY, INC.

Steve Burns
Hawaii Electric Light Company, Inc.
Hilo, Hawaii

ABSTRACT

This paper presents the ongoing demonstration and evaluation project by Hawaii Electric Light Company, Inc. (HELCO) to explore the possible provision of remote, cost-effective photovoltaic service instead of traditional line extensions. A brief background is presented about the utility service territory, the justification to examine alternatives to line extensions, and the status of current photovoltaic use in Hawaii. The scope of the demonstration project, being undertaken by HELCO, is given in the context of HELCO's overall Photovoltaic Program. HELCO's objectives in pursuing a demonstration and evaluation project are listed as well as the general goals HELCO hopes to achieve from this effort. Elements of the project planning process and its establishment are listed and descriptions of the specific photovoltaic installations being planned are provided. The evaluation goals of the project and the various policy decisions that need to be made are cited. Conclusions drawn from the planning stage of HELCO's Photovoltaic Demonstration and Evaluation Project are made.

utility pole, the provision of electric service via a utility supplied photovoltaic system may, in many cases, be the least-cost approach.

There is a substantial base of experience with the use of photovoltaic systems for remote residences on the island of Hawaii. Although there has been no quantitative statement on how prolific the use of remote, residential-based photovoltaic systems is, it has been conservatively estimated that there may be as many as a few thousand of these applications already existing here. The independent development of remote photovoltaic systems in Hawaii has been supported over the last ten to fifteen years by a number of local photovoltaic system hardware vendors, several qualified photovoltaic system designers and installers, and the active interest and experimentation by resident do-it-yourselfers.

The specific project, which HELCO is currently pursuing, is the demonstration and evaluation of remote residential photovoltaic systems for a potential cost-effective service provision program. This particular project is one component of HELCO's overall Photovoltaic Program. The entire program is provided here in outline form by phases and projects.

HELCO PHOTOVOLTAIC PROGRAM OUTLINE

Phase I: (1991)

- A. Research and Demonstrate Remote PV Applications
- B. Identify and Evaluate Potential Cost-Effective HELCO System Applications
- C. Identify and Analyze Potential Large-Scale PV Distributed System Applications
- D. Identify Large Customers for Potential PV Applications

\$10,000 were secured for this project. Project management was assigned to the Customer Services Department with the first ground Resource Planning Specialist as the project manager. In planning the development process for the project, there were several key areas identified and plans were formulated to address these. These include:

- 1. acquisition of supplemental funding;
- 2. identification of evaluation and research goals;
- 3. development of an effective information exchange and research network;
- 4. ongoing participation in nationwide and statewide photovoltaic groups;
- 5. development of an internal company PV Work Group;
- 6. development of a public/stakeholder collaborative group;
- 7. development of an effective education/public relations effort; and;
- 8. analysis and documentation associated with project evaluation goals.

With the evaluation goals established and the various participants on board, the specific demonstration/research project sites have been selected. Additional project funding has been secured, including a \$15,000 award from Sandia National Laboratories and \$5,000 of in-kind support from the Pacific International Center for High Technology Research (PICTR). As of the date of this writing, no projects have yet been installed. Therefore, the total number and scope of projects is not yet known and will be dependent on available funding and individual project cost.

The installations currently planned within this project include a custom designed and installed photovoltaic system to serve the electricity needs of a home/recreational facility at Puale's County Park (see Figure 1). This system, which will be similar to a typical residential sized system, will be specified and put out to bid by HELCO to the local PV business community. The design will allow for 100% available power with the provision of a customer supplied generator for battery charging. The system will be incorporated into the building structure. Maintenance training will be provided by the installer to the facility manager and monitored by HELCO staff. Data acquisition will be accomplished with the use of equipment provided by Sandia National Laboratories, and the data analysis performed with the assistance of an independent research organization.

Another demonstration project will be the use of a packaged photovoltaic system that will be capable of being delivered to a customer's site as a completely self-contained unit. This packaged system will be sized to meet a typical residential load and is envisioned to be one of several different sized packaged systems that could be available to customers with different load requirements. This system will be purchased from an existing supplier, using HELCO supplied specifications. The design will include a generator/battery charger to provide 100% available power. This packaged system will be modular in that the various components will be easily interchangeable for repair/replacement by utility staff or contracted maintenance personnel. For this

Phase 2: (1992-1994)

- A. Evaluate, Formalize, and Market Test Remote PV Program
- B. Implement Cost-Effective HELCO System Applications
- C. Implement, if Appropriate, Large-Scale Distributed System Applications at Specific Sites
- D. Evaluate and Implement, if Appropriate, Large Customer Applications

Phase 3: (1995-Present)

- A. Continue to Refine and Expand Remote PV Program
- B. Continue to Implement, where Appropriate, Large-Scale Distributed System Applications and Large Customer Applications

OBJECTIVES

The research and demonstration objectives of a project involving remote PV applications in HELCO's service territory include: exploring the possibility of HELCO providing photovoltaic systems as a remote (non-grid connected) service option; developing in-house utility experience with this advancing technology; and introducing and educating the public regarding the use of photovoltaic power systems.

The provision of electric service via a utility provided photovoltaic system is a relatively new concept being explored by only a few utility service providers nationwide. Given this lack of general utility experience, there is a great deal of uncertainty regarding the approach that should be taken in delivering this type of service. For this reason, HELCO has embarked on a remote photovoltaic demonstration project to explore the variety of approaches that can be taken, the decisions that may be required; the overall cost-effectiveness and performance of the photovoltaic systems in Hawaii; and the business implications of any particular approach or decision. This information will be beneficial in the development of a formalized remote photovoltaic utility program, should it be deemed appropriate.

PROJECT DEVELOPMENT

The development of this project for HELCO began in late 1993 in conjunction with the development of HELCO's first Integrated Resource Plan (IRP). Research and development funds of

* Utility service providers that are currently exploring the use of photovoltaic systems as a remote service option include Idaho Power, La Plata Electric Cooperative, Nevada Tribal Utility Authority, New York Power Authority, Pacific Gas and Electric, Sierra Pacific Power Company, and Southern California Edison.

8. purchased in bulk from manufacturers? Should the maintenance of systems be contracted out or provided for by utility staff?
9. How should the efficiency improvements of the customer's end use equipment, that has been identified for system optimization, be handled?
10. Should the utility or the customer provide the backup generator and its maintenance?
11. Should the utility or an independent research organization be responsible for data analysis and reporting?
12. If a formalized remote photovoltaic service option is eventually provided, should it be done through the regulated utility structure or through an unregulated utility subsidiary?

Through this demonstration project, many of these questions will be answered, at least in part, and will subsequently be used by HELCO in formulating any plans to pursue a formalized remote photovoltaic service program.

CONCLUSIONS

Being that this paper is written at an early stage of HELCO's project, it is difficult to provide empirical conclusions based on any data collected and analyzed. We have concluded, however, at this early stage of our planning, that there are no standard approaches for the provision of remote photovoltaic systems by utilities and that there are many areas that need to be carefully evaluated. This evaluation needs to be performed not only to justify the use of photovoltaic systems in certain applications, but also to help the utility decide what the best approach is for the provision of this type of service. The kinds of policy decisions to be made will, in many cases, involve an evaluation of not only direct costs and benefits, but also any related external costs and benefits, such as impacts to the local photovoltaic business community.

type of system, it is intended that the utility will provide for its maintenance on a regular basis. This system will be first demonstrated and located at several HELCO facilities, where it can be connected to individual circuits or panel loads. The service and maintenance needs of the system will be determined and performance characteristics will be closely monitored. Data will be collected regarding the system's performance, user friendliness, service requirements, and any other problems that may be encountered. After the system has been connected and fully evaluated at various HELCO facilities, it may be placed with a customer to provide for their remote residential loads and evaluated under this type of actual customer use.

The third type of installation involved in this demonstration project will be a fully enclosed mobile trailer unit that will be used to demonstrate a scaled-down version of a residential photovoltaic system. This unit will be used in fairs and events as a portable power supply as well as an educational exhibit. It will incorporate the same type of components that we would expect to find in HELCO's other installations. The exposure of this unit to the public will assist HELCO in understanding public perceptions and any related market barriers to the use of photovoltaic systems. If there are funds still available after these three projects are completed, HELCO will demonstrate and analyze the provision of PV street lighting.

The benefits of pursuing these various different projects will be to help HELCO understand the implications, problems, and potential solutions within each of the different approaches that can be taken. With this information, HELCO will be better able to select the best approach, should it decide to pursue a formalized remote PV program.

EVALUATION GOALS AND POLICY DECISIONS

In the course of developing this project and from discussions with HELCO's Photovoltaic Work Group and the Public/Shareholder Collaborative Group, it became apparent that there are a number of significant evaluation goals and/or policy decisions that require attention and resolution. Some of the major ones are provided here.

1. The evaluation of the performance and cost-effectiveness of residential remote photovoltaic systems in different geographical regions in Hawaii.
2. The evaluation of the cost-of-service when comparing photovoltaic systems with traditional line extensions.
3. An evaluation of the regulatory barriers, institutional barriers, public perception barriers, and market barriers to the use of photovoltaic power systems.
4. Should home integrated systems or packaged/modular systems be provided and under what circumstances?
5. If packaged systems are built, what range of sizes should be offered?
6. Should the design/installation of custom systems or the building of packaged systems be bid out to the existing photovoltaic business community or performed in-house?
7. Should hardware be purchased through local vendors or

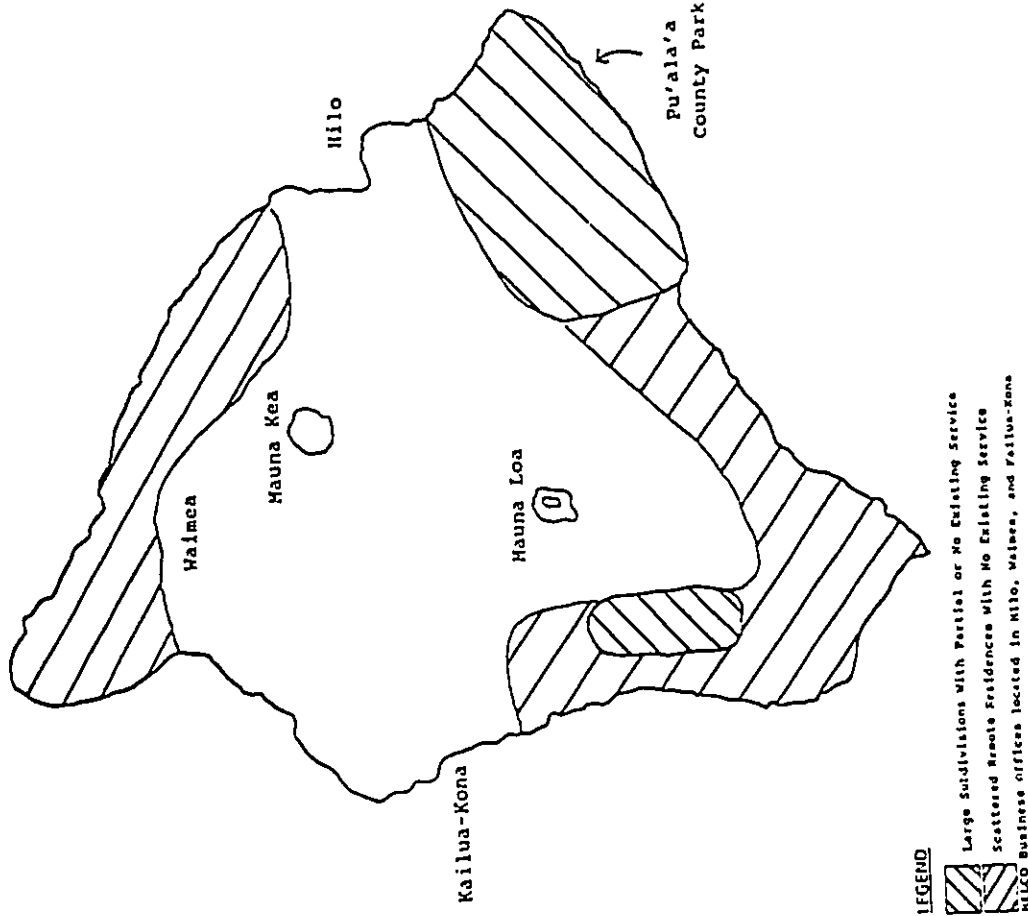
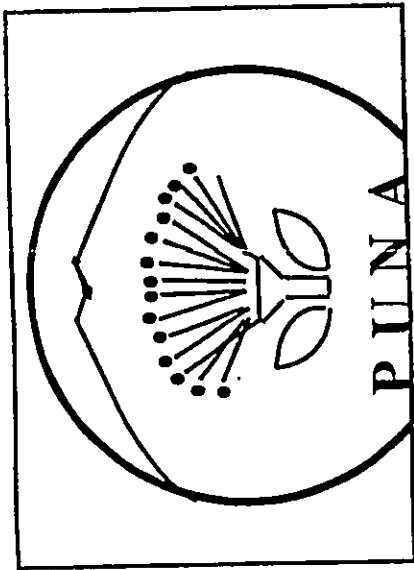


FIGURE 1 LOCATIONS FOR POTENTIAL REMOTE PHOTOVOLTAIC SYSTEM APPLICATIONS ON THE BIG ISLAND OF HAWAII



prepared by
 Community Management Associates, Inc.
 for
 The County of Hawaii
 Planning Department
 October 1995

2.9 ENERGY

2.9.1 Specific Concerns of Puna Community

- Many Puna residents live independently of the energy grid and are actively involved in promotion and development of alternative energy for domestic and transportation use. At the same time many residents who are currently "off the grid" would probably desire to tap into the grid if it is made available at reasonable hook-up cost. Sometimes residents with similar sentiments are grouped together, sometimes not.

CDP Courses of Action for Energy

- Collaborate with subdivisions to create viable town centers aligned along future public transit routes central to potential population. Implement land use patterns which cluster uses in pedestrian-scale town centers.
- Support efforts of subdivisions to establish and recognize "off-the-grid" or "dispersed infrastructure" areas.
- Collaborate with community initiatives to develop model "non-emission" or other experimental and alternative transportation routes.
- Locate future sewage treatment, green waste/biomass and energy production sites for cooperative processes and convenience, e.g., at Glenwood, Kea'au, Waipahoehoe, and Maku'u.

County General Plan: Energy

GOALS

- Survive towards energy self-sufficiency for Hawaii County.
- Establish the Big Island as a demonstration community for the development and use of natural energy resources.

Puna's Energy Issues: Energy demand in Puna is rising rapidly with new residential development. Puna's non-conforming subdivisions are auto-centered, with great distances to services, schools, services, employment centers, supplies and recreation. Their residential development is therefore significantly more energy intensive than development in better-planned areas, and therefore a disproportionate burden on the many low-income residents.

The cost of installing and maintaining the electrical grid is very high in Puna because of weather, vegetation, and the relatively great distances from house to house.

One of the major impending energy uses for Puna is for pumping water. While it may be some time before a large number of homes connect to a water supply, eventual connection should be irrationally considered.

SECTION 3.2: THE NON-CONFORMING SUBDIVISIONS

3.2.3.2 Sewage treatment, while meeting current Department of Health Standards for Individual Wastewater Systems, may soon be out of compliance with the federal Clean Water Act, as homes are built. To meet the Clean Water Act, national engineering standards indicate central sewers where density is greater than one house per acre. If density is lower than one house per acre (where cesspools are now allowed), septic tanks will be required. Further complicating this problem are several unique characteristics of Puna's geographic and regulatory environments:

- Numerous lava tubes, many of them large and many miles long, were used by the Hawaiians for shelter, worship, and burial sites. In addition, a number of unique plant and animal species have been identified by scientists. These caves and species may be threatened by raw sewage from cesspools.
- The porosity of layers of lava underlying Puna and its high rainfall allow rapid water movement downward and to the coast. This may dilute pollution, and, because of the elevation of most Puna homes above the sea-level water table, may provide complete natural treatment, even with cesspools. However, wastewater near the coast or near lava tubes may cause rapid flow and concentration of untreated sewage or treated effluent at unexpected locations either on land or along the coast.
- *O'hana* dwelling approvals may eventually promote densities requiring central sewers in some subdivisions where single family densities on one-acre lots would require only septic tanks. These subdivisions are Leilani Estates, Hawaiian Paradise Park, and Eden Roc.

3.2.3.3 Utility grids are being extended into the subdivisions, but they are expensive to maintain because of Puna's distances, weather, and rapid tree growth. There is a need for reliable power sources for residential uses, economic enterprises and public safety.

There are a number of Puna residents who have expressed a desire for "off-the-grid" or "dispersed infrastructure" neighborhoods within which they may pursue alternative and independent lifestyles. A procedure for residents to petition for recognition of such a designation in appropriate low-density areas, would help to preserve lifestyles while encouraging the County of Hawaii and Hawaii Electric Light Company to plan around such areas. Time is of the essence if this lifestyle choice is to be accommodated.

3.2.3.4 Neighborhood school sites are provided in only a few subdivisions, yet schools require ten acres per elementary site and 40 acres for an intermediate/high school complex. As subdivisions fill, it becomes increasingly difficult to find sites without displacing residents. For the currently permitted population, excluding *ohana* dwellings, up to 40 additional sites will be needed in the future for elementary, intermediate, and high schools.

3.2.3.5 Elder- and child-care are essentials of secure community life for which no space has been set aside in Puna, but for which a number of non-regulated services are currently being provided. The acreage needed in the future may be several hundred acres, depending on the styles of these uses permitted by regulation.

3.2.3.6 Hospitals and community health care sites are not provided for at all in Puna's subdivisions, although there is a need for one or more future hospital sites as well as neighborhood services.

3.2.3.7 Cemetery sites are not provided at all in the subdivisions, and sites outside are inadequate or inconveniently located.

HAWAIIAN ELECTRIC COMPANY, INC.



BENJAMIN J. CAYE AND
COUNSELLORS

STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
DEPARTMENT OF BUDGET AND FINANCE
4655 KAIULANI DRIVE
HONOLULU, HAWAII 96816

March 16, 1995

YUKIO IWATO
JOHN P. SPERLING
DEBORAH YAMADA

Athena Peanut
March 16, 1995
Page 3

rate case and will be disallowed if they are found to be ineffective or inefficient in meeting their objectives.

PART IV: As previously explained, the SSPP Unit 71 project will be in progress until the end of 1995, therefore, your request for total project expenditures, including all segments, overruns and social costs (security guards, legal fees, etc.) will be provided after project completion.

In Part I, we explained how the advances on a SSPP electrical distribution project are apportioned and who ultimately pays for all the costs. In Part II, we explained how other utilities, such as GTE Hawaiian Tel, participate in SSPP projects.

In answer to your last question, there are no other parties to share the SSPP costs unless subscribers who are outside the SSPP unit boundary, but who qualify under the applicability clause, decide to join the SSPP unit. These subscribers must execute an SSPP Line Extension Agreement and pay all the required advances and any other costs required by the SSPP rules.

The SSPP Rule 13-S was established to make electrical service affordable to lot owners in certain Big Island subdivisions that do not have an electrical distribution system. We also empathize with the plight of the lot owners you represent who do not have and do not want electrical service provided by the distribution system constructed by HELCO. This places neighbors within the same subdivision on opposite sides, causing tension and ill feelings.

Until there is an affordable way to underground the distribution system to those who want HELCO's electrical service or find a reliable and affordable distributed electrical generation system for each lot to forego the need for a distribution system, we are unable to recommend alternatives for your group.

Thank you for your continued concern and please contact me at 808-586-2033 if I can be of any further assistance.

Very truly yours,

Ronald Nakamishi
Engineer

RN:vn

Athena Peanut, President
Friends of the Red Road
P.O. Box 181
Pahoa, Hawaii 96778

Re: SSPP Unit 71 Rauenhorst
Docket No. 94-0095

Dear Ms. Peanut:

The following is in response to the questions posed in your letter dated March 6, 1995 on the referenced project. Since the project will be under construction until the end of 1995, we are unable to answer some of your questions related to total project costs including overruns and social costs. However, we will instruct HELCO to provide the project summary information to you and to the commission within 60 days after the completion of construction.

PART I: Payment of project costs: The Special Subdivision Project Provisions ("SSPP") electrical distribution projects are designed so that all project costs are recovered from the customers who are served by the project. At the start of the project and until there are a sufficient number of customers paying for electrical distribution system, HELCO and its general ratepayers advance one-third of the project cost, while an Original Group of consumers advance the remaining two-thirds of the project cost. As more and more consumers, called the Later Group, are served and after HELCO's one-third advance is recovered, each of the Original Group of consumers begin to receive a partial refund of the two-thirds of the total project cost that each of them advanced.

For the SSPP Unit 71 project, HELCO estimated there would be 428 subscribers in the Original Group who would be advancing two-thirds of the total cost. Of this Original Group, 185 have actually advanced their share or signed a financing agreement for their portion of the two-thirds share, as of March 7, 1995. According to HELCO, several additional financing agreements are being processed and many potential Original Group customers are waiting

for the controversy related to the project to be resolved before committing their share of the advance.

In answer to your first question, HELCO, and ultimately its ratepayers, is not only advancing its one-third, but also a portion of the Original Group's two-thirds that has yet to be collected. With only 195 of the 428 signed up, this leaves 243, which multiplied at \$2820 each, would total over \$685,000.

PART II: After reviewing its records over several years, GTE Hawaiian Tel has not been able to identify any pole replacement project in Kalapana Seaview Estates. Normally, any replacement of existing Telephone poles with Joint Utility poles; as part of an SSPP project, will be done by HELCO. GTE Hawaiian Tel's costs to transfer the existing telephone facilities to the new Joint Utility Poles and the removal of the shorter Telephone poles are normally included in the SSPP project cost.

In SSPP unit 71, approximately a hundred Telephone poles between Kalapana Seaview Estates and Kehena are being replaced with Joint Utility poles at a transfer and removal cost of approximately \$98,000, which is included in the total electrical distribution project costs of \$1.8 million. As GTE Hawaiian Tel completes the transfer and pole removal work, HELCO pays GTE an appropriate portion of the \$98,000. If a customer requires new telephone service, GTE Hawaiian Tel will string the messenger and cable along the existing Joint Utility poles thereby reducing its own and its customer's telephone line extension costs.

The above should answer all of the applicable questions in Part II of your letter.

PART III: In its Light Talk article published in the Hawaii Tribune Herald, HELCO apparently differentiated "customer requests" from SSPP "contract signers". As explained previously, HELCO estimated that 428 of the 1287 lot owners would be the Original Group signing contracts and as of March 7, 1995, 185 of them have actually done so. We agree that the figure of 400 requests in the article could be misinterpreted as 400 had signed SSPP agreements.

Light Talk is a part of HELCO's "issue advertisement" and is intended to facilitate communication with its customers on complex issues facing the utility's business today. In HELCO's last rate case, the Commission decided that the issue advertisement will be allowed and paid for by the ratepayers. The effectiveness of these expenditures will, however, be reviewed with each

Big Island report

5,000 customers lose power

Nearly 5,000 East Hawaii Helco customers were without power for about a half hour yesterday when a combustion turbine at Keahole shut down unexpectedly at 11:40 a.m.

Helco spokesman Army Curtis said 4,726 customers in Pahoa, Kaunama, Kapaemahu Industrial Area and from Pahoa to Pepeekeo were affected. The outage lasted until 12:15 p.m.

The cause of the outage is unknown, Curtis said, and the turbine was still out of service last night, putting a crimp in the Big Island's reserve energy supply.

"We're really squeezing right now," Curtis said, and there was no estimate as to when the downed turbine could be placed back in service.

—AP, T-H



1 IN THE CIRCUIT COURT OF THE THIRD DISTRICT

2 STATE OF HAWAII

3 - - -

4 FRIENDS OF THE RED ROAD and
5 MS. ATHENA PEANUT,

6 Plaintiff,

7 vs.

8 No.
9 95-454

10 THE COUNTY OF HAWAII; THE HAWAII
11 ELECTRIC LIGHT COMPANY, INC.; THE
12 DEPARTMENT OF PUBLIC WORKS, COUNTY
13 OF HAWAII; JIRO A. SUMADA, in his
14 official capacity as Deputy Chief
15 Engineer, Department of Public
16 Works, County of Hawaii; THE COUNTY
17 OF HAWAII PLANNING COMMISSION;
18 VIRGINIA GOLDSTEIN, in her official
19 capacity as Planning Director,
20 County of Hawaii; THE BOARD OF
21 LAND AND NATURAL RESOURCES, STATE
22 OF HAWAII; MICHAEL G. WILSON, in
23 his official capacity as Chairperson
24 of the Board of Land and Natural
25 Resources, State of Hawaii,

Defendants.

DEPOSITION OF

ROBERT DAY, PH.D.

BURLINGAME, CALIFORNIA

May 17, 1996

CERTIFIED COPY

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23 CERTIFIED SHORTHAND REPORTERS
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REPORTED BY: RICHARD M. RAKER, CSR NO. 3445
FILE NO.: 9609093

PLAINTIFF'S
EXHIBIT
F

1 that are attracted to those lights on the
2 ground, there's a much greater likelihood that
3 they're going to strike one of these wires
4 than if those wires weren't there, correct?

5 A. Correct.

6 Q. Okay. A lot of these questions
7 are probably a lot simpler than they seem.

8 A. Sorry. I'm getting tired and
9 you're getting verbose.

10 Q. It happens.

11 A. Yes.

12 Q. What would, in your opinion, be
13 the most effective mitigation strategy,
14 exclusive of cost, for avoiding collisions
15 between the 'A'os and the utility wires?

16 A. Does that mean without regard to
17 any cost?

18 Q. That's what I said.

19 A. The sky's the limit. Bury the
20 power lines.

21 Q. Do you know Colette Sakoda at --
22 who works for R.M. Towill Corporation?

23 A. No, I don't.

24 Q. You don't.

25 MR. SHERLOCK: I have no further

PLAINTIFF'S
EXHIBIT
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Hawaii Tribune-Herald

Thursday

3RD YEAR — NO. 154

HONO, HAWAII, THURSDAY, JUNE 27, 1986

2 SECTIONS — 26 PAGES 50 CENTS

What's inside

Sports



As expected, Allen Iverson.

Helco ordered to cease work

Red Road group wins case against power company

By Crystal Kus
Tribune-Herald

The Hawaii Electric Light Co must stop installing overhead electrical service to three coastal Puna subdivisions until a more comprehensive environmental study is completed, a Circuit Court judge ruled yesterday.

Circuit Judge Riki May Amano said that it was Hawaii County's

"cavalier" approach to the environmental review process that led to her voiding a key environmental approval.

"They failed to responsibly review the environmental assessment," Amano said.

The ruling was lauded by opponents of the project.

"We're totally gratified with the judge's decision," Friends of the Red Road lawyer, Isaac Hall, said.

"It's an absolutely huge victory," said Ashena Pezant of Friends of the Red Road. "It's been a long struggle, and I know we have a lot more work to do, but this is a nice place to reach."

Helco officials, meanwhile, said they wait until the judge's written ruling, which is expected in about a week, before deciding whether to appeal.

"We're very disappointed in the court's ruling," Helco spokesman Bill Stormont said. "I think it needs to be examined and assessed to see what options may be available."

Amano's ruling came on the final day of a trial in a lawsuit brought by Friends of the Red Road against the county and Hel-



Photo by William Ing

VICTORIOUS — Ashena Pezant, right, of Friends of the Red Road speaks with lawyer Isaac Hall yesterday outside the courthouse in Hilo after the group won its case against Helco and the county.

See RULING, Page 10

"If you've got a beef with that take it up with the county — they created it," Ikeda said. "On Oahu

commercial or resort uses the maximum would be 60 during the day and 50 at night.

The proposed rules say noise

maximum allowable levels.

The rules have provisions for penalties as well as the issuing of permits when the noise levels are

The Department of Health is accepting written comments on the proposed rules through July 8.

RULING: Helco ordered to stop installation

From Page 1

co.

The group is opposed to overhead electrical service for Kalapana Seaview Estates, Puna Palisades and Kehena Seaview Estates as well as along scenic Highway 137, which also is known as the red road.

The group contends only a small percentage of the 1,200 in those subdivisions signed up for the service, and the project will cause an eyesore and environmental hazard.

Friends of the Red Road also alleged that Helco went ahead with the project even though it didn't have a necessary special management area permit, or at least an environmental assessment, completed.

Helco said the county told the power company that it didn't need such approvals to proceed.

But Helco eventually went ahead with the environmental review process anyway and last August received a "negative declaration," which meant that the pro-

ject would not have an adverse environmental impact.

Friends of the Red Road asked Amano to void the negative declaration and order a more comprehensive environmental impact statement because the environmental review process was flawed.

In closing arguments yesterday morning, Hall pointed to county Deputy Chief Engineer Jiro Sumada's testimony that he issued the negative declaration without reading the final environmental assessment.

Amano, in ruling yesterday afternoon, put the blame squarely on the county for the problems with the environmental review.

She said she was "appalled" at the "cavalier way" the county handled the environmental review process, especially in light of the litigation already being under way.

Amano voided the negative declaration and ordered that an environmental impact statement, a more extensive and costly study

that provides for more public input, be prepared.

She also said that no further work can proceed, but anything already completed — like poles and wires already installed — can remain.

Amano found that the project will cause significant effects on the environment.

County lawyer Steve Christensen responded to the judge's comments on the county by saying, "Hindsight is always 20-20."

Hall and Pezant, however, both credited Sumada for his truthfulness.

"Jiro Sumada was a very honest man, and I respect him for his honesty," Hall said outside of court.

"I think Mr. Sumada's testimony touched my heart because he was so honest," Pezant said.

Both said that Helco should also have received more of the blame.

"I think Helco got off very lightly with this one," Pezant said.

Stormont said he would let the

judge's ruling speak for itself on Helco's culpability.

He pointed out that the judge found that Helco had done everything it was supposed to do.

And the judge did not order any fines or other financial penalties against the power company, he said.

Pezant said her group had sought an EIS — as opposed to a "bland and general" environmental assessment — all along. "It's a full study that has to address the cumulative effects of a project such as this."

Hall said, "I hope they do a good one. I hope they take their time to do a good one once and for all."

Stormont said the cost of doing an EIS will likely be passed on to the subscribers of this particular line extension.

The state Public Utilities Commission prevents Helco from passing on the cost to its general rate payers, Stormont said.

R. M. TOWILL CORPORATION

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October 2, 1996

Athena Peanut
Friends of the Red Road
P O. Box 1610
Pahoa, HI 96778

Dear Athena Peanut:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

I am in receipt of your letter dated August 29, 1996 regarding the subject EISP/N. On behalf of HELCO, the following has been prepared.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) Specific portions of the project that have yet to be completed will also be described. The portions of the project that have yet to be completed will also be described.
- 4) The correct easement width within the state-owned portion is 15 feet. The study area for all disciplines of special consultant studies was 50 feet to provide an ample buffer area for construction and after the fact maintenance equipment. The Phase 1 area will be properly defined as 15 feet wide in the DEIS.
- 5) The botanical resources and potential project impacts on botanical resources were researched, surveyed and reported in the environmental assessment by a qualified botanist. The DEIS will be forwarded to the state DLNR and to U.S. Fish and Wildlife Service for review and comment. These agencies have been consulted, and will continue to be consulted in the EIS process.
- 6) Your question regarding OEQC's responsibility has been referred to that office.

Other serious areas of concern:

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

A. Peanut
October 2, 1996
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1. Endangered Species - The expanded environmental assessment process included a 2-part faunal and avi-fauna study and radar survey (1995) by a qualified ornithologist and wildlife biologist team led by an expert with relevant, extensive local experience. The study was not only included in its entirety in the environmental assessment but it was summarized in the final environmental assessment. Your request for a complete faunal study has been responded to, and the 2-part study is the germaine and legitimate product.

As already shared by the U.S. Fish & Wildlife Service, three federally listed species are known to occur in the project area: the Federally endangered Hawaiian hoary bat, the Hawaiian hawk, and the Federally threatened Newell's shearwater. The bat and hawk are wide-ranging species for which the project poses negligible risk.

2. Secondary Impacts & Geologic Hazards - Your comments regarding what was "ignored" in the EISP/N has been noted. The DEIS will be prepared in accordance with state environmental law.

- a. Earthquakes - As in the event of any natural hazard county civil defense will provide necessary information to affected residents through existing communication systems. If a major quake resulted in complete devastation of an area, then there would be nothing left standing, including homes. Utility companies as in the past, will be responsible to restore utilities upon demand by residents.
- b. Lava Flows - If lava were to overrun the project, then one can assume the homes would be overrun as well. County civil defense is being consulted regarding the need for a community emergency evacuation plan for this area as the DEIS is being prepared.
- c. Tsunami - Your information has been noted and tsunami information will be included in the DEIS.

The DEIS will be sent to local authorities on geologic hazards. The true need for a study on such hazards besides anticipating the obvious conclusions you have already put forth which is that this area is designated as being geologically active, is not clear. A discussion on risks would not have much relevance except to land use policy decisions, which is the responsibility of county officials. Optimal development of the three subdivisions was approved some thirty years ago when the county granted subdivision approvals to developers of these three subdivisions. HELCO's responsibility is to respond to residents' requests for service. The U.S. Geological Survey, HVO will be sent a copy of the DEIS.

Study showing financial analyses including extermalities of the cost to State, County and Federal taxpayers for 3, 5, and 10 years after implementation of the project

The DEIS will include discussion of possible public costs for public facilities and services due to potential population growth which is an indirect secondary impact of the project.

Are Federal, State and County governments ready to commit millions of dollars of public funds for capital investment in the most active lava inundation area on the island?

When the county government exercised its land use policy decision making power for the area some 30 years ago by approving the development of three subdivisions of about 1,200 lots, continued commitment is expected in the future.

If available, the public costs of the 1955 flow will be addressed in the DEIS.

The need to have a geologic hazards study conducted by a qualified, impartial, surveyor who will address the effects of population density, increased traffic, and greater population at risk in an area without an evacuation plan.

Whether there is the current population level or an increased population in the project area, the ever-present danger can be dealt with through implementation of an evacuation plan as approved by the civil defense agency.

4. View Plain, S.4, CZM Law

While the view from your lot may be clear to the ocean, views vary from within different locations of the project area. From your perspective the statement may not be true. However, other community residents support the statement as contained in the subject document.

5. Alternative Energy

According to the very same article by Steve Burns, the objectives of the project involving remote photovoltaic applications in HELCO's service territory include "exploring the possibility of HELCO providing photovoltaic systems as a remote (non-grid connected) service option; developing in-house utility experience with this advancing technology, and introducing and educating the public regarding the use of photovoltaic power systems." The objectives do not reflect your words, "promoting PV service instead of traditional line extensions for remote locations." HELCO has demonstrated its continued efforts to provide the array of energy system choices to consumers.

Need for impartial solar experts such as Michael Potts, Caspar Institute, California or Amory Lovins, Rocky Mountain Institute to conduct a study to consider Kehen Beach as a PV solar demonstration model

a. On page 2-37 of the Puna Community Development Plan (1995), specific concerns of the Puna Community describe residents living "independently of the energy grid and are actively involved in promotion and development of alternative energy for domestic and transportation use. At the same time many residents who are currently "off the grid" would probably desire to tap into the grid if it is made available at reasonable hook-up cost."

"HELCO has not complied with many of the provisions of the regulation (Rule 13 & 13-S)...HELCO changed all the rules and apparently the PUC is going along..."

HELCO has complied with the provisions of PUC Rule 13 and 13S, thus your statements are questionable.

Request to see costs for the project including extra \$600,000 pole installation share plus all legal and environmental studies

Further, consistent with PUC's provisions, project costs will be provided following completion of the project.

b. How can HELCO sell what they do not have?

This appears to be a rhetorical question. However, the following is for your information. In 1995, HELCO's system electricity production source load was divided as follows: Steam/Base load (oil) was 42.3%, Geothermal 23.9%, Diesel (oil) was 18.5%, coal 9.9%, Hydroelectric 3.8%, and Wind was 1.6%. In other words, renewable energy resources including hydroelectric, wind and geothermal, supplied approximately 29% of the Big Island's electricity needs last year. A similar proportionate source load can be expected in 1996.

c. Project is essential for electric power distribution is false

Your comments are noted. However, HELCO is implementing a program that is approved by the PUC in accordance with the requirement that rural electrification be provided at affordable cost through overhead line extension to qualifying residential lots within subdivisions developed before 1967 (PUC Rule 13-S). The project is in no way intended to prevent anyone from choosing to install a photovoltaic system in his/her home.

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d. Cost of underground installation is 4 times the cost of overhead lines, not 10 times

The cost of underground installation will be discussed in the EIS. The SSPP program approved by the PUC is for overhead line extension service.

High electrical rate on this island is mainly due to the huge cost of overhead line maintenance. (requesting) Unbiased financial study to show underground installation in this remote community in a multi-geologically hazardous zone would be most cost efficient within 4 to 5 years

Your comment regarding maintenance costs for overhead electrical systems and need for a financial study for underground installation in this remote community have been noted. It is unclear as to the expected objectives of investment in any elaborate infrastructure study and proposed actual installation of underground utilities in an area that you described as "multi-geologically hazardous" for which minimal investment seems more logical an alternative.

e. Page 7-4 "Even with tax credit incentives only less than 1/4 of all single family homes in Hawaii have solar hot water heaters." The EIS blames rate payers for not using solar appliances but the utility and planners are at fault.

There was no intended blame in this statement.

f. Page 7-5 Capital cost of a PV system (of 1000 watt array) installed could range from "\$15,000 - \$30,000" is disputed.

Your comment is noted. The PV system described is to allow family members to operate an array of appliances and equipment in a home all at the same time if necessary.

Repeated call for an unbiased study of solar energy.

The objectives of such a study are unclear. The project is not intended to prevent anyone from choosing to install a photovoltaic system in his/her home.

1. The subject EISPN (in the 7/23 Notice) contained preliminary information with the call for additional comments and data. It served its legal purpose.
2. Phase 1 was completed with the approved easement request (BLNR approved the request and a right-of-entry in spring 1996). The 15-foot width is acknowledged.
3. A botanical resource study of existing impacts was completed with the description of

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Page 6

impacts from GTE Hawaiian Tel poles. The findings and study in its entirety are included in the environmental assessment, and will be updated in the DEIS.

4. Your comment is noted.


5. Your comments regarding the Mayor's statement and Norman Oleson have been taken under advisement.

The State has requested the County of Hawaii Planning Department to accept responsibility for review and evaluation of the EIS for the entire project area including the easement area under state jurisdiction.

HELCO has conferred with residents of the project area since 1989 and has responded to their recommendations including potential view impacts, minimizing tree trimming and tree removal, locations of specific poles with respect to individual's properties, eventual removal of all GTE Hawaiian Tel poles to lessen the overall environmental impacts, and most recently the expansion of the environmental review process for the entire project area. Special studies that are needed to help public authorities and HELCO determine whether the project would have a significant environmental impact in accordance with state environmental law were completed in a deliberate, rational and upfront manner for the environmental assessment process. The DEIS will contain information necessary to comply with state environmental law.

In response to your request to be a consulted party, you will be sent a copy of the DEIS.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Hawaii Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720
Attn: Mr. Clyde Nagata

| | | | |
|------|------------------|-------|---------------|
| TO | Mr. Clyde Nagata | FROM | Janie Szwedko |
| CC | R.M. Towill | CO | HELCO |
| DATE | 8/22-1996 | PHONE | 964-0256 |

August 22, 1996

Dear Mr. Nagata,

This letter is to inform you that I wish to be a consulted party in the SSPP Unit-71 environmental impact statement process. As you know, I have been tracking the issue and doing what I can to assist the Friends of the Red Road. I am committed to their cause because I firmly believe that they are laying the foundation for rational energy use in Hawaii. Please take some time to sit and think about the bigger picture and what HELCO can do to be a part of these changes. If nothing is done to support people like Ms. Peanut we will have little hope of healing our precious planet.

The tendency might be to see Unit-71 as just another distribution project. It is not. It is nothing less than an invasion into the heart of a movement to create harmony with nature at a time when the future existence of mankind depends on those with the courage to enact change. Be courageous! In the case of you and your coworkers this requires nothing more than honesty and fairness. Please see to it that this EIS is both honest and fair. Do not stoop to diminishing the truth as a way to justify HELCO's decision to proceed with this project. There is absolutely no basis for the continued assertion that the project will have no significant impact to the environment. It is time for HELCO to bring honor to this process. It is time for HELCO to come to grips with the damage distribution projects cause.

Any fears you may have about the repercussions of such an approach are unfounded. Clearly it is the first step to a better future for us all!

Sincerely,
Kristine Kubat
Kristine Kubat

Note: Bold text on the following pages represents action items and should be treated as specific requests for information.

The following is a list of concerns that this EIS must address, not as a format for meaningless discussion, but as a true measure of the risks and benefits of the project, which in turn should decide the fate of Unit-71.

1. The ability of HELCO's paid consultant to prepare an unbiased evaluation of project impacts.

The courts have established that they will not be the venue for addressing the adequacy of environmental review documents. With no format to debate assertions made by consultants paid to help the developer through the permitting process, there is no guarantee that the information contained within the EIS will be unbiased.

It has already been shown that Colette Sakoda compromised the integrity of the process by eliciting a negative declaration from the County Department of Public Works. Memos from R.M. Towill's files show that Ms. Sakoda crafted the EA with a desired outcome. She struck words from a report provided by Reginald Davis that would have compelled Public Works to call for an EIS.

Hawaii Revised Statutes Chapter 343 provides that "decision makers will be enlightened to any environmental consequences of the proposed actions." Ms. Sakoda colluded with HELCO employees to withhold information from County officials involved in the environmental review process, and therefore should be removed as consultant. It is inappropriate for her to continue to be involved in this process. Any involvement on her part creates serious doubts about the validity of the finished document and invites contention.

2. Please provide justification that R.M. Towill should prepare this document. What is their track record? Have they ever prepared an EA that did not recommend a negative declaration? Have they ever informed a client that their project ought not to be undertaken based on the impacts? Have they

ever informed a State or County agency that a project ought not be approved? What basis exists for assuming that they can prepare an unbiased review?

Justification for these questions is provided by the following section of Hawaii's Revised Statutes Chapter 343-11-200-14:

"An EIS is meaningless without the conscientious application of the EIS process as a whole and shall not be merely a self-serving recitation of benefits and a rationalization of the proposed action."

3. What are the primary, secondary, cumulative as well as short term and long term effects of population increase in the Kehena Beach area, including but not limited to social, economic, political and environmental impacts?

Such a study must include a detailed cost analysis of the infrastructure required to support this population increase, including schools, sewers, and human services. The analysis must assume a range of scenarios, including buildout, as the project would provide electrical service to all available lots.

Secondary impacts must include not only the effect of having more people in the area, but what kind of people these are and the impact their possessions will have. Specifically:

A. How many of these people will have dogs? How many of these dogs will be confined and prone to bark all night long? How will this effect the many Vietnam Veterans living in the area?

B. How many of these people will have cats? How many of these cats will escape into the wild and prey on endangered bird species? How many of these cats will carry viruses detrimental to humans, i.e. cat scratch fever?

C. How many of these people will have cars? How much exhaust will these cars put into the environment? How many extra miles will these cars be driven because these people now live far from goods and services? How many more cars are likely to be abandoned in the area? How much more oil will be released into the water table from repairs and leaks? How much asbestos...coolant?

D. How many of these people will have plants? How many of these plants will escape into the wild and compete with native vegetation? What is the worse case scenario of the impact these escaped exotics will have? (Please use Micronia as an example.) What is the correlation between the type of people who must have grid supplied power and their desire to alter their environment? To what extent does the willingness to live off-power indicate a heightened awareness of and regard for the existing ecosystem? To what extent does the willingness to live off power indicate a willingness to live with native plant species?

E. How many of these people will have herbicides and pesticides? What will be the net increase in chemical use, i.e. chlorine based cleaning products, as a result of the increased population? What is the correlation between the type of people who must have grid supplied power and their use of potentially hazardous chemicals? To what extent does the willingness to live off-power indicate a willingness to use natural cleaning products? Where will these chemicals go? What is their impact on the environment, including endangered species?

F. How many of these people will have lawn mowers? How much pollution will these lawn mowers create? How much noise will they create? What is the correlation between the type of people who must have grid supplied power and

their use of lawn mowers? To what extent does the willingness to live off-power indicate a willingness to live with weeds or hand clear land? What will be the increase in oil released to the water table from an increased number of lawn mowers in the project vicinity?

G. How much trash will these people generate? What is the correlation between the type of people who must have grid supplied power and the amount of trash they produce? To what extent does the willingness to live off-power indicate a willingness to reduce, reuse, recycle, compost?

H. How many appliances will these people have? What is the correlation between the type of people who must have grid supplied power and the amount of appliances they use? What is the correlation between the type of people who must have grid supplied power and the amount of energy they use? To what extent does the decision to live off-power mandate reduced energy consumption?

I. What are the politics of these people? To what extent does the willingness to live off-power indicate a heightened awareness of and regard for the environment? To what extent does heightened awareness of and regard for the environment indicate a tendency towards liberalism? What is the correlation between the type of people who must have grid supplied power and the candidates they vote for? How does the introduction of conservatives into what is well known as one of the most liberal and anti-establishment areas of the State alter local politics and invite conflict? To what extent has the promise of grid supplied power already incited conflict?

Please derive these answers based on qualified professional opinions and data collected from those living in the area rather than the opinions of a hired consultant. It is essential to have first hand

interviews with current area residents and those who are waiting for power before they move in, to make proper comparisons. Please prepare a baseline socioeconomic profile before these studies can proceed.

Please do not regard these questions as inconsequential. It is a well proven fact that living off-power is one aspect of an alternative lifestyle that embodies a powerful environmental ethic. There are a number of vendors, service providers and professionals who can verify this fact for the existing Kehena population. Please check with local recyclers, the Real Goods Company, environmental organizations, Civil Defense Director Harry Kim, and HELCO employee Steve Burns to verify. An excellent program called Global Action Plan, that is partially sponsored by the United Nations Environmental Program, focuses solely on education at the single household level as the only means to change the consumptive habits that are the root cause of the world's most urgent environmental problems. Please contact GAP about this issue.

What are the primary, secondary, cumulative as well as short term and long term effects of failing to protect the shoreline in the Kehena Beach area from the encroachment of manmade improvements, including but not limited to social, economic, political and environmental impacts?

Please include an analysis of the impact to the area as an economic asset to community-based enterprises, i.e. ecotourist bed and breakfast rentals, inspiration to local artists, venue for video shoots. How does the project diminish the natural beauty as compensation for the choice to live without power, as compensation for remoteness from other economic bases?

What are the primary, secondary, cumulative as well as short term and long term effects of failing to comply with State environmental policy, including but not limited to social, economic, political and environmental impacts?

Chapter 344 clearly delineates State environmental policy. Specifically Section 344-1 states that the purpose of the chapter is "to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, and enrich the understanding of the ecological systems and natural resources important to the people of Hawaii." It is compelling to note that so many of the lifestyle choices people in the Kehena Beach make are in direct alignment with the guidelines and objectives stated in this provision.

By introducing major infrastructure to the Kehena Beach area against the wishes of those complying with the intent of State policy, the County is failing to comply with these provisions of the law. Taking from them the most significant benefit of their choice to live without grid supplied power i.e. a view unobscured by electric lines, does nothing to promote their efforts to live in harmony with the environment. However, turning down HELCO's application for a permit would encourage not only the Kehena Beach residents but people all over to the State to actively preserve the integrity of their solar communities against the threat of electrification, thereby promoting efforts to eliminate damage to the environment in accordance with State law. Further, refusal of the permit would serve to compel HELCO's proposed solar program. This program has an overwhelming potential to satisfy the legislative intent of Chapter 344.

What are the primary, secondary, cumulative as well as short term and long term effects of failing to support those who are consciously choosing a lifestyle in harmony with the environment, including but not limited to social, economic, political and environmental impacts?

The rationale stated in the preceding question applies to other policy arenas as well. International, national and local environmental groups, the solar industry, planners and the environmentally aware citizen are all affected by the decision the County makes regarding Unit-71. **Please consult GAP and their UNEP sponsors to ascertain the impact local governments create by suppressing**

grassroots efforts to live low impact lifestyles and contrast this approach with the stated goals and objectives of GAP. What are the primary, secondary, cumulative as well as short term and long term effects of failing to comply with Federal State and County energy policies especially as they relate to the use of renewables, including but not limited to social, economic, political and environmental impacts?

As someone who has personally been involved in hundreds of hours of meetings with utility executives, State and County agency administrators, environmentalists, independent power producers and alternative energy enthusiasts developing State energy policy, I can tell you that there is nothing more important in the quest for energy independence than the individual who, on their own, chooses to use energy wisely. One such individual is a rarity, an entire community of that sort is a phenomenon. When these people also choose to generate their own power it is revolutionary, when the County government fights these people in court it is a crime! At a time when the State is desperately seeking ways to reduce our per capita consumption of oil the people of Kehena Beach are to be commended and supported in every possible way.

Please address the impact the approval of this project will have on the spirit of those committed to the use of renewables and energy independence and contrast this impact to the consequences of supporting the people of Kehena Beach by directing HELCO to bring it's proposed solar program on line instead. This response should include the extent to which these decisions would:

- A. promote or discourage the use of renewables by others,**
- B. promote changes in the utility industry or maintain the status quo, and**
- C. popularize the image of energy independence, promote continued oil dependence, or discourage the use of solar.**

Further this response should depend on interviews with those who oppose the project or are otherwise committed to alternatives, not the consultant's opinion of how it might effect them.

What are the primary, secondary, cumulative as well as short term and long term effects on HELCO'S budding solar program?

HELCO's solar program is due to hit the streets in about ninety days. Across the Big Island no one area has the potential to provide a better demonstration project than the Kehena Beach area. This is because the area has excellent solar potential and high electrification costs; is far from distribution centers; incurs high risks due to lava inundation and most importantly hosts a community that is accustomed to living with solar, uses small amounts of power and has their own reasons for making the project work. Among the list of irretivable resources the project commits is the potential the community represents to promote HELCO's solar program and inspire solar communities elsewhere. **Please determine how many of HELCO's subscribers would be willing to participate in a solar program.** Not theoretically as in recent focus group discussions, but realistically as in a direct solicitation of the actual subscribers. **Please determine what the value is to HELCO's solar program of having a large scale demonstration project in a community where the residents favor, are accustomed to and fighting for solar power versus a community where the residents favor high consumption lifestyles.**

What are the primary, secondary, cumulative as well as short term and long term effects of lava inundation including but not limited to social, economic, political and environmental

impacts?

There is no doubt that the project will be overrun by lava. The only unknown is when this will occur. **Please provide a detailed analysis of the losses to be incurred when this happens.** The analysis must include the losses of infrastructure and services brought in to support population increases, as well as federal dollars spent compensating victims and their own personal losses. **Please compare this to the losses incurred in the Kalapana disaster. Please include the losses to the federal government to compensate Kalapana disaster victims. Please compare these figures to what the expected losses would be if there were no power and the area's population increased slightly over a longer period of time. Please have this analysis prepared by a professional and not the consultant. Please determine who will bear the losses of the distribution system. Please verify with actual signed contracts and not HELCO verbiage. Please determine if subscribers must sign an agreement that they will not ask for power to be brought to the area again in order to recuse themselves from debt in the event of inundation.**

What are the primary, secondary, cumulative as well as short term and long term benefits of preserving the Kehena Beach area as an extended solar community including but not limited to social, economic, political and environmental impacts?

What is the current per capita consumption of power in the area? What will be the per capita power consumption if the project is completed?

What will be the cost of maintaining the lines?

Why is HELCO developing a solar program? How do the objectives of that program differ with the objectives of the Kehena area residents?

Please justify HELCO's decision to proceed with the project despite failing to secure agreements for two-thirds of the project costs?

How much money has HELCO spent developing the project, including court costs, attorney fees, consulting fees, permitting costs and construction costs?

In every instance where the consultant addresses these or any other questions presented by consulting parties, have the consultant offer proof of his/her expertise regarding the subject matter.

Note: Bold text on the preceding pages represents action items and should be treated as specific requests for information.

R. M. TOWILL CORPORATION

420 WAIKANAHI RD #111 HONOLULU HI 96817-4041 (808) 448-1133 FAX (808) 642-1037

October 8, 1996

Kristine Kubat
c/o Friends of the Red Road
P. O. Box 1610
Paioa, HI 96778

Dear Ms. Kubat:

Subject: SSPP Unit 71 12 477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

I am in receipt of your letter dated August 22, 1996 regarding the subject EISP/N. On behalf of HELCO, the following has been prepared.

1. Ability to prepare an unbiased evaluation

The special studies conducted as part of the environmental evaluation for the project were not compromised. The independent conclusions and findings of each study indicate that the project will not result in a significant environmental impact. Your unfortunate accusation is opinion.

2. Track record on recommending negative declarations and preparing an unbiased review

R. M. Towill Corporation has recommended that a Negative Declaration or Finding of No Significant Impact (FONSI) be declared only when necessary studies have concluded that the proposed action will have no significant environmental impact. An unbiased EIS is being prepared for this project.

3. Primary, secondary, cumulative, short- and long-term effects of population increase

The people who may move into one of these subdivisions may be motivated by the same reasons you chose to move here. The optimal development of 1,200+ lots was approved by the County government some 20 to 30 years ago when subdivision approvals were granted for the three subdivisions. The roadway systems were funded and built by the government, and public franchise rights to the communication and electrical utility companies were included in the county land use planning decisions. Secondary impacts such as possible increase in population will be discussed in the EIS.

Harry Kim of the County Civil Defense agency has been contacted and will be sent a copy

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

K. Kubat
October 8, 1996
Page 2

of the DEIS. All other recommended parties on your list relative to this item have been noted.

4. Protection of the shoreline in the Keheua Beach area

As more people move into the area, the county and state agencies will probably be asked to maintain the beach area more routinely. During this environmental review process, I responded to a resident's plea to send the county Parks and Recreation Department and the state Department of Health to clean up the beach because it was reported to be littered with human fecal wastes. The EIS will include these incidents as cited by residents and the state Department of Health as existing conditions.

5. Project impact on the natural beauty of area

The existence of electricity in the project area may help facilitate expansion of economic activities including community-based enterprises such as ecotourist bed and breakfast rentals, inspiration to local artists, venue for video shots, etc. because people who are endeavoring to make a viable living will have the convenience of electricity at the flip of a switch. The natural beauty of the area does not seem to be suffering in the long term from the introduction of 30-foot tall GTE Hawaiian Tel poles since 1985.

6. Impact of non-compliance with state environmental policy

While a utility project such as this may have indirect impacts such as potential population growth with the introduction of electricity, the project in itself is not, as you state, "failing to comply with State environmental policy." Environmental and land use public policies are the responsibility of the state and county to implement and regulate. The role of the utility company is to respond to residents' requests for service.

7. Primary, secondary, cumulative, short term, long term effects of failing to support those who are consciously choosing a lifestyle in harmony with the environment

If the question is specifically asking, "(if the project fails) to support...." the project is not intended to "suppress grassroots efforts to live low impact lifestyles." Thus, there are no effects-- primary, secondary, cumulative, short term or long term, because the project is not intended to deny any individual his/her choice of energy system.

8. Impact of approval of project on spirit

If you have input on this issue you are welcomed to provide it. The project is not intended to discourage the use of alternative energy systems. It is being provided to those who requested

11-10-96 10:11 AM

K. Kubat
October 8, 1996
Page 3

service. The project has been described and will be continually described as one that would provide another choice of energy systems.

9. Primary, secondary, cumulative, short term and long term effects on HELCO's budding solar program

Energy system programs offered by HELCO are not competing programs. The array of choices is offered to all residents. Information is provided to anyone interested. It is up to the customer to make an informed choice.

10. Primary, secondary, cumulative, short term and long term effects of lava inundation

The loss incurred by the project would be the capital investment of the HELCO polelines. The utility company will replace the polelines at its own expense upon request by residents in the event of natural disasters such as lava inundation.

11. Primary, secondary, cumulative, short and long term benefits of preserving the Keihena Beach area as an extended solar community

Any information that could be provided which could be used by HELCO to more completely understand costs and benefits associated with such a program is welcomed at this time. HELCO does not yet have a solar program developed which can be offered to residents or communities, therefore the costs and benefits can only be estimated. Each individual resident's needs vary. In some cases, it may be better for a resident to use solar and in other cases, it will be better to purchase electricity through the grid system.

12. Current per capita consumption of power in the area? Anticipated per capita power consumption if project completed?

Current consumption of power is 825 kw per household. This will be discussed in the EIS.

13. What will be the cost of maintaining the lines?

There is no maintenance program in place at present. HELCO responds to maintenance requests.

14. Why is HELCO developing a solar program? How do the objectives differ with objectives of the Keihena area residents?

K. Kubat
October 8, 1996
Page 4

According to HELCO, the objectives of the project involving photovoltaic applications include, "exploring the possibility of HELCO providing photovoltaic systems as a remote (non-grid connected) service option; developing in-house utility experience with this advancing technology, and introducing and educating the public regarding the use of photovoltaic power systems." HELCO's objectives do not differ with objectives of the Keihena area residents. Instead the utility company has demonstrated its continued efforts to provide the array of energy system choices to consumers.

15. Justify HELCO's decision to proceed with the project despite failing to secure agreements for two-thirds of the project costs?

HELCO's responsibility is to respond to resident's requests for service in accordance with its PUC approved SSPP program.

16. How much has HELCO spent developing the project, including court costs, attorney fees, consulting fees, permitting costs and construction costs?

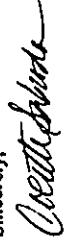
Project costs will be discussed in the EIS. Complete costs will be available upon completion of the project.

17. Offer proof of expertise regarding responses to subject matter

EIS preparers and related contributors will be listed in the EIS.

Since you requested to be a consulted party, you will be provided a copy of the DEIS.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

HELCO proceeded with this electrification project without the permits and was then given bogus exemptions from the County Planning Department. This procedural information is available from Third Circuit Court "Friends of the Red Road vs HELCO- County of Hawaii." The County of Hawaii eventually signed a negative declaration in regard to an Environmental Assessment without having even read the document. This was acknowledged in court proceedings.

This area is one of the most geologically hazardous places on earth. Experts say this area will be hit by a serious earthquake soon. An intense geological survey should be conducted by proper federal agencies.

Lava inundation is likely, as history shows. Seaview Estates subdivision (one of the subdivisions in the proposed project) is built on a 1955 lava flow. Three and one half miles from Kehena Beach Estates (another subdivision included). Kaimu Bay in 1990 was completely buried with millions of cubic yards of lava. What is the cost to HELCO rate payers when these catastrophes occur? FEMA declared after the 1990 lava flow that this area should be low density in regard to population. FEMA needs to be part of this E.I.S.

Approximately five miles in the opposite direction is Puna Geothermal Venture with wells drilled deep into the earth. Thousands of pounds of pressure create a man-made hazard that is very serious and the likelihood of a blowout is quite possible. The Environmental Protection Agency (E.P.A.) is currently working to develop a mandatory Emergency Response Plan in the event of an emergency. The E.P.A. Needs to be a part of this E.I.S.

Hurricanes and tsunamis are also quite likely for this area. There is basically one substandard road (Highway 137) with which to evacuate the area in case of emergency. Grid electricity will, as we all know, increase population density. How will we evacuate thousands of people in case of emergency? This is a very serious situation, not to be overlooked.

There are many endangered species here and especially Newel's Shearwater, or A'o, which I have heard from my house at Kehena Beach Estates. They are known to collide with power lines as proven in court proceedings on Kaua'i. The A'o is a federally endangered species. The

August 28, 1996

RR2, Box 4758
Pahoa, HI 96778

Mr. Clyde Nagata
HELCO
P. O. Box 1027
Hilo, HI 96721

Re: SSPP-71, OEQC First Notice 7-23
Consulted Party Status

Dear Sir:

I would like to be part of the E.I.S. process.

It is a great impropriety to have the County of Hawaii, especially the Planning Department, as receiving agent for the E.I.S. I petition OEQC to allow a state or federal agency as the receiving agent.

This project, if allowed to happen, will drastically affect the environment, even if R. M. Towill Corp. (Paid by HELCO) states it will have minimum effect. HELCO, in collusion with the County of Hawaii (Planning Department, etc) and Norman Olesen (Deputy Planning Director) and Kehena resident, have attempted to push the project at the expense of the people and the environment. The county and especially the Planning Department, should be disqualified because of conflict of interest. Even Third Circuit Court Judge Riki Mae Amano, in recent court hearings on the case referred to the County of Hawaii as having a cavalier attitude in regard to the environment.

federal agency dealing with endangered species should be involved in this E.I.S., also the Department of Land Management, Bureau of Land Management, and any agency designed to protect native Hawaiian rights and properties.

A complete study of the possibilities of supplying solar photovoltaic electricity to residents should be conducted. The Kehena area is probably one of the most perfect places in America to utilize solar energy. Let's move into the 21st Century and promote renewable energy resources.

Sincerely,



Dennis Cooper

Copies to:

Virginia Goldstein
County of Hawaii, Planning Department
25 Aupuni Street, Hilo, HI 96720

Colette Sakoda, R. M. Towill Corp.
420 Waiakamilo Road, Suite 411
Honolulu, HI 96817

OEQC
220 South King Street
Central Pacific Plaza, Suite 400
Honolulu, HI 96813

R. M. TOWILL CORPORATION

420 WAIKAKAHI RD #411 HONOLULU HI 96817-4041 (808) 942-1122 FAX (808) 942-1037

October 8, 1996

Dennis Cooper
RR2, Box 4758
Pahoa, HI 96778

Dear Mr. Cooper:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

We have received your letter of August 28, 1996 regarding the subject project. On behalf of HELCO, the following has been prepared in response to your comments.

Paragraph 2. Application for a Special Management Area (SMA) permit will be made to the County of Hawaii Planning Department. Further, an easement for use of state-owned property will be requested of the State Department of Land and Natural Resources (DLNR). Because the County of Hawaii has jurisdiction over a majority of the project area, the Planning Department has been designated as the accepting authority. As the lead authority, the Planning Department will coordinate a simultaneous review with the DLNR to ensure that the state agency has its input during the review process. The DLNR requested that the Planning Director take on the responsibility of lead accepting authority.

Paragraphs 3 & 4. Your opinion regarding the project's potential impact on the environment, and of permits and exemptions has been noted as a matter of record. Opinion of how the county acted does not constitute a reason for disqualifying it from subsequent deliberations.

Paragraph 5. In response to your recommendation regarding additional geological survey information, appropriate agencies will be sent copies of the DEIS for review and comment.

Paragraph 6. The cost to HELCO rate payers when catastrophes occur is the pro-rated cost to replace a system that is affordable to HELCO customers, in accordance with PUC rules. The density of population was determined some 30 years ago when the county approved the development of 1,200+ lots in the three residential subdivisions. FEMA will be included as a reviewer of the DEIS.

Paragraph 7. EPA will also be sent a copy of the DEIS.

Paragraph 8. The possible increase in population was enabled by county subdivision

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D Cooper
October 8, 1996
Page 2


approvals for the three residential subdivisions about 30 years ago. County government approved these developments with the proposed densities and the implied impacts of that development of 1,200+ lots at that time. Availability of electricity may enhance the ability of Civil Defense officials in communicating with residents in case of emergency, according to county civil defense officials.

Paragraph 9. A two-part faunal and avifaunal study was conducted during the environmental assessment process. Findings will be discussed in the EIS. The U.S. Fish and Wildlife Service (USFWS) is the federal agency responsible for the protection of endangered species. USFWS was consulted during the environmental assessment process, and will continue to be consulted during the EIS process. The DLNR Land Management division and the Office of Hawaiian Affairs are also consulted parties in the EIS process.

Paragraph 10. Battery operated solar systems are evaluated as an alternative to the overhead distribution system as part of the environmental assessment and will be included as part of the DEIS. HELCO has a PUC mandate through Rule 13-S, to provide electrical service to customers at affordable cost by means of the SSPP program.

Because you have requested to be a part of the EIS process, you will be sent a copy of the DEIS.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Planning Department
OEQC
HELCO
D. Sherman, Goodwill et al
DLNR, Land Management

Date: 8/18/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 723 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.
I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEA, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,



Name: Joseph J Sprinkel
Address: G.D. Pahoa, HI, 96778
Phone: -

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIKAMAHIO RD #411 HONOLULU HI 96817-4041 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Joseph J. Sprinkel
General Delivery
Pahoa, HI 96778

Dear Joseph Sprinkel:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N) Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel polelines since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISP/N has been noted.

Joseph J. Sprinkel
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

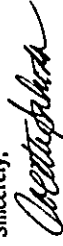
9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodstill et al
DLNR, Land Management

Date: 8/18/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEA, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Polts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely, *Michelle A. Meebs* 8/18/96

Name: *Michelle A Meebs*
Address: *PO Box 1297 Keauu HI 96709*
Phone: *982 9669*

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720
↓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817
OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIKAKAI RD #411 HONOLULU HI 96817-4041 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Michelle A. Meeks
P O Box 1297
Keeau, HI 96778

Dear Michelle Meeks:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

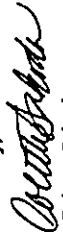
We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
- 4) The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 5) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 6) Your opinion regarding the adequacy of the EISP/N has been noted.

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Construction Managers • Environmental Services

Michelle A. Meeks
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
 - 7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.
 - 9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.
 - 10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.
 - 11) A copy of the DEIS will be sent to local authorities on solar energy for comment.
- You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: Aug 18, 1978

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.
I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
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- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely, *Allen Anderson*

Name: *Allen Anderson*
Address: *RT 2 Box 4875, Pahoa, HI 96778*
Phone: *965-8730*

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

J Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

See attached statement
N.A.

I have been a Red to d resident for most of the past twenty years. I've led a full productive and prosperous (Health is wealth) life here. I like to think of myself as a guardian of the rain forest. I've been displaced by lava flows three times and now see myself as part of the rock. Pele is my witness as I am hers. I currently live in Puna Palisades.

The Red Road has been a solar community for over twenty years. Besides all the obvious reasons of natural beauty and clean healthy environment, being off grid was a major reason for my choice to live here. It is difficult to measure the satisfaction I get from living less and less on petroleum based technology. Petroleum is an outdated, unworkable energy source.

In recent years we have attracted a small percentage of folks who seem to like living in this pristine place. They also want to bring along all their energy consuming habits.

The majority of folks down here are only asking to be left alone to finance, develop, and explore their own alternatives. This costs the government nothing. Those of us who are landowners do not want our property values to decline due to the visual intrusion this project has created.

Now we are being subjected to an abusive power play by HSLCO. They came into our community without proper permission and permitted and degraded our visual environment with huge poles, cross-arms, and bulky transformers as well as hundreds of miles of wires.

All this outdated third-world, petroleum based junk isn't even hooked up to a power source. If this happens HSLCO will then be able to charge us for electricity at the highest rates in the nation.

I personally have no use for these kinds of "amenities" at all. My power needs are happily fulfilled by solar power.

So what can we do to heal this mess? I suggest the following;
1. Remove the mess that has been created. 2. HSLCO, or some other private enterprise could develop, say four different size solar packages and lease them to customers who can't afford to buy one.
3. A compromise position would be to put the grid underground like they do everywhere else and give us a choice.

Aaron Anderson

Liberation Candidate for Mayor

Aaron Anderson

R. M. TOWILL CORPORATION

420 WAIKAIKAI RD #411 HONOLULU HI 96817-4941 (808) 942-1133 FAX (808) 942-1037

October 1, 1996

Aaron Anderson
Rt. 2 Box 4875
Pahoa, HI 96778

Dear Aaron Anderson:

Subject: SPPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
 - 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
 - 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
- The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
 - 5) Your opinion regarding the adequacy of the EISPN has been noted.

Aaron Anderson
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.


9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Heico and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Heico. I look forward to hearing from you.

Sincerely,

[Handwritten signature]
Name: Suzanne Lynn Fern
Address: P.O. Box 928 Pahoa HI 96778
(808) 965-6566

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

Date: 8-18-96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEA, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

11-10-96 10:00 AM

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Polts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,



Name:

Suzanne Lynn Stern

Address:

P.O. Box 928

Pahoa HI 96778

Phone

(808) 965-6566

cc:

Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OECC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIKIKI DRIVE HONOLULU HAWAII 96817-4041 PHONE 848-1133 FAX 808-848-1937

October 1, 1996

Suzanne Sijem
P.O. Box 928
Pahoa, HI 96778

Dear Suzanne Sijem:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND), Puna, Hawaii

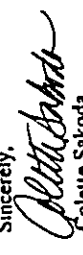
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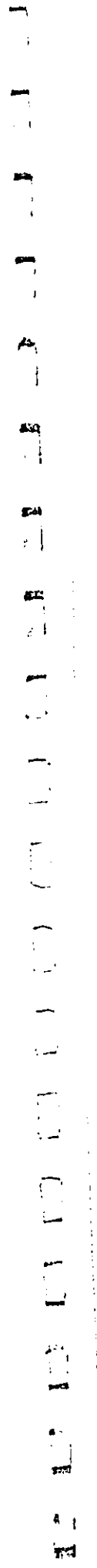
Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Suzanne Sijem
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
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- You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Collette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management



Date: 8-18-96

Clyde Nagata
Hawaiian Electric Light Company
P O Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7223 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

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10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Polls in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,



Name: Andre Solger ANDRE SOLGER
Address: Box 1886 PAHOA, HI 96778
Phone: 965-5683

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIKANEHUI RD #411 HONOLULU HI 96817-4041 (808) 942-1133 FAX (808) 942-1037

October 1, 1996

Andre Sorger
Box 1886
Pahoa, HI 96778

Dear Andre Sorger:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

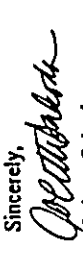
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Andre Sorger
October 1, 1996
Page 2

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Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Engineers • Planners • Photo Metrics • Surveyors
Construction Managers • Environmental Services

Date: 8-18-96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.
I have listed all of my questions and concerns as follows:

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Sincerely,

Name: Juliette ROVARE
 Address: 73-4589 Old Waiakamilo Rd. Hwy
Kailua Kona, HI 96740
 Phone: 328-5412

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720
 ✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817
 OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIKIKIA RD #411 HONOLULU HI 96817-4041 (808) 842-1133 FAX (808) 852-1037

October 1, 1996

Juliette Provance
73-4589 Old Mamalahoa Hwy
Kailua-Kona, HI 96740

Dear Juliette Provance:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

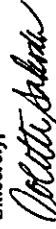
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Juliette Provance
October 1, 1996
Page 2

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Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

420 WAIKEMAMU RD #411 HONOLULU HI 96817-4041 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Dolan D. Dolan
RR2 Box 4025
Pahoa, HI 96778

Dear Dolan Dolan:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

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Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Dolan Dolan
October 1, 1996
Page 2

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Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: 8/18/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

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Sincerely,

Name: *MD. Dolan J. Dolan*
 Address: *P.O. Box 4025*
 Phone: *P.H. Hwy, HI 96778*

- cc:
- Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720
 - Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817
 - OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Date: 8/18/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OECC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OECC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major Infrastructure introduced?
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10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts be retained to do this study?

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Sincerely,

Name: Gregory T. Switka
Address: P.O. Box 2005
Phone: PAHOA, HI, 96738

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

✓ OECC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIKANAHILO RD #411 HONOLULU HI 96817-4041 (808) 448-1133 FAX (808) 842-1037

October 1, 1996

Gregory T. Smith
P.O. Box 2005
Pa'aoa, HI 96778

Dear Gregory Smith:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Pa'aoa, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
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- 5) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISPN has been noted.

Engineers • Planners • Photographers • Surveyors
Construction Managers • Environmental Services

Gregory Smith
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

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9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEOC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management



Love



| | | | |
|------------|------|-----|---------|
| DATE | TIME | BY | REMARKS |
| SEP 5 1996 | | CMZ | |

*2 documents...
any relevant...
on 9/5/96*

August 16, 1996
 Gregory T. Smith
 P.O. Box 205
 Hahaione HI 96775

page 2 of 2 pages



Love

proximity of the project to the continuing Volcanic Activity of Kilauea Volcano. Such population increase would endanger the ability to escape the area in the event of Volcanic and/or seismic activity. The project area is serviced by a road, Hwy. 137, which connects to Hwy. 130, the ONLY ROUTE out of the area to Pahoa and Keaau. This road is heavily impacted by Normal vehicular traffic. In the event of emergency it would be almost impossible to evacuate the present population with the existing road system. For the above reasons I demand that a full Environmental Impact Statement be conducted concerning this project.

Thank you very much.

Gregory Todd Smith
 Gregory Todd Smith

To all parties: I demand a full Environmental Impact Statement. I believe electrification of Kahoma Beach Estates, Luna Palisades and Kalapana Beach Estates should be stopped and the poles and lines already installed should be immediately removed for the following reasons: The utility co. proceeded with the project without a real consensus of the community's wants and needs. The utility co. and the County of HI proceeded with the project before a proper Environmental Assessment could be conducted, which is required by Federal and State Law and Environmental requirements. The utility co. received no local objections, pertained to this project, from the County of HI. concerning the environmental process. Many negative aspects of the project were not addressed by the utility co. and the County of HI. The project is in Hazard Zones 1 & 2 withi. the Kilauea East Rift Zone, which is subject to extreme seismic activity and lava inundation. A large portion of the project area was covered with Lava in 1955 including nearly ALL of Kalapana Beach Estates and Luna Beach Palisades subdivisions. At the present time the threat of future lava flow has not diminished. Kilauea is the most Active Volcano in the world. The utility co. and the County of HI. have both suffered great loss financially, due to Lava inundation in Kapoho and to a greater extent, Kalapana. The infrastructure that was lost by the County of Hawaii and the utility co. not only represents a financial loss to the tax payers as well as the rate payers and stockholders of the utility co. but also represents the loss of millions of dollars to private land owners. I also believe the environmental issues concerning the endangered species were not properly addressed by the environmental assessment. The increase of population that always accompanies a project of this sort is not appropriate, not acceptable, considering the close

Date: 8/19/91

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

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11) Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,



Name: Thomas L. Aitken HI 96778
Address: RR2 Box 4868 Palan HI 96778
Phone: 965-7793

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

8/18/96

Date:

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

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Consulted Party Status

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Sincerely,

Joyce Alberta Folena

Name:

Address:

Phone:

JOYCE ALBERTA FOLENA
RR 2 Box 4518, PAHOA HI 96776
808 965 0037 Ring 10 Home

cc:

Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720
✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817
OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

Page 19 page

Page 3 of 6 page

SUMMARY AND RECOMMENDATIONS

Preventive actions are needed to minimize the damage from lava flow hazards and to protect the public health, safety and welfare. Land use planning, public information, and warning and evacuation planning are important tools which should be used to mitigate lava flow disasters. The Kilauea eruption destroyed over 175 structures, caused over \$60 million worth of damage and caused emotional pain and suffering to those who lost homes, buildings and possessions. In addition, there could have been even greater damage if homes had been constructed on the approximately 2,500 empty lots which were covered with lava during the eruption.

Moreover, Kilauea is an active volcano. Approximately 30% of the area in Kilauea Lava Flow Hazard Zones 1 and 2 have been covered with lava since 1955. The hazards posed by volcanic eruption is a function of natural processes. Risk, by contrast, is directly tied to human activities. Risk increases as property is developed or people settle in areas having significant natural hazards. In such areas, land use decisions have no effect on the hazard but can increase or decrease risk.

Potential lava hazards should be an explicit consideration in land use planning along with other, more traditionally considered, physical and socioeconomic factors. In addition, such planning must take into consideration the needs and desires of the people affected both directly and indirectly by the lava flow hazard.

Hawaii County Civil Defense relies on the Hawaiian Volcano Observatory to provide accurate and timely information to protect lives and property. Coordination between County Civil Defense and the Hawaiian Volcano Observatory has resulted in excellent warning, alerting and evacuation in the areas affected by this eruption. However, there are other geographic areas also subject to lava flow inundation, where warning, alerting and evacuation will be more difficult.

At the present time, the Hawaiian Volcano Observatory does not have adequate instrumentation on the southwest rift zone of Mauna Loa. An eruption there could pose a hazard to developed areas from both lava flows and earthquakes that could result in loss of life. Approximately nine villages and communities, including Hawaiian Ocean View, Hawaiian Ocean View Ranchos and Millolii Beach, could be affected by flows in this area.

Scientists, who are monitoring volcanic activity in the field, need the capability to provide critical, time-sensitive lava flow information in a timely manner. Aerial evaluations are also required during lava flow events to produce critically needed information to make life saving decisions.

The following recommendations were made by the Hazard Mitigation Team to encourage Federal, State and County departments and agencies to continue to take a proactive role to reduce potential future problems associated with lava flow hazards.

RECOMMENDATION #1:

The State should assess the effectiveness of the State law requiring notification of hazards to potential purchasers to ensure that volcanic hazards are fully disclosed.

Responsible Agencies:

State Department of Commerce and Consumer Affairs

RECOMMENDATION #2:

Federal, State and County agencies and departments should not promote or encourage higher density development in the Lava Flow Hazard Zones 1 and 2 in the east rift zone of Kilauea unless:

- 1. Information can be provided by the U. S. Geological Survey that the area in question is of lower risk to lava flow inundation or
- 2. A strong case can be made that to do otherwise would not be in the best public interest.

Responsible Agencies:

Federal, State and County of Hawaii departments and agencies involved in development decisions

RECOMMENDATION #3:

Hawaiian Volcano Observatory personnel will assist Federal, State and County departments and agencies to clarify issues regarding volcanic hazards.

Responsible Agencies:

U. S. Geological Survey, Hawaiian Volcano Observatory

RECOMMENDATION #4:

The State and County should examine and review their land use policies and regulations with respect to development within high lava flow hazard areas in order to protect public safety and with due consideration to other objectives and policies in State and county land use policy documents.

Responsible Agencies:

Office of State Planning
State Department of Land and Natural Resources
County Planning Department

RECOMMENDATION #5:

The State and the County of Hawaii should examine the appropriateness and feasibility of reclassifying lands in Kilauea Lava Flow Hazard Zone 1 to Conservation, giving consideration to existing uses in the area.

Responsible Agencies:

Office of State Planning
State Department of Land and Natural Resources
County Planning Department

RECOMMENDATION #6:

The State and County should examine existing land uses within Kilauea Lava Flow Hazard Zones 1 and 2 and the potential problems that increased development of these areas may create in terms of

R. M. TOWILL CORPORATION

120 WAIKIKIA RD #411 HONOLULU HI 96817-4141 (808) 648-1133 FAX (808) 648-1937

October 1, 1996

Joyce Folena
RR2 Box 4518
Pahoa, HI 96778

Dear Joyce Folena:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
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Construction Managers • Environmental Services

Joyce Folena
October 1, 1996
Page 2

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Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: 8-18-96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

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Sincerely,

ANNA REINHARDT
Anna Reinhardt

8/18/96

Name: Anna Reinhardt
Address: Box 969 Pahoa, Hi 96778
Phone: 965-0732

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720
Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817
✓ OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIAKAMAHIO RD #411 HONOLULU HI 96817-4941 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Anna Reinhardt
Box 969
Pahoa, HI 96778

Dear Anna Reinhardt:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

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Construction Managers • Environmental Services

Anna Reinhardt
October 1, 1996
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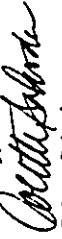
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Sincerely,

Collette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management



Date: 08-18-96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

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Name: David Wolfgang
Address: 20. 738 Pahoa Hi 96778
Phone: _____

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIKANAHI RD #411 HONOLULU HAWAII 96817-4041 (808) 842-1133 FAX (808) 842-1037

October 1, 1996

David Wolfram
P.O. 738
Pahoa, HI 96778

Dear David Wolfram:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notices (EISPN), Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.

The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.

- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISPN has been noted.

Engineers • Planners • Photographers • Surveyors
Construction Managers • Environmental Services

David Wolfram
October 1, 1996
Page 2

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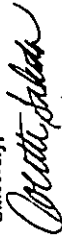
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11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Collette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

10) (b) (1) (A) (i) (ii) (iii) (iv) (v) (vi) (vii) (viii) (ix) (x) (xi) (xii) (xiii) (xiv) (xv) (xvi) (xvii) (xviii) (xix) (xx) (xxi) (xxii) (xxiii) (xxiv) (xxv) (xxvi) (xxvii) (xxviii) (xxix) (xxx)

Date: 8/17/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEA, how can the EISPN so easily overlook the Judge's decision?
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11) Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts be retained to do this study?

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Sincerely,

Thomas A. Escandach

Name: *Thomas A. Escandach*
Address: *RR# 2 Box 4558, PAHOA, HI 96778*
Phone:

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiaki mile Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

120 WATERBURY RD #411 HONOLULU HI 96817-4041 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Thomas A. Erlenbach
RR#2 Box 4558
Pahoa, HI 96778

Dear Thomas Erlenbach:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N). Puna, Hawaii

We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
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Construction Managers • Environmental Services

Thomas Erlenbach
October 1, 1996
Page 2

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Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: Aug 13, 1992

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
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Sincerely,

Name: *Pattie Van Overbeke*
Address: *13-H23 Ole'ole*
Phone: *Pahoa, HI 96778*
965-6673

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

Bettie Van Overbeke
12-423 01e'01e
Pahoa, HI 96778

Dear Sirs:

I would like to add the following vignette to these questions.

I am a science teacher and have read many studies about the carcinogenic effects of electromagnetic fields. I wanted to live where there wouldn't be a problem and choose Kehena Beach to build a house., which I did during the 1990 lava flow . I watched lava flow poles, wires, that were only in a year prior to this event. I did not have road access to my home for a while during this event. I feel it very foolish to put power into an area which could be inundated by a new eruption within hours as witnessed in 1955. I did not think HELCO would be so foolish to repeat the Kalapana Misadventure within such a short period of time and that I could have a quiet solarbased lifestyle . Helco however has chosen to erect poles lining my property. If the wires go in and electricity is turned on I will have a transformer about 20 feet from my open upstairs lanai and my daughter's bedroom. This is an untenable thing to me. I have put my property for sale rather than take a chance with my daughter's health. I feel it dastardly to be forced out of my home because of this invasion of outmoded electrical delivery. I will also loose the coconut trees bordering my property as HELCO threatened to sue me should a frond ever touch their wire. Due to the lava zone 2 there is no liability insurance and indeed fronds can catch fire in HELCO's outmoded wires. My objections could have been alleviated had HELCO placed the poles and wires on the other side of the street. This zigzagging of wires is done within the subdivision in several places. I offered HELCO \$2000. to change their plan (I own 4 lots down one side of an entire block of Kehena) In their arrogance they refused. Obstainance seems to be their favorite way to deal with all people seeking compromise. Another acceptable solution of underground wires down the middle of the street has also been overlooked despite the fact that the only real permit granted was for underground wires. I feel that geological problems must foremost be considered. Electricity encourages development and perhaps it isn't in the public's and taxpayers interest to foot unnecessary FEMA bills by encouraging people to come to an unsafe coastal area. As for those of us who risk living on the edge to escape overdevelopment it isn't right to take our trees, endanger the remaining birds, and subject us to unwanted electromagnetic radiation.

Sincerely
Bettie Van Overbeke

R. M. TOWILL CORPORATION

420 WAIKAMUI RD #411 HONOLULU HI 96817-4941 (808) 948-1133 FAX (808) 948-1937

October 1, 1996

Bettie Van Overbeke
12-423 Ole'Ole
Pahoa, HI 96778

Dear Bettie Van Overbeke:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND), Puna, Hawaii


We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

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Bettie Van Overbeke
October 1, 1996
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- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
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Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: 8/18/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
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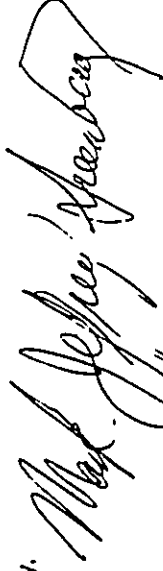
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Sincerely,



Name: MARK JEFFREY GREENBERG

Address: 3731 RR2, PAHOA, HI 96778

Phone: NONE

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

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R. M. TOWILL CORPORATION

420 WAIKAMU RD #311 HONOLULU HI 96817-4941 (808) 648-1133 FAX (808) 648-1037

October 1, 1996

Mark Jeffrey Greenberg
3931 RR2
Pahoa, HI 96778

Dear Mark Greenberg:

Subject: SPPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N) Puna, Hawaii

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Construction Managers • Environmental Services

Mark Greenberg
October 1, 1996
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Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: 8-17-92

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

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Sincerely,

Name: NUNU LA BODSAK
Address: General Delivery Pahoehoe, HI 96778

Phone:

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

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Date: 8/18/96

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Hawaiian Electric Light Company
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Sincerely,

M. YOUNG

Name: M. Young
Address: P.O. Box 489, Pahoa, Hi. 96778
Phone: N/A

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

120 WAIKAILOA RD #111 HONOLULU HI 96817-4041 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Monica Godisak
General Delivery
Pahoa, HI 96778

Dear Monica Godisak:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N). Puna, Hawaii

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 - 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
 - 4) The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
 - 5) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- Your opinion regarding the adequacy of the EISP/N has been noted.

Engineers • Planners • Photographers • Surveyors
Construction Managers • Environmental Services

Monica Godisak
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
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- 10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.
- 11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Collette Sakoda

Collette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

130 WAIKAILOA RD #111 HONOLULU HI 96817-4041 (808) 848-1133 FAX (808) 848-1037

R. M. TOWILL CORPORATION

420 WAIKAMUI RD #411 HONOLULU HI 96817-4041 (808) 842-1133 FAX (808) 842-1037

October 1, 1996

M. Young
P.O. Box 489
Pahoa, HI 96778

Dear M. Young:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
- The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISPN has been noted.

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Construction Managers • Environmental Services

M. Young
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

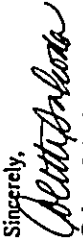
7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEOC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

420 WAIMANUO RD #411 HONOLULU HI 96817-4941 (808) 942-1133 FAX (808) 842-1037

October 1, 1996

Morgan Britt
RR2 Box 4868
Palhoa, HI 96778

Dear Morgan Britt:

Subject: SSPP Unit 71 12.477/2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.


- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
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- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISP/N has been noted.

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Morgan Britt
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
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You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: *August 17th, 1996*

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7123 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEA, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Poits in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,

Douglas Miller
Douglas Miller

Name:

Address:

Phone:

HERI Box 4635, KEAAU H. 96749

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

R. M. TOWILL CORPORATION

420 Waiakamilo Rd #411 Honolulu HI 96817-4941 (808) 948-1123 FAX (808) 948-1037

October 1, 1996

Douglas Miller
HCRI Box 4635
Pahoa, HI 96778

Dear Douglas Miller:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN) - Puna, Hawaii

We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.

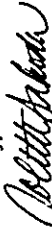
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- 5) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISPN has been noted.

Douglas Miller
October 1, 1996
Page 2

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You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

120 WAIKAILOA RD #411 HONOLULU HI 96817-1041 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Amy Lux
HCR1 Box 5146
Keaau, HI 96749

Dear Amy Lux:

Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND) Puna, Hawaii

We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
 - 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
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- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
 - 5) Your opinion regarding the adequacy of the EISPND has been noted.

Amy Lux
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

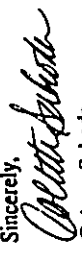
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You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Pollis in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,

Burd Soete

Name:

Burd Soete

Address:

P.O. Box 1145 Pahoa, HI 96778

Phone:

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

J Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OECC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

Date: *8/19/96*

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OECC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OECC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
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- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

RECEIVED BY THE DIRECTOR OF THE BUREAU OF LAND MANAGEMENT

R. M. TOWILL CORPORATION

420 WAIKAMU RD #411 HONOLULU HI 96817-4041 (808) 848-1133 FAX (808) 848-1037

October 1, 1996

Brad Sorte
P.O. Box 1145
Pahoa, HI 96778

Dear Brad Sorte:

Subject: SSPP Unit 71 12.4777 2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

We have received your letter of August 19, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
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Brad Sorte
October 1, 1996
Page 2

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Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Date: 8/17/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
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Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,

(Beth Lederer)

Name: *Beth Lederer*
Address: *P.O. Box 1635*
Phone: *782-9058*

cc. Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

RECEIVED () 10 1996

R. M. TOWILL CORPORATION

120 WAIKANAHI RD #311 HONOLULU, HI 96817-4041 (808) 842-1133 FAX (808) 842-1037

October 1, 1996

Beth Lederer
P.O. Box 1635
Pahoa, HI 96778

Dear Beth Lederer:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 17, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
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Construction Managers • Environmental Services

Beth Lederer
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodisill et al
DLNR, Land Management

Date: 8/21/76

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily alter-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEA, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,



Name: David Bell

Address: 12-445 Ole Ole St. Keheua Hi. 96778

Phone: 965-6425

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 WAIKIKIA RD #411 HONOLULU HI 96817-4041 (808) 842-1133 FAX (808) 842-1037

October 2, 1996

David Bell
12-445 Ole Ole St.
Kehena, HI 96778

Dear Mr. Bell:

Subject: SSPP Unit 71 12.47/7.2 KV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPN), Puna, Hawaii

We have received your letter of August 21, 1996 regarding the subject project. On behalf of HELCO the following has been prepared in response to your comments.

1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?

2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.

3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.

The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.

4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.

5) Your opinion regarding the adequacy of the EISPN has been noted.

Engineers • Planners • Photographers • Surveyors
Construction Managers • Environmental Services

D. Bell
October 2, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

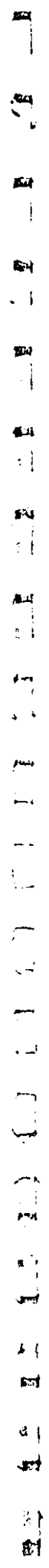
11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,

Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management



10-5-88 (01) 10-5-88 (01) 10-5-88 (01) 10-5-88 (01) 10-5-88 (01) 10-5-88 (01) 10-5-88 (01) 10-5-88 (01) 10-5-88 (01) 10-5-88 (01)

Date: August 21, 1988

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, EISPN First Notice

Dear Sir:

Yes, I wish to be a consulted party in the EIS process.

Residents have struggled 1-1/2 years in court to have a truthful, detailed study of the effects this project is having and will have in the future on the last pristine coastal road in the nation that has never had major infrastructure. Why is this important fact not being addressed in the OEQC Bulletin? Can we have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment?

In reviewing both the bulletin and the EISPN it is amazing to read about this project as if it had barely begun. In reality the project is 98% completed without any permits whatsoever. The EISPN has numerous misrepresentations and distortions. For example, see EISPN, 2.2, page 2-3, Determination. "The proposed project will affect one (EIS trigger) the use of State lands." On June 26, Judge Riki May Amamo ruled that the Environmental Assessment did not address the EIS triggers of secondary impacts and geologic hazards. How can the Judge's ruling be so easily overlooked? Actually this project clearly triggers 9 of the 11 EIS triggers. Will all of the impacts be studied in depth? Be paid attention to at all? How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?

I would like the study to show analyses plus costs to State, County and Federal tax payers for 3, 5 and 10 years after implementation of the project. Costs to include a coastal highway (the Fed Road, Hwy 137 is a substandard county road barely supporting present traffic) access roads (Hwy 130 is the longest known continual declared disaster zone at Kalapana-6 years), water, sewage and sewage treatment plant, school, police, fire, public transportation, etc. How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island? How much money did the Kalapana cost the State, County and Federal governments? How much money did the 1955 flow cost the public?

I would like to see an indepth study done on the endangered species of this area. The previous studies are inadequate and editorially biased. Residents know this area is habitat for Newell's Shearwater, Hawaiian hawk, Hawaiian owl, Dark-rumped petrel, Band-rumped Storm petrel, Hawaiian Hoary bat, Hawaiian Monk seal, Green Sea turtle, Hawk's Bill turtle, Spinner dolphins, Pacific Bottle nose dolphins and Humpback whales. How can we be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

The EISPN also ignored the Judge's ruling on geologic hazards not addressed. I want real studies. Enough consultant paperwork exercises that are meaningless. Who will do the geologic hazards studies?

In the mitigation area, an unbiased study of solar energy is crucial. Helco and company obviously have a conflict of interest. Can I be assured that an impartial solar expert such as Michael Potte in California, Rocky Mountain Institute or Island experts will be retained to do this study?

In summation, Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously will only benefit them, not necessarily the public. I look forward to hearing from you on the above concerns.

Sincerely,

Rose Jeranium

Name R. JERANIUM
Address RR2 Box 6276 PAHUA, HI 96778
Phone# none

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

450 WAIKAILOA RD #411 HONOLULU HI 96817-4941 (808) 448-1133 FAX (808) 848-1037

October 2, 1996

Rose Jeranium
RR2 Box 6276
Pahoa, HI 96778

Dear Ms. Jeranium:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND) Puna, Hawaii

On behalf of HELCO, the following has been prepared in response to your second letter that was dated August 21, 1996 and contained 98% of the questions and comments as the first dated the same.

Paragraph 1. "...last pristine coastal road...that has never had major infrastructure." The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"? The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative effects will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.

Paragraph 2. You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.

The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.

Paragraph 3. The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility

R. Jeranium
October 2, 1996
Page 2

companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense. Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

Paragraph 4. Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

Paragraph 5. Please refer to the quote from the circuit court ruling in "Paragraph 2" above. Geologic hazard designations of the project area were disclosed in the environmental assessment and will be restated in the DEIS. Existing county zoning and subdivision approvals currently enable residential growth in the project area.

Paragraph 6. A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodskill et al
DLNR, Land Management

August 16, 1996

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

RE: SSPP-71 OEQC Bulletin 7/23, Notice
Consulted Party Status

Dear Sir:

I am a resident of Katapana Seaview Estates and I wish to be a person that is consulted in this process. I have many concerns about this project. In the rush of this commercial Helco venture a most important factor was overlooked. The visual impact of this project has been minimized. I lived in a beautiful, open area with a clear vista to the sea and now the beauty of this Aina is destroyed. There is no money that can ever compensate for the loss of our ocean view.

Why are millions of dollars spent in Lava Hazard Zones I & II when FEMA has recommended "not to encourage or promote development?"

Will the National Geological Service conduct a Hazard Zone study? Will an Endangered Species study be supervised by U.S. Fish & Wildlife? If not these agencies, what qualified experts will conduct these studies? We also need to get solar opinions and studies done, and not by Helco. Will R.M. Towill Corp. continue slanted studies in Helco's favor? Is Ms. Colette Sakoda working for Helco? I personally saw her get dropped off by a Helco truck for the trial. This seems biased and unfair to me. What are her qualifications to conduct critical unbiased scientific studies? All I ask of you is fairness.

The EISPN is merely a rewrite of the FEA which is not in the spirit and letter of the law. The rules in Appendix C, EIS Rules, Title II, Chapter 200, Hawaii Administrative Rules, Department of Health, Subchapter 7, 11-200-14 through 11-200-23, "Preparation of Draft and Final EIS", contain a detailed description of what needs to be accomplished and what the rules require. I expect the EIS to conform to these legal requirements and direct Helco to read and do what the rules require.

Sincerely,



Lorraine West
RR 2 Box 4543
Pahoa, Hawaii 96778

cc. V. Goldstein, County Planning Dept., Hilo
C. Sakoda, R.M.T.C., Honolulu
OEQC, Honolulu

R. M. TOWILL CORPORATION

480 WAIKAMUI RD #411 HONOLULU HI 96817-3041 (808) 848-1133 FAX: (808) 848-1037

October 2, 1996

Loriene West
RR2 Box 4543
Pahoa, HI 96778

Dear Loriene West:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N), Puna, Hawaii

I am in receipt of your letter dated August 16, 1996 regarding the subject EISP/N. On behalf of HELCO, the following has been prepared.

View Impacts

Considering the existing view included GTE Hawaiian Tel poles throughout the subdivision for the past 10 years, it would be more accurate to describe the visual impact along Mapuana as exacerbated for as long as both GTE and HELCO poles co-exist. However, the fact remains that HELCO conducted early consultation with the residents since 1989. In response to residents' concerns about view impacts, HELCO located the poleline on the mauka side where the GTE poleline exists.

Lava Hazard Zones

FEIMA recommended that the state and county should not encourage higher density development in Lava Flow Hazard Zones 1 and 2 in 1990, about 25 years after the county granted development approvals to the developers of the Kechena, Kalapana Seaview and Puna Palisades subdivisions.

Land use decisions are under the jurisdiction of the County government. Providing service on demand to those who want grid electrical power is HELCO's responsibility as mandated by the state Public Utilities Commission. Choosing the location of residence is an individual's responsibility. Whatever were your reasons and motivations for choosing this project area to live in can conceivably be yet another individual's exact reasons as well.

Additional Studies

Local authorities on volcanic and geologic hazards will be sent a copy of the DEIS for their review. The two-part fauna and avifauna study was appropriate to the proposed action. U.S. Fish & Wildlife Service was consulted during the previous environmental assessment process, and will continue to be consulted in the EIS process. The state Department of Business Economic Development and Tourism Energy Division and the Integrated Resource Planning

L. West
October 2, 1996
Page 2

(IRP) group (mandated by the state PUC) will be sent copies of the DEIS for input on the alternatives (to traditional delivery of electricity) discussion. Your opinion and concerns about my involvement in the EIS process have been noted. An environmental assessment was prepared in accordance with state environmental law. An objective EIS is going to be produced.

In response to your reference to the rules and regulations regarding the preparation of an EIS, the DEIS and FEIS are being prepared in accordance with state environmental law.

A copy of the DEIS will be sent to you.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

120 WAIKAMAHIO RD #411 HONOLULU HI 96817-1041 (808) 948-1133 FAX (808) 948-1037

October 1, 1996

Samadhi Ami
RR2 Box 4519
Pahoa, HI 96778

Dear Samadhi Ami:

Subject: SSPP Unit 71 12.4777.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N). Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
- The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISP/N has been noted.

Engineers • Planners • Photogrammetrists • Surveyors

Samadhi Ami
October 1, 1996
Page 2

- 6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.
- 7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.
- 9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.
- 10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.
- 11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Duane P. Cariaga
RR2 Box 4552
Pahoa, Hawaii 96778

August 15, 1996

Clyde Nagala
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, EISPN First Notice

Dear Sir:

Yes, I wish to be a consulted party in the EIS process.

Residents have struggled 1-1/2 years in court to have a truthful, detailed study of the effects this project is having and will have in the future on the last pristine coastal road in the nation that has never had major infrastructure. Why is this important fact not being addressed in the OEQC Bulletin? Can we have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment?

In reviewing both the bulletin and the EISPN it is amazing to read about this project as if it had barely begun. In reality the project is 98% completed without any permits whatsoever. The EISPN has numerous misrepresentations and distortions. For example, see EISPN, 2.2, page 2-3, Determination. "The proposed project will affect one (EIS trigger) the use of State lands." On June 26, Judge Riki May Amano ruled that the Environmental Assessment did not address the EIS triggers of secondary impacts and geologic hazards. How can the Judge's ruling be so easily overlooked? Actually this project clearly triggers 9 of the 11 EIS triggers. Will all of the impacts be studied in depth? Be paid attention to at all? How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?

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Page 2

inundation area on the island? How much money did the Kalapana cost the State, County and Federal governments? How much money did the 1955 flow cost the public?

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In the mitigation area, an unbiased study of solar energy is crucial. Helco and company obviously have a conflict of interest. Can I be assured that an impartial solar expert such as Michael Potts in California, Rocky Mountain Institute or Island experts will be retained to do this study?

In summation, Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously will only benefit them, not necessarily the public. I look forward to hearing from you on the above concerns.

Sincerely,

Duane P. Cariaga

cc Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

✓ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION

420 Waiakamilo Rd #411 Honolulu HI 96817-4941 (808) 848-1133 FAX (808) 848-1037

October 2, 1996

Mr. Paul Farage
HCR 5693
Keaau, Hawaii 96749

Dear Mr. Farage:


Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND) Puna, Hawaii

We have received your letter of August 15, 1996 regarding the subject project. On behalf of HELCO, the following has been prepared in response to your questions.

- 1) The purpose of the environmental impact statement process is to disclose the advantages and disadvantages of the alternatives, including solar, to the proposed project. Such was discussed in the environmental assessment, and will be restated in the EIS.
- 2) Public improvements that currently serve the project area accommodate anticipated development of 1,200+ lots for the three residential subdivisions for which developers received approval from the County government about 20 to 30 years ago.
- 3) Under contractual agreement between HELCO and each subscriber, the latter pays a portion of the cost for access to the SSPP Unit 71 overhead distribution system.

A copy of the Draft Environmental Impact Statement will be sent to you since you have requested to be a consulted party.

Sincerely,


Coleite Sakoda
Project Manager

cc: County of Hawaii Planning Department: V. Goldstein
OEQC
HELCO
D. Sherman, Goodwill et al
DLNR, Land Management

Date: *Aug 15, 1996*

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC, 7/23 Notice,
Consulted Party Status

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St.,
Hilo, Hawaii 96720

Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411,
Honolulu, Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu,
Hawaii 96813

Dear Sir:

Yes, I wish to be a consulted party in the EIS process. I have listed all of my questions and concerns as follows:

- 1.) Is Solar a better idea?
- 2.) How much money is development going to cost the tax payer and can the red road handle development; wider roads, more buildings and traffic, water and sewage plants, urbanization, public safety...?
- 3.) Only 12% of the lot owners have subscribed for SSPP-71, how much is each subscriber going to have to pay to have HELCO?

Sincerely,

Paul F. Farrage!

Name PAUL FARAGE

Address HCR 5083
Koaau, HI 96749

Phone# 982-7462

RECEIVED AUG 22 1996

R. M. TOWILL CORPORATION

480 WAIKAILOA RD #411 HONOLULU HI 96817-4041 (808) 442-1133 FAX (808) 442-1037

October 2, 1996

Mr. Duane P. Cariaga
RR2 Box 4552
Pahoa, Hawaii 96778

Dear Mr. Cariaga:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISP/N). Puna, Hawaii

We have received your letter of August 15, 1996 regarding the subject project. The following has been prepared in response to your comments.

Paragraph 1. "...last pristine coastal road...that has never had major infrastructure." The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"? The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.

Paragraph 2. You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.

The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.

Paragraph 3. The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense,

D. Cariaga
October 2, 1996
Page 2

and not at government expense. Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.

Paragraph 4. Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

Paragraph 5. Please refer to the quote from the circuit court ruling in "Paragraph 2" above. Geologic hazard designations of the project area were disclosed in the environmental assessment and will be restated in the DEIS. Existing county zoning and subdivision approvals currently enable residential growth in the project area.

Paragraph 6. A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,



Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodstill et al
DLNR, Land Management

R. M. TOWILL CORPORATION

420 WAIKAMU RD #411 HONOLULU HI 96817-4041 (808) 848-1133 FAX (808) 848-1937

October 2, 1996

Duane Canaga
RR2 Box 4552
Pahoa, HI 96778

Dear Duane Canaga:


Subject: SSPP Unit 71 12.477.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND) Puna, Hawaii

I am in receipt of your second letter dated August 27, 1996, and am replying on behalf of HELCO.

The DEIS will address the impacts of the project in terms of primary, secondary, direct, indirect, and cumulative. Population increase that may result from introduction of grid electricity is a secondary impact of the project. A possible indirect impact resulting from the secondary effect of population increase is nonpoint pollution of the coastal waters. Through pro-active community self-policing efforts, such as leveting fines on neighborhood residents who pollute, undesirable conditions such as littered beaches and coastal waters can be prevented. Existing conditions already include: 1) noise pollution from generators used to operate homes since there is no SSPP Unit 71 line extension service; and 2) threatened pollution to coastal waters from improperly discarded used batteries from photovoltaic systems with backup batteries needed to store electricity, and lubricating oil leaking from generators.

The issue of impacts on coastal fishing is yet another possible indirect secondary effect. This issue will be discussed along with related concerns resulting from population increase in the DEIS.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Date: 08/18/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
- 2) Can I have an assurance from you that this EIS will study every phase of this primarily after-the-fact action, the expected consequences, primary and secondary, and the cumulative short and long term effects on the environment according to the full meaning and content of the law?
- 3) Since Judge Amano's decision to order an EIS also included notice of two EIS triggers overlooked in the FEAs, how can the EISPN so easily overlook the Judge's decision?
- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
- 6) How appropriate is the commitment of millions of dollars of public funds in the most active lava inundation area on the island?
- 7) How much money did the Kalapana flow cost the State, County and Federal governments?
- 8) How much money did the 1955 flow cost the public?
- 9) How can I be assured this study will be undertaken in the best interests of the endangered species unless supervised by National Biological Service and U.S. Fish and Wildlife?

10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Polls in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely,



Name: Samadhi Ami
Address: P.O. Box 4519
Paheoa HI 96778
Phone: (808) 965 1707

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo,
Hawaii 96720

1 Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu,
Hawaii 96817

OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii
96813

Date: 8/10/96

Clyde Nagata
Hawaiian Electric Light Company
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSPP-71, OEQC Bulletin, 7/23 Notice,
Consulted Party Status

Dear Sir:

I would like to be a consulted party in the EIS process.

I have listed all of my questions and concerns as follows:

- 1) Why doesn't the OEQC Bulletin and the EISPN address the outstanding fact that the area impacted is the last pristine coastal road in the nation that has NEVER had major infrastructure introduced?
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- 4) Will all of the impacts be studied in depth?
- 5) How is the community able to rely on R.M. Towill considering the huge inadequacy of the EISPN which appears to be no more than a slightly edited version of the Final Environmental Assessment?
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- 8) How much money did the 1955 flow cost the public?
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10) Will National Geological Service supervise the geological hazards studies?

11) Can I be assured that an impartial solar expert such as Michael Poits in California, Rocky Mountain Institute or Island experts be retained to do this study?

Residents have fought an expensive, difficult 1-1/2 years in court to have an EIS completed on this project. We have earned the right to see a righteous study done. Helco and R.M. Towill cannot continue to conduct and editorialize their own studies which obviously only benefit them. The public is to be served by this study not Helco. I look forward to hearing from you.

Sincerely, *Maui Wolfgram*

Name: *Maui Wolfgram*
Address: *P.O. Box 738 Pahoa HI 96778*
Phone:

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo, Hawaii 96720

↳ Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu, Hawaii 96817

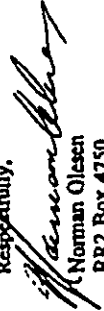
OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu, Hawaii 96813

Mr. Clyde Nagata
October 6, 1996
Page 2

Norman Olesen, RR2-Box 4750, Pahoa, HI 96778

As a private citizen, and since I have been drawn into this issue, on two occasions, I now request to also be included as a consulted party.

October 6, 1996

Respectfully,

Norman Olesen
RR2 Box 4750
Pahoa, HI 96778

Mr. Clyde Nagata
HELCO
P.O. Box 1027
Hilo, Hawaii 96720

Property Owner: TMK: (3rd) 1-2-031-057 & 058

Re: SSPP -71, Athens Peanut's letter of August 29, 1996

Dear Mr. Nagata:

In the referenced correspondence, Page 10, Item 5, Ms. Peanut has made erroneous and libelous statements regarding my participation in the SSPP-71 program. I take this opportunity to correct her allegations with the truth.

cc: ✓ Collette Sakoda, R.M. Towell, Fax # (808) 842-1937

OEOC, 220 South King Street, Central Pacific Plaza, Suite 400, Honolulu, HI 96813

Virginia Goldstein, County of Hawaii, Planning Director, 25 Aupuni St., Hilo, HI 96720

1. I am a property owner and full time resident of Keheha Beach Estates, not part time as Ms. Peanut alleges.
2. As Deputy Planning Director for the County of Hawaii I have never been a participant in any meetings regarding the EIS with either HELCO or County personnel.
3. I have never had any meetings with the Mayor either officially or private on this matter. Conforming to the requirements of Chapter 343 is not, by any stretch of the imagination, a political issue.
4. Ms. Peanut states "have demonstrated much hostility to the concerned public, residents and property owners, who oppose the project". Since I have had absolutely no contact with any of the Friends of the Red Road this statement is just a means to discredit me with the County of Hawaii and friends. All those I associate with in my private life just happen to want power.
5. I support power coming into our area. I am currently paying monthly on a contract to HELCO, along with some 190 property owners. After Ms. Peanut and her Friends of the Redroad became active I paid the price for this support, in having all 4 tires of my Mercedes slashed, at a cost of \$ 800. Power to my family will be a little bit more expensive than for my neighbors. From this, and other incidences of vandalism in our area, all starting after the formation of the Red Road group, and singularly against those families who have signed up for power, would seem to demonstrate where the hostility is coming from.
6. The only conflict of interest is the difference in opinion of those who believe in the freedom of choice on how they wish to live, going into the 21st. century.

Duane P. Cariaga
RR2 Box 4552
Pahoa, Hawaii 96778
August 27, 1996

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSFP-71, EISPN First Notice,
OEQC First Notice, 7/23/96

Dear Sir:

I wish to add the following to my reply of August 15th letter with reference to the above.

I am a local fisherman in the area of the proposed project. I have been fishing on the shoreline fronting Kalapana Seaview Estates for at least 2 years. I am a 1985 Pahoa High School graduate. I am very familiar with the entire coastal area of lower Puna. I grew up here.

One of my largest concerns of the project would be Secondary Impacts to having more people in the area. I'm concerned about the pesticides, herbicides, clorox and all the household chemicals, automobile exhaust and car related fluids like oil, rust preventatives, and transmission fluids that will slowly but surely leak into the ocean from which I get my food supply.

I am not the only fisherman in lower Puna. There are a lot of local fishermen using the Pohiki boat ramp that supply fish to the whole Island commercially. I see the boats day and night in front of the project area. What will they say if the fish is no longer edible?

I used to love fishing on the Kona-Kohala coastline. Now the fish there are no longer edible because of the pollution that is most likely a by product of hotels, golf courses and mass development in general.

This EIS must include an in depth study of the secondary impacts of electrification and increased population density on this remote coastal area, the important local food supply and the marine species that inhabit our shores.

I wish to have this very important issue studied to the fullest in the EIS. I also would like to see complete studies on the endangered species that I come in contact with while fishing in this precious place I CALL HOME.

Sincerely,

Duane P. Cariaga

Duane P. Cariaga

cc: Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo
Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu
OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu

R. M. TOWILL CORPORATION

420 WAIKAILOA RD #411 HONOLULU HI 96817-4041 (808) 842-1133 FAX (808) 842-1037

October 1, 1996

Mea Wolfgram
P.O. Box 738
Pahoa, HI 96778

Dear Mea Wolfgram:

Subject: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System
Environmental Impact Statement Preparation Notice (EISPND), Puna, Hawaii

We have received your letter of August 18, 1996. On behalf of HELCO the following has been prepared in response to your comments.

- 1) The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not "major infrastructure"?
- 2) The EIS will be prepared in compliance with State environmental law. The expected consequences, primary, secondary, and cumulative will be addressed in the EIS. County government approved these developments with the proposed densities and the implied impacts of development of 1,200+ lots some 20 to 30 years ago when granting subdivision approvals.
- 3) You seem to be confusing "triggers" as defined by Chapter 343-5, HRS, with "significance criteria," as defined in Section 11-200-12, Hawaii Administrative Rules. The only condition that triggers the environmental review process is the project's use of State (or County) lands. The July 26, 1996 ruling specifically stated, "The County failed to consider the significance criteria, as set out in HAR 11-200-12, prior to issuing a Negative Declaration." Please be aware that land use decisions are the responsibility of County planning officials, and not this project. HELCO's responsibility is to respond to customers' requests for electrical service.
The 11 significance criteria (HAR 11-200-12), which were addressed in the environmental assessment, will be discussed again in the EIS.
- 4) Potential impacts have been studied in depth in the environmental assessment and will be restated in the EIS.
- 5) Your opinion regarding the adequacy of the EISPND has been noted.

Mea Wolfgram
October 1, 1996
Page 2

6) The EIS is being prepared to address the project's potential impacts on the existing environment. Consultation with the State and other public entities will be conducted to help determine potential public costs assuming approvals are granted to implement the project. Public money will not be used to replace utility poles if a natural disaster occurs. In the case of Hurricane Iniki induced damage on Kauai, the utility companies quickly responded by replacing downed poles at the utility companies' expense, and not at government expense.

7&8) Public costs of the Kalapana inundation and the 1955 flow, if available, will be included in the draft EIS.


9) Germaine and legitimate studies of the flora, fauna, and archaeological resources were conducted for this project and included in the environmental assessment. If you have additional defensible data to contribute to the EIS process, please feel free to do so. The National Biological Service and the U.S. Fish and Wildlife Service were consulted, and will continue to be consulted in the EIS process.

10) Geologic hazards of the project area was disclosed in the environmental assessment and will be restated in the DEIS.

11) A copy of the DEIS will be sent to local authorities on solar energy for comment.

You have requested to become a consulted party in this process and a copy of the DEIS will be forwarded to you. The evaluation and findings discussed in the EIS will continue to include the project's potential impacts and appropriate mitigation measures.

Sincerely,


Colette Sakoda
Project Manager

cc: Virginia Goldstein, Director, Planning Department, County of Hawaii
OEQC, Gary Gill, Director
HELCO
David Sherman, Goodwill et al
DLNR, Land Management

COMMENTS AND RESPONSES TO DEIS

R. M. TOWILL CORPORATION

420 WAIKAMAHIO RD #411 HONOLULU HI 96817-4941 (808) 842-1133 FAX (808) 842-1937

February 19, 1997

Department of Research and Development
 County of Hawaii
 25 Aupuni Street, Room 219
 Hilo, HI 96721
 Attn: Mr. Raymond Carr

Dear Mr. Carr:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We are in receipt of your memorandum dated November 26, 1996 regarding the subject project. Your concerns regarding vegetative plantings as potential mitigation to visual impacts in Kalapana Seaview Estates are appreciated. HELCO's staff arborist will be provided a list of suggested plants and trees as residents proceed with plantings on their own properties. In consultation with the State Department of Land and Natural Resources (DLNR) Forestry Manager Howard Horuchi, humus may be added to the soil in this subdivision to augment and prepare it to facilitate the growth of trees. The list of suggested vegetation would include ironwood trees, Indian mulberry, and true kama'i and false kama'i.

Your participation and suggestions are appreciated.

Sincerely,

Colette Sakoda
 Colette Sakoda
 Project Manager

cc: Planning Dept.
 DLNR
 HELCO
 OEQC
 D. Quiñiquit, Director
 Goodsill Anderson et al

Engineers • Planners • Photogrammetrists • Surveyors
 Construction Managers • Environmental Services



County of Hawaii

DEPARTMENT OF RESEARCH AND DEVELOPMENT
 25 Aupuni Street, Room 219 • Hilo, Hawaii 96720-4333 • (808) 941-4046 • Fax (808) 934-1885
 HONOA: (808) 329-3226 • Fax (808) 326-5643

November 26, 1996

Diane S. Quiñiquit
 Director

| | | |
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| W | NY | |
| SE | | |

REC'D NOV 29 1996 1:31

MEMORANDUM

TO: VIRGINIA GOLDSTEIN, PLANNING DIRECTOR

FROM: RAYMOND CARR, ECONOMIC DEVELOPMENT SPECIALIST

SUBJECT: DEIS - SSPP UNIT 71 12.47/7.4 KV OVERHEAD DISTRIBUTION SYSTEM, PUNA, HAWAII

Thank you for the opportunity to comment on the referenced Draft Environmental Impact Statement.

At this time my only comment is in reference to the suggestion made in my letter of August 21 in response to the EIS Preparation Notice; that consideration should be given to hastening the amelioration of the visual impact of new utility poles, especially in the Kalapana Seaview Estates subdivision, by the planting of young trees by the utility. In her letter of October 1, Ms. Colette Sakoda indicated that this mitigative measure would be reviewed with HELCO. Apparently, for reasons not given in the DEIS, this was not considered feasible. This may be a missed opportunity to demonstrate a willingness to mitigate system impacts in a practical and inexpensive manner.

xc: Clyde Nagata, Hawaii Electric Light Co.
 Colette Sakoda, R.M. Towill Corporation
 Gary Gill, Director OEQC
 Diane Quiñiquit, Director

DEPARTMENT OF PUBLIC WORKS
COUNTY OF HAWAII
HILO, HAWAII

DATE: December 6, 1996

Memorandum

NO RESPONSE LETTER REQUIRED

TO: VIRGINIA GOLDSTEIN, Director
Planning Department

FROM: Mr. GALEN M. KUBA, Division Chief (U)
Engineering Division

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
SSPP Unit-71 12,477.2 KV Overhead Distribution System
Puna, Hawaii
TMK: 1-2-09: 003(por); 1-2-30 to 41

We have reviewed the subject report and have no additional comments beyond
comments made on August 22, 1996 (attached) to Environmental Impact Statement
Preparation Notice.

Should there be any questions concerning this matter, please feel free to contact Mr.
Casey Yanagihara in our Engineering Division at 961-8327.

attachment

KG

copy: Clyde Nagata
Colette Sakoda

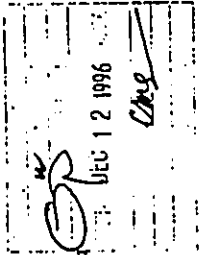
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Stephen K. Yamashiro
Mayor



County of Hawaii

PLANNING DEPARTMENT
25 Appapa Street, Room 109 • Hilo, Hawaii 96720-4151
(808) 941-4228 • FAX (808) 941-7915



Virginia Goldstein
Director
Norman Olson
Deputy Director

Colette Sakoda
Page 2
December 4, 1996

Relationship to Land Use Plans, Policies and Controls

5.4 Coastal Zone Management Law, 1975 (Figures 5a and 5b)
Please further expand this section by clearly discussing 1) all the objectives of Chapter 205A, HRS and 2) how the project meets with the Special Management Area Guidelines as stated within the Planning Commission's Rules of Practice and Procedure, Rule 9, Section 9-7.

5.5 Puna Community Development Plan (1992, updated 1995)
Please note that any references to this plan should be noted as "Draft." The Puna Community Development Plan has not been formally adopted and is presently pending before the County Council.

Thank you for the opportunity to provide comments. Should you have any questions regarding this matter, please contact Susan Gagorik or Alice Kawaha at 961-8288.

Sincerely,
Virginia Goldstein
VIRGINIA GOLDSTEIN
Planning Director

SG:cmr

December 4, 1996

Colette Sakoda
R.M. Towill Corporation
420 Waikamilo Road Suite 411
Honolulu, Hawaii 96817-4941

Draft Environmental Impact Statement (DEIS)
Applicant: Hawaii Electric Light Company, Inc.
Special Subdivision Project Provision (SSPP) Program
Unit-71 12.47/7.2 KV Overhead Distribution System
Tax Map Keys: 1-2-09:01 (Portion): 1-2-30 to 41

Dear Ms. Sakoda:
This is to acknowledge receipt of the DEIS for the subject project. We would like to offer the following comments:

Probable Impacts and Mitigation Measures

4.11 Visual Quality

As one of the objectives of Chapter 205A, HRS is to protect the coastal scenic and open resources, visual impacts are of major concern. We request that you separate discussion on the two phases and describe more clearly the impacts to each phase based on existing visual corridors, existing and new poles and vegetation. Description of impacts from each of the subdivisions based on existing view planes should also be discussed. A review of the project area that lies within the Special Management Area and any interference from the line of sight from the nearest coastal road should also be discussed more thoroughly.

It would also be more helpful if a map reflecting a clearer representation of the location of poles in relation to coastal view planes be included. Figure 2-7 does not provide an "easy to read" picture.

R. M. TOWILL CORPORATION

420 WAIAHANA MILLO RD #411 HONOLULU, HI 96817-4843 (808) 942-1133 FAX (808) 942-1037

February 19, 1997

Ms. Virginia Goldstein, Director
Planning Department
County of Hawaii
25 Aupuni Street
Hilo, HI 96720-4252

Dear Ms. Goldstein:

Subject: SSPP Unit 71 12.4777.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Thank you for your comment letter dated December 4, 1996. Recommendations regarding the discussion on Probable Impacts and Mitigation Measures, specifically section 4.11 Visual Quality, have been noted. Also, suggestions regarding section 5.4 Coastal Zone Management Law, 1975 and 5.5 Puna Community Development Plan have been noted. Appropriate changes will be reflected in the Final EIS.

Sincerely,


Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Stephen K. Yamashiro
Mayor

Civil Defense Agency
County of Hawaii • 920 Uluohai St. • Hilo, Hawaii 96720 • (808) 935-0031 • Fax (808) 935-6460



Harry Kim
Administrator
Bruce D. Burns
Assistant Administrator



County of Hawaii
CIVIL DEFENSE AGENCY
920 Uluohai Street • Hilo, Hawaii 96720
(808) 935-0031 • Fax (808) 935-6460

Stephen K. Yamashiro
Mayor

September 4, 1996

Colette M. Sakoda
R.H. Towill Corporation
420 Waiakemilo Road, Suite 411
Honolulu, HI 96817-4941

TO: Virginia Goldstein, Director, Planning Department
FROM: Harry Kim, Administrator, Civil Defense Agency *H/K*
DATE: November 14, 1996
SUBJECT: SSPP Unit 71 12.47/7.2 KV Overhead Distribution System
For HELCO

SSPP UNIT-71 12.47/7.2 KV OVERHEAD DISTRIBUTION SYSTEM

Thank you for the opportunity to review and comment on this project. Listed are comments related to the project:

SECTION 4

General Comments

The project makes no mention of tropical cyclone hazards. The majority of tropical cyclones approach the Island of Hawaii from the easterly direction. Most probable impact on the project would be the wires and poles, either directly by the winds or by trees affected by strong winds.

Specific Comments

4.1 Geologic Hazards

1. Earthquakes should be listed as a geologic hazard for the area. The EIS does state that there is a higher risk for potential lava flows and seismic hazards near the Kilauea east rift zone. This project is in the east rift zone.
2. The statement made in regards to the proposed alignment being at " . . . sufficient enough distance from the Kilauea east rift zone to reduce any risk of damage from lava . . ." is not understood. The project is within the lava flow hazard, Zones 1 and 2. This, as defined, is the greatest risk area and, as stated in the EIS, most of the proposed project is located in areas affected by the 1955 east rift zone eruption.
3. Statement on " . . . the lateral loads due to seismic conditions would be expected to be less than that due to wind loads" is questioned due to the magnitude of earthquakes in the Kilauea south flank 7.2 (1975); 6.5 (1954); 6.1 (1989).

Enclosed is a copy of comments submitted on September 4, 1996, to R.H. Towill Corporation regarding this project.

It is noted that Earthquake Hazard has now been included in the DEIS.

My comments made in reference to tropical cyclones and lava flow hazard zones remain the same.

dy/10320

Enclosure

cc OEQC
HELCO

- R.M.Towill Corp.

Should there be any questions on these comments, please call me at 935-0031.

Harry Kim
HARRY KIM, ADMINISTRATOR



R. M. TOWILL CORPORATION

120 Waiakamilo Rd #411 Honolulu HI 96817-1941 (808) 842-1123 Fax (808) 842-1937

February 19, 1997

Mr. Harry Kim, Administrator
Civil Defense Agency
County of Hawaii
920 Uluani Street
Hilo, HI 96721


Dear Mr. Kim:

Subject: SSPP Unit 71 12.4717.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We are in receipt of your memorandum dated November 14, 1996 regarding the subject project. Your concerns regarding probable impacts from tropical cyclones and location in lava hazard zones have been addressed.

Thank you for your participation in this process.

Sincerely,


Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Engineers Planners Photogrammetrists Surveyors
Instructors Managers Environmental Scientists

EDUARDO CAYREANO
GOVERNOR OF HAWAII

| | | | |
|------------------------------------------|--------------|--------|-------------------------------|
| DK | KIS | AND | MANAGEMENT |
| ES | ENV | BOARD | OF LAND AND NATURAL RESOURCES |
| DEC 5 - 1996 | DEC 5 - 1996 | LIBERT | Coloma-Agarron |
| STATE OF HAWAII | | | |
| DEPARTMENT OF LAND AND NATURAL RESOURCES | | | |
| STATE HISTORIC PRESERVATION DIVISION | | | |
| 33 SOUTH KING STREET, 6TH FLOOR | | | |
| HONOLULU, HAWAII 96813 | | | |

DEPARTMENT OF LAND AND NATURAL RESOURCES
 STATE HISTORIC PRESERVATION DIVISION
 33 SOUTH KING STREET, 6TH FLOOR
 HONOLULU, HAWAII 96813
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 STATE HISTORIC PRESERVATION DIVISION
 33 SOUTH KING STREET, 6TH FLOOR
 HONOLULU, HAWAII 96813
 LOG NO: 78348
 DOC NO: 961PM12

COPY

December 2, 1996

Ms. Virginia Goldstein, Director
Planning Department
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Ms. Goldstein:

SUBJECT: Draft Environmental Impact Statement for Special Subdivision
Project Provision (SSPP) Program Unit-71 12.4777.2kV
Overhead Distribution System
Puna District, Hawaii Island
TMK: 1-2-09:Per. 03; 1-2-30 to 41

We commented on what must have been an earlier version of the Draft EIS for the proposed project, but for some reason our review letter was not included in Appendix D of the present document, which is dated November 1996.

A copy of our earlier review letter, dated July 7, 1995, is enclosed. In that letter we stated our belief, qualified with the usual cautionary words about the possibility of finding lava tubes in this area of Puna, that the proposed project will have "no effect" on significant historic sites.

We have nothing new to add to our earlier comments, but if you or your staff should have any questions please contact Patrick McCoy (587-0006).

Aloha,

Ross Hardy
DON HIBBARD, Administrator
State Historic Preservation Division

PM:amk

c. Hawaii Electric Light Company
R.M. Towill Corporation

R. M. TOWILL CORPORATION

420 WAIAKAMUI RD #411 HONOLULU HI 96817-4941 (808) 842-1133 FAX (808) 842-1037

February 19, 1997

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
33 South King Street, 6th Floor
Honolulu, HI 96813

Dear Mr. Hibbard:

Subject: SSPP Unit 71 12.4777.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Your letter dated December 2, 1996 regarding the subject project has been received and will be included in the Final Environmental Impact Statement.

Sincerely,

Colette Sakoda
Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodwill Anderson et al



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPITOLAH BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813-5218
PHONE (808) 584-1888
FAX (808) 584-1885

November 13, 1996

Mr. Clyde Nagata
Hawaii Electric Light Company, Inc.
P.O. Box 1027
Hilo, HI 96721-1027

Dear Mr. Nagata:

Thank you for the opportunity to review the Draft Environmental Assessment (DEA) for the SSPP Unit-71 12.47/7.2 KV Overhead Distribution System Project, Puna, Island of Hawaii. Hawaii Electric Light Company (HELCO) is proposing a two phase project in which Phase 1 consists of the replacement of 37 GTE Hawaiian Tel poles by 39 HELCO poles within an existing 8,710 foot long GTE Hawaiian Tel easement, and Phase 2 which involves the installation of a total of 288 poles within about 12,140 lineal feet of County rights-of-way.

After a careful review of the DEA and supporting documentation, the Office of Hawaiian Affairs (OHA) has no major objections to the proposed project. Based on the information contained in the DEA, the proposed powerlines apparently bear no significant long-term adverse impacts on adjacent ecosystems nor upon existing urban and rural settlements. Furthermore, no known archaeological remains exist and the proposed powerlines will not significantly alter the landscape and surrounding scenery.

Letter to Mr. Nagata
Page two

But OHA is concerned with the very limited data included in the DEA (see Appendix B report entitled "Radar and Visual Survey of Seabirds in the HELCO SSPP Unit 71, Puna, Hawaii, during July 1995") to support the contention that the proposed powerlines will not harm Newell's Shearwater population in Puna. OHA finds the sampling period extremely short (four days in July 1995) and regards the findings as a snapshot which does not truly represent seabird abundance and/or flight behavior patterns. OHA urges HELCO to expand its collection of baseline information to characterize seabird flight patterns within and across seasons as a means to substantiate its claim that powerlines do not constitute a hazard to seabirds. Please contact me or Luis A. Manrique (594-1755), should you have any questions on this matter.

Sincerely yours,
Martha Ross

Martha Ross
Deputy Administrator

LM:lm

cc: R. Ratific
D. MuraKami

fax: C. Sakoda

Post-it brand fax transmittal (memo 7871) # of pages: 2
To: Clyde Nagata
From: Martha Ross
Date: 12-13-96
Fax: 967-0256

R. M. TOWILL CORPORATION

180 WAIANAE MILI RD #311 HONOLULU HI 96817-4941 (808) 848-1133 FAX (808) 842-1937

February 19, 1997


Ms. Martha Ross, Deputy Administrator
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, HI 96813

Dear Ms. Ross:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Your comment letter dated November 13, 1996 regarding the subject project has been received. Please note that the two-day ground survey and four-day radar survey conducted by qualified and experienced biologists were more than adequate to meet requirements of a Chapter 343, HRS evaluation of the project.

Sincerely,


Collette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

OFFICE OF PLANNING
235 South Beretania Street, 8th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

BENJAMIN J. CAVETANO
GOVERNOR
SELMA F. MAYA
DIRECTOR
RICK EGGED
DIRECTOR, OFFICE OF PLANNING

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-6425

December 20, 1996

Ms. Virginia Goldstein
Planning Director
County of Hawaii
25 Aupuni Street
Hilo Hawaii 96720

Dear Ms Goldstein:

Subject: SSP Unit 71 12.47/7.2 kV Overhead Distribution System
Draft Environmental Impact Statement (EIS)

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We have reviewed the draft EIS and have the following comments to offer.

On page 2-8 under 2.5.2, the EIS indicates that a small portion of the project is situated in the County's Special Management Area (SMA). As such, the EIS only discusses the project in this smaller geographic area. Since the Coastal Zone Management (CZM) area encompasses the entire State, the entire project must comply with the CZM objectives and policies and, therefore, an assessment of the consistency and compliance of the project with CZM should be incorporated into the EIS.

We also note that County Planning documents dating back to 1971¹ have generally stated that, "The present Puna Coast Road, eventually to connect with the Chain of Craters Road, should be developed as a scenic parkway along the coast." The project area contains two natural beauty locations and a historic site location along the shoreline. The three locations 1) a viewpoint at Keelake, 2) a Black Sand beach at Kehena, and 3) a Remnant of an Ancient Trail along the coastline are mentioned in the County Plans. In this regard, because conformance with County planning and zoning is a prerequisite to the issuance of the SMA permit, this issue should be discussed in the EIS document.

In addition, the comments of the County Planning Department and community express concern over the location of the utility poles. Since the placement of utilities is a development under Chapter 205A, a County SMA permit is necessary. In this regard, R.M. Towill Corporation's response that "The Highway 137 right-of-way has contained 30-foot high GTE Hawaiian Tel poles since 1984. Is this not major infrastructure?" supports the contention that an SMA permit should be required. However, according to the Office of Environmental Quality Control, there is no record that an SMA, EA, or EIS document was prepared and filed when the

¹The General Plan, County of Hawaii, 1971 and 1989; Puna Community Development Plan, 1976 and 1995; and Inventory of Shoreline Access County of Hawaii, 1979.

Ms. Virginia Goldstein
Page 2
December 20, 1996

telephone poles were erected on the County road in 1984. Recent court action now makes it clear that the preparation of an SMA is required.

While the project may be worthwhile or needed, however, there is an apparent conflict with the long-standing policy over the shoreline as expressed by the County Planning documents. This issue needs to be resolved. We recommend that the applicant work closely with the County government and community to resolve the coastal concerns.

If there are any questions regarding this letter, please feel free to contact Christina Meller of our CZM Program at 587-2845.

Sincerely,

Rick Egged
Director
Office of Planning

cc: Hawaii Electric Light Company, Inc.
✓ R.M. Towill Corporation
Office of Environmental Quality Control

R. M. TOWILL CORPORATION

480 WAIKIKIA RD #411 HONOLULU HI 96817-1041 TEL: 808-842-1133 FAX: 808-842-1037

February 19, 1997

Mr. Rick Egged, Director, Office of Planning
Department of Business, Economic Development & Tourism
State of Hawaii
P. O. Box 2359
Honolulu, HI 96804

Dear Mr. Egged:

Subject: SSPP Unit 71 12.47/7.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

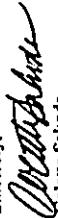
We have received your comment letter dated December 20, 1996 regarding the subject project. The following has been prepared in response to your concerns.

Consistency with Coastal Zone Management (CZM) objectives and policies. As you are aware, unless project implementation requires federal permits such as a Army Corps 404 or DOH 401 water quality certification, a CZM consistency review is not required. Therefore the County of Hawaii Special Management Area (SMA) program evaluative criteria applies to the geographic zone as identified in the DEIS. SMA criteria are being discussed and analyzed in this project EIS.

Identification of a view point location, black sand beach at Kihuna and remnant of an ancient trail by County Planning documents. Potential project impacts regarding views and shoreline access are being evaluated within the guidelines of the County SMA program. The archaeological resource study conducted for the project evaluation confirmed the absence of historic sites within the distribution system alignment.

Your comments regarding the need for an SMA permit have not been an issue since HELCO elected to prepare an SMA permit application in 1995.

Sincerely,


Colene Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodstill Anderson et al

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801
January 4, 1997

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| REC'D | JAN 10 1997 | HEC |

Ms. Colette Sakoda
R. M. Towill Corporation
420 Waiakamilo Road, #411
Honolulu, Hawaii 96817

Dear Ms. Sakoda:

Subject: Draft Environmental Impact Statement
SSPP Unit-71 12.47/7.2 KV
Overhead Distribution System
Puna, Hawaii
THK: 1-2-09: 3; 1-2-30 to 1-2-41

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer at this time:

In Section 4.7, pages 4-10 and 4-11, the last sentence is not correct and may be misleading to the public: "The proposed design will comply with standards suggested by the Department of Health." The Department has no standards for electric and magnetic fields, since standards are only generated for environmental agents which are conclusively proven to be hazardous to health.

The last paragraph would be more accurate if it stated, "Although adverse health effects have not been clearly demonstrated, HELCO's policy is to design or place power lines to minimize public exposure to electric and magnetic fields where it is feasible and reasonable in cost. This agrees with the Department of Health's policy statement on electric and magnetic fields."

Sincerely,

Lawrence Miike

LAWRENCE MIIKE
Director of Health

cc: HEER

R. M. TOWILL CORPORATION
420 WAIAKAMILLO RD #411 HONOLULU HI 96817-4941 (808) 842-1123 FAX (808) 842-1037

February 19, 1997

Dr. Lawrence Miike, Director
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, HI 96801

Dear Dr. Miike:

Subject: SSPP Unit 71 12.47/7.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We have received your comment letter dated January 4, 1997 regarding the subject project. Your suggested changes to Section 4.7, pages 4-10 and 4-11, have been noted and will be incorporated into Final EIS.

Sincerely,

Colette Sakoda

Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Engineers • Planners • Photographers • Surveyors
Environmental Services

BENJAMIN J. CAVETAWO
GOVERNOR



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

316 SOUTH BERTANAMA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4185

December 24, 1996

Virginia Goldstein
Hawaii County Planning Department
25 Aupuni Street, #109
Hilo, HI 96720

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GARY GILL
DIRECTOR

R. M. TOWILL CORPORATION

450 WAIKAMAHIO RD #411 HONOLULU HI 96817-1941 (808) 948-1133 FAX (808) 948-1937

February 19, 1997

Mr. Gary Gill, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, HI 96813

Dear Mr. Gill:

Subject: SSPP Unit 71 12-477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Thank you for your comment letter dated December 24, 1996 regarding the subject project. Item numbers 1, 2 and 3, as described in the correspondence will be included in the Final EIS.

Sincerely,

Colette Sakoda
Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Dear Ms. Goldstein:

Subject: Draft Environmental Impact Statement (EIS) for HELCO SSPP Overhead Distribution System, Puna

Please include the following in the final EIS:

- A summary section which contains the following:
 - significant beneficial and adverse impacts;
 - proposed mitigation measures;
 - alternatives considered;
 - unresolved issues; and
 - a discussion of compatibility with land use policies and a complete list of needed permits and approvals
- A statement of purpose and a need for the proposed action.
- A discussion of the cumulative environmental impacts of this and other projects in the area.

If you have any questions, please call Nancy Heinrich at 586-4185.

Sincerely,

Gary Gill
GARY GILL

cc: Colette Sakoda, RM Towill
Clyde Nagata, HELCO

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services



United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS Ecoregion
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: JMB

Collette Sakoda
R.M. Towill Corporation
420 Waikamilo Road, Suite 411
Honolulu, HI 96817-4941

DEC 23 1996

Re: Draft Environmental Impact Statement for the SSPP Unit-71 12.477/2 kV Overhead Distribution System, Puna, Hawaii.

Dear Ms. Sakoda:

The U.S. Fish and Wildlife Service (Service) has reviewed the draft Environmental Impact Statement (EIS) for the SSPP Unit-71 12.477/2 kV Overhead Distribution System in Puna, Hawaii. The project sponsor is the Hawaiian Electric Light Company, Inc. (HELCO). The Service offers the following comments for your consideration.

In our comments on the Notice of Intent to Prepare an EIS, dated September 6, 1996, the Service described our concerns regarding potential take of the federally threatened Newell's shearwater (*Puffinus newelli*). In that letter, we recommended that the EIS discuss how this risk of take could be substantially reduced or eliminated. Although the draft EIS does discuss potential future mitigation of lighting-induced fallout, no measures to reduce or eliminate collision potential are proposed.

The conclusions in the draft EIS that the probability of collision-related mortality of Newell's shearwater is extremely low or negligible are based on assumptions of flight altitude, for which no data exist for this site or directly comparable sites. Because this species is known to fly through the project area, the Service believes that fatal strikes remain a possibility along portions of Highway 137 and in the telephone easement, but that the probability of their occurrence cannot be estimated using the data at hand.

Collision risk could only be eliminated by removing power lines from potential flight paths or blocking the paths. Growth of existing trees may block the power line along portions of Highway 137 and within the subdivisions, but most of the upper easement will remain open for decades due

to the slow growth of ohia trees. Planting of alien tree species in this upland area is not recommended, but large, fast-growing tree species could be planted along Highway 137 to minimize the collision risk where the power line is exposed.

In the absence of further studies, the risk to seabirds posed by the project can only be assessed by observing the frequency of mortality. If future monitoring indicates mortality of Newell's shearwater due to this project, the Service will work closely with HELCO on conservation measures to eliminate adverse impacts to this federally protected species.

The Service appreciates the opportunity to provide comments on the draft EIS. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Jeff Burgeit at (808) 541-3441.

Sincerely,

Brooks Harper
Field Supervisor
Ecological Services

cc: DOFAW, Honolulu
DOFAW, Hilo

R. M. TOWILL CORPORATION

450 WAIKAMAHIO RD #411 HONOLULU, HI 96817-4941 (808) 842-1133 FAX (808) 842-1037

February 19, 1997

Mr. Brooks Harper, Field Supervisor
Ecological Services
Fish and Wildlife Service
U.S. Department of the Interior
Box 50088 300 Ala Moana Boulevard, Room 3108
Honolulu, HI 96850

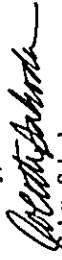
Dear Mr. Harper:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We have received your comment letter dated December 23, 1996 regarding the subject project. The following has been prepared to address your concerns.

1. Potential take: Please note that Page 4-5, paragraph 2, suggested mitigation measures by your office have been included.
2. Your opinion as to whether probability of strikes being determinable from the amount of data provided is noted. However, ground and radar surveys conducted by qualified and experienced biologists for the environmental evaluation support conclusions as stated. Please be mindful that staff from your office accompanied our biologists in the field during the radar survey.
3. Suggestions regarding planning of vegetative screening have been taken under advisement.

Sincerely,


Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Engineers • Planners • Photographers • Surveyors
Construction Managers • Environmental Services

Hawaiian Volcano Observatory
U.S. Geological Survey
Box 51
Hawaii National Park, HI 96718
(808) 967-8807
FAX (808) 967-8890

November 26, 1996

TO: Virginia Goldstein, Director
Planning Department, County of Hawaii

FROM: Christina Heliker, Geologist *CHeliker*
Hawaiian Volcano Observatory, U.S. Geological Survey,

RE: Draft EIS for SSPP Unit 71 12.4177.2 kV Overhead Distribution System

I will confine my comments to those parts of the draft EIS that deal with the geology of the site and the volcanic and seismic hazards that may affect it. Within these sections, I found several incorrect statements and a consistent failure to properly reference sources.

Section 3.1.1.1 Geologic Characteristics Somewhere in this discussion, it should be noted that the study site is only 2.5 miles from the eastern edge of the flow field that destroyed Kaipapa in 1990. This flow field is the product of an ongoing, 14-year-long eruption and is now over 8 miles wide at the coast. Most of the flow field lies in lava-flow hazard Zone 2, just as the study area does. To omit these facts in an overview of the volcanic hazards of the study site is a serious oversight at best, and could be construed as intentionally misleading.

In the 4th paragraph of the same section, some of the ages given for lava flows are incorrect. These ages are attributed to Burchard 1994 in the text. I am not familiar with this source, and it is not included in the reference list. The most up-to-date reference on lava flow ages in the study area is the U.S. Geological Survey Map I-2225, "Geologic Map of the Lower East Rift Zone of Kilauea Volcano, Hawaii" by R. B. Moore and F. A. Truswell, 1991. The preparers of the EIS evidently were not aware of this map. According to Moore and Truswell, the eastern edge of Kaipapa Scaview is on a flow erupted in 1790 A.D.; most of Kabena Beach is built on a flow that is 750 yrs old and surrounded by flows that are 200-400 yrs old.

Section 3.1.1.1 Lava Flow Hazard Zone In this section and the three that follow, the preparers of the EIS borrow whole paragraphs of text from other sources without using quotation marks or even referencing those sources. The first two paragraphs were taken word-for-word from the USGS booklet "Volcanic and Seismic Hazards on the Island of Hawaii." (The only exception is a single sentence in the second paragraph, which should be deleted because it is incorrect: "The hazard zones also take into account the larger topographic features of the old flows of each volcano.")

In the third paragraph, a direct quote from the same publication is put in quotation marks (at last) but there is no mention of what is being quoted. In fact, the booklet is never referenced until the last paragraph of section 3.1.1.2.

By the middle of section 3.1.1.1, and on through the next three sections, the preparers have begun to borrow from another source, a letter written by David Clague, former Scientist-in-Charge of the Hawaiian Volcano Observatory, also without quotation marks or an adequate reference.

The last paragraph of this section is redundant and/or misplaced. The reader ought to be told that hazard Zone 1 is the most hazardous and Zone 9 the least before the end of the section.

Section 3.1.1.2 Earthquake Hazard The information in the first paragraph recently became outdated: the island of Hawaii has been upgraded to seismic zone 4 of the Uniform Building Code. Klein 1994 is referenced, but not the source is not included in the reference list.

The second paragraph is taken word-for-word from David Clague's letter without quotation marks or any reference.

Section 3.1.1.3 Subsidence and Section 3.1.1.4 Tsunami These sections are also taken word-for-word from David Clague's letter, without quotation marks or any reference.

cc: Gary Gill, Office of Environmental Quality Control
Clyde Nagata, Hawaii Electric Light Company, Inc.
Colene Sakoda, R.M. Towill Corporation

R. M. TOWILL CORPORATION

420 Waiakemilo Rd #411 Honolulu HI 96817-4901 808-948-1123 Fax 808-948-1037

February 19, 1997


Ms. Christina Heliker, Geologist
Hawaiian Volcano Observatory
U.S. Geological Service
Box 51
Hawaii National Park, HI 96718

Dear Ms. Heliker:

Subject: SSPP Unit 71 12.47/7.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We have received your memorandum dated November 26, 1996 regarding the subject project. Your concerns and recommendations are noted. Revisions and updates to sections 3.1.1 Geologic Characteristics, 3.1.1.1 Lava Flow Hazard Zone, 3.1.1.2 Earthquake Hazard, and 3.1.1.3 Subsidence, and 3.1.1.4 Tsunami will be incorporated into the Final Environmental Impact Statement.

Sincerely,


Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services



United States Department of the Interior

U.S. GEOLOGICAL SURVEY

WATER RESOURCES DIVISION
677 Ala Moana Boulevard, Suite 415
Honolulu, Hawaii 96813

November 15, 1996

NO RESPONSE NEEDED

Ms. Virginia Goldstein, Director
Planning Department
25 Aupuni St.
Hilo, Hawaii 96720

Dear Ms. Goldstein:

Subject: Draft Environmental Impact Statement
SSPP Unit-71 12.47/7.2 kV Overhead Distribution System Project

The staff of the U.S. Geological Survey, Water Resources Division, Hawaii District, has reviewed the Draft Environmental Impact Statement, and we have no comments to offer at this time.

We are returning the report for your future use. Thank you for allowing us to review the DEIS.

Sincerely,

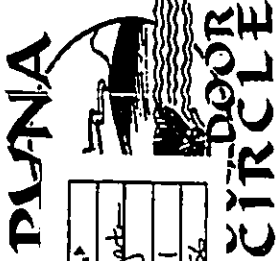
William Meyer
District Chief

Enc.

cc: Office of Environmental Quality Control
Mr. Clyde Nagata, Hawaii Electric Light Company, Inc.
Ms. Colette Sakoda, R.M. Towill Corporation



| | | | | | |
|------------------|--------------|-------|--------------|------|-------|
| PostNet Fax Note | 7671 | Date | 12/24 | Time | 10:00 |
| To | Clyde Nagata | From | Clyde Nagata | | |
| From | H. Tawill | On | HELCO | | |
| Phone | 842-1133 | Phone | 955-1171 | | |
| Fax | 842-1927 | Fax | 919-0256 | | |



December 20, 1996

Hawaii Electric Light Company, Inc.
 P. O. Box 1027
 Hilo, HI 96720

Attn: Clyde Nagata

RE: HELCO 12.47/7.2 kV Overhead
 Distribution System in Puna

Dear Mr. Nagata:

The following are the comments of the Puna Outdoor Circle to the Draft Environmental Impact Statement for the above-referenced project.

Subsequent to the radar and visual faunal surveys conducted in July 1995 for the EIS, an event took place in Puna which throws a whole new set of data into the mix regarding the a'o. None of this information was included in the Draft EIS, and we feel that it is important enough to warrant another draft which should include it.

On July 22, 1996 at about 9:00 p.m., Jocelyn Mayeux was working late in her business on the second floor, adjacent to the Puna Realty parking lot, when she heard a bird hit the power lines outside her window. She did not investigate.

However, the next morning at about 8:00 a.m., passerby Dwight Kondo saw the bird lying on its back in the parking lot under Ms. Mayeux's window. The bird did not struggle when he picked it up and put it in a box. At about 9:00 a.m. when the office of the Puna Outdoor Circle opened, Dwight brought the bird to show me. I immediately suspected that it might be a Newell's shearwater, and promptly called Michelle Reynolds at National Biological Survey. I described the bird and took measurements according to Michelle's questions. She suggested that I take the bird to the Panaewa Zoo for identification and rehabilitation. She called ahead to Director Lloyd Yoshina, who was waiting for me when I arrived with the bird. He examined the bird (there were cuts and bruises on the neck) and verified that it was a Newell's. He took the bird to the zoo's vet.

P. O. Box 1085 * Puna * Hawaii 96778 * (808) 965-6626
 xc: D. Murakami, R. Ratific, A. Urabe
 fax: C. Sakoda

I later learned that the bird died, and that an autopsy was performed, which showed that the bird died of internal injuries consistent with crashing into utility lines. I also learned that the bird was a female, reproductively mature, but had not yet clutched.

All the above information is officially documented at National Biological Survey and at the Panaewa Zoo.

The utility lines range from between 15 to 25 feet. It is not known which particular line was the target of the female a'o. In the summary of the Faunal Survey it states that "...it is unclear at what altitude Newell's Shearwaters fly...it is difficult if not impossible to state whether the proposed poles and distribution line ... will constitute a significant threat to this species." We now have one example of a range between 15 and 25 feet at which we know the a'o can and has flown.

Under "Probable Impacts and Mitigation Measures" 4.3 Fauna, the first paragraph ends with the line "There has been no reported downing or collisions from the project." Since we now know of at least one collision and downing, although not directly related to the project, the statement becomes misleading. Since we hope that this was not deliberate, we believe that this should be allowed for in the next draft.

In the same paragraph is the statement "the low occurrence of birds observed utilizing the project site indicates that the project would have minimal impact on the federally threatened Newell's Shearwater". Regarding this "low occurrence": the radar and visual surveys took place at dawn and at dusk; yet our female a'o was flying at 9:00 p.m. Considering that the surveys were only of a few days duration, the low occurrence is not surprising. Furthermore, such a low occurrence is expected when the species is on the Endangered Species List. That is a fact by definition. However, the conclusion that low occurrence results in minimal impact is both logically and biologically inconsistent. The smaller the population (i.e., the gene pool), the greater the impact. The loss of even one bird can be crucial to continued species viability. Our Puna a'o, for example, was at the very beginning of her reproductive life. No one knows how many fledglings she might have produced, had she lived. No one knows how many female a'o there are to carry on the gene pool in lower Puna. Michelle Reynolds informed me that even if it had been a male, the impact would have been severe if he was providing for a female and nestlings. The male's demise would have caused the starvation of his mate and their young. Therefore one downing of such a male must really be counted as several in terms of mortality. The EIS totally overlooks this.

Regarding 4.3.1, 2nd paragraph: "The risk of mortality from utility structures... is exceedingly low...it may be years before a single Shearwater death results from the project." Well, a Shearwater death has already resulted, so the risk is not as low as the EIS would make it seem. As discussed above, even one death could result in more, and in a small breeding population could be the nail in the coffin of this species.

The State of Hawaii is well aware of Hawaii's Extinction Crisis

(indeed they named a publication with those very words). A CALL TO ACTION, A Report on the Status of Hawaii's Natural Heritage, put out by DLNR, the USFWS and the Nature Conservancy, urges the public to get involved to prevent further extinctions. The Friends of the Red Road are a group of citizens who have done just that, and been vilified for it. It does not behoove the State of Hawaii to allow construction of this overhead transmission line, when the potential impacts on an endangered species could be so disastrous. The benefit of the SSPP line extension to HELCO or to some residents is inconsequential as compared with the ongoing threat to the Newell's Shearwater. DLNR should be walking its talk, and not allow state lands to be used for such a purpose.

If the alternative were undergirding of the lines, we would have no objections.

Another aspect of the line extension is the assault on the view planes of the area. The photos printed in the Draft EIS were very carefully selected to show a minimum of ugliness, but I have been there and seen for myself. The poles and lines stand out like a sore thumb. Poles and lines were installed in Kalapana Seaview Estates even on streets where no property owners signed up for service. HELCO has stated in its "Lighttalk" ads in the local newspaper "As a general rule, avoid planting trees directly beneath electrical lines. When planting around the distribution lines that run through residential areas, remember this simple "15-foot rule": Trees and plants within 15 feet of power lines should not be higher than 15 feet when full grown. (Planting around higher voltage transmission lines may require greater distance for clearance.)" If the property owners follow the 15-foot rule, there can be no possible "softening" of the power pole impact. HELCO's own rules preclude this. In a lava flow like Seaview, the growth of trees will be very slow. Must the public wait for 20 years for the promised "softening"?

The Draft EIS promises that the telephone poles will come out and only one set of poles will carry both electrical and telephone lines. On the Pahoa-Kesau Highway, there are in places as many as 5-deep poles on both sides of the road. The telephone poles have not been removed, as was promised the Puna Outdoor Circle about 4 years ago. The Joint Utility Easement is running into problems of agreement between the two utilities. Why should we not expect that the same problem will keep both sets of poles up along the Red Road? We have not seen anything which would lend credibility to this assertion (i.e., that the lines would share one set of poles).

There are many people in the Puna community who are trying to find environmentally sensitive ways to provide economic uplift to the district. Ecotourism has a great deal of potential, as long as there is a beautiful unspoiled coastline with scenic viewpoints. The line extension would spell the death knell of these plans. This is an extreme impact which is not competently addressed in the Draft EIS.

We believe that the Draft EIS is seriously flawed and request a new revised draft which will address these concerns in a more neutral manner.

Rene Siracusa
Rene Siracusa
Vice-President

R. M. TOWILL CORPORATION

480 WAIKAMAILO RD #411 HONOLULU HI 96817-3941 MOBILE 848-1133 FAX 808-948-1037

February 19, 1996

Rene Siracusa, Vice-President
Puna Outdoor Circle
P. O. Box 1085
Pahoa, HI 96778

Dear Rene Siracusa:

Subject: Draft Environmental Impact Statement (DEIS) for SSPP Unit 71 Overhead Distribution System, Puna, Hawaii

Thank you for sharing your information and concern regarding the tragic death of a Newell's Shearwater in the town of Pahoa in July 1996. We wonder if you would consider the significant differences between the two sites under discussion? The town of Pahoa where the apparent downing occurred, is a business and residential complex located about five miles away from the remote coastal subdivisions of Kalapana Seaview, Puna Palisades and Kehena Beach Estates. Unlike these coastal subdivisions the town of Pahoa contains numerous multi-storied buildings many of which are commercial, and have external lighting. On the other hand, the coastal subdivisions mentioned are approved strictly for residential use and subsequently sparsely developed with single family structures. Within the town of Pahoa there are numerous utility structures, including a GTE Hawaiian Tel communication tower and many other potential structural barriers which represent a threat to the nocturnal passage of seabirds.

The faunal surveys commissioned for the subject project were conducted by qualified and experienced biologists. While a reported death of a seabird in the town of Pahoa is important, this occurrence does not change the conclusions of ground and radar surveys conducted for a project site consisting of very different developmental conditions five miles away. Further, the biologists consistently maintain that "low mortality risk" does not dismiss the potential for cumulative impacts that may accompany increased residential development over time. Section 4.3.2 Long Term Cumulative Impacts on page 4-7 of the Draft EIS includes a discussion of the potential for such impacts and appropriate mitigation measures that should be taken. On page 4-7 of the Draft EIS the reported deaths of two Shearwaters "in the Puna district" is discussed. Due to this inclusion in the subject document, the July 1996 incident does not add a whole new set of data.

It is probable that this apparent downing was due to a combination of factors, that is, the likelihood that the bird was disoriented by lighting either within the multi-storied building or in the parking lot, and that it is more likely that the bird hit a window, or building, especially if it was reported that someone heard the impact.

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

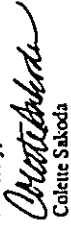
Ms R. Siracusa
February 19, 1997
Page 2

You also expressed concerns that the telephone poles would remain as opposed to what has been agreed to between the utility companies. Residents in the project area obtained confirmation from GTE Hawaiian Tel in which the utility committed to removal of the telephone poles within a reasonable amount of time after the HELCO project is completed (see Appendix D, DEIS). The discussion and photos in the DEIS include actual and true scale visual conditions of existing views in the project area.

The utility companies have responded to customer requests for telephone and electrical service in the area. The utilities have been asked by the County of Hawaii to mitigate the unavoidable disruption of coastal views by locating the poles on the mauka side of Highway 137 whenever possible in order to present ocean views makai of the coastal road. The discussion of views and view impacts and mitigation measures within the Special Management Area (SMA) will be restated in the EIS.

Please call me if you have further questions or concerns.

Sincerely,


Colette Sakoda

cc: HELCO
OEQC
Hawaii County Planning Dept.
DLNR
Goodsill Anderson et al

FRIENDS OF THE RED ROAD

P.O. Box 1610, Pahoa, Hawaii 96778
Phone: (808) 965-8183 Fax: (808) 965-1220 (phone first)
kehena@aloha.net

December 23, 1996

Colette Sakoda, Project Manager
R.M. Towill Corporation
420 Waiakamilo Rd. Suite 411
Honolulu, Hawaii 96817-4941

Re: DEIS for SSPP Unit-71, 12.47/7.2kV
Overhead Distribution System Project

Dear Ms. Sakoda:

We have reviewed the DEIS and find it inadequate. The DEIS did not answer many of our concerns. We ask these questions for the third time. Why have you not acknowledged the fact that this project is the first major infrastructure invasion into an area of thousands of acres of pristine land, the last pristine coastal road in the nation and probably the cleanest coastal waters in the state? The project area is pivotal to the future of an enormous pristine area... of the BIG PICTURE. If the preparer refuses to recognize the existence of the BIG PICTURE how can you begin to address the expected consequences, primary, secondary and cumulative impacts of the project on the environment?

How can you continue to imply that telephone service is the same impetus to population density as overhead electrical extensions? This is borne out by the very inescapable fact that despite 12 years of GTE presence in the project area there has been very slow development.

The Third Circuit Court has already ruled that the electric lines can in no way be construed to be equal in size, density, number or purpose to telephone company lines. How can RMTC presume telephone poles and electric poles have equal status and impact in the light of this court ruling? How can RMTC justify that the mere presence of GTE poles validates the presence of Helco poles when the court has ruled otherwise?

RMTC/Helco appears to be relying solely on county government's approval of the three subdivisions in the 1960's to justify all subsequent infrastructure, population densities and future impacts. Approvals which could never be obtained now in view of current zoning, county and state laws, environmental law, State energy strategy and Helco's Demand Side Management criteria. Answer the legitimate concerns raised in our letter of 8/19/96. The project area has remained pristine because the lifestyle of the residents has had minimal impact on the surrounding area in the East Rift Zone of Kilauea. Would not this situation change dramatically and quickly as soon as overhead electricity was installed? This is the situation that needs to be addressed. The preparer cannot continue to ignore the pristine surrounding area of which Kehena is a small part.

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Page 2

Why does the DEIS continue to ignore the fact that Phase I on state land (and already completed) diverges radically from the GTE easement? Why does the DEIS continue to read that the "easement is shared with the GTE easement?" Why are you continuing to base all information gathered on information supplied by Helco?

At present the telephone poles and electric poles are NOT co-located within the existing GTE easement because Helco has diverged at least 30 or more feet in two locations. This has been reported to DLNR and you on two previous occasions and yet the DEIS continues to ignore input from the community. Why does the DEIS neglect to state WHEN the GTE poles will be removed? Why does the DEIS also describe this as "one more line" when in fact the Helco installation is four lines?

If the purpose of this EIS is to study the environmental impacts of the project, and the project is actually two years old, does it not follow that studies (e.g. botanical) need to be conducted that reflect the impact that the 2-year old construction has already had?

As residents of the project area, we live with the knowledge that at any given moment we may have to evacuate because of lava, earthquake, subsidence, tsunami or tropical cyclones. What was once merely an awareness of the nature of our environment that we accept when we live here is now seriously complicated by the presence of 400+ poles and miles of wire (possibly energized). We feel seriously threatened by the maze of wires and poles that surround us. How does the presence of Helco's poles and wires affect our safety during emergencies common to this area? How will the increase in population density (automobile traffic) due to major infrastructure further compromise the safety of residents scrambling to evacuate with poles and wires falling all over the roads? An evacuation plan on a piece of paper cannot change geographic limitations or overcome coastal and geologic hazards.

Your answer to our question regarding federal, state and county governments ready to commit millions of public dollars for capital investment in a multi-geologically hazardous area and lava hazard zones that continued commitment is expected in the future, is not an acceptable answer. The federal government is broke, the state has no funds, the county is also broke. We read this every day in the newspaper but you state there will be millions available to spend down here. Your assumptions are not enough for the DEIS. What supporting data do you base your assumptions on? Please supply us with written assurances from the various agencies responsible for these services. What we foresee is a ghetto-ization, pollution, crime, fast profits for builders, landlords, suppliers and inadequate services for residents.

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We agree with your statement, October 2, 1996, letter, page 5 "... in an area that we (sic) describe as multi-geologically hazardous for which minimal investment seems more logical an alternative." Most particularly with regard to the millions of public dollars it would cost government agencies to provide adequate infrastructure to support the consequences of SSPP-71. Why is not the above comment germane to the question of future impacts to infrastructure needs?

Why do you continue to reprint self-serving recitations and distorted information on alternative solar energy? The importance of this alternative is paramount to the EIS. The community has communicated this to you hundreds of times and yet you continue to gloss over this major issue. For instance, according to Michael Potts, author, lecturer and solar entrepreneur, a 30 year-life of a PV system is the standard used by the industry. Costs for a 1,000 watt array is more accurately in the \$10,000-to-\$20,000 range. The community wants input from solar experts not merely Helco.

Why does HELCO use 500W array for average use when communicating with the U.S. Department of Energy and 1,000 watt array for this EIS? Why do you continue to avoid our questions regarding solar energy? Why do you continue to supply limited biased information exclusively by Helco and Helco supporters in this matter? This 1/4-century old alternative energy community is a rare opportunity to do a valid case study on alternative energy use. Why do you continue to ignore the wealth of information available to you by solar users in this community? The blatant bias here is shocking.

Your reply to our EISPN response that "Helco has complied with the provisions of PUC Rule 13 & 13S" is not true for the following reasons:

1. Helco's Response to Information Requests, to the Consumer Advocate, 6/94, states that "Helco requires that there are contracts signed for a minimum of 50 percent of the SSPP subscriber's share of the cost (or one-third of the total cost) prior to construction. . . As stated in the application, Helco expects to have approximately \$846,000 worth of contracts (70 percent of the customer advance) before construction begins."

What happened to this requirement? Who changed it? Under what authority? Helco has NEVER attained 50% of the SSPP subscriber's share of the total cost even at this late date. Why did Helco make the above quoted assurance to the Office of the Consumer Advocate and the PUC, then begin this project without meeting these requirements?

2. March 8, 1993, Helco sent out a solicitation letter to homeowners stating that with 312 subscribers the hookup cost would be \$3,292. (See Attachment #1, Helco solicitation letter, 3/8/93). October 6, 1993, Helco executed a promissory note with subscriber Frank Clare in the amount of \$2,538.00. (See Attachment #2, Frank

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Clare Subscriber Contract, 10/6/93). At that time Helco had far less than 312 subscribers. In the same contract it clearly states the cut off date for original subscribers is November 8, 1993. The contract was executed 19 days before the cut off date which dictated the number of original subscribers. Project cost divided by original subscribers determines pole hookup fee (plus any other special costs that may be incurred).

Why did Helco only charge subscriber Frank Clare \$2538.00, for hookup when they had to know that they would never have enough subscribers by November 8, to justify this low hookup fee? Why did Helco charge approximately 1/3 the shared cost instead of the mandated 2/3's? Why the large fluctuations in dollar amounts? Why did the pole hook up fee continue to get smaller? How many Original Subscribers were there? The F. Clare contract states that the hookup fee is \$2,820.00 "... so long as the minimum of 75% of lot owners sign this agreement. . . ." Helco never had anywhere near the 321 subscribers necessary to justify the pole hookup fee of \$2,820.00 thus, breaking another PUC regulation.

3. Alvin Urabi, SSPP project manager, asserted time and again that Helco would not go ahead with this project until the aforementioned requirement was met. Consequently, residents in the area were duped, believing the project COULD NOT go ahead without the required number of subscribers.

4. Rule 13-S mandates the subscriber share for pole hookup is 2/3's of the total subscriber share. Helco charged less than 1/3 of the subscriber share. (See Attachment #3, PUC letter, 3/16/95 to Friends of the Red Road.) Furthermore, the PUC acknowledges that eventually the rate payers will pay for the bulk of this project. According to our experience in the Third Circuit Court, the subscribers alone must pay for 2/3's of the project cost plus all additional (legal, environmental studies) costs. How can Helco be permitted to pass these extra costs onto the rate payers?

5. Rule 13S says that Helco can only install its project on land on which it owns or has legal permits and easements. Helco has already installed approximately one mile of poles and lines on state land without a permit or easement. The easement that Helco does not have diverges dramatically from the GTE easement.

6. Furthermore, Helco has been in violation of the SMA permit regulations for almost two years. They installed poles and lines on the SMA portion of the project area without an SMA permit.

7. The DEIS reports that Helco did not install any poles within the Shoreline Set Back Area. This is not true. Helco installed an electric pole on the Red Road, overlooking the beach at Kehena, 27 feet from the edge of the cliff, in the shoreline setback area. There is another electric pole in Kehena Beach on the makai side of Moana Kai Pali Street, east of the intersection at Kamakoa Street, that the ocean

spray hills. This pole is also within the Shoreline Set Back Area.
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How can you tell us that "Helco has complied with the provisions of PUC Rule 13 & 13S" in light of the above radical departures from the PUC regulations? By what authority did Helco change the mandated PUC regulations for each of the 6 violations listed above?

We have not received a response from OEQC, Gary Gill or DLNR, Mike Wilson. The issues brought forward to these agencies regarding their responsibility to the public are germane to the legality of this EIS. Your cooperation on this matter will be greatly appreciated.

The following are items in the draft EIS that need correction:

SECTION 2 - PROJECT DESCRIPTION 2.1.1 - Chronology of Community Consultation

The comments in this section exposes the preparer's extreme bias. The way this chronology is written, it appears that Helco was in continuous contact with residents. This is not true. Helco was in continuous contact with a handful of pro Helco residents, mainly from Kehena Beach. The vast majority of Seaview and Puna Palisades residents were excluded.

Late 1992 - "More than 180 returned signed contracts at the time." This statement is not true. How many contracts were signed by 1992? How many contracts, total, were signed before November 8, 1993?

The Helco and GTE meetings with property owners were held almost exclusively with pro-Helco supporters, i.e., the self-proclaimed Kehena Beach Home Owners Association dominated by Norman Oleson, Deputy Director of Planning, Hawaii County, Maya Domes, realtor and a handful of pro-Helco supporters. Certainly members of the Seaview community were never invited to these meetings.

1994 - Again all this activity was held almost exclusively in the Kehena subdivision for the benefit of pro-Helco supporters. Seaview homeowners were never consulted. Residents in Seaview were intimidated by tree cutting crews. Helco cut mature ohia trees to the ground that were 30 feet from the road where no property owners were present to defend their property.

1994-95 - Members of the Red Road initiated these public meetings. The vast majority of property owners and residents voiced opposition to the project. A few spoke in favor of the project.

With regard to your chronology of community consultation, please correct the DEIS to include the information above.

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2.2 - Need For EIS, 2.2.1 Summary of Documentation and Permits

The second sentence is a glaring half truth. This sentence should be corrected to read: Both the County Planning Department and the Department of Public Works informed Helco by letter dated January 19, 1995, that the utility company was exempt from complying from the SMA use permit and EA requirement for installation of poles in the County rights of way. These letters were hastily created as a result of "Friends" attorney demanding that Army Curtis, Helco, produce proof of exemptions under oath in court on the day previous. Neither Helco nor the County could produce a single document granting exempt status prior to January 19, 1995. The project was nearly completed by this date.

Please correct the DEIS to include the information above.

2.3 - Location

Phase 2 - Please produce this GTE Hawaiian Tel Agreement that you report will transfer GTE lines to new poles, original pole lines will be removed, within six months of project implementation according to an agreement with GTE, Helco and service area residents. What service area residents? Seaview residents know nothing about this agreement. If the lines are moved to Helco poles, what happens to the abandoned GTE poles? When and who removes abandoned GTE poles? All of this information is very confusing when GTE and PUC officials testified in court this summer that the poles will be replaced ONLY WHEN a GTE pole need replacing. Please show this information in your next draft.

2.5.2.1 - Shoreline Setback Requirements

Since waves are known to pound the Kehena Beach cliff at extreme high tides and storms, the shoreline set back area is 50 feet from the edge of this perpendicular cliff. There is one electric pole 27 feet from the edge of the cliff overlooking Kehena Beach, within the shoreline setback area. There is another electric pole installed on Moana Kai Pali Street, east of the intersection at Kamakoa Street, that is also within the Shoreline Set Back Area. This is another clear example of Helco going forward with the project without ANY permits. When will Helco be applying for the Special Shoreline Set Back permit?

2.6 - Project Features - Paragraph 3

In this paragraph the preparer does use the magic word "eventually" about removal of the GTE poles. Why does this DEIS mislead the reader into believing that unnecessary poles will be removed immediately in many other sections of the DEIS?

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two electric poles installed within the 50-foot Shoreline Set Back area. One pole is 27 feet from the perpendicular cliff overlooking Kehena Beach right above the beach where beach goes sit below. (See photographs attached.)

The community has repeatedly asked for a geologic hazards study for this project to determine the risks such as this to the unsuspecting beach visitors below.

3.1.2 Streams and Drainageways

The EIS continually infers that the use of batteries for solar PV is a threat to the environment. We all use car batteries. Most solar users use car batteries for electrical storage. All unusable batteries are generally turned in just like car batteries. The color photo, page 3-6, shows some very unusual high tech batteries probably from an AEC installation. Who took this photograph? Who submitted this photograph to you? We ask with all due respect because the only one in the area known to have used such batteries is our very own Kehena resident, Norman Oleson, Deputy Director of Planning.

In the extreme case of disposing of batteries not purchased locally it does seem logical that residents might leave their discarded batteries at the transfer station believing that the county would dispose of them properly. The preparer seems to be desperately grasping at straws to show independent solar users as more environmentally polluting than Helco.

Using Helco's logic, disposing of batteries and occasional generator use are the only great pollution hazard. Is the threat of environmental pollution by battery disposal exclusive to solar use or does it include car batteries? Would not the secondary impact of increased population density mean increased car batteries? Would not the increased amount of pollution from the increased amount of car batteries due to the project far exceed the amount of solar batteries and generators used if the project were not implemented?

Please show, with sources, the full extent of pollution to the environment created by Helco in the generation of electricity for this 12.47/7.2 kV overhead distribution system. This would include but not be limited to accessory use such as chemical pole treatment, shipping and production of all materials, fuel use to and from the project (meter readers, installation, line maintenance, etc.) plus fossil fuel burned in the production of electricity for the project on a daily basis.

3.1.3 Climate

Tropical Cyclones

The preparer again has deliberately minimized the impact of tropical storms on the project area. In the past five years, world wide climate is changing radically.

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Section 3 - DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1 - Physical Characteristics, 3.1.1 Geologic Characteristics

The DEIS spins a narrative that deliberately minimizes geologic hazards common to the project area. The truth of the matter is that this community is in the most geologically hazardous zone on the most geologically active place on the planet.

Harry Kim, Administrator, Hawaii Civil Defense Agency, states "The project is in the east rift zone... within the lava flow hazard, Zones 1&2. This, as defined is the greatest risk area and... most of the proposed project is located in areas effected by the 1955 east rift zone eruption."

Mr. Kim also states that tropical cyclone hazards are common in the project area since tropical cyclones approach from an easterly direction. "Most probable impact on the Helco (sic) project would be the wires and poles, either directly by the winds or trees affected by strong winds" and "Earthquakes should be listed as a geologic hazard for the area." (See Attachment #4, Harry Kim, Civil Defense Agency, 9/4/96)

3.1.1.1 Lava Flow Hazard Zone

The DEIS narrative again minimizes the lava flow hazard zone to the community by deliberately confusing the reader with a lot of information not pertinent to the project area.

The project is in the east rift zone, in the greatest risk area. The present eruption, continuous since 1983, is in the east rift zone. The situation is further compromised by our location on the coastline because the lava always flows to the sea. Why have all of Helco's documents, from the original PUC application to this DEIS, failed to clearly state the many geologic hazards? Why have all of Helco's documents, from the original PUC application to this DEIS, failed to show the constant threat of lava inundation to the project?

3.1.1.2 Earthquake Hazard

Earthquake hazards are also minimized. The EIS does state that there is a higher risk for potential lava flows and seismic hazards near the Kilauea east rift zone. Why is the important fact the project is also in the east rift zone not made clear to the reader? (See Harry Kim's letter noted above).

3.1.1.3 Subsidence

Again, this hazard also is highly under rated. A lot in Kehena Beach Estates, has disappeared in the subdivision's history. It should also be noted that there are

Most particularly winds and storms. The poles and wires installed by Helco pose a serious threat to residents. Why have you not consulted with authorities such as the U.S. National Weather Service and Mauna Loa Observatory as to increased wind/tropical cyclone predictions for the next few decades?

Mr. Kim states that tropical cyclone hazards are common in the project area since tropical cyclones approach from an easterly direction. "Most probable impact on the Helco (sic) project would be the wires and poles, either directly by the winds or trees affected by strong winds" and "Earthquakes should be listed as a geologic hazard for the area." (See Harry Kim's letter noted above.) How much danger do the poles and wires pose to residents life and property in extreme wind conditions?

3.1.4 Air Quality

The last paragraph of this section, says that besides the volcano, automobile exhaust and generators are the sources of air pollution. You conclude that the proposed electrification project would reduce a major source of pollution created from generator use. Since a secondary impact of this project is population density, why have you not noted the air pollution of thousands of more private vehicles, weed eaters, chain saws, lawn mowers, etc? Please furnish us with the data, including sources, of present pollution levels compared to possible pollution levels due to implementation of the project over the next 3, 5 and 10 year periods.

3.1.5 Noise Levels

This section, says that generators are the major source of noise pollution. You conclude that the proposed electrification project would reduce this source of noise pollution created from generator use.

The noise level readings you note are for 10 and 12 kw generators. What are you information sources? Why do you only accept pro-Helco input? We do not know anyone, outside of Kalani Honua conference center, who has a generator in this size range. The generator sizes used are in the range of 1-to-4 kw. Why did you use such irrelevant data? Please correct your statements.

Since a secondary impact of this project is population density, why have you not noted the noise pollution of thousands of more private vehicles, weed eaters, chain saws, lawn mowers, televisions, stereo systems, etc? Please furnish us with the data, including sources, of present noise levels compared to possible noise levels (as noted above) due to implementation of the project over the next 3, 5 and 10 year periods.

3.2 Biological Characteristics

3.2.1 Flora

Since the construction of most of this project is complete, a self serving recitation of possible impacts to the flora from studies completed in early April, 1995, does not serve the purpose of this EIS. We have informed you that there has been serious repercussions along county easements in the Seaview subdivision. Again, we ask for a legitimate survey of this weed invasion to the ohia/lauhala forested kipuka by a qualified biologist.

3.2.2 Fauna

The rehashed studies that have been presented time and again are not acceptable. You only present biased information from Helco-hired biologists. You say "The bat and hawk are wide ranging species for which the project poses negligible risk." Where did you get this information for the Hawaiian hoary bat? How did you reach this scientific conclusion? What studies were used? This answer is surprising because in all my conversations the past 2 years with U.S. Fish & Wildlife and National Biological Services, the staff has repeatedly stated that little or no information is available and that EIS studies would be most desirable for information gathering.

It is our understanding that the intention of an EIS is NOT to produce an FEA edit. Furthermore, we have submitted letters from U.S. NBS, F&W and faunal experts clearly stating some of the inadequacies upon which the FEA study relies.

How can we be assured a complete faunal study will be undertaken over the full period of one year to show the various creatures that inhabit this area on a full time or migratory basis? We want a complete study undertaken in the best interests of ALL of the endangered species known to inhabit this area and the CUMULATIVE and SECONDARY IMPACTS of the project on the whole mini biosphere of this unique coastal settlement zone.

Your reliance on a two- and three-day bird study by Helco hired biologists is not acceptable. You have not responded to the many questions we have raised on this very important subject. We have therefore solicited responses to this DEIS from Dr. David Ainley, noted avian biologist and world expert on the 'A'o bird and Dr. Nadav Nur, noted seabird biologist and quantitative and population ecologist at Point Reyes' Observatory. We wish these reports to become incorporated into the DEIS.

Dr. Ainley is currently in the field, in the Antarctic. We apologize for the informality of this report, but that it was accomplished at all while sitting on the

Colette Sakoda
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polar ice cap is a modern miracle. Following Dr. Ainley's response to the DEIS is his report to Liam Sherlock, 10/8/96.

10 December 1996

Athena:

I hope my comments are helpful.

I'm sitting here on the ground at Cape Royds, in full view of penguins. The only palm trees around are fossilized!

David Ainley

"Report on Mortality Risk Newell's Shearwaters at Helco Powerline Project, Puna, Hawaii", Robert H. Day, PH. D., ABR Inc., 5 September, 1996.

Page 1: NW END OF POWERLINE

Paragraph 1

1) The fact that Pu'u Kuliu is being mined does not exonerate Helco. It only substantiates that ESA is being violated by another group as well. USFWS should be more than interested.

Paragraph 3

2) According to studies on Kauai (Ainley, Podolsky, Nur et al.), line height is of secondary importance to depth of line array and number of lines. Ask Nadav to elaborate.

Page 2: SW RADAR/NIGHT-VISION SITE

Paragraph 1

3) Yes, development proceeds does it not? And in the absence of EIS's to address cumulative impacts to one of the last remaining breeding areas for A'o on Hawaii'i.

4) In all this description, Day et al. should describe where the street lights are going to be located, too.

Page 3: SW RADAR/NIGHT-VISION SITE

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Paragraph 1 (1)(2)(3)

5) No mention made of how rain might effect A'o. Mr. Nixon could not remember things either.

Page 3: EFFECTS OF WINDS ON FLIGHT SPEEDS OF BIRDS & FLIGHT SPEED ON BIRDS

6) Unsubstantiated opinion. ABR has hundreds of hours of radar sampling on Kauai and Hawaii'i. Supposedly they also have wind data (or perhaps could get these from various sources). Helco should pay ABR to analyze these data. Let's talk about facts. Day's/Cooper's "experience" is not good enough! See Spear and Ainley paper which will appear in Ibis (early 1997) on flight speeds of seabirds relative to wind speed.

Page 4: PHYSIOGRAPHIC EFFECTS

7) Mr. Day, what definition of "frequently used routes to and from the sea" do wish to use? We will agree to use the same term. On Kauai (Day/Cooper report) you said there were no flyways where physiography was dramatic; on Hawaii'i you say there are no flyways where physiography is not dramatic. 1) Your data on both islands show consistently used flight directions at particular sites (What do you want to call these?). 2) Your data and unpublished (and secluded) data of Mr. David on Hawaii'i show sites where you saw virtually NO radar targets = A'o. 3) Airplanes do not fly in fog/clouds without radar. What resources do you suppose A'o use in these conditions? Do you suppose that they may fly below (or above) cloud level to find their colonies? If you had to fly low, what objects would you hope would not be in your path? Might you use river valleys OR other terrain with no or low obstructions?

Page 5: PROBABILITY OF COLLISION, opening paragraph

8) Day and Cooper data do not support this stuff. Please see my comments transmitted to Liam in my last "affidavit". (See attachment, Ainley fax, 10/8/96.)

Page 6: PROBABILITY OF COLLISION, (6)

9) "The are so few birds that the number of bird crossing this

within very short (30 minute?) period each eve and morn? Use of word "relatively" in this paragraph is obfuscatory.

3.2.2.3 Study Findings, Page 3-15

Paragraph 2
15) With the \$300,000+ now spent on radar sampling on Kauai and Hawai'i, why are we still talking about "probably" in reference to "consistently used directions of flight"?

3.2.2.3 Study Findings, Pages 3-16

Paragraph 1
16) These data indicate that a very large proportion of "tubenoses" would fly under the proposed powerline (ask Nadav to explain).

3.2.2.4 Clarification of Rained-out Sampling Period Page 3-17,

Paragraph 1, #1
17) "The lost session at 19:35-20:00. . . ." This period is during the very peak of A'o movement (see Day and Cooper report for Kauai)! I believe the same can be said of the periods listed on next page.

Page 3-19

Paragraph 2
18) "This correction was not done because, from experience. . . ." What experience? Elaborate with data.

4.3 Fauna

Page 4-4, Opening paragraph

19) Horse pucky. We are not talking about the world population of A'o, we are talking about the vulnerable, small colonies trying to maintain a foothold in Puna in the face of many cumulative impacts especially powerlines, mining, and the lights that soon will follow development.

Page 4-5

Paragraph 3
20) Who will pay for these programs? Orange marker balls were

powerline. . . ." Does not matter. We are not talking jellybeans here. An endangered species is endangered because there are few - by definition.

Paragraph 17

10) Day and Cooper did not sample farther inland to any appreciable degree.

Paragraph 18

11) "We believe that most of these tubenoses on Hawaii are nesting in the Kohala Mountains on NW Hawaii. . . ." Big deal; see comment number nine. Are we now talking "tubenoses"? What about Hawaiian Petrels? Can you distinguish on radar?

DRAFT ENVIRONMENTAL IMPACT STATEMENT

For
SPP UNIT - 71 12.47/2KV OVERHEAD
DISTRIBUTION SYSTEM PROJECT

Section 3
DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.2.2 Fauna, Page 3-11

Paragraph 1
12) ". . . A'o (Puffinus puffinus newelli). . . ." Heloo should ask it's experts about which species we are talking about. This scientific name is archaic.

Paragraph 2

13) Kana Productions also radar sampled inland of Puna and found no "tubenoses". Why are these data not reported? [M. Reynolds told me about this sampling.]

3.2.2.3 Study Findings, Page 3-14

Paragraph 1

14) ". . . are reported in terms of frequency of movement per day. . . ." This was not a four day survey. It was a survey of each 12 hours minus whatever hours were deleted due to rain. Important because Day and Cooper data show vast majority of A'o movement



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Telfer et al. (1987, Wildl. Soc. Bull.) report that 1% of Newell's Shearwaters (fledglings) found on the ground on Kauai during the years 1978-1985 were found at Kekaha. This translates to 12 to 18 birds per year (with more time I could dig out the actual numbers). We know that an appreciable number of these birds are dead (e.g. as high as 10% from Telfer's analysis) and without the SOS program, most would die. It is also known that 1 - 2 adults are found dead each year at Kekaha.

Therefore, Day's definition of eternity requires scrutiny. And again, the death rates have to be put into context with the small population size in Puna. Question is what to do to ensure continued existence of this population. Putting up powerlines is not the answer.
David Ainley

Dr. Nadav Nur, noted seabird biologist and quantitative and population ecologist at Point Reyes' Observatory, also has been sent a copy of the DEIS. His report follows:

To: Athena Peanut
From: Nadav Nur

Dear Athena,

Sorry it took so long, but my plans changed on Sunday. So, here are my comments. I have made reference, in my comments, to David's 2nd comment (regarding birds flying at 15 or below), but I don't have anything to say about depth of line array and number of lines vs. line height, except to say that depth of line array and number of lines are indeed important, and likely more important than line height in exploring risk of collision.

Nadav

Comments on Environmental Impact Statement for
SSPP Unit - 71 12-47/7.2KV Overhead, by Nadav Nur, Ph.D.

The authors of the EIS (and myself as Dr. David Ainley) agree that there are small numbers of Newell's shearwaters to be found in the Puna area. Given such small numbers, even one or two additional deaths per year of a subadult or adult Newell's shearwater is a level of mortality that the local population is unlikely to be able to tolerate. In other words, that level of mortality is likely to contribute to the eventual extinction of the Puna population. The authors of the EIS have not

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not shown to be effective. Do you want one in your front yard?

Page 4-6

Paragraph 2

21) See my last statement to Liam attached.

Page 4-6

Paragraph 3

22) "... certain physiographic features contribute to Shearwater mortality...." This is not the truth. Day and Cooper working for another utility in a project where the use of a river valley by A'o was the bone of contention, concluded the exact opposite: Valleys do not concentrate A'o flight!

Page 4-5

Paragraph 3

23) Very strange that USFWS has not mentioned the effective loss of breeding habitat for A'o in Puna as a result of development.
David Ainley

TO: Liam Sherlock
FROM: David Ainley

8 October 1996

I've finally gotten around to thinking of Bob Day's revisionist ecology.

He says the death of a Newell's Shearwater due to collision with powerlines at the Puna Project is highly unlikely, unless one considers a temperate scale extending out to eternity.

This is not supported by the available data. Reynolds et al (1997, in press, Pacific Science; Day & Cooper also authors) report radar detection rates of 0.1, 0.1 and 0.9 targets (=shearwaters) per minute in the Puna District (study far more comprehensive, yet still inadequate, compared to the Cooper and David study). The sites are Kahaki, Kapoho and Pu'ukena Crater. This translates to 6, 6 and 54 birds per hour. Day and Cooper (1995, Condor 97; 1019) report a detection rate at Kekaha, Kauai, of 34 birds per hour. Thus, detection rates between these two area are the same. (Detection rates in the Cooper/David study at Puna were comparable to Pu'ukena, actually.)

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demonstrated that such mortality is unlikely to occur. As they themselves admit, "at least two dead shearwaters have been found beneath powerlines in the Puna district." They maintain that these birds were not necessarily killed by collision with power lines; that may be the case, but with power lines implicated, and cannot be ruled out.

My own estimate is that the project will result in several additional deaths of Newell's shearwaters per year; I reached this conclusion on the basis of the findings of Reynolds et al. (1991), who found two dead birds, while surveying during part of the breeding season. The authors of the EIS imply that there are few Newell's shearwater present in the Puna district. Let us suppose there are only 45 individuals (adults and subadults) present at shearwater colonies in the Puna district; then an additional mortality of one individual per year means an additional mortality of 2.2%. As I have previously stated "Even additional mortality of just 2.2% can have strong, substantial, and detrimental impact on the Puna shearwater population."

The authors of the EIS argue that collision rates would not likely be high as a result of the project, but a bird only has to collide once to be dead. And if this happens once or twice a year, such mortality will have a substantial, detrimental impact.

The EIS authors make comparisons with other studies in order to support their contention of low collision rates, but these arguments are not very convincing. For example, they state that at two sites on Kauai, birds flew during the morning at 43 + 28 (mean + SD) m above ground level (agl) at Wailua and at 37 + 18 m agl at Kealia. They then conclude (page 3-16), "these data suggest that the majority of seabirds in the Kehena study area usually fly above the proposed powerline height (~15m), especially during the evening hours." First of all, what good is it to avoid powerlines during the evening if they don't avoid them in the morning! They only need to die once. Secondly, we are not concerned with the usual behavior, but with the less-than-usual behavior. We don't know what the exact distribution of flight heights are, but the data cited above indicated substantial variability in heights. If Puna shearwaters did indeed fly at a height of 43 + 28 m, and if flight height is normally-distributed (a reasonable assumption in the absence of other data), then there is a 15% chance that a shearwater would fly at 15 m or less. And that refers only to a daily risk, i.e., on any one flight in the morning, a shearwater would have a 15% probability of flying at 15 m or below. Even if the risk is 10% that is a serious problem. If we then compute a yearly risk of flying at 15 m or below, the risk would be >99% for a breeding individual to fly at a height of 15 m or below, at least once during a breeding season.

The EIS authors refer to comparative data from Kauai to support their argument, but those data are not compelling. They state that data from Kauai indicates a low risk of collisions where powerline height is 15 m or less (p.4-7). In fact is, in the study by Ainley et al. (1995), powerline height was in almost every case 20 m or above. Therefore, it is not possible to draw conclusions about the risk posed by

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powerline of 15 m height from the Kauai study they cite. As pointed out above, the flight height data indicates that there is a substantial risk posed by powerlines of ~15 m height.

The EIS also argues that tall vegetation can reduce the risk of powerline collision. Reduce the risk, yes, but not eliminate it. In the study by Ainley et al. (1995), two out of 41 cases of birds apparently dying from powerline collisions (=5%) were cases where vegetation height equaled powerline height. Thus tall vegetation does not guarantee the absence of collisions.

Nadav Nur Ph.D.

References:

Ainley, D.G., Podolsky, R., De Forest, L., Spencer, G., and Nur, N. 1995. Kauai Endangered Seabird Study, Vol. 2: The ecology of Newell's Shearwater and Dark-rumped Petrel on Kauai, Hawaii. Electric Power Research Institute, Palo Alto, CA, TR-105847-V2.

Reynolds, M., Ritchotte, G., Viggiano, A., Dwyer, J., Nielsen, B. and Jacobi, J. 1994. Surveys of the distribution of seabirds found in the vicinity of proposed geothermal project subzones in the district of Puna, Hawaii. USFWS Report, Hawaii National Park.

We are attaching a sworn affidavit of Nadav Nur, Ph.D., 6/15/96, a 5-page report on the long term effect of power-line-induced mortality on Newell's Shearwater populations for inclusion in the EIS faunal studies. (See Attachment #5, Affidavit of Nadav Nur, Ph.D., 6/15/96.)

3.4 Land Use/Land Ownership

Your last sentence states that with the exception that the corridor (Phase 1, state land) has been disturbed by GTE, the terrain remains in its natural state. . . . This is not true. The land was seriously disturbed by Helco in April/May, 1996. Again, we ask this disturbance be noted and surveyed by responsible agents.

3.4.1 DLNR Site for Relocation of Victims of Kalapana Lava Flow

Status of Kikala-Keokea Subdivision (DLNR)

Your narrative describing the unique situation creating the Kikala-Keokea Hawaiian village omits the original intention of the people asking for the new village. When the Hawaiians first asked the Kalapana Puna District for a village, they were told that the land was not available for a village. . . .

to ask the state for land on which to relocate, they specifically asked that the new Hawaiian village homes be built on skids so that houses could be easily moved before the next lava inundation. They also specifically asked for water catchment and solar electricity. (See Attachment #6, Uncle Robert Keliioomalu letter to the County Planning Department, 6/25/95.)

The original intention of the traditional Hawaiian community reflects their wisdom and their love of the land. It appears very strange that the state which constantly pleads "no money" for essential services and workers' salaries is now ready to put out 2 million dollars for a water pipeline. Concrete catchment tanks costing \$10,000 each for 60 homes would be more environmentally correct, less expensive and what the people originally asked for.

You state that "the existing single phased configuration of the pole lines located on highway 137 may have to be upgraded" to accommodate extending SSPT-71. Just exactly what does this imply? Four lines to how many lines? How many cross arms? Will this upgrade also affect Seaview and on Phase 1 (state land)?

There is also some obscure history about a Kalapana to Opihikao Association (KOA), Maya Dornes, President and realtor, promoting electrification in the late 80's and early 90's. There is also at this moment an electric pole installed on a 6-home subdivision (permits pending), TMK 1-3-2-10 in Opihikao. "Friends" has stated many times during this environmental review process that it is obvious that Helco is planning to expand this line in either direction past the project area. Army Curtis, denied this in court. The preparers have ignored our repeated questions on the subject.

The truth now, however, seems to be emerging that our beautiful, Red Road is about to become the monstrosity that we see on Mapuana Avenue in Seaview. (See attached photographs.) Even worse, this may be upgraded to how many lines and cross arms. The Red Road is the most beautiful, pristine coastal road in the nation. The community and all the lovers of the Red Road will do everything in their power to preserve the beauty of this last unspoiled, national coastal treasure.

From the very beginning, we have asked that the project in its entirety be clearly noted in the environmental assessment, Kalapana to Opihikao. State environmental law requires that the project not be segmented. Once again, Helco is segmenting the project. Obviously, this draft EIS does not address the entire project and needs to be resubmitted in its entirety.

3.5 Infrastructure

3.5.1 Roads

This section relies on a Department of Transportation 1986 report. Does the

preparer expect the community to believe there is no update to this report in view of the Kalapana devastation of 1990? Why does the DEIS make no mention that the lower portion of highway 130 in Kalapana is in the longest continuous disaster zone in the nation? If the Red Road is not being actively considered for widening because of coastal hazards, why is Helco so determined to invest ratepayers money in capital investments? Why is Helco so determined to saddle government agencies with millions of public dollars for supporting infrastructure for this project?

3.5.2 Electrical and Communication

Please document your claim that Helco proposes to replace GTE poles with Helco poles in Phase 1 and Phase 2. When will the poles be removed? By whom? How will Helco deal with the two divergences from the GTE easement on Phase 1?

How does Helco justify this line extension plus a "possible upgrade" with Helco's critical need for generating power that has been reported all year in the newspapers? Does it not make more sense for Helco to offer subscribers the mobile PV solar units they will be marketing in 1997 for customers in remote locations? Helco would be getting energy credits for solar installation as opposed to energy deficits for grid installation.

3.6 Visual Character

Paragraph 1, third line should be corrected to read "very few ohia trees are as tall as the existing Helco poles in Phase 1. There are very few trees along the line extensions. The lines stand out very clearly all the way up the mountain across the forest reserve to Highway 130."

Paragraph 2 should be corrected to read "Views towards the ocean from street level within Kalapana Seaview subdivision are that of Helco's electric poles and wires for the most part. The existing GTE telephone pole lines are dwarfed by the Helco lines. The ocean panorama is dominated by hundreds of poles and wires." (See Attachment #7, Photographs.)

The Third Circuit Court has already ruled that the electric lines can in no way be construed to be equal in size, density, number or purpose to telephone company lines. How can RMTTC state telephone poles and electric poles have equal impact in the light of this court ruling? How can RMTTC justify that the mere presence of GTE poles validates the presence of Helco poles when the court has ruled otherwise?

We would like to make a general commentary here on all photos included in this DEIS which vividly illustrate the preparers' bias in preparing the document. 1) Who took these photos? 2) Who supplied them to you? 3) How can it be that not a single photograph shows a hint of the enormous ocean view? 4) "Friends" has

3.7.6 Public Health and Safety Concerns

The serious sanitation and public health episodes reported on Kehena Beach only illustrate the county's financial inability to find the money to install public bathrooms.

The following paragraphs on concerning lack of police and emergency services only illustrate the county's inability to hire more personnel.

Please furnish the data supporting the implication made that the threat of fire will be reduced by an overhead electrical system. We have never heard of "two structural fires... because of fires due to generators". Where were the houses that were burned located? When? Furthermore, the man that got burned while filling a generator was drunk. People with Helco power do not use candles or generators? Why does Helco ask people to be prepared for blackouts with candles and flashlights?

Please furnish data on fires in Helco-served areas by cause: candles, cooking, wiring, spontaneous combustion, etc. versus data on fires in households with alternative energy.

3.7.7 Other Puna Lifestyle Descriptions

Once again, the DEIS uses generalized, self-serving quotations from the Puna Community Development Plan for the entire district rather than the coastal area with which we are concerned. The PCDP states the County General Plan: Energy goals are 1) Surviving towards energy self-sufficiency for Hawaii County and 2) Establish the Big Island as a demonstration community for the development and use of natural energy resources. The PCDP also notes the expense to maintain utility grids being extended because of Puna's distances, etc. Many Puna residents has expressed a desire for off the grid neighborhoods. The report warns that "Time is of the essence if this lifestyle choice is to be accommodated."

The EIS needs to conduct a study of the existing alternative energy community in place for 1/4-century. This is a rare opportunity to collect valuable data, most particularly with regard to the economy of alternative energy lifestyles, minimal demands on government services and environmental impacts.

SECTION 4 - PROBABLE IMPACTS AND MITIGATION MEASURES

4.0 Overview

The first sentence "is expected to result in minimal adverse impact on the existing environment because of...GTE communication line" has been addressed in at least three sections previously. Helco neglects to mention the 200 to 300 trees that

submitted dozens of photographs. 5) Why have you not reproduced any of our photographs?

We wish to see our photographs published in your next draft EIS. (See Attachment #7, Photographs.)

Page 3-29, first sentence should be corrected to read "The project IS HAVING SIGNIFICANT impact on views in and from Seaview..." (See attached photos noted above.)

3.7 Socioeconomic Characteristics 3.7.1 Overviews

This section reports statistics for all of Puna. The district of Puna is very large, larger than any other island in the state and comprises three distinct bio-regions. The data offered has little to do with the project area.

The project area in the coastal region of lower Puna is distinct from the entire district. This area is best described as a coastal zone settlement area with marginal agriculture. This is the archeological description of the historic settlement, but it is also the best description of the current population and culture.

Page 3-31, the last sentence should be corrected to read "Major infrastructure will generate population growth and development in Puna."

3.7.4 Income

Again, the data does not apply to the project area which is quite distinct from Puna as a whole.

3.7.5.1 Tourism

Hawaii's claim to fame is the natural beauty of the land and her extraordinary geological features. This dramatic beauty has always been the economic base of Hawaii's economy. The Red Road is the last truly pristine coastal road in the nation, the lei of Puna. Eco-tourism is the hottest item on the eco-tourist's itinerary.

The PCDP states that "Puna is in a unique position to market its eco-tourism destinations because of its pristine area. Puna is part of the United Nation's designated International Biosphere Preserve, of which Hawaii Volcanoes National Park is the core. Puna's coastal areas are among the most unspoiled in Hawaii..."

What Helco has in store for the Red Road is not going to attract tourist for certain. Will tourists travel thousands of miles to view 1930's railroad-style electric poles?

will be cut down in the Kehena Beach subdivision. This is not a major impact? Helco neglects to state that the project has already seriously impacted the area. (See photos attachment.) The statement below once again documents the untruth of Helco's claim that the existence of telephone poles validates the existence of electric poles. Now we also have to consider another impact factor of "possible upgrade" of current Helco lines without even knowing what this implies.

The Third Circuit Court has already ruled that the electric lines can in no way be construed to be equal in size, density, number or purpose to telephone company lines. How can RMTC presume telephone poles and electric poles have equal status and impact in the light of this court ruling? How can RMTC justify that the mere presence of GTE poles validates the presence of Helco poles when the court has ruled otherwise?

The first paragraph also states that the view impact will be minimized in time with maturation of vegetation. Vegetation grows very slowly on recent lava flows. This fact is further complicated by the harsh conditions of no soil and constant drying winds. "Minimized in time?" How much time? Forty to fifty years? "Removal of telephone pole lines?" Are you taking down the telephone lines or the telephone poles? Who is taking what down when?

Why will choosing Helco as an electricity provider become a positive long term impact? Why could not choosing Helco as a electricity provider of mobile solar PV units become a positive long term impact? Helco is in the solar business now. Why does this project have to be an overhead line extension?

4.1 Geologic Hazards

Geologic hazards are a constant condition in the project area. That the poles and lines present a threat to residents in times of emergency has not been addressed by Helco. Capital investment of ratepayers' money in a multi-geologically hazardous area is financial suicide and has not been addressed by Helco. That the capital investment of taxpayers' money to provide the necessary infrastructure that will be a direct result of the population density due to an overhead electric extension in a multi-geologically hazardous area is financial suicide has not been addressed by Helco. An evacuation plan prepared and maintained by the county will not overcome the project's geography. The county has never created an evacuation plan for geothermal disasters because the county cannot change geography.

The best mitigation for this project would be for Helco to offer their new mobile PV solar units to their subscribers. The mobile units for remote locations would replace the poles and lines. Mobile units could be evacuated when lava inundation threatens thereby saving capital investment. The population density that follows overhead line extensions would be greatly reduced. The reduction in population density would relieve the county, state and federal governments of

heavy supporting infrastructure demands. It has been noted that the state and county have been unable to provide basic services to this community in the past. How will they be able to do it in the future?

4.2 Flora

As stated in Section 3, Description of Affected Environment, Seaview has been very impacted since the project was constructed. Phase 1 also has been impacted. The preparer ignores this important information offered by the community time and again. How will Kehena subdivision withstand the impact of wholesale tree cutting that will happen if this project goes forward?

The mitigation to the flora impacts that have not occurred is to NOT cut the trees in Kehena and to offer subscribers the mobile PV solar units. For Helco to state that a resident reported it is common to have native kukui trees cut down by owners because of solar collection needs is another example of the biased pro-Helco information that you consistently report. Whom are you quoting? How about all the ohia and lauhala trees cut down by Helco wholesale in Seaview in 1994?

4.3 Fauna

You have only considered Helco-hired biologists' findings. You have not considered the findings of world 'A'o expert Dr. David Ainley and Dr. Nadav Nur. Their findings are an opposition to those reported in the DEIS.

The perfect mitigation for this project is for Helco to offer their new mobile PV solar units to their subscribers. The mobile units for remote locations would replace the poles and lines. This is especially important now that we have been put on notice by Helco that there is a very good possibility that the project lines may need to be "upgraded." None of the faunal studies have taken this factor into consideration therefore your faunal studies are incomplete as well as inadequate. This is why state environmental law does not permit segmenting of projects reported in the OEQC bulletin.

4.4 Air Quality

The DEIS states that the project may result in a positive impact as the use of fossil fuel operated generators will decline. The DEIS has not provided data on the decline of air quality to due to the project generated population density.

Since you have not provided data on the secondary impact of air pollution due to increased population and the resultant thousands of more private vehicles, weed eaters, chain saws, lawn mowers, etc., your conclusions are not valid. Nor have you provided data on the pollution created by fossil fuel generation of

from pro-solar households. Again, we make the same offer that we will be glad to help conduct a study on generator use.

We again ask Helco a very important question that has never been answered. Show us where the policy of personal choice supersedes county, state or federal energy and environmental policies? Please provide supporting data? You constantly list this unsupported statement as a positive impact.

You state "a major advantage of Helco provided electricity is the lack of maintenance required of the users/customers." In cases of the many emergency situations common to this community at any given moment, overhead electrical service is certain to be abruptly suspended not to mention Helco's constant power outage blackouts. Solar is more dependable. This is why the new emergency warning system recently installed at Kalapana (right next to Helco lines) is solar powered.

Your dramatic statements about the ill and infirm members of the community being safer with Helco overhead line transmission service are not valid. What happens to them during Helco's frequent blackouts? Helco's new mobile remote PV solar units are designed to be maintenance free. Consult Steve Burns, Helco, for details.

4.10 Surrounding Land Uses

Once again, we are being forewarned of possible Helco lines marching down the Red Road. Does Helco assume that this coy announcement excuses them from stating the proposed project in its entirety? This EIS needs to show exactly what is in store for the Red Road and must accurately describe the "possible upgrades" to the 12.47/7.2 kV service line as well as all of the future and secondary impacts of the upgrades on the environment.

4.11 Visual Quality

Once again, Helco has completely glossed over the visual impacts to the project. (See Attachments #7, Photographs.) Please explain why PUC representative, Ronald Nakanishi, AT&T Design Engineer, Ronald Kwock and GTE Chief Engineer, Gordon Yadao have testified there is no provision for removing GTE poles or using Helco poles beyond the need to replace an individual GTE pole.

4.12 Social and Economic Impacts

The creation of direct jobs related to construction work and purchase of supplies is in the immediate profits category. The only other jobs mentioned are maintenance and yard work. This is not conducive to a healthy community.

electricity on a daily basis. Please furnish this data, include sources, pollution levels anticipated for generation of the project and all accessory services and pollution levels due to population density after implementation of the project over the next 3, 5 and 10 year periods.

4.5 Noise Levels

Since you have not provided data on the secondary impact of noise levels due to increased population and the resultant thousands of more private vehicles, weed eaters, chain saws, lawn mowers, etc. your conclusions are not valid. We ask you to furnish us with the data, including sources, of present noise levels compared to noise levels due to implementation of the project over the next 3, 5 and 10 year periods.

4.8 Traffic

4.8.1 Long Term Impacts

The preparer vastly underestimates the amount of cars per household in the project area. "Friends" will be very happy to undertake a survey of cars in the project area for the DEIS. Consequently, the number of cars estimated at build-out are vastly under estimated. At the same time it is noted that the prevailing sentiment of residents is NOT to widen the coastal highway as well as the county's reluctance to improve the road because of the coastal weather and geologic hazards.

This section is ludicrous in content. The ocean breezes will take care of the increased thousands of car emissions. Why do not the ocean breezes take care of the generator emissions?

4.9 Other

4.9.1 Public Health and Safety

Why will the implementation of this project induce the County to provide bathroom facilities for Kehena beach? Why will the implementation of the project induce the county to spend more money to hire police officers when the county has complained for years there are no funds?

Your statement that "Virtually all households must use fossil fuel generators at some periods..." is totally untrue. This writer has had solar generation for three years and has never used a generator. I do not own a generator. There are many other residents here that do not use generator backup. I know many solar households that also have generators and never use them as well as some that use them once or twice a year. The problem we see is that the preparer has solely relied on information from pro-Helco supporters and continues to ignore information

electricity on a daily basis. Please furnish this data, include sources, pollution levels anticipated for generation of the project and all accessory services and pollution levels due to population density after implementation of the project over the next 3, 5 and 10 year periods.

4.5 Noise Levels

Since you have not provided data on the secondary impact of noise levels due to increased population and the resultant thousands of more private vehicles, weed eaters, chain saws, lawn mowers, etc. your conclusions are not valid. We ask you to furnish us with the data, including sources, of present noise levels compared to noise levels due to implementation of the project over the next 3, 5 and 10 year periods.

4.8 Traffic

4.8.1 Long Term Impacts

The preparer vastly underestimates the amount of cars per household in the project area. "Friends" will be very happy to undertake a survey of cars in the project area for the DEIS. Consequently, the number of cars estimated at build-out are vastly under estimated. At the same time it is noted that the prevailing sentiment of residents is NOT to widen the coastal highway as well as the county's reluctance to improve the road because of the coastal weather and geologic hazards.

This section is ludicrous in content. The ocean breezes will take care of the increased thousands of car emissions. Why do not the ocean breezes take care of the generator emissions?

4.9 Other

4.9.1 Public Health and Safety

Why will the implementation of this project induce the County to provide bathroom facilities for Kehena beach? Why will the implementation of the project induce the county to spend more money to hire police officers when the county has complained for years there are no funds?

Your statement that "Virtually all households must use fossil fuel generators at some periods..." is totally untrue. This writer has had solar generation for three years and has never used a generator. I do not own a generator. There are many other residents here that do not use generator backup. I know many solar households that also have generators and never use them as well as some that use them once or twice a year. The problem we see is that the preparer has solely relied on information from pro-Helco supporters and continues to ignore information

from pro-solar households. Again, we make the same offer that we will be glad to help conduct a study on generator use.

We again ask Helco a very important question that has never been answered. Show us where the policy of personal choice supersedes county, state or federal energy and environmental policies? Please provide supporting data? You constantly list this unsupported statement as a positive impact.

You state "a major advantage of Helco provided electricity is the lack of maintenance required of the users/customers." In cases of the many emergency situations common to this community at any given moment, overhead electrical service is certain to be abruptly suspended not to mention Helco's constant power outage blackouts. Solar is more dependable. This is why the new emergency warning system recently installed at Kalapana (right next to Helco lines) is solar powered.

Your dramatic statements about the ill and infirm members of the community being safer with Helco overhead line transmission service are not valid. What happens to them during Helco's frequent blackouts? Helco's new mobile remote PV solar units are designed to be maintenance free. Consult Steve Burns, Helco, for details.

4.10 Surrounding Land Uses

Once again, we are being forewarned of possible Helco lines marching down the Red Road. Does Helco assume that this coy announcement excuses them from stating the proposed project in its entirety? This EIS needs to show exactly what is store for the Red Road and must accurately describe the "possible upgrades" to the 12.47/7.2 kV service line as well as all of the future and secondary impacts of the upgrades on the environment.

4.11 Visual Quality

Once again, Helco has completely glossed over the visual impacts to the project. (See Attachments #7, Photographs.) Please explain why PUC representative, Ronald Nakanishi, A&T Design Engineer, Ronald Kwock and GTE Chief Engineer, Gordan Yadao have testified there is no provision for removing GTE poles or using Helco poles beyond the need to replace an individual GTE pole.

4.12 Social and Economic Impacts

The creation of direct jobs related to construction work and purchase of supplies is in the immediate profits category. The only other jobs mentioned are maintenance and yard work. This is not conducive to a healthy community.

There are already well established environmentally low impact economic businesses such as Kalani Honua and bed & breakfast accommodations in the project area. These households here have their equipment and communication needs provided for by solar. What makes you think that desecration of the Red Road (like the Pahoa-Keaua Highway) will increase tourists' desire to visit the Red Road area?

We all have bought household appliances such as refrigerators, VCR's, and stereos and will continue to do so. Solar users buy and use such equipment.

4.13 Secondary Impacts

A significant number of people have already developed home businesses in the area. Again, you have not surveyed broadly enough and continue to rely on information from pro-Helco proponents only. Adequate telephone service has nothing to do with the Helco installation. GTE is hooked up to Helco at highway 130 for fiber optic installation. Why this service has been delayed for so long is a GTE issue, not a Helco issue. Telecommunications solely depends on GTE's moving forward with their own project. Fiber optic lines have already been installed but the service has not yet been offered.

Your discussion which describes the housing growth experienced by Hawaiian Paradise Park, Orchid Land Estates and Fern Acres does not really apply to the project area for the following reasons: 1) This is a coastal area, ocean front property is highly desirable real estate to many buyers and, 2) The lots are outrageously small and therefore extremely inexpensive.

If, as the discussion continues, to state that the slight increase in homes and population should not significantly aggravate requirements on public infrastructure, why did Helco grid out for service to the entire area? Why did not Helco just provide service to subscriber only?

SECTION 5 - RELATIONSHIP TO LAND USE PLANS, POLICIES AND CONTROLS

5.4 CZM Law

1. Maintenance of access to recreational resources

Kehena Beach is a public recreational resource within the SMA area, not the Phase 2 area as stated in the DEIS. The project will most definitely degrade and discourage public recreational activities, fishing and ocean viewing.

3. Identify valued scenic and open space resources; preserve, maintain shoreline open space and scenic resources.

Please correct the following information:

Kehena Beach Estates is the smallest subdivision, has the greatest number of resident pro-Helco subscribers and is least impacted by the project. The majority of the SMA is not located within Kehena Beach Estates. The majority of the SMA is located on the Red Road between Kalapana Seaview and Kehena Beach.

Kalapana Seaview Estates is the largest subdivision, with the smallest number of pro-Helco resident subscribers and is the most impacted by the project. (Please refer to attached photographs.) Ocean views from within the subdivision ARE NOT limited. The name is Seaview because of the sea view. I am attaching a petition with more than 100 names that say this statement is false. Where do you get your information? Why do you not accept any information from Friends of the Red Road? Ocean viewing is the rule in Seaview, you state the rare exception as the rule. Your bias is beyond belief. This information is FALSE. Check out the enclosed photographs.

How will a transfer of GTE lines to Helco poles reduce the lines? Who and when is removing the poles where? Answer with specific details please.

4. Protect coastal ecosystems

Why does Helco refuse to review the damage to the flora already caused by this after-the-fact project? Why does Helco refuse to acknowledge reports from renowned avian biologists, reprint inadequate studies and come up with the same erroneous conclusion of no adverse impacts? Any impact to a federally endangered species is significant. The smaller the colony the greater the impact. As Dr. Ainley states, we are talking endangered species not jelly beans!

This project as it stands has created enormous impacts. Now we learn of probable "upgrades" which means how many more wires? Have the biologists been informed of this development?

"Fishing will not be impeded by this project"

What is the scientific basis of this conclusion? What data is this conclusion are based on? Who conducted these studies?

A very specific response to the EISPN voicing concerns about impacts to coastal fishing was submitted by resident, D. Cariaga, who has just been appointed head of the Ecosystems and Habitat Committee of the Western Pacific Regional Fishery Management Council. The concerns listed were never included in the DEIS? Why? (See Attachment #8, D. Cariaga letter to RMTTC 8/27/96.)

5. Provide public or private facilities and improvements important to the State's economy in suitable locations

Where and what have you documented in Section 2 of this DEIS that shows this project is essential for electrical requirements when you have failed to show that solar electricity supplied by Helco is a viable alternative?

According to Helco's Hawaii Tribune-Herald, Lighttalk advertisement, 10/15/96, proclaiming "PV systems may currently be a more economical option than string powerlines for residents in area currently not served by the grid and thousands of rural residential lots currently without electricity distribution lines. Helco's remote PV program is exploring the potential of providing PV as an option to these residential customers." (See Attachment #9, Hawaii Tribune-Herald, Lighttalk, 10/15/96.)

6. Reduce hazard to life and property from coastal hazards

This project IS a menace to the safety of residents because of the constant coastal and geologic hazards. Your statement that the project area is not subject to storm waves or erosion is not true. The project area is also subject to lava inundation, subsidence, tsunami and earthquakes. The project area is also subject to tropical cyclones with the most probable impact on the project being the wires and poles either directly by the winds or by the trees affected by strong winds according to Harry Kim, Civil Defense Administrator.

5.5 Puna Community Development Plan

The PCDP specifically states that "There is a strong support for preservation of coastal open space." The preparer consistently quotes general statements covering an area larger than Oahu and refuses to quote specific references to the project area.

5.6 FEMA

Why is Helco refusing to consider the mobile PV solar units which will be marketed this year for installation in remote areas? This intelligent choice would meet the criteria of FEMA for Lava Hazard Zones 1 & 2 and provide service to subscribers upon request.

5.7 State Permits and Approvals & 5.8 County of Hawaii Permits

Please correct your statement to reflect the fact that the work has already been conducted and there are no permits whatsoever. You have also stated in this DEIS that you do not need a Shoreline Set Back Area permit when there are 2 electric poles within the 50 foot set back area.

SECTION 6 - ALTERNATIVES TO THE PROPOSED ACTION

6.0 Overview

Taking no action on this project should be considered the most feasible action. According to Helco's Hawaii Tribune-Herald, Lighttalk advertisement, 10/15/96, announcing "PV systems may currently be a more economical option than stringing powerlines for residents in area currently not served by the grid and thousands of rural residential lots currently without electricity distribution lines. Helco's remote PV program is exploring the potential of providing PV as an option to these residential customers." No where does Helco announce that there is an obligation to provide grid service to these remote residential customers.

Furthermore, the underground installation also dismissed out-of-hand may very well be cost effective if the expense of overhead line maintenance is taken into account. The preparer neglects to explore the modern technology that makes pinpointing breakdowns very easy in underground installations. Furthermore, Rule 13 specifically addresses SSPP underground installations.

6.1 No Action

Residential properties in the three subdivisions would not necessarily be "foregoing electricity from Helco as a power source" if Helco would offer their mobile solar PV units to subscribers. The way this project is being questionably financed now, rate and taxpayers are being burdened.

Helco has not shown that noise and air quality pollution is greater from solar sources than the pollution that will ensue from the creation of grid electricity. Helco has not offered any data or studies relating to pollution created in servicing or generation for this project. There is nothing said in this EIS about pollution studies of fossil fuel generation for the grid. The battery and generator usage issue is ridiculous. Pollution is the issue wherever it is created in the generation of power for this project. The proposition that solar energy is more environmentally polluting than fossil fuel generation is shameful!

There would be no long term adverse disadvantages to a "no action" scenario. The short term disadvantage of pole and wire removal far outweighs the long-term disadvantages of impacts to endangered species, the unique beauty of the Red Road, the thousands of acres of pristine lands surrounding the project area, coastal fishing, air quality, noise pollution, the safety of residents and long-term cumulative impacts.

6.2 Underground Cable

An underground installation would not be so cost prohibitive if the utility would properly take into account the enormous expense of grid maintenance and new modern technology for pinpointing trouble-shooting areas. The Underground Cable Project Cost Summary does not reflect these savings. Furthermore, on the

mainland utility lines are being placed under the roadways thus avoiding disturbance of vegetation.

Helco is well known for its attachment to outdated equipment and technologies.

6.2.1 Cost Comparison

In the underground scenario, Rule 13 does apply, particularly if there are "compelling reasons" to bury cable. This section is amazing. Helco misrepresents the pole hook up fee to minimize the cost to subscribers, and misrepresents the underground installation cost to maximize costs to subscribers.

Original Subscribers determine the pole fee, not interested customers. Particularly when Helco misled some residents into showing "interest" by letting them know it was the only way they would be notified of the project's progress. Helco never explained that this indication of "interest" would add documentation favoring implementation of the project.

The last sentence should be corrected to read "In conclusion, after reviewing distribution line alternatives, Helco determined that the conventional overhead line technology is the most profitable to the shareholders."

6.4 Solar Energy, Biomass and Wind Power 6.4.1 Solar

The community has asked for an independent study of solar power. This request has been ignored for two years. Helco continues to quote outdated data regarding costs of installation, performance and reliability of the solar alternative.

Helco has misrepresented costs by comparing the improper \$2,820 hookup fee to the total cost of a solar system. They neglect to add the "additional" costs that will be surely added to the hookup fee if this project goes forward plus the eternal monthly electric bills for grid service. They neglect to state that the monthly rates are expected to double over the next few years. They neglect to make it clear that once installed, solar energy is free, renewable, environmentally sustainable with very few additional costs over the 30-year life period.

Most importantly, Helco neglects to mention in this DEIS that Helco's solar PV program is nationally recognized. According to Helco's Hawaii Tribune-Herald, Lighttalk advertisement, 10/15/96, "PV systems may currently be a more economical option than string powerlines for residents in area currently not served by the grid and thousands of rural residential lots currently without electricity

distribution lines. Helco's remote PV program is exploring the potential of providing PV as an option to these residential customers."

SECTION 8 - UNRESOLVED ISSUES

Social Equity

When the needs of the community at large require a smaller group within that community to forego the "option of choices of residential energy systems", the question of social equity arises as well as environmental, economic and energy policy equity. Since the inception of this project, the overwhelming opposition to this project has been voiced by the community at large. This is clearly illustrated by the response to the EISPN of more than 50 letters published critical of the project and the one pro-Helco letter from H.O.P.E. with signatures from 13 resident households.

The opposition to this project has culminated in this court-ordered draft EIS after two years of community-supported legal proceedings. Amazingly, the Helco consultant still refuses to acknowledge the lack of support for the project by the majority of residents, property owners and lovers of the Red Road.

According to the stated objectives in this section of unresolved issues, the objective of the project is "and will continue to be one of expanding the choices of residential energy systems." According to HAR, Title 11, Subchapter 7, 11-200-14, the objective of "the EIS process shall involve at a minimum: identifying environmental concerns, obtaining various relevant data, conducting necessary studies, receiving public and agency input, evaluating alternatives, and proposing measures for avoiding, minimizing, rectifying or reducing adverse impacts." It would seem that the consultant has a very different agenda than the mandated EIS objectives.

The most disappointing aspect of this draft is the consultants' blatant bias. It is obvious to us that very little input was accepted from Friends of the Red Road and other critics of the project. Direct quotes are only taken from the small number of pro-Helco supporters. Most of the anecdotal data is obviously taken also from pro-Helco supporters. Exceptions to the rule are baldly stated as the rule rather than the exception; e.g., Viewplains.

The first five pages of this letter deals with our answers to the EISPN that were never answered. Why were not these concerns part of the DEIS? Will the consultant continue to ignore the concerns of the community in this EIS?

Colette Sakoda
12/23/96, DEIS
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We pray that Helco will follow the letter and sentiment of the law of this EIS process. Thank you for this opportunity to make those concerns known to you.

At one with the Earth,

Athena Peanut

Athena Peanut, President
Friends of the Red Road

cc: Hon. Patsy T. Mink
Virginia Goldstein, County of Hawaii, Planning Department
Gary Gill, Director, OEQC
Mike Wilson, DLNR, Land Management
Clyde Nagata, Helco, Hilo

Attachment # 1, Helco solicitation letter, 3/8/93
#2, Frank Clare Subscriber Contract, 10/6/93
#3, PUC letter, 3/16/95 to Friends of the Red Road
#4, Harry Kim, Civil Defense Agency, 9/4/96
#5, Affidavit of Nadav Nur, Ph.D., 6/15/96
#6, Uncle Robert Kelihoomalu letter to the County Planning Department, 6/25/95
#7, Photographs
#8, D. Cariaga letter to RMTTC 8/27/96
#9, Hawaii Tribune-Herald, Lighttalk article, 10/15/96

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This document offers four vitally important reports from two renowned avian biologist experts that must be incorporated into this EIS. The David/Day reports that the consultant has reprinted for years have been challenged. The EIS must report all of this information.

The carts have been put before the horse. The horse is the EIS and the carts are all those permits that were not properly applied for. Those permits have all been revoked and one has never been applied for. It is our understanding that if the "No Action" alternative is chosen, the Helco shareholders will bear the financial burden of this unfortunate project.

If the project goes forward, the subscribers will have to bear the 2/3's subscriber share of the project cost. Helco has never reported the total number of Original Subscribers (O.S.). The O.S. is determined by the number of signed contracts as of 11/8/93. The subscriber share is determined by the total project cost divided by the number of O.S. The number of O.S. is probably 140 or 155 contracts. Using the larger figure, 155 O.S., the 2/3's subscriber share is more than \$7,000. The subscribers have never been notified of this liability or the extra costs that are also their liability (i.e., environmental studies, permit applications, legal fees, etc.) We estimate the true total subscriber share will be more than \$10,000.

The remaining 1/3 shared cost of the project would be borne by the ratepayers. Have the subscribers been notified by Helco of the liability that awaits them? Who will hold Helco accountable for seeing that these costs are not passed onto the unsuspecting ratepayers?

The most equitable solution to insuring that Helco continues "to serve residents' requests for electrical service" is to have Helco offer subscribers the mobile solar PV units they are planning to market this year in rural and remote locations. This major step into the 21st century would be in the best environmental, social and economic interests of the state as well as the public utility. Helco would become a world leader among public utilities with the creation of this model solar community. We are certain that when the subscribers are fully informed of the financial liability that goes with this project, they will be happy to accept the above solution.

The title of this section "Social Equity" is very appropriate. Friends of the Red Road and our supporters have been denied social equity by Helco and many government agencies all during this two-year legal struggle. We have been unfairly characterized as the drags of society against progress because we object to 19th century technology at the threshold of the 21st century.

Hawaii Electric Light Company, Inc. • PO Box 1027 • Hilo, HI 96721-1027

ATTACHMENT #1



March 8, 1993

Dear Lot Owner:

This is a follow up to our proposal letter dated December 15, 1992 concerning the extension of our overhead electrical distribution system to serve lots along your street. This line extension project has been designated SSPP Unit No. 71.

As mentioned in our letter, the Estimated Cost for the line extension required to serve this SSPP unit is \$1,712,059.00. HELCO subsidizes one-third (1/3) of the Estimated Cost. The remainder, or two-thirds (2/3) of the Estimated Cost is called the "Unit Advance" and is \$1,141,373.00 for this SSPP unit. This amount is shared equally by the Original Subscribers in the unit. We have received responses to our proposal with a preliminary indication that 312 lots would be participating. The Shared Cost for each lot would be \$3,658.00 based on these Original Subscribers. Subscribers who wish to finance through HELCO would pay a down payment of \$366.00 and pay the balance of \$3,292.00 with 240 monthly payments of \$26.49. There will be no prepayment penalty.

The above figures are provided as an example based on the current response to our proposal, and are provided to assist you in your decision about participating in this project. If you did not respond to our proposal letter of December 15, 1992, or if you wish to change your response, please take this opportunity to fill out and return the enclosed postage-paid card(s). Your response does not indicate a firm commitment by you to participate. However, further communication from HELCO will be directed only to those who have indicated an interest in participating in this project.

The official amounts for the Shared Cost, Down Payment, and Monthly Payment will be established approximately three weeks from the date of this letter. Contracts will then be prepared and mailed out to those lot owners who have indicated their interest in being Original Subscribers in this unit.

If you have any questions regarding this follow up letter, please write or call me at (808) 969-0363 and refer to your SSPP Unit No. 71.

Alvin Urabe
Alvin Urabe
SSPP Administrator

AU:ji
Enclosures:
reply postcard(s)

ATTACHMENT #2

ISAAC HALL, ATTORNEY

888-244-6775

03/18/1996 11:58

147 335

Owner: FRANK CLARE

SSPP Unit No: 71, Serving
KALAPANA SEAVIEW ESTATES, PUNA
BEACH PALISADES & KEHEHA BEACH
Subdivisions

Mailing Address: 1514 WALLER
SAN FRANCISCO, CA 94117

Tax Map Key: 1-2-33:123 Lot 90

SPECIAL SUBDIVISION PROJECT
LINE EXTENSION AGREEMENT
(ORIGINAL SUBSCRIBER)

THIS AGREEMENT is entered into as of October 1, 1993, by and between FRANK CLARE ("OWNER"), an Original Subscriber in SSPP Unit No. 71, and HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO"), a public utility under the laws of the State of Hawaii.

WITNESSETH:

WHEREAS, OWNER and the other Original Subscribers in the above-referenced SSPP Unit (collectively referred to herein as the SSPP Unit) are owners, and/or lessees under long-term leases, of lots within the above-referenced subdivision, a subdivision recognized and approved by the County of Hawaii and developed prior to the enactment in 1967 of Hawaii County Ordinance No. 62, and such lots are without available electric service; and

WHEREAS, the SSPP Unit desires to have HELCO extend its overhead electric lines to serve lots within such SSPP Unit pursuant to Rule No. 13-S of HELCO's Tariff; and

WHEREAS, HELCO is willing to extend its overhead electric lines to furnish electrical service to such lots in accordance with its Tariff;

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(b) The Original Subscribers are those lot owners, including OWNER, who agree to participate in the Rule 13-S Line Extension by executing and delivering to HELCO Special Subdivision Line Extension Agreements on or before November 8, 1993. Exhibit "A" may be revised by HELCO after the Original Subscribers are determined.

(c) OWNER and HELCO agree that the SSPP Unit Representative is the individual, organization or other representative identified in Exhibit "A" to this Agreement.

(d) The HELCO Administrator assigned by HELCO to facilitate the organization and administration of the SSPP Unit is identified in Exhibit "A" to this Agreement, and HELCO may change its administrator from time to time upon notice to the SSPP Unit as provided in Paragraph 16(c) to this Agreement.

(e) OWNER agrees that HELCO, and its Administrator and employees, shall incur no liability as a result of or in connection with HELCO's assistance to the SSPP Unit.

(f) Nothing in this Agreement shall be deemed to constitute OWNER and/or the SSPP Unit on the one hand, and HELCO on the other, to be a partner, agent, fiduciary or representative of the other.

5. Provision of Electric Service.

(a) Owner shall file an Application for Electric Service in accordance with Rule No. 3 to HELCO's Tariff if OWNER requests that HELCO provide electric service to OWNER's lot after the construction of the Line Extension. The service connection will only be made in accordance with Rule 14, and shall not be made until receipt of an Application for Electric Service.

(b) Standard service drops of up to 150 feet per customer are provided by HELCO pursuant to Rule 14 without additional charge, and the cost of such standard service drops is not included in the computation of the Shared Cost that OWNER must pay in accordance with Paragraph 6 of this Agreement.

(c) HELCO will install only those facilities that it deems necessary to render service in accordance with its tariff. Where OWNER requests Special Facilities that are acceptable to HELCO but are in addition to, or in substitution for, the standard facilities that HELCO would normally install, OWNER agrees to make a non-refundable contribution of the extra cost thereof.

6. Shared Cost Payable by OWNER.

(a) OWNER agrees to pay to HELCO a Shared Cost in accordance with Paragraph 7 of this Agreement.

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NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. HELCO's Rule Nos. 13-S and 14.

This Agreement is made in accordance with and subject to Rule No. 13-S- (Line Extension, Special Subdivision Project Provisions) (Rule 13-S), Rule No. 14- (Service Connectors and Facilities on Customer's Premises) (Rule 14), and other applicable Rules of HELCO's Tariff in effect and on file with the Public Utilities Commission of the State of Hawaii (the "PUC").

2. Jurisdiction of Hawaii Public Utilities Commission.

This Agreement shall at all times be subject to such changes or modifications as the PUC may make or direct in the exercise of its jurisdiction.

3. Extension of HELCO's Overhead Electric Lines.

(a) HELCO shall extend its overhead electrical distribution lines in order to be able to provide electric service to lots within the SSPP Unit, subject to the terms and conditions set forth in this Agreement.

(b) The Line Extension shall include all primary and secondary distribution voltage overhead lines and poles, including any Main Line Extension, required to serve the SSPP Unit.

(c) If the Line Extension uses a Main Line Extension that has been paid for by one or more other SSPP units, the SSPP Unit shall pay its proportionate share of the cost of such Main Line Extension based on the relative number of lots in each SSPP unit.

(d) Where Hawaiian Telephone Company has installed a telephone-only line extension, HELCO normally will build a separate electric line for its service. If a joint pole installation is requested by the Original Subscribers along a pre-existing telephone line extension, or is required by HELCO for engineering or operating reasons, the additional cost incurred by HELCO for each installation plus any charges by Hawaiian Telephone will be included in the cost of the Line Extension.

4. The SSPP Unit.

(a) The SSPP Unit, as it is presently configured, is described on Exhibit "A" hereto. Exhibit "A" also identifies the owners of the Initial Lots who have indicated to HELCO that they intend to participate in the SSPP Unit.

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(b) The Shared Cost is equal to two-thirds (2/3rds) of the total estimated cost of the Line Extension required to serve the SSPP Unit divided by the number of Original Subscribers.

(c) The amount of the Shared Cost shall be TWO THOUSAND EIGHT HUNDRED TWENTY and NO/100 Dollars (U.S. \$2820.00), so long as a minimum of 75% of lot owners (as shown in Exhibit "A") sign this agreement and either pay the Shared Cost in full or execute Promissory Note.

7. Payments by OWNER.

(a) Unless OWNER elects to make payments in accordance with Paragraph 7(b) of the Agreement and executes a Promissory Note, OWNER shall pay the entire amount of the Shared Cost prior to the start of construction for the Line Extension.

(b) If OWNER executes a Promissory Note, OWNER shall make an Initial Payment equal to ten percent (10%) of the Shared Cost or \$500.00, whichever is less, plus equal monthly payments over a period of up to ONE HUNDRED TWENTY (120) months to cover the remaining balance of the Shared Cost plus simple interest at the yearly rate of nine percent (9%).

(c) OWNER shall be entitled to make a full or partial prepayment of principal without paying any prepayment charge.

(d) The time and place of payment shall be as specified in the Promissory Note.

(e) Payments shall be subject to late payment and returned check charges as specified in Rule 8 of HELCO's Tariff and any amendments thereto.

(f) If the Promissory Note is sent to a lawyer for collection, OWNER agrees to pay HELCO's attorneys' fees and court costs.

(g) HELCO may refuse or discontinue service to OWNER for non-payment pursuant to the procedure specified in Rule No. 7.A.8 of HELCO's Tariff and any amendments thereto.

(h) If OWNER sells or otherwise transfers OWNER's lot, OWNER shall pay the outstanding balance as of the date of such transfer, or assign this Agreement to the new lot owner in accordance with Paragraph 15(b) of this Agreement.

8. Requirement that Owner of 50% of Initial Lots Sign Agreement.

(a) HELCO, in its sole discretion, may terminate this Agreement unless the owners of at least 50% of the Initial Lots (i.e. 214 lots) execute and deliver to HELCO Special Subdivision Line Extension Agreements on or before February 1, 1994.

(b) HELCO shall have no obligation to commence construction of the Line Extension until HELCO receives the Shared Cost or the Initial Payment, whichever is applicable, from each Original Subscriber in the SSPP Unit. HELCO, in its sole discretion, may terminate this Agreement if HELCO does not commence construction of the Line Extension on or before March 28, 1994.

(c) If HELCO terminates this Agreement pursuant to this paragraph 8, HELCO shall return any payments made by OWNER, without interest.

9. Refunds.

(a) If the sum of monies received for this unit exceeds the total estimated cost of the unit, HELCO will refund the excess amount to subscribers in accordance with Paragraph 9(b) of this Agreement.

(b) Refunds, if any, will be made annually within the first quarter of each applicable year to those subscribers on record as of December 31 of the previous year for a period of fifteen years following the year that the SSPP Unit is first energized. The refunds to OWNER for any given year shall first be credited against OWNER's outstanding balance. If the outstanding balance is reduced to zero by such credit, any excess refunds shall be paid to OWNER provided that this excess is at least \$10.00. If the excess refund is less than \$10.00, the undistributed excess refund will be accumulated to the end of the next calendar year until it exceeds \$10.00, at which time the excess refund will be paid to OWNER. The total refunds to OWNER shall be limited to the amount of OWNER's Shared Cost.

(c) HELCO shall have the right to offset against any refunds payable hereunder the amount of any indebtedness then due or owing by OWNER to HELCO.

10. Location of Lines.

OWNER acknowledges that HELCO will construct electrical lines and facilities only along upon and over public streets, roads, and highways when it has the legal right to do so, and on public lands and private property across which it has otherwise obtained rights of way or other necessary rights satisfactory to HELCO.

11. Special Termination.

In accordance with the PUC's Decision and Order No. 8459, HELCO shall notify the PUC at least sixty (60) days in advance of beginning construction of any electrical lines and facilities to serve the SSPP Unit. OWNER acknowledges that the PUC may suspend HELCO's plan to provide electrical service to the SSPP Unit within said 60-day period to which case this Agreement shall remain in full force and effect until a final determination by the PUC whether HELCO may proceed under this Agreement. If the PUC suspends this Agreement indefinitely, HELCO shall refund to OWNER any monies deposited with HELCO without interest and this Agreement shall be terminated.

12. Plan Limit and Priority

In accordance with the PUC, HELCO may not expend more than \$3,000,000 under Rule 13-S in any calendar year without PUC approval. OWNER understands and acknowledges that extension of electrical service to the SSPP Unit may be delayed if such extension would cause HELCO to exceed such \$3,000,000 limit.

13. No Liability for Delays

HELCO shall not be liable for any delays regardless of the reasons for such delays, in commencing or completing construction of the Line Extension.

14. Interpretations

In case of disagreement or dispute regarding the application of any provision of this Agreement, HELCO or OWNER may refer the matter to the PUC for determination.

15. Assignment

(a) OWNER shall not assign any of its rights under this Agreement except after prior written and notarized notice of such assignment to HELCO.

(b) OWNER shall not delegate any of its obligations under this Agreement without the prior written consent of HELCO, and OWNER shall not be relieved of any of OWNER's obligations without such written consent.

16. Miscellaneous

(a) Amendments. Any waiver, alteration, amendment or modification of this Agreement or any part hereof shall not be valid unless in writing and signed by the parties.

(b) Binding Effect. This Agreement shall be binding upon and inure to the benefit of HELCO and OWNER and their respective successors, legal representatives, and assigns.

(c) Notices. Any notices provided hereunder shall be in writing and shall be delivered personally or sent by registered or certified first class mail, with postage prepaid, to the other party at the following address:

HELCO: Hawaii Electric Light Company, Inc.
P. O. Box 1027
Hilo, HI 96720
Attention: SSPP Administrator

OWNER Mailing address is stated on page one of this Agreement.

Notice sent by mail shall be deemed to have been given on the date of actual delivery or at the expiration of the fifth day of the date of mailing, whichever is earlier. Any party may change its address for notice by giving notice of such change to the other party.

(d) Effect of Section and Exhibit Headings. The headings or titles of the several sections and exhibits are for convenience of reference and shall not affect the construction or interpretation of any provision of this Agreement.

(e) Non-Waiver. No delay or forbearance of HELCO or OWNER in the exercise of any remedy or right will constitute a waiver thereof, and the exercise or partial exercise of a remedy or right shall not preclude further exercise of the same or any other remedy or right.

(f) Entire Agreement. This Agreement constitutes the entire understanding and agreement between the parties.

(g) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Hawaii.

IN WITNESS WHEREOF, the parties have executed this agreement as of the day and year first above written.

Oct 19, 1993

Frank Clare
FRANK CLARE
OWNER(S)

HAWAII ELECTRIC LIGHT COMPANY, INC

William J. Stortment
Is Assistant Secretary
HELCO

ATTACHMENT #3



STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
DEPARTMENT OF BUDGET AND FINANCE
445 KAHUA STREET, 2ND
HONOLULU, HAWAII 96813

March 16, 1995

Althena Peanut
March 16, 1995
Page 2

TUHO MATO
CAL. HAWAII

JOHN P. SPERLING
COMMISSIONER

DEWIS R. TAMADA
COMMISSIONER

BENJAMIN J. CAFFREY
DIRECTOR

Althena Peanut, President
Friends of the Red Road
P.O. Box 181
Pahoa, Hawaii 96778

Re: SSPP Unit 71 Rauenhorst
Docket No. 94-0095

Dear Ms. Peanut:

The following is in response to the questions posed in your letter dated March 6, 1995 on the referenced project. Since the project will be under construction until the end of 1995, we are unable to answer some of your questions related to total project costs including overruns and social costs. However, we will instruct HELCO to provide the project summary information to you and to the commission within 60 days after the completion of construction.

PART I: Payment of project costs: The Special Subdivision Project Provisions ("SSPP") electrical distribution projects are designed so that all project costs are recovered from the customers who are served by the project. At the start of the project and until there are a sufficient number of customers paying for electrical distribution system, HELCO and its general ratepayers advance one-third of the project cost, while an Original Group of consumers advance the remaining two-thirds of the project cost. As more and more consumers, called the Later Group, are served and after HELCO's one-third advance is recovered, each of the Original Group of consumers begin to receive a partial refund of the two-thirds of the total project cost that each of them advanced.

For the SSPP Unit 71 project, HELCO estimated there would be 428 subscribers in the Original Group who would be advancing two-thirds of the total cost. Of this Original Group, 185 have actually advanced their share or signed a financing agreement for their portion of the two-thirds share, as of March 7, 1995. According to HELCO, several additional financing agreements are being processed and many potential Original Group customers are waiting

for the controversy related to the project to be resolved before committing their share of the advance.

In answer to your first question, HELCO, and ultimately its ratepayers, is not only advancing its one-third, but also a portion of the Original Group's two-thirds that has yet to be collected. With only 185 of the 428 signed up, this leaves 243, which multiplied at \$2820 each, would total over \$685,000.

PART II: After reviewing its records over several years, GTE Hawaiian Tel has not been able to identify any pole replacement project in Kalapana Seaview Estates. Normally, any replacement of existing Telephone poles with Joint Utility poles, as part of an SSPP project, will be done by HELCO. GTE Hawaiian Tel's costs to transfer the existing telephone facilities to the new Joint Utility Poles and the removal of the shorter Telephone poles are normally included in the SSPP project cost.

In SSPP unit 71, approximately a hundred Telephone poles between Kalapana Seaview Estates and Kehena are being replaced with Joint Utility poles at a transfer and removal cost of approximately \$98,000, which is included in the total electrical distribution project costs of \$1.8 million. As GTE Hawaiian Tel completes the transfer and pole removal work, HELCO pays GTE an appropriate portion of the \$98,000. If a customer requires new telephone service, GTE Hawaiian Tel will string the messenger and cable along the existing Joint Utility poles thereby reducing its own and its customer's telephone line extension costs.

The above should answer all of the applicable questions in Part II of your letter.

PART III: In its Light Talk article published in the Hawaii Tribune Herald, HELCO apparently differentiated "customer requests" from SSPP "contract signers". As explained previously, HELCO estimated that 428 of the 1287 lot owners would be the Original Group signing contracts and as of March 7, 1995, 185 of them have actually done so. We agree that the figure of 400 requests in the article could be misinterpreted as 400 had signed SSPP agreements.

Light Talk is a part of HELCO's "issue advertisement" and is intended to facilitate communication with its customers on complex issues facing the utility's business today. In HELCO's last rate case, the Commission decided that the issue advertisement will be allowed and paid for by the ratepayers. The effectiveness of these expenditures will, however, be reviewed with each



Civil Defense Agency

County of Hawaii - 520 Uluohai St. - Hilo, Hawaii 96720 - (808) 935-0031 - Fax (808) 935-4460

Stephen B. ...
Hilo

ATTACHMENT # 4

September 4, 1996

Colette M. Sakoda
R.M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, HI 96817-4941

SSPP UNIT-71 12.47/7.2 KV OVERHEAD DISTRIBUTION SYSTEM

Thank you for the opportunity to review and comment on this project. Listed are comments related to the project:

SECTION 4

General Comments

The project makes no mention of tropical cyclone hazards. The majority of tropical cyclones approach the island of Hawaii from the easterly direction. Most probable impact on the project would be the wires and poles, either directly by the winds or by trees affected by strong winds.

Specific Comments

4.1 Geologic Hazards

1. Earthquakes should be listed as a geologic hazard for the area. The EIS does state that there is a higher risk for potential lava flows and seismic hazards near the Kilauea east rift zone. This project is in the east rift zone.
2. The statement made in regards to the proposed alignment being at a sufficient enough distance from the Kilauea east rift zone to reduce any risk of damage from lava flows is not understood. The project is within the lava flow hazard, Zones 1 and 2. This, as defined, is the greatest risk area and, as stated in the EIS, most of the proposed project is located in areas affected by the 1955 east rift zone eruption.
3. Statement on "... the lateral loads due to seismic conditions would be expected to be less than that due to wind loads" is questioned due to the magnitude of earthquakes in the Kilauea south flank 7.2 (1975); 6.5 (1954); 6.1 (1989).

Should there be any questions on these comments, please call me at 935-0031.

Harry Kim
HARRY KIM, ADMINISTRATOR

dy

Aithena Peanut
March 16, 1995
Page 3

rate case and will be disallowed if they are found to be ineffective or inefficient in meeting their objectives.

PARTIV: As previously explained, the SSPP Unit 71 project will be in progress until the end of 1995, therefore, your request for total project expenditures, including all segments, overruns and social costs (security guards, legal fees, etc.) will be provided after project completion.

In Part I, we explained how the advances on a SSPP electrical distribution project are apportioned and who ultimately pays for all the costs. In Part II, we explained how other utilities, such as GTE Hawaiian Tel, participate in SSPP projects.

In answer to your last question, there are no other parties to share the SSPP costs unless subscribers who are outside the SSPP unit boundary, but who qualify under the applicability clause, decide to join the SSPP unit. These subscribers must execute an SSPP Line Extension Agreement and pay all the required advances and any other costs required by the SSPP rules.

The SSPP Rule 13-S was established to make electrical service affordable to lot owners in certain Big Island subdivisions that do not have an electrical distribution system. We also empathize with the plight of the lot owners you represent who do not have and do not want electrical service provided by the distribution system constructed by HELCO. This places neighbors within the same subdivision on opposite sides, causing tension and ill feelings.

Until there is an affordable way to underground the distribution system to those who want HELCO's electrical service or find a reliable and affordable distributed electrical generation system for each lot to forego the need for a distribution system, we are unable to recommend alternatives for your group.

Thank you for your continued concern and please contact me at 808-586-2033 if I can be of any further assistance.

Very truly yours,

Ronald Nakanishi

Ronald Nakanishi
Engineer

RN:vn

ATTACHMENT #5

IN THE CIRCUIT COURT OF THIRD CIRCUIT

STATE OF HAWAII

FRIENDS OF THE RED ROAD; ATHENA PEANUT, Plaintiffs,

vs.

THE COUNTY OF HAWAII; THE HAWAII ELECTRIC LIGHT COMPANY INC.; JACUNSKI TREE SERVICES, INC., and JOHN DOES - 10, Defendants

Civil No. 95-014 (Hilo) AFFIDAVIT OF NADAV NUR, Ph.D. Civil No. 95-454 (Hilo) Judge Riki May Amano

AFFIDAVIT OF NADAV NUR, Ph.D.

STATE OF CALIFORNIA)) SS. COUNTY OF MARIN))

NADAV NUR, being first duly sworn upon his oath, deposes and says:

1. My name is Nadav Nur. I am a quantitative and population ecologist currently employed by the Point Reyes Bird Observatory in Marin County, California. A list of my qualifications and relevant experience for this case is attached hereto.

2. This statement represents my professional views on the quantitative long-term effects of power-line mortality on the Puna population of Newell's Shearwaters on the island of Hawaii. I also provide an analysis of the mitigation effectiveness of marker balls on reducing Newell's Shearwater mortality from collisions with power-lines.

Affidavit of Nadav Nur, Ph.D.

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Civil No. 95-014 Plaintiff 177

3. Long-term effect of power-line-induced mortality on Newell Shearwater populations.

4. Two Newell's Shearwaters were found in the Puna district in 1993, apparently downed by power-line collisions (Reynolds et al. 1994). To calculate the likely long-term effect of power-lines it is necessary to estimate the likely mortality rate, i.e., the number of individuals killed by power-lines, directly or indirectly, per total population in the Puna district, per year. The study by Reynolds et al. only covered the second-half of the breeding season (i.e., May - 27 July were not surveyed), and it is likely that some downed birds were missed. I estimate that 6 to 8 birds are dying each year from power-lines now; this estimate includes mortality in the first part of the breeding season (not recorded by Reynolds et al.), and additional dead birds not detected in surveys. I assume that completion of the project results in an additional 4 to 8 birds dying per year. I assume that birds dying are adults and subadults (i.e., the number of dead doesn't refer to young of the year; the two dead birds found by Reynolds et al. were apparently not young of the year).

5. The second step is to estimate the size of the Puna district population. According to Reynolds et al. (1994) there are at least two and possibly four colonies in the project area. I assume the total number of birds attending the Puna colonies is between 50 and 180. It seems that if there were more than 180 birds at the colonies, then there should have been more detections in the study by Cooper and David (1995); contrast the small number of detections in Puna district with the large number of detections on the other side of the island of Hawaii. These values imply that power-line mortality is likely to range from 2.2% to 16%. Even additional mortality of just 2.2% can have strong, substantial, and detrimental impact on the Puna shearwater population.

6. The Puna shearwater population at present is almost surely not a growing population, i.e., it is either decreasing (as we think the Kauai shearwater population is [Ainley et al. 1995]) or it is more or less stable. Ainley et al. (1995) present evidence that the Kauai population is decreasing, and it is reasonable to think that the Puna population is decreasing as well. For seabird populations that are stable, any additional mortality of adults and subadults cannot easily be compensated for; for seabird populations that are already declining, any additional mortality of adults and subadults can certainly not be compensated for. The reason for that is that seabirds have evolved, historically, so that fecundity (production of new recruits) more or less balances mortality of adults; this is what led, in the past, to stable population size. But if one increases subadult and adult mortality beyond normal levels, seabirds such as shearwaters, are not able to boost fecundity to match higher levels of mortality. This is because fecundity is

Affidavit of Nadav Nur, Ph.D.

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constrained at a low level: first, because clutch size for all Procellariiformes (the order of birds that includes petrels, albatrosses, and shearwaters) is fixed at one, and second, because they have evolved a life history strategy in which they begin breeding at an advanced age (in shearwaters not until about age 6 years). To exacerbate the problem, survival from fledging to recruitment age is fairly low. The end result is that shearwaters do not have excess capacity to absorb any additional mortality.

7. Precise estimates of the population impact of an extra 2.2 to 16% mortality of adults and subadults are not possible without additional information. However, on the basis of previous work which I carried out on the Kauai shearwater population (Ainley et al. 1995), I estimate that an additional 2.2% mortality of adults and subadults will result in a decrease in the annual population growth rate by about 2.0%. I arrived at this estimate by assuming population parameters of the Puna population were similar to the Kauai population (Ainley et al. 1995; see Table 16 therein) and then I calculated the effect of an additional 2.2% mortality, using a Leslie matrix (see Ainley et al. 1995). A decrease in the annual population growth rate by 2% may not seem substantial, but, in fact, a population declining at 2% per year will, after 30 years, have declined by a total of 45% compared to the original population level. If the population is already declining, a further decrease in the growth rate by 2% will exacerbate the decline and hasten the speed at which extinction is reached or is threatening. For example, if the population is declining at 3.7% per year, it will take 37 years to decline to 25% of its original value. But if the population is declining at 5.7% per year, it will take only 24 years to decline to 25% of its original level. Thus the additional 2% mortality has hastened the time it takes the population to cross the "25% threshold" by 13 years.

8. In addition to the direct effect power-lines may have, there is also an indirect effect: electrification will increase the incidence of fallout. Ainley et al. (1995) concluded that, in the absence of the Save Our Shearwaters program on Kauai, fallout would be an even more serious threat to shearwaters than is the threat due to power-lines. This implies that erection of power-lines will result in a greater than 2% to 16% additional mortality.

9. Since the Puna population is likely small, any factors that further hasten its decline also increase the risk of extinction. Extinction of the Puna population will have detrimental consequences to the island-wide population of shearwaters on the island of Hawaii. Any factors that decrease the long-term viability of the Hawaiian shearwaters also decrease the long-term viability of the entire species.

Affidavit of Nadav Nur, Ph.D.

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10. Mitigation effectiveness.

11. Results from the study of Cooper and Day (1995; see their Table 25) indicate a reduction in rates of collision with power-lines in the vicinity of marker balls, following installation of orange marker balls. Whereas prior to installation 55% of Newell's Shearwaters in the Kealia valley were found near the location of the marker balls, after installation of the marker balls, only 1 out of 9 Newell's Shearwaters found dead were found near the marker balls. This difference is indeed statistically significant. However, there are potentially serious problems with interpreting this result.

12. First, the study did not use a rigorous experimental design. Part of the problem is that results were gathered over a three year period (summer 1991 - summer 1993). During that time period Newell's Shearwaters might have shifted their flight paths or altered their flight behavior, for reasons not related to the marker balls. Apparently, marker balls were only installed at one site (the intersection at Kealia). We might be seeing a site-specific change in flying behavior. A more convincing test would be to shift the marker balls so that areas that were formerly away from the balls are now in the vicinity of the balls, and areas that were formerly in the vicinity of the balls are now away from the balls. In other words, a convincing demonstration would have a balanced design in which paired sites were investigated, one near the balls and one away from the balls, and in which each site investigated had balls at one time and did not have balls at another.

13. Secondly, replication is called for. That is, it would be desirable to repeat the experiment at another location. If a significant drop in collision rates was revealed at a second location, this would provide convincing evidence of the effectiveness of the marker balls.

14. Thirdly, the number of Newell's Shearwaters observed after installation of the marker balls, whether near or away from the balls, was very small, only 9 birds in total. It would be unwise to draw firm conclusions from such a small sample. If, due to chance events alone, just one more bird had been found near the balls rather than away from the balls, this would have resulted in 2/9 birds found near the balls, and the pattern would not have demonstrated statistical significance. Thus, the result is not statistically robust.

15. Fourthly, with such a small sample it is hard to estimate how strong any mitigation effect might be, and so we don't know if the mitigation is strong enough to protect the population at risk. In other words, the standard error around any estimate of mitigation effectiveness is very large. The purported

Affidavit of Nadav Nur, Ph.D.

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June 25, 1995

Affidavit of Nadav Nur, Ph.D.

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mitigation effect might be less than 15% or might be greater than 95%. Both estimates are consistent with the data. Even a 50% effective mitigation rate is likely to result in sufficient mortality to have a substantial impact on the Puna population (see below), and thus on the island-wide population of Newell's Shearwaters.

16. Finally, unless all power-lines are marked everywhere with marker balls, the effect of marker balls may be just to shift mortality from one part of the power-line network to another.

17. References
Ainley, D.G., Podolsky, R., De Forest, L., Spencer, G., and Nur, N. 1995. Kauai Endangered Seabird Study, Vol. 2: The ecology of Newell's Shearwater and Dark-rumped Petrel on Kauai, Hawaii. Electric Power Research Institute, Palo Alto, CA, TR-105847-VZ.

Cooper, B.A., and David, R.E. 1995. Radar and visual survey of seabirds in the Helco SPP unit 71, Puna, Hawaii, during July 1995. Unpublished Report by ABR Inc. and Rana Productions, Ltd.

Cooper, B.A., and Day, R.H. 1995. Kauai Endangered Seabird Study, Vol. 2: Interactions of Dark-rumped Petrels and Newell's Shearwaters with Utility Structures on Kauai, Hawaii. Electric Power Research Institute, Palo Alto, CA, TR-105847-VI.

Reynolds, M., Ritchotte, G., Viggiano, A., Dwyer, J., Nielsen, B. and Jacobi, J. 1994. Surveys of the distribution of seabirds found in the vicinity of proposed geothermal project subzones in the district of Puna, Hawaii. USFWS Report, Hawaii National Park.

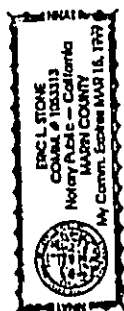
FURTHER AFFIANT SAYETH NOT.

Nadav Nur Ph.D.
Nadav Nur, Ph.D.

Subscribed and sworn to before me this 15 th day of June 1996.

[Signature]
Notary Public

My commission expires:
3/15/99



The County of Hawaii,
Department of Public Works
25 Aupuni Street, Room 202
Hilo, HI 96720

Attn.: Galen Kuba (961-8321)

Re: SSPP Unit 71-RAUENHORST
Kehena-Keekee Homestead,
Puna, Hawaii

We, the Kalapana Ohana Organization (the native Hawaiians displaced by the recent Kalapana lava flow) clearly state that we want our subdivision to be solar powered. Our model is the Hawaiian village Miloli'i and we were told we could have this. I hope you have not forgotten what was spoken five years ago.

Why should we be controlled by the high electric rates when we have something natural to use? Why should we have to pay big amounts of money when we have this energy free?

I support the solar powered community of the Kehena area subdivisions of Kehena, Seaview and Puna Palisades and Opihikao too, the whole Red Road area. We do not need the electric lines down here.

Mahalo.

Aloha,
[Signature]
Robert Kelihoomaluu
Pahoa, Hawaii 96778

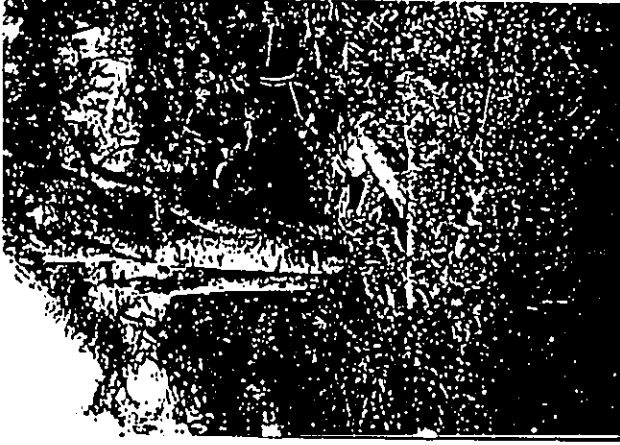
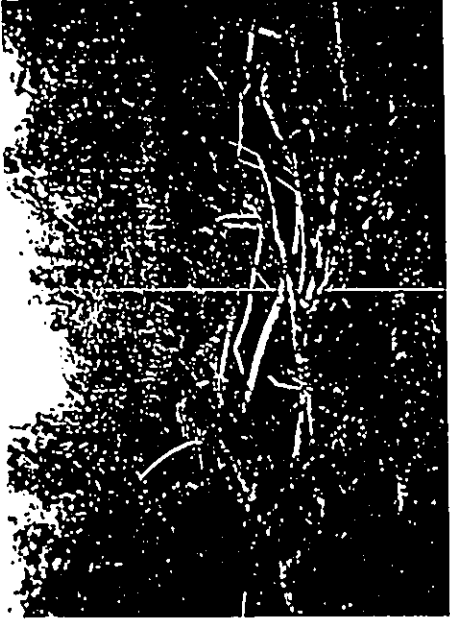
cc: Helco, Ralph Raitiff
R. M. Towill Corp., Colette Sakoda
OEQC, Gary Gill
DLNR, Mike Wilson
PUC, Ronald Nagamishi
The Honorable Patsy T. Mink, House of Representatives
Andy Levin, State Legislature
Keiko Bonk-Abramson, Chair, Hawaii County Council

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

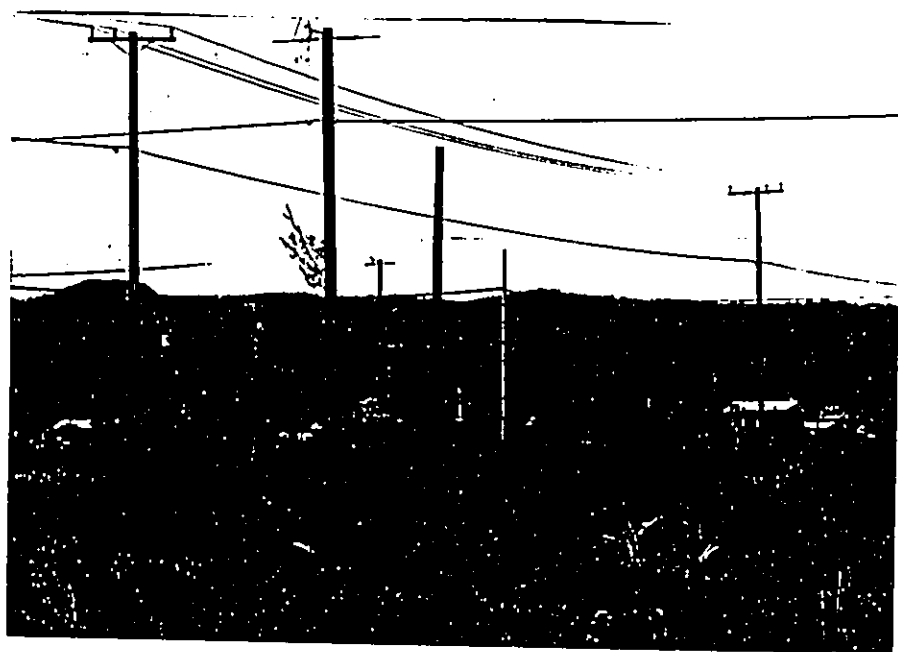
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Color Photos w/ titles will be submitted for
publication. Jan. 11, 1997

ATTACHMENT #7



DOCUMENT CAPTURED AS RECEIVED



ATTACHMENT #9
Hawaii Tribune-Herald
October 15, 1996

Lighttalk

Hawaii Electric Light Company
Celebrating 100 years of service

THE FUTURE OF SOLAR

HELCO's Solar Program is nationally recognized

Two years ago, HELCO made a commitment to test different ways the company could use solar electric systems. Usually, solar power is associated with solar water heating systems used in homes.

Solar electric or photovoltaic systems, on the other hand, produce electricity that can be used in the home or business or fed into the electric grid much like power produced from oil or any other fuel.

Today, HELCO's photovoltaic (PV) program is nationally recognized. Projects islandwide attest to the success of this program. HELCO is the only utility in the country to receive two grants from the Utility Photovoltaic Group (UPVG), a national 90-member nonprofit association that aims to promote the commercialization of PV technology. And HELCO's PV manager, Steve Burns, has received a UPVG Team-Up Partner award for the many PV activities he initiated for HELCO.

Why is HELCO supporting solar?

The Big Island is a natural location for solar energy development. With the costs of solar technology dropping, PV systems may soon become a truly affordable option for homes and businesses.

PV systems may currently be a more economical option than stringing power lines for residents in areas currently not served by the electric utility grid and thousands of rural residential lots currently without electricity distribution lines.

HELCO's remote PV program is exploring the potential of providing PV as an option to these residential customers. A new pilot program will test three remote PV home systems in diverse geographic areas. The pilot will help determine customer satisfaction as well as equipment performance.

10/15/96

1200 Kilauea Avenue • Hilo, Hawaii 96720
74-5519 Kaiwi Street • Kailua-Kona, HI 96740

ATTACHMENT #8
Duane P. Cariaga
RR2 Box 4552
Pahoa, Hawaii 96778
August 27, 1996

Clyde Nagata
Helco
P.O. Box 1027
Hilo, Hawaii 96720

Re: SSFP-71, EISPN First Notice,
OEQC First Notice, 7/23/96

Dear Sir:

I wish to add the following to my reply of August 15th letter with reference to the above.

I am a local fisherman in the area of the proposed project. I have been fishing on the shoreline fronting Kalapana Seaview Estates for at least 2 years. I am a 1985 Pahoa High School graduate. I am very familiar with the entire coastal area of lower Puna. I grew up here.

One of my largest concerns of the project would be Secondary Impacts to having more people in the area. I'm concerned about the pesticides, herbicides, clorox and all the household chemicals, automobile exhaust and car related fluids like oil, rust preventatives, and transmission fluids that will slowly but surely leak into the ocean from which I get my food supply.

I am not the only fisherman in lower Puna. There are a lot of local fishermen using the Poihiki boat ramp that supply fish to the whole Island commercially. I see the boats day and night in front of the project area. What will they say if the fish is no longer edible?

I used to love fishing on the Kona-Kohala coastline. Now the fish there are no longer edible because of the pollution that is most likely a by product of hotels, golf courses and mass development in general.

This EIS must include an in depth study of the secondary impacts of electrification and increased population density on this remote coastal area, the important local food supply and the marine species that inhabit our shores.

I wish to have this very important issue studied to the fullest in the EIS. I also would like to see complete studies on the endangered species that I come in contact with while fishing in this precious place I CALL HOME.

Sincerely,

Duane P. Cariaga
Duane P. Cariaga

cc Virginia Goldstein, County of Hawaii, Planning Dept., 25 Aupuni St., Hilo
Colette Sakoda, R.M. Towill Corp., 420 Waiakamilo Rd. Suite 411, Honolulu
OEQC, 220 South King St., Central Pacific Plaza, Suite 400, Honolulu

R. M. TOWILL CORPORATION

420 WAIKAMUI RD #411 HONOLULU HI 96817-4041 (808) 842-1133 FAX (808) 842-1037

February 19, 1997

Ms. Athena Peanut
Friends of the Red Road
P. O. Box 1610
Pahoa, HI 96778

Dear Ms. Peanut:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We have received your letter of December 23, 1996 regarding the subject project. The following has been prepared in response to comments and concerns:

1. **Major infrastructure.** Subdivision roads, constructed in the 1960s by developers of the project area, are major infrastructure. Utility systems constructed within County easements, including telephone communication polelines, are major infrastructure.
2. **Removal of GTE Hawaiian Tel poles.** Page 2-1, section 2.1 Back ground, paragraph 1 contains information about the expected timing of the removal of telephone poles.
With regard to your concern that HELCO facilities diverged from the State easement area, HELCO did its own investigation in January 1997, and found that all of its facility is within the easement area.
3. **Purpose of EIS.** Special biological and archaeological studies were conducted in accordance with Chapter 343, HRS, as amended to determine project impacts, under existing conditions and probable impacts, long term, secondary and cumulative.
4. **Threats from Polelines in Natural Disasters.** For those who have chosen to live in a geologically hazardous area, direct threats to safety and health are many, including falling trees that may, as a result, collapse onto polelines. County of Hawaii Civil Defense is responsible for notifying residents when evacuation or other actions is needed. Notification methods are improved through telecommunication systems that have been strengthened through electrically boosted repeater systems in the area.
As has occurred in the Kalapana lava inundation disaster, the government would respond appropriately to declared states of emergency.
5. **Solar energy alternatives.** As discussed in the EIS, photovoltaic and traditional grid systems remain as individual choices. The project will increase the array of choices to those who have requested and have been awaiting electrical service supplied by HELCO through the SSPP program that was approved by the PUC as a 12.477.2 KV overhead distribution system. Individual residential

Ms. Athena Peanut
February 19, 1997
Page 2

energy system requirements vary greatly, and the costs and benefits of photovoltaic systems have been analyzed with respect to published studies as opposed to anecdotal information.

6. **Contention of HELCO's 'Non-compliance' with PUC Rule 13.6.13S.** As stated in D.2. Line Extension Customer Advance for Qualifying Units of Rule 13S Line Extension Special Subdivision Project Provisions Existing Subdivision Lots Docket No. 6884:

The required customer advance shall equal two-thirds (2/3) of the total cost of the Line Extension project divided by the total number of prospective subscribers who indicate an interest in participating in a proposed SSPP Unit or a percentage thereof to be determined by the Company based on the amount of the Customer Advance, the estimated size of the SSPP Unit, and other factors that are relevant to the final participation rate of the prospective subscribers who indicate an interest in participating. A minimum number of participants may be required by the Company for an SSPP Line Extension Agreement to be valid.

This provision indicates HELCO has the authority to make final decisions on whether or when to proceed with a Line Extension project which may or may not be based on factors including a minimum number of prospective subscribers. Additionally, the basis of the determining subscriber portion of hookup cost is found in this provision as stated. As to work in the easement, HELCO constructed the poleline within the State easement area with official approval from the Board of Land and Natural Resources.

7. Regarding your contention that poles were installed 'within the shoreline setback area.' The closest pole to the shoreline as defined by a licensed professional surveyor, is more than 60 feet from the shore, therefore more than 20 feet outside of the 40-foot shoreline setback area. The other pole that you're referring to is 130 feet from the shoreline. Therefore, there is no pole located within the 40-foot shoreline setback area.

Section 2 - Project Description

8. According to Rule 13-S, section C.2. Qualifying Units, "an SSPP unit shall have a representative, if practical, for the purpose of implementing the unit's line extension agreement with the Company. The unit's representative may be an organization or an individual who requested the line extension for the unit." Initial communication and subsequent meetings were coordinated through those interested in the project. In other words, meetings with community members have been, as is done with all other SSPP Units, arranged through word-of-mouth.

Your comments regarding community consultation are noted.

9. Thank you for your version of events occurring between the County departments and HELCO. The court ruled that the letter from the County Planning Department was dated January 19, 1995, and the letter from County Department of Public Works was dated January 19, 1995.

10. Please see Appendix D for information regarding what GTE Hawaiian Tel agreed to with regard to telephone poleline removal.

Engineers • Planners • Photographers • Surveyors
R. M. TOWILL CORPORATION

Ms. Athena Peanut
February 19, 1997
Page 3

11. Please see our response in item no. 7 above with respect to your concerns about the shoreline setback area.
12. As stated above in item no. 10, Appendix D contains information regarding GTE Hawaiian Tel's agreement on timing of telephone poleline removal with the community and HELCO.

Section 3 - Description of the Affected Environment

13. Physical, Geologic Characteristics, Hazards, Shoreline Setback area
The EIS will continue to contain information as reviewed by County of Hawaii Civil Defense and U.S. Geological Survey Hawaiian Volcano Observatory. Information regarding the Shoreline Setback area can be found in item no. 7 above.
14. The photograph on page 3-6 of the DEIS was furnished by Daniel Bona, a resident and property owner in Kehena Beach Estates. Improper battery disposal practices may result in soil, stream and drainageway contamination.
15. The University of Hawaii Meteorology Department was consulted in the preparation of the Chapter 343, HRS environmental evaluation in September 1996 (as cited on page 3-7, DEIS). It was then concluded that the entire island chain of Hawaii would be vulnerable to very serious storms from here into the future as we have been fortunate thus far to have storms arrive on our shores as decelerated tropical depressions.
16. Air quality and noise levels are discussed sufficiently (pages 3-7 through 3-9) with respect to scale and proportion of the project and its anticipated impacts.
17. Eloza. In response to your concerns regarding potential impacts on kipuka in Kalapana Seaview Estates, a qualified, experienced biologist conducted a reconnaissance of the kipuka in Phases 1 and 2 of the project area. Her documented findings and conclusions indicate that the weedy melochia trees were aerially seeded in 1928 and have become naturalized. They can be found along many of the streets in this subdivision where they seem to thrive whether powerlines are present or not.
18. Fauna. Your opinions regarding the surveys have been noted. However, the ground survey and radar survey were conducted by qualified, experienced biologists in accordance with Chapter 343, HRS, as amended.
19. Land Use and Kikala-Keoaka Subdivision. No request for HELCO service has been received as of the preparation of the DEIS.
20. Infrastructure. Please see item no. 10 above.
21. Visual Character. Photographs included in the DEIS depict views as documented from street level within the project area. Photos 3-4, 3-5, 3-8 and 3-9 were provided by Cultural Surveys Hawaii, and the balance was taken by R. M. Towill Corporation.

Ms. Athena Peanut
February 19, 1997
Page 4

22. Socioeconomic Characteristics. Your opinions regarding infrastructure, income, tourism, and public health are noted. However, data and information cited from sources listed on page 3-29 shall remain the same, as well as sources and information listed on pages 3-34 and 3-35.

Section 4 - Probable Impacts and Mitigation Measures

23. Your opinions and concerns regarding infrastructure, geologic hazards, flora, and fauna are addressed in item numbers 1, 2, 4, 5, 17 and 18 above.
24. Air Quality, Noise Levels, Traffic, Public Health and Safety, Surrounding Land Uses, Visual Quality, Social and Economic Impacts, and Secondary Impacts are addressed in sections 4.4, 4.5, 4.8, 4.9, 4.10, 4.11, 4.12, and 4.13. Your input regarding your personal residential situation without a generator is appreciated.

Section 5 - Land Use Plans, Policies and Controls

25. Your comments regarding views are taken under advisement. Your concerns regarding flora are addressed in item no. 17 above. Concerns about fauna are addressed in item no. 18 above. Responses to concerns regarding possible impacts on fishing in coastal waters have been addressed in the DEIS. Your concerns about geological hazards and natural disasters are addressed in item nos. 4 and 15 above. Please refer to item no. 7 regarding your concern about the shoreline setback area.

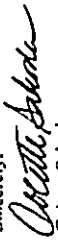
Section 6 - Alternatives

26. The discussion of alternatives to the proposed action has been conducted in accordance with Chapter 343, HRS, as amended. SSFP Unit 71 was approved as an overhead distribution system.

Section 8 - Unresolved Issues

27. Your opinions are noted. The EIS is prepared for the project. The environmental analysis is prepared in a deliberate, objective, professional manner in accordance with the provisions of Chapter 343, HRS, as amended.

Sincerely,


Collette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

FRIENDS OF THE RED ROAD

P.O. Box 1610, Pahoa, Hawaii 96778
 Phone (808) 965-8183 Fax: (808) 965-7539 (phone first)
 kehena@aol.com

November 15, 1996

Colette Sakoda, Project Manager
 R.M. Towill Corporation
 420 Waiakamilo Rd. Suite 411
 Honolulu, Hawaii 96817-4941

Re: SSPP Unit-71, EISPN, RMTTC Letter,
 October 2, 1996

Dear Colette Sakoda:

I am in receipt of your response to my letter of August 29, 1996. I wish to make the following comments regarding your letter:

No where in HRS, Title 11, Department of Health, Chapter 200, EIS Rules, can I find a category for rhetorical questions as being an appropriate answer to a question of concern from an affected party to the proposed action. Telephone service is not the same impetus to population density as overhead electrical extensions. This is borne out by the very inescapable fact that the history of 12 years of GTE presence in the project area there has been very slow rate of development. The only exception to this statement is a flurry of sales in the early '90's when local realtors began "promising" electrical hookup and "lots started selling at a phenomenal rate." (See Attachment # 1, letter from Maya Dornes, realtor to Helco, 7/28/90.)

Furthermore, the Third Circuit Court has already ruled that the electric lines can in no way be construed to be equal in size, density, number or purpose to telephone company lines. (See Attachment # 2, Third Circuit Court, Civil No. 95-14, Declaratory Judgment, 2/28/95.) How can RMTTC presume telephone poles and electric poles have equal status and impact in the light of this court ruling? How can RMTTC justify that the mere presence of GTE poles validates the presence of Helco poles when the court has ruled otherwise?

Please answer my questions. Why hasn't the fact that this project is the first major infrastructure invasion into an area of thousands of acres of pristine conservation, forest reserve, SMA, the last pristine coastal road in the nation and probably the cleanest coastline waters in the state been acknowledged? The project area is pivotal to the future of an enormous pristine area... of the BIG PICTURE. If the preparer refuses to recognize the existence of the BIG PICTURE how can you begin to address the expected consequences, primary, secondary and cumulative impacts of the project?

Colette Sakoda, 11/15/96
 Page 2

RMTTC/Helco appears to be relying solely on county government approval of the three subdivisions in the 1960's to justify all subsequent infrastructure, population densities and future impacts. In view of 1996 zoning policies, environmental law, Hawaii Energy Strategy and Helco's Demand Side Management policy for RMTTC to make this statement instead of answering the legitimate concerns raised in my letter of August 29 is inappropriate. The project area has remained pristine because the lifestyle of the residents has had minimal impact on the surrounding area immediately below the East Rift Zone of Kilauea. This situation would change dramatically and quickly as soon as overhead electricity was installed. This is the situation that needs to be addressed. The preparer cannot ignore the pristine surrounding area of which Kehena is a small part.

Why does this project continue to be described in official government information pamphlets as if none of the work has been done when 90% of the construction is already completed? I again ask RMTTC and OEQC why they cannot properly describe the After-The-Fact project? The OEQC Bulletin is the official notice of the project. The public is entitled to complete disclosure on this project. How can the public be properly notified IF this AFTER-THE-FACT project is not properly presented to the public from the beginning... in the OEQC Bulletin?

Thank you for reassuring us that the phase I area will be properly defined as 15 feet wide in DEIS. Will the DEIS describe the actual construction completed in phase I? Will you disclose how Helco diverged more than 30 feet from the existing GTE line (their legal easement is shared with GTE)? How will the damage done to the ohia forest during Helco's 1996 construction be remedied?

Endangered Species - Your letter does not respond to the many questions I have raised on this very important subject. In all my conversations the past 2 years with U.S. Fish & Wildlife and National Biological Services, the staff has repeatedly stated that little or no information is available and that EIS studies would be most desirable for information gathering. It is our understanding that the intention of an EIS is NOT to produce an FEA edit. Furthermore, we have submitted letters from U.S. NBS and F&W clearly stating some of the inadequacies upon which the FEA study relies.

How can we be assured a complete faunal study will be undertaken over the full period of one year to show the various creatures that inhabit this area on a full time or migratory basis. We want a complete study undertaken in the best interests of ALL of the endangered species known to inhabit this area and the CUMULATIVE and SECONDARY IMPACTS of the project on the whole mini biosphere of this unique coastal settlement zone.

This is known habitat for the Hawaiian Hoary Bat. Very little is known about this endangered species other than this is its habitat. This EIS is the opportunity to gather this information. By past performance, the consultant has not demonstrated the ability to undertake a study of this scope and importance. For the following reasons, we are asking that a one-year study be undertaken by qualified faunal biologists to catalog the wealth of wildlife in this area particularly the Hawaiian Hoary Bat: (See attachment, USDJ, National Biological Service, Jim Jacoby letter, 3/15/95, submitted previously with EISPN response 8/29/96.)

All residents know this area is habitat for Newell's Shearwater, Hawaiian hawk, Hawaiian owl, Dark-rumped petrel, Band-rumped Storm petrel, Hawaiian Hoary bat, Hawaiian Monk seal, Green Sea turtle, Hawk's Bill turtle, Spinner dolphins, Pacific Bottle nose dolphins and Humpback whales. Helco's first draft EA cited no endangered species whatsoever. Later documents submitted did not make appreciable progress towards showing the complex biosphere of the project area. The EISPN further dilutes an already inadequate FEA faunal study. RMTC's statement that the FEA study restated IS our EIS answer is not acceptable and is not in the spirit of the Hawaii Environmental Review Process. Please respond to our questions for the reasons cited below:

- a. Section 3.2.2.1 - Initial Survey - Considering the endangered species family that is known to inhabit this area, the two-day study period is obviously inadequate for an EIS.
- b. Section 3.2.2.2 - Radar and Visual Survey, July 1995. The radar study was a four-day study that was rained out one-day and one day was devoted to information gathering outside of the project area. These facts were not factored into the conclusions and therefore the statistical information is flawed.
- c. Another serious flaw of the radar study is that only birds flying at 35 m.p.h. and faster were recorded and 'A'o's are known to fly at lower speeds. (See attachment, Deposition of Dr. Robert Day, 5/27/96, Exhibit F, Pages 27 and 28, submitted previously with EISPN response 8/29/96.)
- d. Contrasting an unpublished Waipio Valley study and a Kauai study with this alleged 4-day radar study is improper.
- e. What little was observed in studies only offers proof that the 1955 lava flow IS a flyway for the 'A'o up to nesting grounds on Iliieva crater. The path of the 1955 flow from the craters can readily be described as a lichen covered river bed. The birds fly in this barren space not the marginal forest canopies. To compare the topography of a 1955 lava flow with anything but another lava flow, much less Kauai, Waialua, Kealia or Waipio Valley is meaningless.
- f. The smaller the endangered colony the greater the need for protection of the species. The preparer suggests the opposite of this over and over again. What is the scientific basis for this conclusion?
- g. 4.3 - Fauna - The wires and poles are clearly a danger to Newell's Shearwaters in the project area. (See attached deposition of Dr. Robert Day, 5/17/96, Pages 80, 83, 118, and 123, submitted previously with EISPN response 8/29/96.)
- h. The two 2-day faunal studies noted in the EISPN can hardly be the basis for the studies' requirement of the EIS. U.S. Fish & Wildlife states than an EIS study "... would need to locate nesting populations of

Newell's Shearwater in the area, estimate colony size and reproductive success, and determine flight altitude and direction of a much larger sample of birds." (See attached U.S. F&W letter, 6/12/96, submitted previously with EISPN response 8/29/96.)

- i. How can the secondary impacts of population density, particularly increased coastal traffic, additional traffic corridors and increased potential of toxic chemical release on this yet uncataloged wildlife habitat be addressed when so little time has been allocated to identifying the endangered species? RMTC's FEA studies show the botanists observed far more wildlife than the faunal biologists did because they hit on a lucky day. Doesn't this show that the scope of this work is much larger than RMTC portrays and deserves far more than two 2-day studies?

Geological Hazards - One of the biggest civil defense nightmares is when electric poles and energized wires come down and block roads while residents are attempting to evacuate during geologic emergencies. As a resident of Seaview who knows that at any given moment this writer may be called to make a mad dash for safety this known risk has expanded to a major concern since the grid out. How would the presence of 400+ poles and miles of energized wires ENDANGER the residents of a geologically active area attempting evacuation? Would the residents be at the same level of risk if the poles and wires were removed? Would the residents be at the same level of risk in a solar electric community? Would the residents be at the same level of risk if the lines were buried underground?

View Plain - The EISPN stated that "Ocean views from within Kalapana Seaview, however, are limited because of the rolling topography from the subdivision to the shore. Actual scenic ocean viewing exists only from the makai side of Highway 137." When we pointed out the untruth of this statement you dismissed it by saying "other community residents support this statement. . . ."

How many residents support this untrue statement? Who are they? The name of the subdivision where this writer lives is Kalapana Seaview Estates. It is commonly known as Seaview for good cause. The subdivision is dominated by a wide sweeping view of the sea. Enclosed is a document with 88 signatures stating the above sentence is false. (See Attachment # 3, Residents' View Plain Petition.) We also have enclosed photographs of Seaview's sea view. (See Attachment # 4. Photographs of Seaview's sea view.) This photograph was taken this year from the state land behind Seaview.

Also enclosed for your information is a resident's letter to the editor which explicitly complains about the 243 electric poles installed by Helco between his land and the ocean destroying the view plain he deliberately chose with his 1987 land purchase. (See Attachment # 5, Graham Ellis letter.)

While your misleading description may be true in a FEW EXCEPTIONS you have flatly stated TWICE that the EXCEPTION IS THE RULE. I presume that your flat out defense of this blatant untruth means that view plains ARE a very important issue. A proper description of the topography is that the land slopes gently from Red Road to the back of Seaview. Please correct your statement to reflect the truth.

Alternative Energy - In the highly circulated report by Helco, A Demonstration Project To Evaluate The Possible Provision Of Cost-Effective Remote Photovoltaic Service By Helco, Inc. by Steve Burns, Helco, Hilo, Hawaii, the first Objectives stated is "the research and demonstration objectives of a project involving remote PV applications in Helco's service territory include: Exploring the possibility of Helco providing photovoltaic systems as a remote (non-grid connected) service option. . . ." (See attachment, PV Demonstration Project Paper, Steve Burns, Helco, Hilo, submitted previously with EISPN response 8/29/96.)

In the Introduction/Background of the same document, Helco states that it "is interested in exploring the potential for providing service for its remote unserved customers with photovoltaic systems instead of traditional line extensions, where it is demonstrated to be cost effective."

The above report was written a few years ago. Helco is developing a PV solar program for remote locations and is promoting solar applications today in the local newspapers. The EIS must consider the least damaging alternative to the proposed action. It seems patently obvious that while Helco is actively seeking approval for this overhead line extension there is a conflict of interest. To expect unbiased information to be forthcoming from Helco/RMTC on a solar alternative to the proposed project is comic.

The importance of careful consideration given to the Kehena Beach area as a PV solar demonstration model for the State and the Nation cannot be overlooked by this EIS. Public utilities are cajoling and paying communities to go solar on the mainland. Here we have a community that has been solar for more than a quarter of a century and is desperately struggling to remain solar. The outcome of this project assumes monumental importance when viewed from this perspective.

The thousands of acres surrounding the project area have remained pristine because the lifestyle of the residents has had minimal impact on the surrounding area. The important factor contributing to this delicate interface of human habitation and pristine environment is because residents have lived here for almost a quarter of a century with solar alternative energy systems. This situation would change dramatically and quickly as soon as overhead electricity is installed. This is the situation that needs to be addressed by the preparer in depth.

In view of the above, can we be assured that an impartial solar experts such as Michael Polts, Caspar Institute, California or Amory Lovins, Rocky Mountain Institute will be retained to do this study?

The EISPN Section 7.4 concludes the section on alternative energy systems with statements that leave the reader to assume that individual choice is paramount regardless of social, environmental or financial considerations and government policy. This theme is repeated in your EISPN response to me. Please answer the following question. Show us where this policy of personal choice above all other considerations is supported by State and Federal energy policy?

Helco has not complied with many of the provisions of PUC Rule 13 and 13S. Your response that "Helco has complied with the provisions of PUC Rule 13 & 13S thus your statements are questionable" does not respond to the information we have submitted to you in our EISPN response.

Please address the following issues:

1) - Undersubscribed - Helco never received half of the 428 "expected" subscribers (214 subscribers) necessary to implement the project and less than 12% of the total lots;

2) - Underfunded - Helco charged the subscribers the Shared Cost of LESS THAN 1/3 of the cost instead of the Rule 13-S mandated 2/3 of the cost for pole installation. (See Attachment # 6, copy of Helco contract with subscriber Frank Clare in the amount of \$ 2, 820.00.)

3) - Overbuilt - Rule 13 & 13S refers to overhead transmission lines to subscriber only. There is no provision for the total grid out of the project area.

Helco changed all the rules and the PUC has admitted this. (See attachment PUC letter, 3/16/95, submitted previously with EISPN response 8/29/96.)

The way this project is being handled financially is a nightmare. Judge Amano stated in court that extra costs such as the EIS, would not be borne by the rate payers. How can we be assured of this? Have the shareholders been made aware of the extra \$600,000 pole installation share that they are paying for? The PUC has stated that the Original Subscribers pay all the extra legal and environmental studies' costs. Have the Original Subscribers been informed that they are responsible for these additional costs? You also state that Helco will pay for replacing equipment after geologic disasters. Is that ratepayers or shareholders who will be billed for this replacement cost? Have the ratepayers (or shareholders) been notified that they will be paying for these replacement costs in Lava Hazard Zones I & III? We would like to have these questions answered.

Your answer to our statements and proofs that Helco is short on generation power is not responsive. The importance of this question relates directly to HRS Title II, Subchapter 7, 11-200-12, Significance Criteria, (13) requires substantial energy consumption. Documents were submitted to you showing where Helco and the PUC have admitted they are very short on generation capacity for this island.

Colette Sakoda, 11/15/96
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In a Hawaii Tribune-Herald article of 7/25/96, Battle Over Power To Resume Before County Planning Commission, Paragraph 7 states "Helco says the Big Island badly needs more power generating capacity...." (See Attachment # 7, H T-H article, 7/25/96.) This critical need for more power surely must have some relevance to this project since any additional distribution line is going to require more generation capacity somewhere on the island. This information needs to be taken into account in the EIS Alternative Action section.

Repeated call for an unbiased study of solar energy - It is our understanding that the purpose of an EIS is to disclose the inherent impacts to the environment and to conduct appropriate studies to provide unbiased information so that the needed service can be provided with the least harmful environmental impact.

The thousands of acres surrounding the project area have remained pristine because the lifestyle of the residents has had minimal impact on the surrounding area immediately below the East Rift Zone of Kilauea. The important factor contributing to this delicate interface of human habitation and pristine environment is because residents have lived here for almost a quarter of a century with solar alternative energy systems. This situation would change dramatically as soon as overhead electrical transmission was installed. This is the situation that needs to be addressed by the preparer in depth.

The subject EISPN contains incorrect preliminary information and needs to be corrected.

In our EISPN reply we requested a botanical study of the existing impacts resulting from the after-the-fact Helco construction of this project in phases I & II. Your reply "a botanical resource study of existing impacts was completed with the description of impacts from GTE Hawaiian Tel poles." Your answer is not responsive to our question. This is a Helco EIS not a GTE project. Furthermore, you seem to be avoiding the clear communication that major impacts of the electric pole installation are already evident. Examination of the site will show that the GTE installation in 1984 had a minimal impact. Examination will further show that the Helco installation of 1994, 1995 and 1996 has made severe impacts. This is very obvious even to the layman when the sites are examined. The community wants to know how these impacts will be redressed if they continue to be ignored?

Helco has conferred only with selected residents of the project area since 1989, particularly Norman Oleson, Deputy Director of Planning, Maya Dornes, realtor (see Attachment #1) and a hastily organized Kehena Beach community association that was heavily dominated by them and a few other Helco subscribers. Helco made no attempts to contact the substantial population that was not subscribing to their project. In fact, a Seaview resident who did check with Helco on a regular basis was told as late as June, 1994, that not enough subscribers had responded to the project to make it viable.

In closing, you state that "the special studies that are needed to help public authorities and Helco determine whether the project would have a significant environmental impact in accordance with state environmental law WERE completed in a deliberate, rational and up front manner for the EA process."

Colette Sakoda, 11/15/96
Page 8

We challenge the above statement. We enclose copies of a handwritten memorandum from you to Dr. Day asking him to delete the word "real" from his report to minimize the threat to the endangered 'A'o. (See Attachment # 8, Memo from Colette Sakoda to Dr. Day, 4/26/95.) This is a clear example illustrating how a expert biologist's report contracted by Helco was edited by you. Editorial improprieties were also pointed out by Michelle Reynolds, U.S. National Biological Services. (See Attachment # 9, Michelle Reynolds, NBS, letter to Colette Sakoda, 8/20/96.)

We challenge your insistence that the FEA studies fulfill the legal requirements set forth in the EIS rules for content requirements of an adequate EIS. If this was so, why did Judge Amano order an EIS instead of merely sending the FEA back to the County for review? The County did file a Motion to Reconsider but Judge Amano denied the motion as well.

HRS, Title II, Department of Health, Chapter 200, Subchapter 7, 11-200-14 states "Consequently, the EIS process involves more than the preparation of a document; it involves the entire process of research, discussion, preparation of a statement and review. . . an EIS is meaningless without the conscientious application of the EIS process as a whole and shall not be merely a self-serving recitation of benefits and a rationalization of the proposed action."

The last paragraph of your letter indicates that the EIS you are preparing is merely a management consultant rewrite of the FEA that was not accepted by the Third Circuit Court. This is not consistent with the letter and intention of the law quoted above.

Thank you for the opportunity to bring these concerns forward.

At one with the Earth,

Athena Peanut
Athena Peanut, President

Friends of the Red Road

cc Hon. Patsy T. Mink
Virginia Goldstein, County of Hawaii, Planning Department
Gary Gill, Director, OEQC
Mike Wilson, DLNR, Land Management
Clyde Nagata, Helco, Hilo

enc: Attachment # 1, letter from Maya Dornes, realtor to Helco, 7/28/90
Attachment # 2, Third Circuit Court, Civil No. 95-14, Judgment, 2/28/95
Attachment # 3, Residents' View Plain Petition
Attachment # 4, Photographs of Seaview's sea view
Attachment # 5, Graham Ellis letter
Attachment # 6, Copy of Helco contract with subscriber Frank Clare
Attachment # 7, H T-H article, 7/25/96
Attachment # 8, Memo from Colette Sakoda to Dr. Day, 4/26/95
Attachment # 9, Michelle Reynolds, NBS, letter to Colette Sakoda, 8/20/96

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VIEW PLAIN

To: R.M. Towill Corporation, Helco SSPP Unit-71, Environmental Impact Statement Preparation Notice

Your letter of October 2, 1996, states that "other community residents support the statement (below)...."

"Ocean views from Kalapana Seaview. However, are limited because of the rolling topography from the subdivision to the shore. Actual ocean viewing exists only from the makai side of Hwy 137." (emphasis added)

From: Residents of Seaview, Puna Palisades and Kehena Beach Estates

The preceding sentence is quoted from the EIS Preparation Notice. Is the above statement true or false?

| True/False | Date | Name | Address | Subdivision | Phone |
|------------|---------|----------------|--------------------------------|-------------|----------|
| True | 10/30 | Athena Peart | P.O. Box 181, Paloa, HI | Paloa, HI | 965-8183 |
| True | 10/30 | Richard Bawley | Seaview Sub | Paloa, HI | 96778 |
| False | 30/10 | Samedhihi | P.O. Box 4519, Paloa, HI | | 96778 |
| False | 11/9/96 | Michael | RR2 Box 4519, Paloa, HI | | 96778 |
| True | 10/30 | Joe Spindel | Seaview Sub Paloa, HI | | 96778 |
| False | 10/30 | M. M. | RR2 Box 4519, Paloa, HI | | 96778 |
| False | 10/30 | Christina | RR2 Box 4519, Paloa, HI | | 96778 |
| False | 10/30 | Michael | 13-7001 Lanihale St, Paloa, HI | | 96778 |
| True | 11/4/96 | Helen Nale | P.O. Box 4556, Paloa, HI | | 96778 |
| True | 11/4/96 | Barbara Chino | RR2 Box 181 - Paloa, HI | | 96778 |
| True | 11/9/96 | Michael | RR2 Box 4519, Paloa, HI | | 96778 |
| True | 11/9/96 | Michael | P.O. Box 2108, Paloa, HI | | 96778 |
| True | 11/9/96 | Michael | 12-445 c/o c/o Paloa, HI | | 96778 |
| False | 11/9/96 | Michael | RR2 Box 4519, Paloa, HI | | 96778 |
| True | 11/9/96 | Michael | RR2 Box 4519, Paloa, HI | | 96778 |
| False | 11/9/96 | Michael | RR2 Box 4519, Paloa, HI | | 96778 |
| False | 11/9/96 | Michael | RR2 Box 4519, Paloa, HI | | 96778 |

VIEW PLAIN ATTACHMENT #3

To: R.M. Towill Corporation, Helco SSPP Unit-71, Environmental Impact Statement Preparation Notice

Your letter of October 2, 1996, states that "other community residents support the statement (below)...."

"Ocean views from Kalapana Seaview. However, are limited because of the rolling topography from the subdivision to the shore. Actual ocean viewing exists only from the makai side of Hwy 137." (emphasis added)

From: Residents of Seaview, Puna Palisades and Kehena Beach Estates

The preceding sentence is quoted from the EIS Preparation Notice. Is the above statement true or false?

| True/False | Date | Name | Address | Subdivision | Phone |
|------------|----------|--------------------|----------------------------|-------------|----------|
| FALSE | 11/9/96 | Michael | RR2 Box 4544 | SEAVIEW | 965-8121 |
| True | 11/9/96 | Michael | RR2 Box 4544 | SEAVIEW | 965-8824 |
| FALSE | 11/10/96 | Bernardine Marantz | RR2 Box 4544 | SEAVIEW | 965-0134 |
| False | 11/12/96 | Graham Ellis | RR2 Box 4524 Paloa Seaview | | 965-0134 |
| False | 11/12/96 | Henrik Botke | " " " | | 965-8758 |
| False | 11/12/96 | Cheryl Conci | " " " | | " " |
| False | 11/12/96 | Jody Snyder | " " " | | " " |
| False | 11/12/96 | Michael Riccio | " " " | | " " |
| False | 11/12/96 | Kathie Buhlund | " " " | | " " |
| False | 11/12/96 | Fitz Bahm | " " " | | " " |
| FALSE | 11/12/96 | Chad Houston | Box 4540 Paloa - Seaview | | 935-3358 |
| True | 11/12/96 | Michael Conci | RR2 Box 4524 Paloa, HI | | 965-7539 |
| False | 11/13/96 | William P. Higgins | RR2 Box 4519 Paloa | | 96778 |
| False | 11/13/96 | Christina | RR2 Box 4552 Paloa | | 96778 |

VIEW PLAIN

To: R.M. Towill Corporation, Helco SSPP Unit-71, Environmental Impact Statement Preparation Notice

Your letter of October 2, 1996, states that "other community residents support the statement (below)..."

"Ocean views from Kalapana Seaview, However, are limited because of the rolling topography from the subdivision to the shore. Actual ocean viewing exists only from the makai side of Hwy 137." (emphasis added)

From: Residents of Seaview, Puna Palisades and Kehena Beach Estates

The preceding sentence is quoted from the EIS Preparation Notice. Is the above statement true or false?

| True/False | Date | Name | Address | Subdivision | Phone# |
|------------|----------|--------------------|---------------------------------------|-------------|-----------------|
| False | 11/16/96 | Jeffrey Corbelle | 12-423 Ala Ola Kehena | | 965-6673 |
| FALSE | 11-19-96 | LORICHINE WEST | RR2-1543, PAAHOA SEAVIEW | | |
| False | 11/19/96 | S. Amelia Myers | 12-423 Ala Ola Kehena | | HI 965-6673 |
| False | 11/5/96 | R. JEREMY | 12-261 W. Pookunua Ln | | 965-0859 |
| False | 11/29/96 | Barbara McKenzie | Louise Anai Seaview | | 965-9585 |
| False | 11/17/96 | TORRE C. NIELSEN | RR2 Box 4547 Seaview | | PAAHOA 965-6673 |
| True/False | 11/16/96 | James Freda | 12-445 Ala Ola Kehena | | HI 965-6673 |
| False | 11/16/96 | Barbara Hilda | 12-445 Ala Ola Kehena | | HI |
| False | 11/16/96 | Anai A. Robinson | RR2 Box 1302 KUKUKUANA | | HI 965-6673 |
| False | 11/10/96 | Kevin Bertoli | 12-445 Ala Ola Kehena | | HI |
| False | 11/16/96 | Shayla Shelton | 12-1415 Ala Ola Kehena sub HI | | |
| False | 11/17/96 | Grand P. Thomas | 12-447 Kaula St, Kehena Beach Estates | | 965-7199 |
| False | 11/17/96 | Robert W. Baumgard | 12-7222 Nanihale, Kehena | | |

VIEW PLAIN

To: R.M. Towill Corporation, Helco SSPP Unit-71, Environmental Impact Statement Preparation Notice

Your letter of October 2, 1996, states that "other community residents support the statement (below)..."

"Ocean views from Kalapana Seaview, However, are limited because of the rolling topography from the subdivision to the shore. Actual ocean viewing exists only from the makai side of Hwy 137." (emphasis added)

From: Residents of Seaview, Puna Palisades and Kehena Beach Estates AND FREQUENT RECREATIONAL VISITORS TO THE AREA.

The preceding sentence is quoted from the EIS Preparation Notice. Is the above statement true or false?

| True/False | Date | Name | Address | Subdivision | Phone# |
|------------|----------|------------------|-------------------------------|-------------|------------------|
| False | 11/8 | HANK ROBERTS | 4525 PAAHOA HI | | 965-0056 |
| False | 11-9 | Dennis Cooper | Kehena Bch. | | 965-7160 |
| False | 11-16 | Archer Lyman | PO B 651 PAAHOA | | |
| False | 11-16 | Don LAMANA | RR2 Box 4532 PAAHOA | | 965-7196 |
| FALSE | 11-16 | Quinn OREGON | BOX 512 | | |
| False | 11-16 | James F. Miller | San. Dist. PAAHOA | | 96778 |
| FALSE | 11/16 | Tracianna Kelly | P.O. Box 2103 PAAHOA | | 96778 |
| False | 11/16 | Jim Kelly | 12-447 Ala Ola St. PAAHOA, HI | | 96778 |
| False | 11/16 | ABE B. | P.O. Box | | PAAHOA, HI 96778 |
| False | 11/16 | Melissa Greestad | RR2 Box 3957 PAAHOA | | HI 96778 |
| FALSE | 11/16 | David Roc | GENDIE PAAHOA, HI | | 96778 |
| False | 11/16 | Kimma Koshine | Green Dik PAAHOA | | HI 96778 |
| False | 11/16 | John P. Thomas | PO Box 1387 Kaula St | | 1967 |
| False | 11/16/96 | John P. Thomas | PO Box 1387 Kaula St | | 1967 |
| False | 11/16/96 | Tyson L. Taylor | PO Box 6250 | | |
| False | 11/16/96 | Eric M. Lee | 3055 Kaula St | | HI 96778 |
| False | 11/17/96 | Kater Bourston | San. District PAAHOA, HI | | 96778 |
| False | 11/17/96 | Robb Tuffin | 141 PAAHOA HI | | 96778 |

(22)

99

Brand of Realtors

| | | | |
|-------|----------|------------------|----------------------------------------|
| False | 11/17/96 | Aggie Hopping | P.O. Box 420 Honolulu |
| False | 11/17/96 | Brent Sitt | P.O. Box 1145 Pukohi |
| False | 11/17/96 | W. Blum | P.O. Box 48332 L.A. CA. 90048 |
| False | 11/17/96 | J.P. Bunch | P.O. Box 1746 Paloa HI 96778 |
| False | 11/17/96 | Dawn Keller | P.O. Box 2306 Paloa, HI 96778 |
| False | 11/17/96 | Valerie Carter | 12-7242 Kii Nani St, Paloa HI |
| False | 11/17/96 | Mick Tuxman | P.O. Box 4532, Paloa HI |
| False | 11/17 | Linda Handley | P.O. Box 59 Paloa HI 96778 |
| False | 11/17 | William Wagoner | P.O. Box 1057 Paloa HI 96778 |
| False | 11/17 | Danielle Maloney | P.O. Box 1151 Paloa HI 96778 |
| False | 11/17 | Michael Dubois | P.O. Box 1582 S.F. CA 94122 |
| False | 11/17 | Jedidiah Shields | P.O. Box 4532 S.F. CA 94122 |
| False | 11/17 | DAVID C. SAUFLEY | P.O. Box 59 Paloa HI 96778 |
| False | 11/17 | Veronica Burschi | P.O. Box 627 Paloa HI 96778 |
| False | 11/17 | Lisa Davis | P.O. Box 627 Paloa HI 96778 |
| False | 11/17 | James Rodrigue | P.O. Box 1021 Paloa HI 96778 |
| False | 11/17 | Gary Peretsky | P.O. Box 971 Paloa HI 96778 |
| NOT | 11/17 | Danysel Torres | 2168 Keanu HI 96778 |
| False | 11/17 | N. Peckham | 212 Bayview Dr. Paloa HI 96778 |
| False | 11/17 | F. L. Jones | P.O. Box 031 Volcano HI |
| False | 11/17 | H. B. N. Peckham | P.O. Box 461 KEAHU |

11/17/96 Tom Blum

ATTACHMENT # 1

ATTACHMENT # 2

ISAAC HALL 2238
 2087 Wells St.
 Waiuku HI 96793
 808-244-9017

Attorney for Plaintiffs

95 FEB 29 AM 7:19
 LISA LUKETA
 CLERK

IN THE CIRCUIT COURT OF THE THIRD CIRCUIT

STATE OF HAWAII

FRIENDS OF THE RED ROAD;
 MICHAEL T. HYSON

CIVIL NO. 95-14
 (Hilo)
 (Declaratory Judgment)

Plaintiffs,

ORDER GRANTING, IN PART,
 PLAINTIFFS' MOTION FOR
 PRELIMINARY INJUNCTION

vs.

THE COUNTY OF HAWAII; THE
 HAWAII ELECTRIC LIGHT
 COMPANY, INC.; JACUNSKI
 TREE SERVICES, INC. and JOHN
 DOES 1-10;

Defendants.

Mr. Dave Murakami
 HAWAII ELECTRIC LIGHTING COMPANY
 Customer Engineering Division
 P. O. Box 1027
 Hilo, HI 96721-1027

Dear Mr. Murakami:

Enclosed please find the approved Preliminary Pole
 Location drawing for Puna Beach Palisades.

As we discussed, the lots in this subdivision have been
 selling at a phenomenal rate these past three months and
 almost all of these new Buyers want to subscribe to the
 service.

I shall do my best to supply you with the names,
 addresses, and TMK numbers as you requested by the end of
 August.

Would you be good enough to give me an approximate time
 frame for the hook-ups and projected costs since these two
 areas are where most questions will be directed?

I appreciate your cooperation and help.

Cordially,
 Maya Dornes

Maya Dornes
 P. O. Box 1241
 Pahoa, HI 96778

July 28, 1990

ORDER GRANTING, IN PART, PLAINTIFFS'
 MOTION FOR PRELIMINARY INJUNCTION

The Motion for Preliminary Injunction filed by Plaintiffs the Friends of
 the Red Road and Michael T. Hyson came on for hearings on January 17
 through January 19, 1995 in the Third Circuit Court before the Honorable Greg
 K. Nakamura. Plaintiffs were represented by Isaac Hall, Esq. The municipal
 Defendants were represented by Deputy Corporation Counsel Steven K.
 Christensen, Esq. Defendant the Hawaii Electric Light Company, Inc. was
 represented by David Sherman, Esq. Based upon the record and file to date,
 the evidence adduced during these hearings, the argument of counsel and, good
 cause appearing,

I hereby certify that this is a full, true and
 correct copy of the original on file in this office

Lisa Luketa
 Clerk, Third Circuit Court, State of Hawaii

95 FEB 29

IT IS HEREBY ORDERED, ADJUDGED AND DECREED that Plaintiffs' Motion for Preliminary Injunction, filed on January 11, 1995, shall be granted in part, as follows:

1. Defendant Hawaii Electric Company, Inc. ("HELCO"), with respect to its electrical distribution project in Puna, Hawaii ("project"), shall be enjoined from cutting down trees or from trimming trees so as to significantly alter their size or shape in Defendant County of Hawaii's (the "County") rights-of-way or property along the project route. In this context, a "significant alteration" results if it will take more than one year for the pre-existing size and shape of a tree to be substantially restored.

2. The basis for this decision is as follows:

a. Plaintiff Friends of the Red Road ("Friends") has or more than one of its members as an association have standing to seek relief.

b. Based upon the state of the evidence presented, there is a probability that Friends will succeed on the merits in regard to its argument that a special management area use permit was required for the HELCO project.

Generally, a special management area permit of some nature is required where "development" is contemplated. "Development" is defined as any of the uses, activities, or operations on land or in or under water, within a special management area. HRS §205A-22. It includes "construction, reconstruction, demolition, or alteration in the size of any structure." HRS §205A-22. "Structure" is defined to include any telephone line or electrical power transmission and distribution line. HRS §205A-22.

The HELCO project entails the removal of telephone poles and the installation of joint utility poles. It clearly constitutes a "development" for the purposes of HRS §205A-22 because it involves construction or reconstruction of telephone and electrical power transmission and distribution lines. None of the limitations on the definition of "development" set forth in HRS §205A-22 applies.

The justification provided by the County does not apply. Section 9-4(10) B.(iv) of the Planning Commission County of Hawaii Rules relates to "repair and maintenance." In regard to the HELCO project, "construction" or "reconstruction" is involved. Further, the specific provision relied upon conflicts with the limitation of the definition of "development" set forth under HRS §205A-22.

c. Also, based upon the state of evidence presented, there is a probability that Friends will succeed on the merits on its argument that an environmental assessment is required. Defendants claim that several exemptions set forth in the Department of Health, Environmental Impact Statement Rules ("EIS Rules"), as further qualified by the Comprehensive Exemption List for the County of Hawaii Department of Public Works ("Exemption List"), apply.

Section 11-200-8(2) of the EIS Rules arguably may apply. However, taking into consideration: (1) an additional purpose for the facilities, that is, for the distribution of electricity; (2) an increased capacity of use; (3) an increased density; (4) increased height of the utility poles installed or to be installed; and (5) larger dimensions of the poles to be installed and different shaping at the top of the poles, there is a sufficient basis to conclude, based

upon the evidence presented, that there is a substantial difference between the pre-existing telephone poles and the joint utility poles to be installed pursuant to the HELCO project, in light of the project's environment. Exemption Class #2, as defined in the Exemption Rules, does not further delineate any specific type of action which is potentially applicable to this case.

For the reasons set forth above, Exemption Class #5 of the Exemption Rules does not justify an exemption.

d. The cutting down or reshaping of trees is to be performed pursuant to the HELCO project. The balance of irreparable damage favors an injunction against the cutting down of trees and the trimming of trees so that their sizes or shapes are significantly altered pending a final determination of these matters. However, no other injunction shall issue at this time.

e. The above injunction is consistent with the public interest.

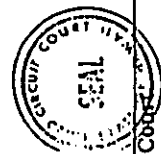
f. In light of the written confirmations of determinations made by the County's agencies that a special management area permit and an environmental assessment were not required, appeals of agency actions may be appropriate. However, the opportunity for appeal should not justify leaving Friends without an immediate remedy for irreparable damage. On the other hand, the results of the appeals may have an impact upon this injunction.

DATED: Hilo, Hawaii FEB 28 1995

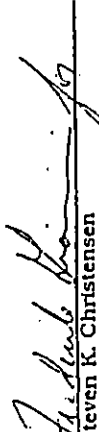
APPROVED AND SO ORDERED:

GREG Z. ANASTASOPOULOS

Judge of the above-entitled Court



APPROVED AS TO FORM:


Steven K. Christensen
Deputy Corporation Counsel
County of Hawaii
For the Municipal Defendants


David Sherman
Attorney for Defendant HELCO

Friends of the Red Road and Michael T. Hvson v. County of Hawaii et al.; Civ. No. 400; Order Granting, In Part, Plaintiffs' Motion for Preliminary Injunction



DOCUMENT CAPTURED AS RECEIVED

ATTACHMENT # 5

Dear Editor,

SEAVIEW TO POLE VIEW - NOT A DEMOCRATIC CHANGE

I chose to live in lower Puna, far away from city lights, a place where people have traditionally chosen rural tranquility over urban convenience. When we purchased our land adjacent to Seaview Estates in 1987 we chose it because it met our basic requirements which included a beautiful ocean view. Since Helco installed 2-3 electric poles between our land and the ocean, our seaview has become a very ugly pole view. Helco put up these poles to provide electricity to the small minority of owners of property here who replied positively to their repeated offers. A significantly larger majority of owners here declined the offers yet instead of accepting this as a democratic vote against the project or merely taking electricity to those who requested it and putting up fewer poles Helco chose to "grid out". "Grid Out" means that Helco has put poles and wires everywhere, on every street, outside every house even those totally satisfied with their solar power. Where the wishes of the majority are ignored you do not have democracy. I believe that my right to a poleless ocean view is equal to anyone's right to Helco's pole delivered conveniences when viable economic options are available. This is based upon the original developers promotional picture of Seaview Estates which portrays a built out subdivision with beautiful houses, picturesque trees, a community swimming pool and tennis courts. No where in this picture do you see a utility pole. In 1972, the planners foresaw either underground utilities or solar power providing residents needs. Helco tells us that we must have poles because underground utilities, though viable in Waimea, Waikaloa and Kona, are just too expensive for Puna. They ignore the fact that solar power

is not too expensive, compares favorably with Helco's offer and is our future. Solar energy is earth's most probable big power source when fossil fuels are eventually exhausted. If not you, then your children and their children will be dependent for most of their energy needs on solar power. Seaview/Keheha residents who have installed solar systems are pioneers in the development of the world's future power supply. Instead of condemnation, these grassroots alternative energy developers deserve encouragement and support from government and Helco. Instead of fighting against the wishes of the enlightened majority how much more could we all have benefited if Helco had taken this opportunity to make Seaview/Keheha a solar community demonstration model for the State.

How many light bulbs does it take to enlighten our leaders?

Graham Ellis
Tel: 965-8756

ATTACHMENT # 6

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

- 1. HELCO's Rule Nos. 13-S and 14.
This Agreement is made in accordance with and subject to Rule No. 13-S (Line Extensions, Special Subdivision Project Provisions) (Rule 13-S), Rule No. 14 (Service Connections and Facilities on Customer's Premises) (Rule 14), and other applicable Rules of HELCO's Tariff in effect and on file with the Public Utilities Commission of the State of Hawaii (the "PUC").

- 2. Jurisdiction of Hawaii Public Utilities Commission.
This Agreement shall at all times be subject to such changes or modifications as the PUC may make or direct in the exercise of its jurisdiction.

- 3. Extension of HELCO's Overhead Electric Lines.
(a) HELCO shall extend its overhead electrical distribution lines in order to be able to provide electric service to lots within the SSPP Unit, subject to the terms and conditions set forth in this Agreement.

- (b) The Line Extension shall include all primary and secondary distribution voltage overhead lines and poles, including any Main Line Extension, required to serve the SSPP Unit.

- (c) If the Line Extension uses a Main Line Extension that has been paid for by one or more other SSPP units, the SSPP Unit shall pay its proportionate share of the cost of such Main Line Extension based on the relative number of lots in each SSPP unit.

- (d) Where Hawaiian Telephone Company has installed a telephone-only line extension, HELCO normally will build a separate electric line for its service. If a joint pole installation is requested by the Original Subscribers along a pre-existing telephone line extension, or is required by HELCO for engineering or operating reasons, the additional cost incurred by HELCO for such installation plus any charges by Hawaiian Telephone will be included in the cost of the Line Extension.

- 4. The SSPP Unit.
(a) The SSPP Unit, as it is presently configured, is described on Exhibit "A" hereto. Exhibit "A" also identifies the owners of the Initial Lots who have indicated to HELCO that they intend to participate in the SSPP Unit.

Owner: FRANK CLARE
 SSPP Unit No.: 71, Serving
 KALAPANA SEAVIEW ESTATES, PUNA
 BEACH PALISADES & KEHEVA BEACH
 Subdivisions
 Mailing Address: 1514 WALLER
 SAN FRANCISCO, CA 94117

Tax Map Key: 1-2-33:123 Lot 90

SPECIAL SUBDIVISION PROJECT
LINE EXTENSION AGREEMENT
(ORIGINAL SUBSCRIBER)

THIS AGREEMENT is entered into as of October 1, 1993, by and between FRANK CLARE ("OWNER"), an Original Subscriber in SSPP Unit No. 71, and HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO"), a public utility under the laws of the State of Hawaii.

WITNESSETH:

WHEREAS, OWNER and the other Original Subscribers in the above-referenced SSPP Unit (collectively referred to herein as the SSPP Unit) are owners, and/or lessees under long-term leases, of lots within the above-referenced subdivision, a subdivision recognized and approved by the County of Hawaii and developed prior to the enactment in 1967 of Hawaii County Ordinance No. 62, and such lots are without available electric service; and

WHEREAS, the SSPP Unit desires to have HELCO extend its overhead electric lines to serve lots within such SSPP Unit pursuant to Rule No. 13-S of HELCO's Tariff; and

WHEREAS, HELCO is willing to extend its overhead electric lines to furnish electrical service to such lots in accordance with its Tariff;

(b) The Shared Cost is equal to two-thirds (2/3rds) of the total estimated cost of the Line Extension required to serve the SSPP Unit divided by the number of Original Subscribers.

(c) The amount of the Shared Cost shall be TWO THOUSAND EIGHT HUNDRED TWENTY and NO/100 Dollars (U.S. \$2820.00), so long as a minimum of 75% of lot owners (as shown in Exhibit "A") sign this agreement and either pay the Shared Cost in full or execute Promissory Notes.

7. Payments by OWNER.

(a) Unless OWNER elects to make payments in accordance with Paragraph 7(b) of the Agreement and executes a Promissory Note, OWNER shall pay the entire amount of the Shared Cost prior to the start of construction for the Line Extension.

(b) If OWNER executes a Promissory Note, OWNER shall make an Initial Payment equal to ten percent (10%) of the Shared Cost or \$500.00, whichever is less, plus equal monthly payments over a period of up to ONE HUNDRED TWENTY (120) months to cover the remaining balance of the Shared Cost plus simple interest at the yearly rate of nine percent (9%).

(c) OWNER shall be entitled to make a full or partial prepayment of principal without paying any prepayment charge.

(d) The time and place of payment shall be as specified in the Promissory Note.

(e) Payments shall be subject to late payment and returned check charges as specified in Rule 8 of HELCO's Tariff and any amendments thereto.

(f) If the Promissory Note is sent to a lawyer for collection, OWNER agrees to pay HELCO's attorneys' fees and court costs.

(g) HELCO may refuse or discontinue service to OWNER for non-payment pursuant to the procedure specified in Rule No. 7.A.5 of HELCO's Tariff and any amendments thereto.

(h) If OWNER sells or otherwise transfers OWNER's lot, OWNER shall pay the outstanding balance as of the date of such transfer, or assign this Agreement to the new lot owner in accordance with Paragraph 15(b) of this Agreement.

8. Requirement that Owners of 50% of Initial Lots Sign Agreement.

(a) HELCO, in its sole discretion, may terminate this Agreement unless the owners of at least 50% of the Initial Lots (i.e. 214 lots) execute and deliver to HELCO Special Subdivision Line Extension Agreements on or before February 1, 1994.

(b) The Original Subscribers are those lot owners, including OWNER, who agree to participate in the Rule 13-S Line Extension by executing and delivering to HELCO Special Subdivision Line Extension Agreements on or before November 8, 1993. Exhibit "A" may be revised by HELCO after the Original Subscribers are determined.

(c) OWNER and HELCO agree that the SSPP Unit Representative is the individual, organization or other representative identified in Exhibit "A" to this Agreement.

(d) The HELCO Administrator assigned by HELCO to facilitate the organization and administration of the SSPP Unit is identified in Exhibit "A" in this Agreement, and HELCO may change its administrator from time to time upon notice to the SSPP Unit as provided in Paragraph 16(c) to this Agreement.

(e) OWNER agrees that HELCO, and its Administrator and employees, shall incur no liability as a result of or in connection with HELCO's assistance to the SSPP Unit.

(f) Nothing in this Agreement shall be deemed to constitute OWNER and/or the SSPP Unit on the one hand, and HELCO on the other, to be a partner, agent, fiduciary or representative of the other.

5. Provision of Electric Service.

(a) Owner shall file an Application for Electric Service in accordance with Rule No. 3 to HELCO's Tariff if OWNER requests that HELCO provide electric service to OWNER's lot after the construction of the Line Extension. The service connection will only be made in accordance with Rule 14, and shall not be made until receipt of an Application for Electric Service.

(b) Standard service drops of up to 150 feet per customer are provided by HELCO pursuant to Rule 14 without additional charge, and the cost of such standard service drops is not included in the computation of the Shared Cost that OWNER must pay in accordance with Paragraph 6 of this Agreement.

(c) HELCO will install only those facilities that it deems necessary to render service in accordance with its tariff. Where OWNER requests Special Facilities that are acceptable to HELCO but are in addition to, or in substitution for, the standard facilities that HELCO would normally install, OWNER agrees to make a non-refundable contribution of the extra cost thereof.

6. Shared Cost Payable by OWNER.

(a) OWNER agrees to pay to HELCO a Shared Cost in accordance with Paragraph 7 of this Agreement.



(b) HELCO shall have no obligation to commence construction of the Line Extension until HELCO receives the Shared Cost or the Initial Payment, whichever is applicable, from each Original Subscriber in the SSPP Unit. HELCO, in its sole discretion, may terminate this Agreement if HELCO does not commence construction of the Line Extension on or before March 28, 1994.

(c) If HELCO terminates this Agreement pursuant to this paragraph 8, HELCO shall return any payments made by OWNER, without interest.

9. Refunds

(a) If the sum of monies received for this unit exceeds the total estimated cost of the unit, HELCO will refund the excess amount to subscribers in accordance with Paragraph 9(b) of this Agreement.

(b) Refunds, if any, will be made annually within the first quarter of each applicable year to those subscribers on record as of December 31 of the previous year for a period of fifteen years following the year that the SSPP Unit is first energized. The refunds to OWNER for any given year shall first be credited against OWNER's outstanding balance. If the outstanding balance is reduced to zero by such credit, any excess refunds shall be paid to OWNER provided that this excess is at least \$10.00. If the excess refund is less than \$10.00, the undistributed excess refund will be accumulated to the end of the next calendar year until it exceeds \$10.00, at which time the excess refund will be paid to OWNER. The total refunds to OWNER shall be limited to the amount of OWNER's Shared Cost.

(c) HELCO shall have the right to offset against any refunds payable hereunder the amount of any indebtedness then due or owing by OWNER to HELCO.

10. Location of Lines

OWNER acknowledges that HELCO will construct electrical lines and facilities only along, upon and over public streets, roads, and highways when it has the legal right to do so, and on public lands and private property across which it has otherwise obtained rights of way or other necessary rights satisfactory to HELCO.

11. Special Termination

In accordance with the PUC's Decision and Order No. 8459, HELCO shall notify the PUC at least sixty (60) days in advance of beginning construction of any electrical lines and facilities to service the SSPP Unit. OWNER acknowledges that the PUC may suspend HELCO's plan to provide electrical service to the SSPP Unit within said 60-day period in which case this Agreement shall remain in full force and effect until a final determination by the PUC whether HELCO may proceed under this Agreement. If the PUC suspends this Agreement indefinitely, HELCO shall refund to OWNER any monies deposited with HELCO without interest and this Agreement shall be terminated.

12. Plan Limit and Priority

In accordance with the PUC, HELCO may not expend more than \$3,000,000 under Rule 13-S in any calendar year without PUC approval. OWNER understands and acknowledges that extension of electrical service to the SSPP Unit may be delayed if such extension would cause HELCO to exceed such \$3,000,000 limit.

13. No Liability for Delays

HELCO shall not be liable for any delays regardless of the reasons for such delays, in commencing or completing construction of the Line Extension.

14. Interruptions

In case of disagreement or dispute regarding the application of any provision of this Agreement, HELCO or OWNER may refer the matter to the PUC for determination.

15. Assignment

(a) OWNER shall not assign any of its rights under this Agreement except after prior written and notarized notice of such assignment to HELCO.
(b) OWNER shall not delegate any of its obligations under this Agreement without the prior written consent of HELCO, and OWNER shall not be relieved of any of OWNER's obligations without such written consent.

16. Miscellaneous

(a) Amendments. Any waiver, alteration, amendment or modification of this Agreement or any part hereof shall not be valid unless in writing and signed by the parties.

(b) Binding Effect. This Agreement shall be binding upon and future to the benefit of HELCO and OWNER and their respective successors, legal representatives, and assigns.

(c) Notices. Any notice provided hereunder shall be in writing and shall be delivered personally or sent by registered or certified first class mail, with postage prepaid, to the other party at the following address:

HELCO: Hawaii Electric Light Company, Inc.
P. O. Box 1027
Hilo, HI 96720
Attention: SSPP Administrator

OWNER Mailing address is stated on page one of this Agreement.

Notice sent by mail shall be deemed to have been given on the date of actual delivery of at the expiration of the fifth day of the date of mailing, whichever is earlier. Any party may change its address for notice by giving notice of such change to the other party.

(d) Effect of Section and Exhibit Headings. The headings or titles of the several sections and exhibits are for convenience of reference and shall not affect the construction or interpretation of any provision of this Agreement.

(e) Non-Waiver. No delay or forbearance of HELOCO or OWNER in the exercise of any remedy or right will constitute a waiver thereof, and the exercise or partial exercise of a remedy or right shall not preclude further exercise of the same or any other remedy or right.

(f) Entire Agreement. This Agreement constitutes the entire understanding and agreement between the parties.

(g) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Hawaii.

IN WITNESS WHEREOF, the parties have executed this agreement as of the day and year first above written.

Oct 19, 1993

Frank Clare
FRANK CLARE
OWNER(S)

HAWAII ELECTRIC LIGHT COMPANY, INC.

William J. Peterson
His Authorized Secretary
HELOCO

11004451

From Page 1

face of everything they've been doing in good faith contract negotiations."

Enserch is an independent power producer, and wants to build the plant and sell electricity to Helco for Helco to deliver to its customers.

Helco says the Big Island badly needs more power generating capacity, but so far has refused to sign power purchase contracts with Enserch and at least two other

from independent producers and distributes to its customers. However, Helco does make a profit on power it produces itself and sells to its customers.

Helco has been trying for years to win permission to expand its Keahole Generating Station to produce an additional 58 megawatts of power there.

The state Board of Land and Natural Resources has refused to grant Helco an amendment to its

independent producers.

Helco says Enserch and the other independent producers want to charge too much for the power they plan to generate. If Helco signed contracts with those independent producers, Helco says that would cause electric rates to increase more than if Helco builds its own plants and produces the power itself.

Under federal law, Helco cannot make a profit on the power it buys

conservation district use permit for the Keahole site, and Helco has been unable to expand the plant.

Today Helco lawyers will argue before Circuit Court Judge Ronald Ibarra that the land board didn't legally deny Helco's permit amendment earlier this year.

Helco hopes to have the land board order ruled invalid, clearing the way for Helco's Keahole project to proceed.

Battle over power to resume before county Planning Commission

By Kevin Dayton
Tribune-Herald

Skirmishing over Big Island power resumes today in Honokaa and Kona as Hawaii Electric Light Co. fights to expand its power plant in Keahole, and challenges a competitor's plans to build a plant in Hamakua.

Helco has requested a contested case hearing before the county Planning Commission over plans by Enserch Development Corp. to build a 60 megawatt power plant in Honokaa.

If the Planning Commission grants Helco's request, that would slow Enserch's plans to build the new power plant on the old Haina Mill site.

Jody Allione, senior project development manager for Enserch, said Helco officials assured her they had no intention of blocking Enserch's permits.

Allione said the filing by Helco is an obvious attempt to stall the Honokaa project, and said it shows Helco is "getting desperate."

"I'm totally amazed," Allione said. "It flies in the

DOCUMENT CAPTURED AS RECEIVED

04-25-1995 04:34PM FROM Rana Productions Ltd. TO : 80265421537 P.25

ISAC HULL, ATTY IN LAW ATTACHMENT #8 PAGE 92

929 1245

R. M. TOWILL CORPORATION
 400 Wilkesboro Road, Suite 417
 Mooresville, NC 28138-1131

TO: Reggie David
Rana Productions

DATE: 4/26/95
 FROM: NORM SKIDG
 SUBJECT: Pea's Breeding

NO. OF PAGES: 2
 (INCLUDES FOR COVER)

REMARKS: I have 2 details for the A'o discussion on pg. 11

1001846

above the site and also on Kahawai crater (Fig 2) (David pers. obs., Reynolds et al. 1984, Banko 1980 a). Given the proximity of 2 known nesting colonies in the immediate area and a high possibility of others, especially on Iliwa Crater directly above the site, there is a real likelihood that A'o transit the site on their way to and from their breeding colonies (Fig 2).

Hawaiian Hawk: Buteo solitarius

The Hawaiian Hawk is the only extant falconiform in Hawaii, it currently is endemic to the Island of Hawaii, sub-fossil remains indicate that it was also formerly found on Mokuai (Olson & James 1982). Several incidental unconfirmed sightings of this species exist from Kauai (Doyle 1979, Beaglehole 1980) and Maui (Banko 1980c). This species was scientifically described by Peale in 1848 from a specimen collected from Kealahou (Banko 1980c). The Hawaiian Hawk was first listed as endangered in 1967 (USFWS 1992). This species has probably adapted better than any other endemic avian species to the alien dominated lowland areas of the island. Hawaiian Hawks occupy a wide variety of habitats, in fact they are to be found in almost all habitats not lacking trees. They are all but absent from treeless or close to treeless grasslands and lava fields. During the course of the HFBS no population estimate was made, due in part to the fact that as with most raptors Hawaiian Hawks do not meet the basic assumptions that are used in computing forest bird community densities (Scott et al. 1986). In 1984 Griffin estimated a population of some where between 1400-2500 birds (Griffin 1984). This species is currently under review by the USFWS for down listing from endangered to threatened status (USFWS 1993). In an attempt to get solid numbers for this downlisting proposal the USFWS sponsored an island wide survey specifically targeting Hawaiian Hawks. The survey results put the present population of this species at 1600 birds (Morrison et al. 1994). It is generally thought that the population is healthy and maintaining itself, unlike many other endemic species. Although no Hawaiian Hawks were detected during this present survey, it is safe to say that there is some usage if the site by this species. A concerted effort was mounted to locate any nests, none were found.

Common 'Amakihi: Hemignathus virens virens
The nominate race of 'Amakihi was described by Gmelin in 1788 from one of several specimens collected by Captain Cook's party at Kealahou in 1778 (Medway 1981). This species is the most adaptive of the diurnids, it was extremely common in Cook's day and is still numerous.



1001846

RETYPED FACSIMILE OF ORIGINAL FAX

National Biological Service
P.O. Box 44 Hawaii Field Station
Hawaii National Park, HI 96718
(808) 967-7396
Fax:

Michelle Reynolds
Wildlife Biologist
National Biological Service
P.O. Box 44 Hawaii Field Station
Hawaii National Park, HI 96718

August 20, 1996

Colette Sakoda
R.M. Towill Corp.
420 Waiakamilo Rd. Suite 411
Honolulu, Hawaii 96817

RE: comments for EISPN

Dear Colette Sakoda:

After reviewing only section 3.2.2 and 4.3 of the EISPN for SSPP Puna Hawaii, I have several comments:

- 1) I should not be named as part of the methods in section 3.2.2.1 INITIAL SURVEY/STUDY METHODS. I was not part of this study's methodology therefore shouldn't be mentioned by name in the methods section or elsewhere unless the report is citing a specific reference (scientific reference or report). I was contacted through my agency, NBS which was misidentified in the text as USFWS. If in the acknowledgments or under the heading of section 9.0 Parties and Agencies Consulted (I did not see this section) you mention the information provided by NBS, please state that the National Biological Service was consulted for existing data on species of concern in Puna and the vicinity of the proposed project. By mentioning my "experience surveying seabirds and bats in the Puna areas" the report appeared to suggest I was part of this project, which I was not. Thank you for making these corrections.
- 2) In the study's findings section it states that the nesting densities of the seabirds inland from the study site was generally low. To my knowledge, no one has determined the occurrence of inland nesting areas from the project site or the densities of nesting seabirds. This is an area where very little data exists, largely due to the Newell's shearwater's rainy and nocturnal habits. Newell's shearwater were only just discovered to be nesting in the Puna District in 1993, so very little is known about its distribution or nesting densities. This should be reworded so as not to reflect information that is not known.
- 3) The EISPN section 4.0 Probable Impacts and Mitigation measures for the Faunal section 4.3 does not appear to address the possibility of cumulative impacts and address mitigating the possible impacts to threatened Newell's shearwater. I had several suggestions, questions, and concerns for this portion of EIS. The report states that a portion of the proposed coastal powerline lacks tall

Colette Sakoda
Page 2
August 20, 1996

vegetation thus increasing the possibility of low flying seabirds. Have the project developers considered strategic tree planting (not all "foliage" matures to 15 m) as a means to ensure "diminished powerline collision risks" in the area where vegetation is low or scattered? Is it possible more lines will be strung as demand for electricity increases? As electricity becomes available, residents of the area may utilize flood lights or bright street lights which present an attraction to Newell's shearwater. Will these types of secondary impacts be considered in the EIS? Will future additions to the proposed or existing overhead distribution system be considered?

I hope future modifications and additions to the utility infrastructure in Puna will continue to consider the height, configuration, and placement of all new utility lines to minimize risk to federally protected night flying seabirds regardless of their rarity or abundance. Advanced planning for the overhead distribution system, especially in the coastal areas will help avoid potential conflicts with Hawaii's unique wildlife.

Thank you for the opportunity to comment on EISPN. I would be interested in reviewing additional reports (especially since my name appeared in this one!) as my schedule allows.

Sincerely,

Michelle Reynolds
Wildlife Biologist

R. M. TOWILL CORPORATION

480 WAIKAMUI RD #411 HONOLULU HI 96817-9041 (808) 948-1133 FAX (808) 948-1037

February 19, 1997

Athena Peanut, President
Friends of the Red Road
P. O. Box 1610
Paheo, Hawaii 96778

Dear Athena Peanut:

Subject: SSPP Unit 71 EISPN Response Letter Dated November 15, 1996

The following has been prepared in response to your comments and concerns regarding a response letter from R.M. Towill Corporation dated August 15, 1996.

1. Subdivision roads that were developed for the residential subdivisions of Kalapana Seaview, Puna Pailsades, and Kēhena Beach Estates are major infrastructure. The next major infrastructure introduced was the GTE Hawaiian Tel overhead telephone lines more than ten years ago.
2. According to data (Comparison of Number of Sales Vacant Land Island of Hawaii versus Puna) from MLS Hawaii, the 1990-91 boom in real estate sales was experienced islandwide on Hawaii. This sudden increase occurred at the tail end of a statewide boom in real estate sales of the late 1980s, when buyers turned from Oahu to the island of Hawaii in search of real estate that was less expensive, according to Harvey Shapiro, MLS Hawaii, (December 1996). With the outbreak of the Desert Storm event in early 1991, the real estate market, along with the overall economy, came to a slowdown.
3. The two fauna surveys that were conducted by Rana Productions and ABR for the proposed action were prepared in accordance with Chapter 343, HRS, as amended. Studies such as these are prepared by scientists who have training, knowledge, and the experience to draw conclusions based on a combination of factors including past relevant research, field verification and professional judgement. Your request is for a controlled scientific experiment which is prepared for academic review. Cumulative and secondary impacts are addressed in the DEIS.
4. For those who have chosen to live in a geologically hazardous area, direct threats to safety and health are many, including falling trees that may, as a result, collapse onto poles. County of Hawaii Civil Defense is responsible for notifying residents when evacuation or other actions is needed. Notification methods are improved through telecommunication systems that have been strengthened through electrically boosted repeater systems in the area.
5. Your comments regarding views from Kalapana Seaview are noted. The discussion of impacts is clarified for the EIS.
6. As discussed in the EIS, photovoltaic and traditional grid systems remain as individual choices. The project will increase the array of choices to those who have requested and have been awaiting electrical service supplied by HELCO through the SSPP program that was approved by the PUC.

Ms. A. Peanut
February 19, 1997
Page 2


as a 12.4772 KV overhead distribution system. Individual residential energy system requirements vary greatly, and the costs and benefits of photovoltaic systems have been analyzed with respect to published studies as opposed to anecdotal information.

7. As stated in D.2. Line Extension Customer Advance for Qualifying Units of Rule 13S Line Extension Special Subdivision Project Provisions Existing Subdivision Lots Docket No. 6884

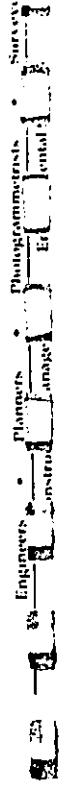
The required customer advance shall equal two-thirds (2/3) of the total cost of the Line Extension project divided by the total number of prospective subscribers who indicate an interest in participating in a proposed SSPP Unit or a percentage thereof to be determined by the Company based on the amount of the Customer Advance, the estimated size of the SSPP Unit, and other factors that are relevant to the final participation rate of the prospective subscribers who indicate an interest in participating. A minimum number of participants may be required by the Company for an SSPP Line Extension Agreement to be valid.

This provision indicates HELCO has the authority to make final decisions on whether or when to proceed with a Line Extension project which may or may not be based on factors including a minimum number of prospective subscribers. Additionally, the basis of the determining subscriber portion of hookup cost is found in this provision as stated.

Sincerely,


Colette Sakoda
Project Manager

cc: Hon Patsy T. Mink
Virginia Goldstein, County of Hawaii, Planning Dept.
Gary Gill, OEQC
Mike Wilson, DLNR
Clyde Nagata, HELCO



R.M. Towill Corp.
420 WAIKA KAMILO Rd.
Honolulu, HI. 96817-491

RE: DEIS, SSPP-71

17-20-96

Dear Ms. Collette Sakoda:

In response to my questions concerning the EIS your company is preparing for Helco, you said, "County government approved these developments with the proposed densities and the implied impacts of development of 1200+ lots some 20 or 30 years ago when granting subdivision approvals." The county also approved Royal Gardens subdivision and Kalapana subdivision. My family was one of many families forced out of Kalapana in 1990. I have never seen Royal Gardens as it is riddled with lava flows. With 20 to 30 years of "hindsight" you would think the county would rethink their planning choices. Unfortunately, the county doesn't pay for its mistakes; the taxpayers and the utility rate payers pay instead. You say, "Public costs of the Kalapana inundation and the 1955 flow,

-2-

draft EIS." Why isn't this information in the Draft EIS? Isn't it your job to make this information available? How much did FEMA payout for the Kalapana inundation? How much did Kauai pay to have the tangled lines and broken poles from Hurricane Iniki fixed? Where in the Draft EIS is there information about storm damage to electrical grids?

I do not find anything in the draft EIS recognizing the already existing solar supplied electrified houses in these three subdivisions... Many of the home have TVs, VCRs, nintendo games, washing machines, microwaves, coffee makers, computers, amplified guitars, and yes, toasters! People in this area are not living deprived lives because we are not powered by HELCO. Why is the inadequate telephone service (i.e., not enough private line service available) blamed on a lack of power grid. Blackbards,

- 3 -

Hawaiian Paradise Park, Orchid Land Estates, Hawaiian Acres, Hawaii Beaches Estates, Nanawale subdivisions have electrical power grids and inadequate telephone service, too! There are already many computers in this area. You don't need HELCO's power grid to have a home-based computer business. Yes, we need private phone lines for FAX machines. Again, the inadequate phone service is not because of the lack of HELCO power service.

R For a year and a half I lived in a house with a wonderful solar system. The house had 15 light fixtures. Besides the lights, we regularly used a blender, tape deck, sewing machine, key board player, ceiling fan and a water pump. The landlady made an addition to the house using ONLY the solar system. There was no monthly electrical bill. The system was SUN POWERED. There was no generator. For a year and a half

- 4 -

I had no interruption of electrical power. Occasionally I pushed a button to check the power level, and it was always adequate. The landlady checked the batteries and added distilled water when needed.

R I am a "home owner preferring electrification" but I prefer solar electrification so I will refer to myself as a H.O.P.S.E. The best thing about being a H.O.P.S.E. is I don't have to worry about seeing a pregnant woman and her husband electrocuted to death from downed live electrical wires during a storm. As reported in the Hawaii Tribune-Herald, this happened several years ago in our neighboring community of Keolu. I heard the horrifying first-hand account of this tragedy from a 12 year old who witnessed it. Also the couple's 3 year old daughter watched her parents fry to death... How much did HELCO pay out in settlement fees for this tragedy? Did this money come out

-5-

Warren Lee's (HELCO's president) pocket or did the rate payers pay once again. Hawaii likes to brag that we have the southernmost tip of the U.S.A. How about bragging about having the first Hawaiian solar community. Wouldn't it be nice if my subdivision had a sign saying "Welcome to Hawaii's first Solar Community begun in the 20th Century & Leading the World into the 21st Century."

¶ Your Draft EIS is biased and inadequate. Why are there no pictures of the power poles [see enclosed picture] and lines hanging right on the Keheua cliffs above the raging surf? Why do I have a transformer right next to my driveway? As a H.O.P.S.E. I want to see something said about how adequate and powerful solar electrical power is. SOLAR WORKS. This pristine, beautiful, sun-blessed coastal area deserves better. As an earth-loving,

-6-

sun-affirming woman I demand an unbiased just EIS.

r. Jeranium
Kee-kee-Keheua,
Puna

RR2 BOX 4528
PAHOA, HI 96778

P.S.

The already existing telephone poles do not justify your claim to an already existing MAJOR infrastructure. Next to HELCO poles, lines, transformers and future electro magnetic fields, they are a MINOR infrastructure.

cc: VIRGINIA GOLDSTEIN, Hawaii PD

GARY GILL, OEQC

MIKE WILSON, DLNR

CLYDE NAGATA, HELCO

R. M. TOWILL CORPORATION

480 WAIKAMUI RD #411 HONOLULU HI 96817-4041 808.942.1133 FAX 808.942.1937

February 19, 1997

Ms. R. Jeranium
RR2 Box 4528
Pahoa, HI 96778


Dear Ms. Jeranium:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

In response to your letter of December 20, 1996, the following has been prepared:

1. County of Hawaii Civil Defense reports that no specific money damages have been estimated due to the complexity of the situations for both the Kalapana and the 1955 lava flows. A damage assessment would have to take into account County and State facilities including 4 to 5 miles of public roads, the destruction of a main water line, and public parks and beaches, not to mention the telephone and electrical facilities. To gain a better perspective of the damage assessment we would like to refer you to the FEMA report no 864-DR-HI.
2. Your comments about the advantages of living with solar supplied electrified homes are appreciated. Living in a home that is solar powered will continue to be an individual choice. However, the subject project, SSPP Unit 71 12.477.2 KV Overhead Distribution System, is a service that HELCO is attempting to provide to those who have requested it. Grid powered electricity is another choice for some.
3. The EIS is prepared for the project as proposed. The environmental analysis of the project is conducted in accordance with provisions of Chapter 343, HRS, as amended, in a professional manner.
4. Infrastructure was introduced when the roadways were constructed for the three project area residential subdivisions.

Sincerely,


Colene Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodstill Anderson et al

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Scientists

Colette Sakoda
Page 2
December 19, 1996

Duane P. Cariaga
RR2 Box 4552
Pahoa, Hawaii 96778

December 19, 1996

Colette Sakoda, Project Manager
R.M. Towill Corporation
420 Waikamilo Rd #411
Honolulu, Hawaii 96817-4941

Subject: SSPP Unit-71 12.47/7.2 KV Overhead Distribution System
DEES, Puna, Hawaii

Dear Colette Sakoda,

I have received both your letters dated October 2, 1996 regarding the above matter. I have reviewed your Draft EIS and find it inadequate. The EIS needs to be redrafted for the following reasons:

- 1) NO, telephone poles are NOT major infrastructure. Major infrastructure promotes water, sewage, road, school, police, fire, public transportation, etc. In the ten years that GTE has been here, there has been very little population growth and the thousands of acres of pristine land have remained pristine. Occasional noise pollution from generators is nothing compared to noise pollution from increased coastal and mauka traffic, population densities and construction.
- 2) You did not answer my question, how is the community able to rely on R.M. Towill considering the huge inadequacy of the ESPN (and DES) which appear to be no more than a slightly edited version of the Final Environmental Assessment? You are glossing over very important issues of geologic hazards, secondary impacts, view plains and endangered species.

A mere recitation of the inadequate geologic hazard information stated in the FEA is not acceptable. The Third Circuit Court which ordered the EIS, found that "The county failed to consider the significance criteria, set out in HAR 11-200-12, prior to issuing a Negative Declaration. Specifically, substantial secondary impacts such as possible population changes and the Project's effect in an environmentally sensitive area such as Lava-Flow Hazard Zones 1 and 2 were not considered." (See attached Decision and Order, Civil No. 95-14 (consolidated) July 8, 1996, Page 5, II. Conclusions of Law, No. 8.) How can you justify your refusal to present an unbiased study?

3) Does Paragraph 3 sentence 2, mean that state and other public entities will only be consulted to help determine potential public costs if approvals are granted? You state "Public money will not be used to replace utility poles". Is not rate payers money public money? According to Hawaii Civil Defense, tropical

cyclones' damage to lines and poles are of major concern. How does the presence of electric poles and lines affect my safety during common geologic phenomena (tropical cyclones and earthquakes) as well as emergency evacuation in this multi-geologically hazardous area?

4) Why didn't you print your reply to my letter No. 2 regarding future impacts on coastal waters and fishing in the DEIS? Your response in Section 5, Land Use Plans, Policies & Controls, 5.4 CZM Law 1995, (5) Other offshore ecosystems that offer recreational activities such as fishing will not be impeded by the project is not a study. This is a self-serving statement. How did you come to this conclusion? Where did you get this information? I would like to see your studies. According to HAR Subchapter 7, 11-200-14, (d) any substantive comments received by the proposing agency shall be responded to in writing and as appropriate, incorporated into the draft EIS. The issue of impacts on coastal fishing IS THE ISSUE!

What I have asked you for are REAL studies showing the amount of pesticides, herbicides, clorox and all household chemicals and car related fluids released in the environment due to population increase of push button electrical users over conservative solar users. How will all of this affect the shoreline. These are the issues that are not addressed in the DEIS.

5) Where is the non biased solar study for the DEIS? "A copy of the DEIS will be sent to local authorities on solar energy for comment" is not adequate. Who are the local authorities on solar energy? Why wasn't this material included in the DEIS? Has Helco informed prospective subscribers to SSPP-71 of the alternative (mobile solar PV units for remote areas) that Helco is promoting and advertising now? Your Helco-bound bias dismisses solar energy as a viable alternative for least impact to the environment is improper. This very important alternative that has not been studied at all. Why haven't you included interviews from the many solar users in the project area who have used solar exclusively for years? Why haven't you used this 1/4-century old solar community as a baseline study for minimal impacts on the environment of solar users?

6) Pollution from discarded used batteries from PV systems. We all have car batteries. Solar batteries are turned in just like car batteries. I have not seen discarded batteries anywhere along the red road. I dump my garbage at the station on the red road and never once seen any dumped batteries.

If a person cannot turn in a battery where it was purchased, isn't the transfer station the obvious place where residents would leave them? Surely the county public works department would dispose of them properly.

injunction hearings, and after considering the arguments of counsel and the files herein, the Court hereby makes the following findings of fact, conclusions of law, and decision and order.

I. FINDINGS OF FACT

Project Description

1. Defendant HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO") undertook plans to construct an overhead electrical distribution system to provide electricity to 1,287 lots within three residential subdivisions in the district of Puna, County of Hawaii. The operation is known as the Special Subdivision Project Provision Program Unit-71 (hereinafter referred to as the "Project").

2. The Project consists of two phases. Phase 1 is located on State of Hawaii land. Phase 2 is located on County of Hawaii ("County") land, and part of its construction falls within a Special Management Area ("SMA"). The Project as a whole includes the installation of six 35-foot, 235 40-foot, and 103 45-foot poles, one 55-foot pole, and 155 anchors.

Procedural History

3. HELCO was informed by the County that the portions of the Project to be located on County land were exempt from the Environmental Assessment ("EA") and SMA permit requirements.

4. On January 11, 1995, Plaintiffs filed a Complaint for Declaratory Judgment under Hawaii Revised Statutes ("HRS") §632-1 in Civil No. 95-14, alleging that an EA was required for

the use of county land, and that a SMA permit was required for construction within the SMA portion of the Project.

5. By stipulation dated May 15, 1995, HELCO agreed to apply for a SMA permit, to expand the scope of the EA so as to include the use of both state and county land, and to halt the implementation of the Project until the environmental review process was completed.

6. HELCO subsequently withdrew its Draft EA and submitted an expanded EA which included the proposed use of both county and state land. In August, 1995, HELCO applied for a SMA permit.

7. On August 1, 1995, HELCO submitted a Final EA ("FEA") for the Project to the County's Department of Public Works. The County of Hawaii, Department of Public Works is the accepting agency for purposes of HRS Chapters 343 and 205.

8. JIRO SUMADA is the individual charged with evaluating and determining the need for an environmental impact statement, on behalf of the accepting agency. He did not review the FEA, including comments and attachments, in its entirety. Further, he relied on the representations of COLETTE SAKODA of R.M. Towill Corporation, who prepared the FEA, that all comments to the Draft EA had been addressed.

9. In a letter dated August 3, 1995 to the Office of Environmental Quality Control, MR. SUMADA signed a Negative Declaration (i.e., finding that the Project will not have a significant environmental effect) that was prepared and transmitted to MR. SUMADA by MS. SAKODA. The Negative

Declaration was published in the OEQC Bulletin dated August 23, 1995.

10. On September 22, 1995, Plaintiffs filed a Complaint for Declaratory Judgment under HRS §632-1 in Civil No. 95-454 to contest the adequacy of the FEA and to challenge the Negative Declaration.

11. Civil Nos. 95-14 and 95-454 were consolidated for trial.

12. On the first day of trial, the Court granted HELCO's motion for partial summary judgment, finding that the FEA was adequate as a matter of law.

Generally.

13. An actual controversy exists between Plaintiffs and Defendants.

14. Plaintiff ATHENA PEANUT and the members of Plaintiff FRIENDS OF THE RED ROAD are residents of the Puna District, County of Hawaii, who are directly affected by the implementation of the Project.

15. Plaintiffs' claims arose within the County and State of Hawaii.

16. HELCO relied in good faith on the exemptions granted by the County when HELCO proceeded to implement the Project without completing an EA or obtaining a SMA permit.

17. The Project involves substantial deviations from existing structures, as follows:

a) The Project will replace 265 GTE Hawaiian Tel

poles, and will add 61 new poles.

b) The replacement poles will carry electrical wires in addition to the existing telephone wires.

c) Some of the new poles are approximately 15 feet taller than the replaced GTE Hawaiian Tel poles.

18. Implementation of the Project requires significant alterations in the condition of the vegetation due to tree trimming, tree cutting, and the clearing of vegetation with the use of herbicides.

19. The portion of the Project located within the SMA involves the construction, reconstruction, or alteration of the size of existing structures.

20. The Project lies on geologically hazardous land and is located in Lava-Flow Hazard Zones 1 and 2.

21. Final implementation of the Project may facilitate population growth in the three subdivisions to be provided electrical service.

II. CONCLUSIONS OF LAW

1. The Court has jurisdiction over this consolidated action for declaratory and injunctive relief. Haw. Rev. Stat. §603-21.5(3) (1985); Haw. Rev. Stat. §632-1 (1985); Haw. Rev. Stat. §205A-6 (1985).

2. Plaintiffs are "aggrieved" within the meaning of HRS §343-7(b), and therefore have standing to challenge the Negative Declaration.

3. Plaintiffs have standing to bring an action seeking an

agency's compliance with SMA permit requirements. Haw. Rev. Stat. §205A-6 (1985).

4. Venue is proper. Haw. Rev. Stat. §603-36(5) (1985).

5. The Project does not fall within the classes of actions set forth in Hawaii Administrative Rules ("HAR") §11-200-8(2) and (4) which are exempt from the EA requirement.

6. A SMA permit is required for the portion of the Project located in the SMA, inasmuch as the Project constitutes a "development" pursuant to HRS §205A-22.

7. The environmental review process mandated by law is designed to insure that legally sufficient data is provided to decision-making bodies to render informed decisions. Price v. Obayashi, 81 Haw. 171, 182, 914 P.2d 1364, 1375 (1996).

8. The County failed to consider the significance criteria, as set out in HAR §11-200-12, prior to issuing a Negative Declaration. Specifically, substantial secondary impacts such as possible population changes and the Project's effect in an environmentally sensitive area such as Lava-Flow Hazard Zones 1 and 2 were not considered.

9. By not reviewing the FEA in its entirety for consideration of the sum effects on the quality of the environment, and by improperly relying on the representations of the FEA preparer, the County's Public Works Department abdicated its statutorily mandated review responsibilities.

10. Where, as here, the relief sought by Plaintiffs is for declaratory judgment in an original action under §632-1, the

Court will make an independent review and determination of the salient facts. Hawaii's Thousand Friends v. City & County of Honolulu, 75 Haw. 237, 248, 858 P.2d 726, 732 (1993). In the case at bar, the Court concludes that circumstances warranting such judicial review are compelling, due to the deciding agency's failure to fully consider the information in the FEA, as required by law.

11. Applying the significance criteria set out in HAR §11-200-12, the Court concludes that the Project may have a significant effect on the environment; thus a full EIS is warranted. Haw. Rev. Stat. §343-5(c) (1985).

III. DECISION AND ORDER

Based on the foregoing findings of fact and conclusions of law, the Court hereby makes the following decision and order:

1. The entry of the Negative Declaration by the County shall be set aside.
2. Any and all permits, applications and processes relying on the Negative Declaration shall be rendered void.
3. An EIS shall be prepared.
4. There shall be no further implementation of the Project until the environmental review process is completed.
5. Existing poles and wires may remain pending appropriate review and permitting of the Project.

R. M. TOWILL CORPORATION

420 WAIANAE RD #411 HONOLULU HI 96817-1041 (808) 848-1133 FAX (808) 848-1037

February 19, 1997

Mr. Duane Cariaga
RR2 Box 4552
Pahoa, HI 96778

Dear Mr. Cariaga:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Your letter of December 19, 1996 has been received. The following has been prepared in response to your concerns.

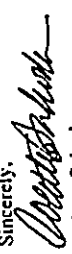
1. Major infrastructure is a subdivision roadway system introduced some 30 years ago when it was first constructed for the three residential subdivisions in the project area. Infrastructure is the telephone communication system built by GTE Hawaiian Tel to service the same three subdivisions. And, infrastructure is the electrical line extension built by HELCO to service the same.
2. The EIS is being prepared in accordance with the provisions of Chapter 343, HRS, as amended.
3. County Civil Defense will assist in the event of natural disasters in this project area as it does in other SSPP units. Communications to remote areas such as yours by County Civil Defense would be improved by the introduction of HELCO service. According to Harry Kim, the HELCO line extension would boost the existing repeater systems that feed telecommunications lines which carry Civil Defense messages to residents through TV, radio and other means of communication.
4. Our reply to your letter no. 2 was printed in section 12 of the DEIS. Biological and archaeological studies were conducted in accordance with the requirements of Chapter 343, HRS, as amended. Please see item no. 2 above.
5. Copies of the DEIS were mailed to the State Department of Business, Economic Development and Tourism's Energy Division and the University of Hawaii Environmental Center. The sections containing discussion of solar energy in the DEIS were also reviewed by Steve Burns of HELCO. As concluded in our analysis, energy requirements vary greatly from household to household. Therefore, the discussion as contained in the DEIS on photovoltaic systems as an alternative remains the same.

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Mr. D. Cariaga
February 19, 1997
Page 2

6. The photograph in the DEIS shows discarded batteries at the Kaimu transfer station entrance. Improperly discarded batteries may result in soil contamination and nonpoint pollution of coastal waters. As discussed and concluded in section 4.13 Secondary Impacts, the projected anticipated population growth in the project area may be impeded by perceived safety hazards of living in a geologically unstable area, distance from shopping and medical and public services. Thus, your concerns about the potential increase in pollution due to improperly discarded car batteries can be mitigated by proactive community self-policing efforts, as suggested in our letter to you dated October 2, 1996.

Sincerely,


Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

14. The reason the lands are described on page 3-23 as not productive is because the description applies to agricultural productivity.
15. Since the maps included in the Kikala Keokea Subdivision Environmental Assessment did not pinpoint the exact location of the project, the subject project DEIS did not include a mapped location. Kikala Keokea Subdivision will be located on a map in the EIS.
16. Your comments regarding Highway 137 and Kehena Beach are understood. However, discussions with public officials regarding recognizing Kehena Beach as a tourist attraction have raised public health and safety concerns. State Department of Land and Natural Resources representatives indicate that services such as safe access, toilet facilities and public parking are not planned or budgeted for Kehena Beach. As documented by DOH and included in the DEIS, sanitation problems have been known to exist at Kehena Beach.
- The State Scenic Byways program includes public roadways that are under State jurisdiction. Highway 137 is under County of Hawaii jurisdiction. The State Department of Transportation is aware of the distinction pointed out in the response letter to Kazu Hayashida dated October 1, 1997.
17. Please refer to Section 3.7 Socio-Economic Characteristics in the DEIS.
18. A HELCO representative has indicated that, upon request, personnel will be able to go to your home to take readings at specified distances.
19. According to Harry Kim of the County Civil Defense Agency, current radio and TV reception are limited because of land mass and unavailability of electricity that can be tapped, if available, to boost the repeater system that would strengthen radio reception in remote areas such as Kehena. Radio and field units are the existing means of alerting this project area's residents of impending disasters such as earthquakes and lava flow. HELCO electrification will help strengthen the repeater system which increases electrically-powered radio units in individual homes.
- County Civil Defense will be responsible for informing residents of evacuation measures in the event of a natural disaster. Utility companies including HELCO will assist in the restoration of service to an area that was receiving service at the time of a disaster, as long as the area is inhabited.
20. Some coconut trees that were planted by the developer to delineate property lines. Right-of-way widths have not changed since lots were sold. As you are aware, HELCO notifies property owners in writing if trees on private property need to be trimmed in order to maintain proper service delivery.
21. Official designations of trees and other flora are assigned by the U.S. Fish and Wildlife Service and the State Department of Land and Natural Resources, which are the agencies responsible for classifications of floral species. Coconut trees are not listed as culturally significant because: 1) they are an introduced species, and 2) they occur in multitude and are commonly occurring throughout the state.

22. The possibility of fire due to sparking or arcing is very rare. Any damage caused by overgrown trees is what the subject letter is directly referring to. Because we are an island state surrounded by the Pacific Ocean, salt water accumulation on utility structures is a concern in any neighborhood.
23. As stated in Section 4.8.2 Long-Term Cumulative Traffic Conditions on pages 4-11 to 4-12, the possible consequences of the increase in vehicular count include the subsequent increase in automobile exhaust emissions. It is simultaneously noted that air quality impacts from volcanic activity and generators are of great concern also.
24. HELCO staff would be able to go to your home to take EMF readings upon request. Because the overhead distribution line is not allowed to be activated, discussion would only be theoretical at this point. According to an October 31, 1996 National Research Council public release it has been noted that "there is no clear, convincing evidence to show that residential exposures to electric and magnetic fields are a threat to human health... After examining more than 500 studies spanning 17 years of research, the committee said there is no conclusive evidence that electromagnetic fields play a role in the development of cancer, reproductive and developmental abnormalities, or learning and behavioral problems."
25. Increase in automobile exhaust emissions is already noted on page 4-12 in the same section. Should the number of automobiles increase to 1,000, incidences of dripping oil from vehicles as well as of improperly disposed of car batteries may occur. These two examples of additional potential occurrences will be noted in the EIS.
26. Please note Section 3.7.6 Public Health and Safety. Concerns relative to existing community public health and environmental conditions. Provision of reliable electrical distribution capacity will facilitate telecommunications systems development to transmit information to and from homes in the project area and service providers such as police, fire, schools, civil defense, and medical facilities. Individuals wanting to use state of the art telecommunication systems with operating hardware such as color televisions and video-conferencing equipment will benefit from the availability of electricity as higher capacity equipment normally operate optimally with simultaneous electrical and telephone service hookup.
27. In specific cases you cite, backup operating systems will probably be generators. Infirm and/or elderly residents should have adequate transportation to medical services, and grocery stores. Residential location remains an individual choice.
28. Construction jobs in this area or any area are not long term. As discussed in Sections 3.1.2 Streams and Drainageways, 3.1.4 Air Quality, 3.1.5 Noise Levels, and this letter item nos. 11 & 12, lawnmowers and saws cause noise pollution and can also cause gas and oil spill pollution if fuel that is used to operate these is handled improperly. Low paying service jobs are not usually considered a community goal, but are components of a community's economic activity, nonetheless.
29. There is no denying that local stores are now selling appliances for use in the Kehena area. We mention on the top of page 4-16 that retailers may benefit from increase in sales of these items as a

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- result of the project.
- 30 It is true that a possible secondary impact is that the project may facilitate residential development
- 31 The squares that appear on the enlarged section of the USGS base map dated 1982 are homes. These squares are also visible on Figure 2-4. The object of Figures 5a and 5b is to delineate the Special Management Area (SMA) portion of the project area. As illustrated in the figures, the SMA is shaded and demarcated by a bold, dashed line. There are no symbols that require interpretation since the highlighted area is indicated in a straight forward manner.
- 32 In the event that an area is officially declared a disaster area, government assistance can be expected. Insurance claims can be made only when one has purchased a policy specifically for natural disasters on one's property.
- 33 The data base is the same as what has been discussed in item nos. 11 & 12 above. Improperly discarded batteries are sources of lead contamination of soil, streams and drainageways. Generators and lawnmowers are sources of noise pollution in a neighborhood. On the other hand, generators is one of only two options available to homeowners to energize their residences in the project area. Cars, if well maintained, would have minimal adverse impact on the environment. As projected in section 4.13 Secondary Impacts in the DEIS, based on experiences in three other SSPP residential areas, the subject project area is not expected to see a population boom that would lead to serious adverse environmental impacts.
- 34 As explained earlier, base maps are those issued by USGS dated 1982. Unless and until USGS issues updated maps, these are the official base maps to be used in our EIS. Regarding the map between pages 6-6 and 6-7, the alternate routes referred to here are the alignments that were considered for placement of the project overhead distribution lines, and not escape routes.
- 35 Photovoltaics are not referred to as preventing long term productivity in this area. The productivity of a community is defined by its social, economic, and environmental health.
- 36 Your comments regarding additional advantages to underground lines have been noted. Section 6.2 Underground Cable includes the discussion that an underground line could offer greater protection from natural disasters such as hurricanes. Greater protection from seismic hazards is questioned since ground movement could result in breakage of underground cable encasements.
- 37 All comments received have been noted and included in Section 12 Comments and Responses of the DEIS. Issues and questions raised by all commenters have been addressed through several avenues including the commissioning of biological and archaeological studies by qualified consultants, and inclusion of information within appropriate sections of the DEIS. The Friends of the Red Road are known to be opposed to the project as proposed by HELCO. Initial recommendations and concerns raised by members of the group led us to contacting Michelle Reynolds of the National Biological Service. This has been documented in the environmental evaluation.

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- 38 Figures 6a and 6b are enlarged tax maps, the same is used for Figure 2-3
- 39 The undesirability of the precedent of underground cable placement is a cost effectiveness issue, as discussed in Section 8 Unresolved Issues.
- 40 All comments and concerns are included in Section 12 of the DEIS. The format and context within which community input is documented and addressed are conducted in accordance with the requirements of Chapter 343, HRS, as amended. The contact with OHA was a phone call in which the staff person of OHA, requested a copy of the DEIS. The letter received from Norman Olesen was received after the end of the 30-day public consultation period. The DEIS is a disclosure document of potential project impacts, mitigation measures and alternatives. Community concerns have been noted and responded to in the form of pertinent information as required by the Chapter 343 statute, and rules and regulations of the Office of Environmental Quality Control. The types of strong opinions expressed in the letters received have clearly indicated that whatever information is presented in response to questions raised will never be satisfactory. In other words, the no project alternative is the desired result by some. However, biological and archaeological resource studies conducted by qualified and experienced scientists have clearly indicated that the project as proposed will not result in significant environmental impacts.
- This EIS is for the project, however, the evaluation of impacts is being conducted on a professional level and therefore, is objective and unbiased.
- 41 Prior to receipt of Ms. Goldstein's recommendation, concerns expressed by Friends of the Red Road were documented and followed up on and the resulting environmental and biological studies and conclusions are contained within the DEIS. The biological and environmental studies were, as earlier stated, conducted by consultants who are knowledgeable, professional and experienced.
- 42 The archaeologist for the project was consulted during the preparation of the response letter to the Sierra Club. The response letter dated October 1, 1996 contains the conclusions of the archaeologist with respect to the non-existence of cave systems.
- 43 In accordance with the Department of Transportation official's agreement, the program will apply to coastal roads that are under State of Hawaii jurisdiction.
- 44 There is no discrepancy between dates. U.S. Fish and Wildlife Service and Michelle Reynolds were consulted during data gathering and the preparation of the environmental evaluation. Correspondence from both parties are included in Section 12 of the DEIS.
- 45 The greater threat to the electrical poles is from a tree falling onto them due to unusually strong wind conditions and not so much from an earthquake. Further, structurally fragile homes that have not been built according to UBC standards would likely collapse in an earthquake before polelines fall.

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46. The discussion of views discloses the existing conditions and view impacts in Section 3.6 Visual Character and Section 4.11 Visual Quality. These discussions are also accompanied by photos taken by R.M. Towill Corporation. The change in views with the project is a qualitative difference from views without the proposed electrical poles. Norman Olesen was consulted in response to Mr. Thomas' reference to him in an August 27, 1996 letter.
47. R. M. Towill Corporation was hired by HELCO to prepare the Chapter 343, HRS, environmental evaluation for the SSPP Unit 71 12.4777.2 KV overhead distribution service to the three residential subdivisions, as disclosed on the cover of the document. Colette Sakoda of R.M. Towill Corporation is assigned to work on the project. As stated earlier, the EIS is prepared for the project. Further, as stated earlier also, the evaluation of impacts is being conducted in a professional, objective manner so that the governmental agency responsible for review of the project will be given sufficient information to determine whether the project will have a significant environmental impact.
48. Your comments have been noted. It is unfortunate that such has occurred in your community.

Sincerely,



Colette Sakoda
Project Manager

cc: DLNR
HELCO
OEQC
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Bettie Van Overbeke
12-423 Ole Ole
Paoha, HI 96778
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3-1-2-031-133a
3-1-2-031-135a
Nov. 26, 1996

R.M. Towill
420 Waiakamilo Rd.
Suite 411
Honolulu, HI 96817-4941
att Colette Sakoda

Dear Ms. Sakoda:

Thank you for sending a copy of the Draft EIS for Raundhorst SSPP 71. My home is located 33 feet from a 40 foot pole within this project, as a result I have many questions relating to health and safety factors. I also have noticed a number of items that do not appear to be accurate from my direct observations.

1. p 2-2, I was not notified of an open meeting between property owners, HELCO and GTE. When did this meeting take place? What notification was given? What property owners were present? Maya Domes and Daniel Bona whos names appear on a letter in the last section, did not own property in Kehena Beach Subdivision. The Kehena Beach Property Owners Association is questionable as representative of the subdivision. That organization is now defunct due to dissenion.
2. The map between p 2-2 and p2-3 is a prelava flow of 1990 map. The shape of the land has changed and the roads shown on the map have been eliminated. Mapping should reflect the current status of the land to have veracity. Why was an outdated map used in an EIS study? Is this omission an effort to downplay the proximity to a devastating recent lava inundation?
3. p. 2.3, "Poles were relocated more than once..." I requested in August 1994 to have a pole relocated to the other side of the street as it was to be dangerously close to my home (33 feet) I offered \$2000. to have this done and was told it was impossible. Please explain why I must have a pole and transformer 33 feet from my upstairs lanai?
4. p 2-7, Please clarify the statement " The object of this district is to encourage development around it such as a golf course, or country club..." Where is there a plan in this area for a golf course? Is it to be municipal or privately owned?
5. p 3-3, Lava zone 2 placement is understated. It is noted that Harry Kim strongly recommended this inclusion, yet it was underplayed. What type human activities would be at risk? What is the percentage of lava coverage in the subdivisions in the past 50 years? Have any areas within 10 miles of the subdivision experienced lava

inundation in recent years since 1985?

6. p. 3-4, Noting that the southern third of Hawaii is recommended to be in seismic zone 4. What was the amount of land movement during the 1975 and 1989 earthquakes in the project area? Was there a cliff collapse in the Kehena area in 1989? What was the damage in the Kehena and Kalapana area during 1975 and 1989 earthquakes? Were there any deaths from earthquakes in this area? Were any power poles toppled during these earthquakes in the Kalapana area? Have HELCO lines or poles come down during seismic events in the past?
7. p 3-5 RE: batteries, 158 housing units in the EIS subdivisions also probably have cars which have batteries and leak hydrocarbon liquids. From my experience, car batteries last 3 years, yet 6 volt solar batteries last in excess of 6 years. Are solar batteries more polluting than car batteries? What is the proper method of disposal of batteries if not at a waste transfer station, I have not had the situation of worn out solar batteries happen and would like to know what to do?
8. p. 3-6 photo. This photo is identified as the Kapoho waste transfer station, which is over 9 miles from the subdivisions in this EIS. How are batteries waiting for pickup at Kapoho polluting the subdivisions in question?
9. Photo labeled 3-6 is listed as looking mauka. This is not true. The ocean is visible in the center of the view. I am very familiar with this view as it is down the side of my property and I am the person who cuts the beautiful grassy easement in the photo.
- 10 p 3-8 RE: car exhaust and volcanic pollution. Car exhaust is a major small on Hwy 137. In addition to vog in the EIS area, laze from lava entering the sea at Kalapana is a major problem. During November 1996, there have been many days when both laze and vog plumes covered the EIS subdivisions. Have particle counts been taken from exhaust of cars, vog or laze during a SW wind in the EIS area?
11. p. 3-8, RE:generator exhaust, In 6 years of observations, I have noticed that generators used in Kehena are quieter than lawn mowers and produce less smell than cars. Do you have particulate and decible levels on offending generators in the Kehena area for a distance of 30 to 50 feet? If this data exists, were offending generator owners informed of the problems to make corrections?
- 12.p. 3-9, From the open lanai at my home in Kehena, I have not heard a generator running at night, however, I have heard generators of H.O.P.E. members running when walking by these homes in day. The generator noise is considerably less than saws, weedaters, and lawnmowers. Do you have data on the decible readings of generators, saws, weedaters, and lawnmowers at distances of 30 to 50 feet? Will increased numbers of homes increase the use of weedaters, saws and lawnmowers?

13. p.3 - 22, It is noted that the proposed electrical extension is located on land disturbed by recent lava activity. Why was this not mentioned in the geological section?
14. p.3-23 It is noted that lands in this area are not productive due to recent lava flow. Why is this problem not noted in the geological review?
15. p.3-24, The Kikala Keokea Subdivision is mentioned but is not located on any map in the EIS. Why are there no current maps reflecting the location of the Kikala Keokea Subdivision?
16. p. 3-33, RE: tourism, The greatest tourist asset of this area is not Kalani Honua, but is the scenic route of Hwy 137 and Kehena Beach. Both Hwy 137 and Kehena Beach are mentioned as a tourist designations in numerous publications such as "Hidden Hawaii". Why are the Hwy 137 drive and Kehena Beach not mentioned in the tourism section? Are there additional accommodations beside Kalani Honua? State Scenic Byways was rejected by Colette Sakoda in a letter to Kazu Hayashida, director of State Department of Transportation. Why the rejection? Why were Hayashida's comments not included in this tourism section?
17. p.3-37, RE: ethnic composition, What is the ethnic composition of the EIS subdivisions? Many residents are New Age or nature worshippers. Has the religious issue of a sacred volcano been addressed by the EIS? Has the "live simply" value of this population be addressed?
18. p.3-37 RE: EMF's, The statement is made that solar has higher EMF's than grid without any evidence or supporting data. The only EMF evidence given on p.38 is that appliances do not differ in EMF's emitted whether solar or grid powered. What are the readings in Gause for solar systems at 30, 40 and 50 feet from the inverter? What are the readings in Gause at 30 40 and 50 feet from a power line such as proposed for Kehena area. My home is 33 feet from a proposed transformer, WHAT IS THE READING IN GAUSE AT 33 FEET FROM A TRANSFORMER SUCH AS IS PROPOSED TO BE BY MY OPEN UPSTAIRS LANAI? What accumulative reading can be expected for a person who spends 10 to 12 hours a day sleeping and living at such a location? Our second floor bedrooms are 40 feet from the proposed transformer and 20 to 30 feet from an inverter, will the total gause be detrimental to my children's or my health?
19. p.4-2 RE: emergency evacuation, Radio and TV reception are limited or nonexistent due to interference by land mass, and the civil defense warning system is solar powered even though electricity is available. How will HELCO electrification assist in emergency evacuation? If HELCO poles are toppled by earthquake or wind how will HELCO assist in emergency evacuation? What dangers could result from HELCO lines falling to the ground during a wind storm or earthquake? How will residents be able to evacuate if poles fall across Hwy 137?
20. p.4-3, If trees delimitate lots, how can they be on the right of way? Has the width of right of way changed since lots were sold? Were owners compensated for increased right of ways? Is there a planting easement? Are trees to be cut on private property? If trees are cut on private property, will owners be compensated? Coconuts from 20 trees lining my property are harvested, and sold for sprouting. Will I be compensated for loss of this resource? Will owners be threatened with liability suits for refusing to let HELCO cut trees on their property?
21. p.4-4, Kukui is a nonnative tree. It was imported by Hawaiian settlers for the use of the nuts burning on a string for lighting. Why is Kukui listed as native when it is only culturally significant like a coconut tree? Why are coconut trees not listed as culturally significant?
22. p.4-5, It is noted that "the possibility of fire due to sparking or discharge is rare", if so, why are coconut tree owners threatened with liability suits if sparking and arcing occurs? (HELCO sent such a letter to me and I have it in my possession) Isn't arcing from salt accumulation on lines a problem in coastal areas, such as Kehena, with high surf and high salt content in the air? If arcing occurs at a transformer, can sparks travel 33 feet to an adjacent house and cause a fire? Will HELCO reimburse homeowners for damage caused by sparks from arcing?
23. p.4-5, RE: long term air quality, If there is an increase in homes will there not be a corresponding increase in vehicles as there is no mass transit in this area? Will more vehicles affect air quality?
24. p.4-10, Will EMF exposure from distribution lines be added to EMF exposure from appliance use? Are appliances such as stereos, lights, and blenders emitting EMF's 24 hours a day as is the case of distribution lines? What would be the combined EMF's from distribution lines, appliances, an inverter and a transformer at 33 feet distance?
25. p.4-11, Traffic increase is noted in this section as up to 1000 additional cars and the impact on small roads is noted, but the air quality, dripping oil, and battery pollution are not taken into account, Why not?
26. p.4-13, I absolutely do not understand how spilled gasoline, HELCO, and expanded fire and police protection are connected. This is a very muddled piece of logic. Please recommunicate the connection in a more understandable form.
27. p.4-13, If residents require sophisticated medical equipment, what happens during a HELCO blackout? Will there be a backup system? Do such sick and elderly residents have adequate transportation to the doctor, hospital or grocery stores 35 miles away in Hilo? Is Kehena a wise choice of homesites for elderly or ill people?

39. RE: section 8, it is noted underground lines would set a precedent. Would such a precedent be undesirable? Why or why not?
40. RE: Letters section, 62 letters are in the letter section
- 50 letters, including 2 lawyers' letters are from individuals questioning the wisdom of the HELCO project..... no comments from this group are included in the EIS text
- 10 letters from officials are included in the letter section..... 9 comments are included as "general" comments in the EIS without reference to specific recommendations. Comments questioning the project are omitted.
- 1 letter is listed from OHA but the letter is not in the letters section.
- 1 letter with 14 signatures is included from H.O.P.E.12 SECTIONS OF QUOTED INPUT ARE INCLUDED FROM THIS GROUP
- 1 letter from Norm Oleson complaining about his expensive tires is in the letters section but does not have a response letter
- If no comments from individuals questioning the HELCO extension are included and only comments supporting HELCO are included, IS THIS DOCUMENT UNBIASED?
41. RE Goldstein letter: A letter from Virginia Goldstein, planning director, recommends addressing Friends of Red Road's concerns. HELCO contacts with the community are documented as are H.O.P.E.'s concerns, but not concerns of Friends of Red Road. Why are the Friends of Red Road concerns not identified or documented? Why was Goldsteins' suggestion not followed?
42. A letter to Moku Loa states that there are no caves in the area. Lava tubes are mentioned in section 4-1 as being common in the area. Lava tubes are caves. Why is the presence of caves (lava tubes) denied in the response to Moku Loa?
43. In a letter to Kazu Hayashida, director of the State Department of Transportation, Hwy 137 is proposed as a Scenic Byway. Collette Sakada rejects Hwy 137 being eligible for this designation, WHY?
44. A letter U.S. Department of Fish and Wildlife recommended underground burial of lines but Sakoda's reply that observations dating back to 1985 concluded that this was not necessary. This 1985 data is not supported by the EIS document. Michelle Reynolds stated that her study only dated back to 1993. Why the discrepancy of dates in the EIS document? If data on birds has been collected in this area since 1985, where is the data in the EIS document?

28. p. 4-15, Are construction jobs in this area long term? Do lawnmowers and saws cause noise, gas and oil spill pollution? Are low paying service jobs a community goal?
29. p. 4-16 RE: appliances purchases. Since moving to Kehena 6 years ago I have locally purchased 3 refrigerators, 3 stoves, 6 stereos, 2 tvs, 2 vcrs, 3 hot water heaters, 2 blenders, 3 coffee makers, 1 iron, 1 hairdryer, 2 radio alarm clocks, 20 light fixtures, light bulbs, and 3 water pumps. for 3 houses in Kehena. Are local stores not now selling appliances for use in the Kehena area?
30. 4-16, Again it is noted that electricity will increase development.
31. map after p 5-4, What are the squares on the map foldout? Symbol keys are not on maps in this EIS, why not?
32. p. 5-9, FEMA recommends not to promote or encourage HIGHER density in this area. Will this area lose eligibility for FEMA funds, if HELCO extends its lines to promote development? Is this area eligible for FEMA funds?
33. p 6-2, What is the data base for the assumption that generators and batteries are more polluting than increased numbers of homes, lawnmowers, and cars.? The anticipated increase in homes and cars is noted in 4-11, 4-15 and 4-16
34. RE: Map between 6-6 and 6-7, This map predates the 1990 Kalapana lava flow. The routes to this area have changed two times since this map was valid. What is the new alternative escape route? Where is the Kikala Keokea Development located on the route? Why are the subdivisions illegible on this map? Why are outdated maps used in an EIS?
35. RE: section 7, How are photovoltaics preventing long term productivity in this area? What is meant by productivity since this is zoned ag-1 with subdivision not industrial development?
36. RE: section 9, Why isn't improved safety of underground lines addressed considering seismic and wind damage hazards?
37. It is noted that comments from H.O.P.E. were included in text. What comments from other groups were included in text? Who are Friends of the Red Road? Why aren't their comments included? (I am not a member of either group) Why are all players not identified in the text with a concise statement as to the group's composition, interests and position on the issue?
38. Map 6a, This map does not correspond to previous maps. Is this a reliable and accurate map?

45. Harry Kim's letter questioned lateral loads on electrical lines due to seismic conditions in this area. This was not addressed in the document. What is done to reduce lateral loads on lines? What is the expectation for lines coming down or poles falling if there is a 6.0 or higher earthquake, as has happened here once every seven years?

46. RE: view plane, Jerry Thomas' and Friends of the Red Road's letters discuss adverse impacts of the poles on Seaview's view plane. Norm Oleson's spoken, not written, statement contradicts these statements. Oleson's word is taken over several other eyewitnesses, Why? Where is the photographic evidence to support Oleson?

47. Re: Lorreine West's letter, Ms West points out that Sakado arrived at court in a HELCO vehicle. I observed this as well while sitting outside the courtroom waiting to be called as a witness. Why was Sakado's relationship to HELCO not clarified in an answer to Ms. West's letter?

48. Vandalism, theft, death threats, mail tampering, phone tampering, arson threats, job threats, repeated county inquiries from the Planning Department, peeping Toms, verbal harassment, vehicular harassment, late night vehicular noise, late night prowling and yelling, fish pond poisoning, sabotaging gas and solar systems, and pet killings, are common in this area. All of this activity seems related to the HELCO project. Why are other cases of such shenanigans not included. In the document? I have personally incurred damages in excess of Oleson's \$800 tires that are related to this HELCO project and members of H.O.P.E.. Were Oleson's tires covered by insurance? Did the county assume any part of compensation for the tires as Oleson is a county official? Oleson's car was on blocks in his driveway prior to the alleged slashing, Why? Oleson's car was sold soon after the tires were replaced, is there a connection between the desire to sell the car and the need for new tires?

I anticipate a form letter denying answers to these questions, or giving snide and insulting comments as has happened in previous responses. In the name of UNBIASED INQUIREY I FEEL I SHOULD RECIEVE A COMPLETE, ACCURATE AND POLITE RESPONSE TO MY QUESTIONS. I have a deep interest in determining if I will be adversely affected by too close a placement of a pole and transformer to my dwelling. My questions have been repeatedly put off and I am deeply dissatisfied with the way I have been treated in this issue by HELCO.

Sincerely,

Bettie L. Van Quastbeke

cc:
DLNR
HELCO
OECC



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R. M. TOWILL CORPORATION

420 WAIKAMUI RD #411 HONOLULU HI 96817-4941 (808) 848-1133 FAX (808) 848-1037

February 19, 1997

Ms. Bettie Van Overbeke
12-423 Ole'ole
Pahoa, HI 96778

Dear Ms. Van Overbeke:

Subject: Draft Environmental Impact Statement (DEIS) for SSSP Unit 71 Overhead Distribution System, Puna, Hawaii.

I am in receipt of your letter of November 26, 1996 regarding the subject project. The following has been prepared in response to your comments and concerns.

1. Meetings documented in the DEIS were organized by interested residents in the community. Notification was by word of mouth as is done in other SSSP candidate areas.
2. Consultation with County of Hawaii Civil Defense and Hawaiian Volcano Observatory is being conducted to determine the availability of updated maps that reflect any land use changes resulting from the 1990 lava flow. Base maps used in reports such as these are the latest available maps produced by the U.S. Geological Survey (USGS), and not done in an effort to downplay the east rift zone's inundation area.
3. Reference is made to your request for pole relocation and follow-up by HELCO. In response to your request, the pole is at its present location.
4. No golf course, municipal or privately owned, is planned for the project area. The definition and object of the "Open" district is generically stated here and can be found in its entirety in the Hawaii County Zoning Ordinance.
5. The discussion will be revised to share information offered by the Hawaiian Volcano Observatory (November 26, 1996). "The study site is 2.5 miles from the eastern edge of the flow field that destroyed Kalapana in 1990. This flow field is the product of an ongoing, 14-year-long eruption and is now over 8 miles wide at the coast. Most of the flow field lies in lava-flow hazard Zone 2, just as the study area does."
6. As stated on page 3-3 of the DEIS, "average lava flow coverage in all of Zone 2 on Kilauea Volcano has been 34.4% in the last 200 years and 26.4% in the last 50 years."
7. There has been subsidence during the 1975 and 1989 earthquakes in the project area located in the east/southeast side of the island. There were two deaths caused by tsunami resulting from the 1975 earthquake that registered 7.2 on the Richter scale. Utility poles and lines have been downed during major natural disasters. As to whether there was cliff collapse in the Kahoma area in 1989,

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Ms. Van Overbeke
February 19, 1997
Page 2

no representative from County Civil Defense actually went to the area to confirm the occurrence of such an event, according to Harry Kim (December 23, 1996). However, Mr. Kim confirmed that there was general subsidence in the area in 1989.

Batteries vary in life spans as they depend on frequency of usage, etc. Most batteries, car and solar (those used in golf carts can be used to operate photovoltaic systems in homes), are recyclable. This can be accomplished by returning a used battery to a shop that sells them.

The photo is of conditions at the Kaimu Transfer Station located about 1 1/2 to 2 miles south of the project area subdivisions. According to the County of Hawaii Public Works Department, there is no official name of the solid waste transfer station. However, due to its proximity to Kaimu, it has been identified as such. The site identification will be changed in the EIS.

Your input with regard to the view direction in this photo is appreciated. The reference in the EIS will be changed.

Research at the State Department of Health (DOH) Clean Air Branch was conducted to respond to your question regarding the health impacts of haze. In a letter report filed with the DOH, samples of haze were collected in March 1990. In the report dated June 1990, the highest hydrochloric acid (HCl) concentrations measured were found within approximately 20 yards of the lava/sea water interaction. HCl concentrations exceeded the OSHA permissible exposure level (PEL), with 5 parts per million (ppm) as a ceiling value. Concentrations of HCl decreased with distance from the source. At distances of about 400 yards or greater, HCl concentrations, directly in the plume, were generally less than 1 ppm.

11 &
12

According to information provided by the Environmental Protection Agency (EPA) through the State DOH, a gasoline power mower can generate a sound level for the operator ranging from 87 to 92 dB, and even 50 feet away ranging up to 72 dB, with some riding mowers reaching 83 dB at 50 feet. As stated in the DEIS, generators are described as generating noise levels ranging from 72 dB to 80 dB. The data suggests that lawn mowers do generate higher noise levels at distances between 30 to 50 feet. No particulate levels were available. Complaining residents are generally informed by the County police that a generator user cannot be charged as long as the equipment is necessary for basic household operation.

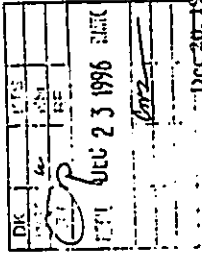
Noise and distance ranges from lawnmowers are provided above. Chain saw sound level for the operator is 100 dB; while no specific data was available for weedcutters. Electric lawn edgers generate a sound level of 81 dB for the operator, however. Should there be an increase in the number of homes, there probably will be an increase in the use of weedcutters, saws, and lawnmowers.

Page 3-1, Paragraph 5 mentions that the majority of the project area as dominated by a 1955 lava flow. Thus, the "recent lava flow" referred to here and on page 3-22, is the 1955 flow.

13.

Lorn Douglas

RR2 Box 4544
Kalapana Seaview Estates
Pahoa, Hawaii 96778
(808) 965-8421
chopsticks@aloha.net



Dec 20 1996

Colette Sakoda
R. M. Towill
420 Waiakamilo Road, Suite 411
Honolulu, HI 96817

re: DEIS response SSPP unit-71 12.477.2 kV overhead distribution project

Dear Ms. Sakoda,

I am a resident living in Kalapana Seaview Estates for many years. Contrary to what one is led to believe in the DEIS, I live with solar electricity and lead a conventional life style. I have a moderate solar system (approximately \$5,000) and generate approximately 30 amps in full sunlight. My household runs on 110 volts and I operate lights, a large water pump, computer, laser printer, cappuccino maker, toaster, vacuum cleaner, electrical tools, and all other sorts of appliances. During 1996 there have been only two periods where I have had to run my generator. I have used less than 10 gallons of gasoline all year long. I travel often and leave my house to non-technical house sitters and they have had very little problems being off power. As this document has reflected people's frustrations living off power, I would like it also to reflect people's praises living off the grid.

I would like to comment regarding misleading statements and policies surrounding the section '2.1.1 Chronology of Community Consultation'. This section is presented as if the community was more than adequately informed of HELCO's plans from inception to construction. This was not the case at all. We as a community were told of the original plans and policies. However, I will show that HELCO vastly deviated from these plans without communicating the significance of their unilateral decisions and changes.

It is true that HELCO had a public meeting, at Harry K. Brown Park in Kalapana in 1989, to explain what the SSPP program was about and what HELCO was going to do. In fact however, what we were told and what was done was very different. Also I am not aware of being invited to any other meeting even though I had informed HELCO that I was interested the week after that meeting in 1989. This includes supposed meetings in 1992 and 1994.

At the Kalapana meeting several of us residents who preferred to be on renewable (solar) power systems attended to keep informed about the neighborhood. We were told at the meeting that the only way we could stay informed was to state we were 'interested' on the postcards they circulated. Later and in this document HELCO then used this number of 'interested' as probable prospective subscribers. This was quite misleading as demonstrated by only a small percentage of actual subscribers (note only 180 of the 428 actually signed on).

In that meeting HELCO stated several policies which were misleading and/or not true. Here are some of them:

1. Proposed contracts were only to be sent to those properties on the direct route to Mr. Rauenhorst's property. Interested homeowners off the route would have to contact HELCO to be added to the proposed project. In fact however, all property owners in the area were contacted.
2. Electrical service was only to be extended to those houses signed up. In fact however, the area was 'gridded out'. This unannounced decision left the Original Subscribers with a huge economic disadvantage. It virtually eliminated any possible paybacks. These paybacks were waived in our faces as a big incentive to be an Original Subscriber.
3. The cost of extending the grid to those properties outside of the direct route was to be shared by the 'Original Subscribers' equally. Those property owners, like myself, on the edge of the subdivisions, far away from the direct route, consequently had a huge advantage to being an 'Original Subscriber'. It was clearly stated many times that those who didn't sign up initially would have to bear the big expense of bringing poles from the grid and would be at great economic disadvantage. In fact however, this was not the case, yet I believe many who actually signed up did so believing in the advantage of being an 'Original Subscriber'.
4. In all the paperwork I received, nowhere did I notice that HELCO decided to grid out the area.
5. Also HELCO clearly stated that it would only pay 1/3 of the project and the residents would have to come up with 2/3. The administrator told me that this meant over 430 contracts would have to be signed before the project would start. He also stated that there was a little flexibility but if the number of contracts were substantially less than the 430 that the contracts would have to be drawn up again with the price much higher to reflect the low number of subscribers.

I was calling monthly to check the numbers of signed contracts. This included a call within weeks of when the project started. The administrator, Mr. Alvin Urabi, kept informing me that the project would not happen if HELCO did not get close to the 430 contracts needed. Consequently, those of us watching the progress of a project we never wanted were relieved that the number of contracts only represented less than 25% of the project costs. We assumed from what we were told that the project was dead because of the low number of subscribers. In fact however HELCO went ahead with the project and those of us watching the project were taken completely by surprise.

I have heard people asking why the people not wanting this project waited until after the poles were being installed to complain. This is very misleading. Based on the information from HELCO, as to what they needed to get this project going, as well as the information supplied by their SSPP administrator, no one keeping tabs on the project had any reason to believe the project would go ahead. At least without renegotiating the contracts at a much much bigger hookup fee.

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February 19, 1997

Mr. Lorn Douglas
RR2 Box 4544
Pahoa, HI 96778

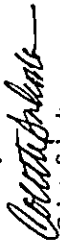
Dear Mr. Douglas:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Thank you for your letter of December 20, 1996. Your comments about the advantages of living with solar electricity are appreciated.

According to Rule 13-S, a minimum number of participants may be used as a factor among other factors by the company, but the decision is ultimately HELCO's. As to why grid out rather than service being brought only to those ordering, the decision was based on HELCO's analysis of alternative geographic routes for the SSPP Unit 71 alignment (see section 6.3 Alternative Routes, page 6-5, DEIS). The current alignment and configuration was found by HELCO as the most feasible alternative environmentally and cost effectively.

Sincerely,



Collette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

I asked two questions at the public meetings in Pahoa (1) why the project went ahead with so little funding and (2) why the area was gridded out when it was stated that service was to be brought only to those ordering???

I am asking the preparers of the DEIS to answer these two questions now. Also I would like them to survey those property owners who 'Originally' subscribed, as to whether they in fact subscribed because they believed that they would be at an economic disadvantage to be hooked up later. And in fact if they understood that there was now virtually no possibility of paybacks.

Mahalo for your consideration,


Lorn Douglas

cc:

Mike Wilson
Virginia Goldstein
Gary Gill
Clyde Nagata
Athena Peanut

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Amelia Myers
 12-423 Ole'Ole
 Pahoa, HI 96778
 TMK 3-1-2-031-132
 3-1-2-031-133a
 3-1-2-031-135a
 Dec 17, 1996

Gigantic Landslides of Hawaii

R.M. Towill
 420 Waiakamilo Rd.
 Suite 411
 Honolulu, HI 96817-4941
 att Colette Sakoda

Dear Ms. Sakoda:

I am enclosing my report on gigantic landslides in east Hawaii. Keheha Beach is in a very vulnerable spot and I am concerned. This electrification project is exactly the type of development that should not take place in this area. I am also concerned that a power pole 40 feet tall is 30 feet from my bedroom and could potentially fall during earthquakes which are a common and expected reality for this area.

Please read the enclosed report as it does merit consideration for everyone living in this area.

by

S. Amelia Myers
 December 17, 1996

Sincerely,

Amelia Myers

Amelia Myers



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Abstract

Kilauea is moving 4 inches a year and is more seismically active than California's infamous San Andreas fault. Kilauea is moving very fast in geologic terms and is showing signs of possibly having a gigantic landslide. Gigantic landslides have occurred in Hawaii in the past and will occur in the future. These landslides produce very large earthquakes and tsunamis that could effect the state and the whole Pacific Rim. Smaller landslides and large earthquakes tend to occur before a gigantic landslide happens. It is impossible to protect ourselves against gigantic landslides, but it is possible to prevent the loss of life and property due to smaller landslides and large earthquakes by discouraging to not build in that area of the island. Therefore, it is important to inform the public about these geologic hazards because they happen so fast that it is not possible to give advance warning.

I. Introduction

A. Purpose and significance

About 125,000 years ago, a gigantic landslide occurred on the west flank of Mauna Loa. The landslide generated a thousand-foot tsunami that traveled 62 miles and inundated Lanai in the process. Approximately 17 gigantic landslides have occurred in the past 5 million years, averaging one every 100,000 to 200,000 years. Another gigantic landslide will certainly occur again, but this time threatening human life and manmade structures.

Geologists estimate that a future landslide will occur very fast and produce localized tsunamis beginning several minutes after the event. Geologists do not know when this gigantic landslide will occur, but they do know which area of the Big Island is susceptible. The public needs to know about this natural disaster so they can prevent the loss of life and property by not building in that area of the island.

This report is aimed towards informing the public of this natural disaster. No specific knowledge of geology should be necessary to understand this paper.

B. Important sources

I am using several research reports on past landslides and interviews with my geology professors. The report by Bernard J. Coakley, Robert S. Dietrich, and Beth A. Rees provided technical detail in a thorough explanation of the topic, plus provided useful graphics. Monastersky's report presented interesting data on the physical results produced by these gigantic landslides. The interview with Dr. Johnson proved to most helpful because he provided information that I did not find in the reports.

C. Brief Overview

First, landslides are defined. The types of gigantic landslides that occur in Hawaii are explained, as well as physical causes, nature and dimensions. Next, information about what geologists know about these landslides is presented, noting the physical effects produced by past landslides and the estimated speed at which they traveled. Finally, explanation on how a future gigantic landslide could affect the island of Hawaii and the whole states discussed. In conclusion, people should be discouraged from building in susceptible areas.

II. What is a gigantic landslide?

A gigantic landslide is a sudden mass movement of bedrock or loose rock, that is several cubic kilometers across, pulled down the slope of a hill, mountain, or cliff because of gravitational force. The Hawaiian Islands have been the location of many such slides.

A. What types of gigantic landslides occur in Hawaii?

Slump and debris avalanches are the types of gigantic landslides that occur in Hawaii. Slump landslides are spoon-shaped with a slide surface that is curved concave-upward with a backward rotation. The large slumps in Hawaii are deeply rooted to the bottom of Kilauea volcano; they may extend back to the volcanic rift zone and reach thicknesses of 6 miles deep. Slumps may creep slowly as they keep pace with the load of volcanic material erupted on the surface of their upper part, or they may abruptly surge forward several meters and such a movement caused the largest of Hawaii's historic earthquakes, in 1868 (8.0 on the Richter scale) and 1975 (7.2) (Holcomb, Moore, and Normark 46-47). Figure 1 is a diagram of a slump landslide.

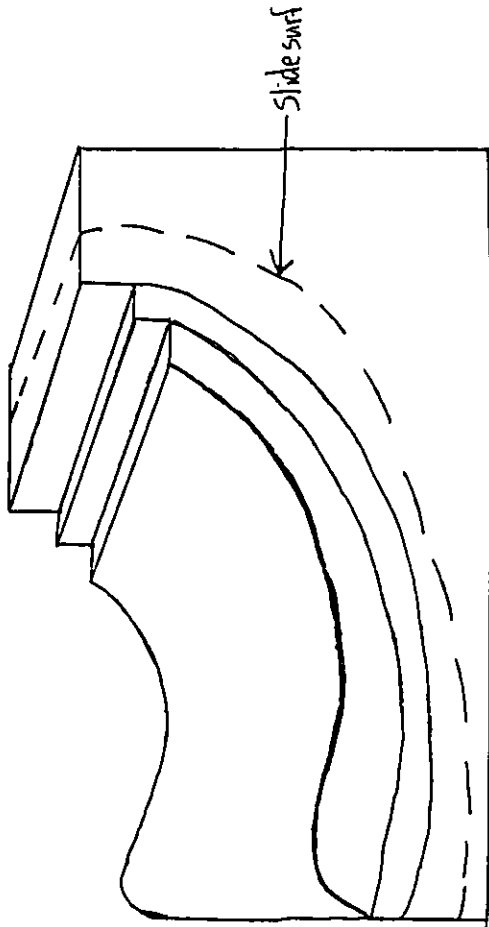


Figure 1 - A slump landslide

Source: Pipkin 167

Debris avalanches are very fast rapid moving, turbulent masses of debris, air, and water that tend to flow down steep slopes. They are thinner and longer than slumps. They tend to have a well-defined amphitheater at their head and are marked by hilly, chaotic surfaces. Debris avalanches happen without warning. Rapidly moving avalanches can carry blocks of land up to 6 miles in size for tens of miles, which can possibly produce giant tsunamis.

Rapid movement during this type of event is indicated by the thinness and great length of the avalanches, by movement uphill in their distant reaches away from the origin. An example of debris avalanches and their very rapid moving, turbulent masses of debris, air, and water is shown in Figure 2 (Holcomb, Moore, and Normark 46). Figure 2 is a schematic diagram of a debris avalanche.

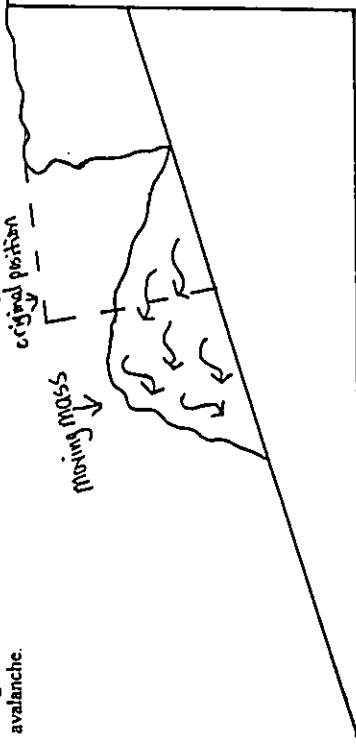


Figure 2 - A debris avalanche

Source: McGeeary and Plummer 182.

B. What are the physical causes of gigantic landslides?

The causes of gigantic landslides are gravity, the development of dikes wedging along the rift zones pushing land seaward, faulting, and large earthquakes. The force of gravity causes the land to move downward. A steep slope with loose, wet material near the top and with no vegetation to anchor the soil is more likely to produce a landslide than a flat area covered with vegetation (McGeary and Plummer 183).

Dr. Carl Johnson, a Geology professor at UH at Hilo, says that development of dikes along the rift zones is one of the main culprits in causing gigantic landslides. Kilauea is moving 4 in/yr, which is rapid in geologic terms, because of the wedging of dikes along the east rift zone. Dikes are tubular, vertical intrusive body of magma. Dikes are produced when lava in the volcano does not have enough pressure to reach the surface of the summit, so it moves down a rift zone. As

The reason the islands are braced with sand is that the islands are now above sea level and sand is produced when lava enters the ocean. This unstable base encourages major slope failure. Figure 3 gives a cross-section picture to give an idea of how unstable the base of the island is.

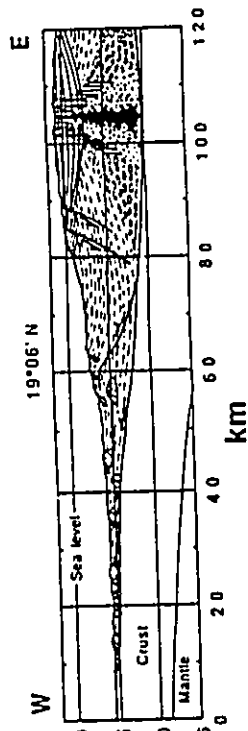


Figure 3 West-east cross section of the South Kona landslide. Horizontal layering is lava erupted above sea level, dashed layering is sand, ellipses are pillow lava, vertical lines are sheeted dikes, dotted pattern is gabbro, diagonal pattern is giant blocks of landslide, solid black is magma at core of southwest rift zone of Mauna Loa.

Source: Bryan, Beeson, Moore, and Normark 126.

III. What do we know about past gigantic landslides in Hawaii?

UH at Hilo Geology Professor Dr. Carl Johnson says that geologists know about these gigantic landslides from the recent discovery of landslide debris scattered all over the ocean floor near the islands. Research has shown that the Hawaiian landslides are the largest known on Earth. It has been predicted that they occur on an average of between 100,000 to 200,000 years. The last one happened approximately 125,000 years ago.

A. What physical effects were produced by past landslides?

Past gigantic landslides of Hawaii have broken off the island and skidded across the ocean floor, breaking up into smaller blocks that finally stopped as far away as 124 miles from their starting point. Debris from one landslide rivals the size of Manhattan Island. Another triggered a tsunami that reached the height of the Empire State Building. Apparently, large earthquakes triggered the slides and travel so fast that they crossed the Hawaiian deep and arch. They tend to be an average of several cubic kilometers in size and are the largest known on earth. The largest known slide occurred off Oahu and is approximately 56 miles across (Monastersky 216).

more and more dikes move from the summit down a rift zone they cause the land to move seaward. Periodically, dikes reach the surface and an eruption occurs on the surface. This addition of volcanic material on the surface on the flank of the volcano increases the force of gravity on the land being pushed seaward.

A fault is a fracture in bedrock along which movement has taken place, like the California's infamous San Andreas fault. Faults are also instrumental in producing landslides. One fault threatening to shear the volcano is located 6 miles below the surface, on a plane interpreted to be nearly horizontal fault. This flat basal fault separates the upper part of Kilauea from the ancient seafloor, which the volcano has built itself upon over the past 100,000 years. The south flank, which is moving 4 in/yr seaward, slides along this basal fault like a wooden wedge being pushed across a table. As the Kilauea volcano's south flank is pushed and buckled from stress, it stores up strained energy like a compressed spring. If the flank is squeezed too much it could break free causing earthquakes and landslides (Monastersky 217).

Large earthquakes are a result of pressure buildup by dikes wedging along the rift zone. These earthquakes can trigger rapid movement of land and cause a gigantic landslide. Major earthquakes have occurred in historic times. The 8.0 earthquake of 1868 triggered a landslide in Wood Valley, Ke'u that killed 31 people and was felt all the back to Kawai. The 1975 7.2 earthquake caused land to move 10 yards seaward and sections of land to collapse in Halape and Kalapana (Johnson).

C. What are the nature and dimensions of gigantic landslides?

Gigantic landslides are huge: some are more than 124 miles long and have estimated volumes of more than 3000 cubic miles. The largest known landslide in Hawaii occurred adjacent to Oahu. The debris from this slide covers over 14,000 square miles across the ocean floor. Individual blocks of land tens of miles across and 1,600-6,000 feet in height were transported 87 miles from Oahu because of the fast slide's speed.

The area susceptible of being the site of the next gigantic slope failure is on the southeast flank of Kilauea along the Hilina Pali near the active lava flow and is approximately 9,000 feet long. The area moves periodically a few yards at a time, as it did during the 1975 earthquake, to just several inches at a time. This broad bench has several large closed depressions that are apparently forming today more rapidly than they are filling with fragmented lava generated by the current eruption entering the ocean. A few large sections appear to have already started to separate from the outer edge of the proposed gigantic landslide bench (Bryan, Beeson, Moore, and Normark 128).

Another important dimension of these landslides is the island's foundations. The Hawaiian Islands are perched on unstable pillow lava and braced mainly with shifting sand. The islands are perched on pillow lava because they were originally formed underwater and pillow lava is the type of lava that is erupted underwater.

The last Hawaii landslide produced a tsunami that traveled 62 miles and covered Lanai. Lanai is 1197 feet high. That landslide was not as large as others in the past. These tsunamis can reach a height of a 1000 feet.

When the next gigantic landslide happens, Hawaii will not suffer alone. The scientist-in-charge at Hawaii Volcano Observatory, David A. Clague says, "The risk is very, very large because the tsunami that would be generated would be a Pacific-wide tsunami. It will hit every coastal city on the entire Pacific Rim." Figure 4 shows landslide debris around the Big Island. Alikea 2 is the landslide that generated the tsunami that went over in Lanai and is shown in this figure.

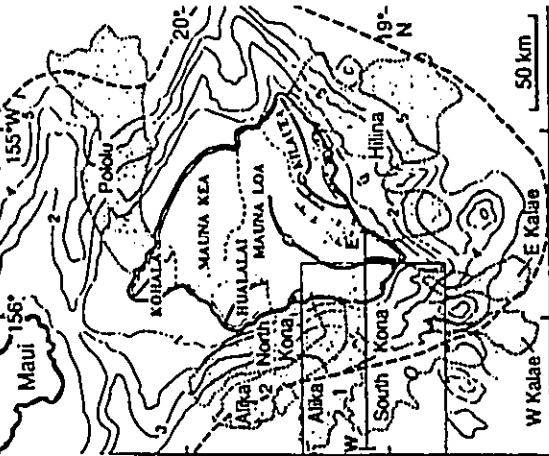


Figure 4: A drawing of the Big Island showing the Alikea 2 landslide

Source: Beeson, Bryan, Moore, and Normark 125

Two historic large earthquakes caused landslides and similar quakes could promote the occurrence of another gigantic one. In 1868, Kilauea's south flank and parts of Mauna Loa slid suddenly across the basal fault under the volcanoes and caused damage across the entire island, even as far away as Honolulu. This earthquake was estimated 8.0 magnitude on the Richter scale. The 1975 earthquake was 7.2 and caused significant damage but only two deaths because few people lived in the area. This earthquake moved the land 10 yards seaward. Meanwhile, strong earthquakes of 6.0 magnitude happen about approximately every 6 years in Hawaii (Monastersky 218).

The islands of Oahu, Kauai, and Molokai show evidence of major slope failures. The high cliffs of Nuuanu Pali on Oahu, the Napali Coast on Kauai, and the northern coast of Molokai were all created by gigantic landslides. Research has suggested that sections of the islands broke off creating the high cliffs on each of the islands (Coakley, Deirick, and Rees 200)

B. How fast do these landslides move?

Since the landslides debris found around the islands traveled so far from the islands the major slope failures had to occur very fast. These major slope failures had to happen rapidly to move such much material over relatively flat ocean floor. Therefore, it is impossible to give advance warning to anyone on the island about another major slope failure (Beeson, Bryan, Moore, and Normark 128). Figure 5 is a cross section of a typical Hawaiian gigantic landslide and it shows how far material is carried because of the speed they travel.

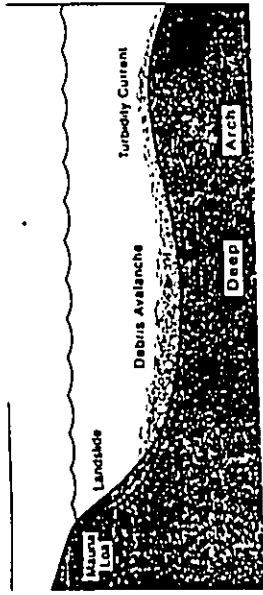


Figure 5: A cross section of a typical Hawaiian gigantic landslide

Source: Garcia and Hull 162

C. How frequently have landslides occurred in the past?

Dr. Carl Johnson, a geology professor at UH at Hilo, said in an interview that over the past 5 million years 17 large gigantic landslides and an approximate total of 50 smaller landslides have occurred. Many landslides from younger islands have apparently been covered by other slope failures from older islands, so geologists are not sure exactly how many slope failures have occurred in the past. The frequency of landslides is about 1 every 100,000 to 200,000 years and the last one was 125,000 years ago.

Geologists know about the landslides because of recent research conducted using side-scan sonar system developed by the Navy. In the 1980's, the U.S. declared all seabed resources 230 miles from U.S. territory a U.S. Exclusive Economic Zone (EEZ), so the U.S. Geological Survey (USGS) had the job of mapping this new claimed territory. When they started mapping the Hawaiian EEZ they discovered the largest known landslides on Earth. Now, thanks to this research we know about the past and possible future gigantic landslides (Holcomb, Moore, and Normark 46). Figure 6 is a drawing of the whole state showing the location of landslide debris of past gigantic landslides on the ocean floor.

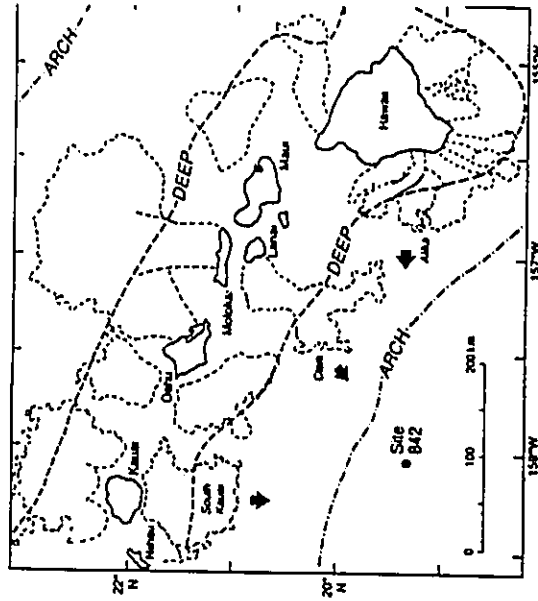


Figure 6. The state of Hawaii showing past gigantic landslides. The dot pattern shows area covered by deposits from debris avalanches associated with these slides. Heavy dashed line indicates axis of Hawaiian deep and the heavy dash-dot line indicates Hawaiian arch axis.

Source: Garcia and Hull 159.

IV. Why is it important to know about these gigantic landslides?

The gigantic landslides are dangerous because of the large earthquakes and tsunamis generated by them. If the southeast flank of Kilauea jumps forward, its submerged portions could generate destructive tsunamis towards other parts of the Hawaiian islands and potentially the entire Pacific Rim.

A. What is the possibility of a future gigantic landslide?

Both UHH Geology professors Dr. James Anderson and Dr. Carl Johnson said in the interviews that more gigantic landslides will happen, but they have no idea when they will happen. The land below the East Rift Zone is moving 4 in/yr, which is moving faster the California's infamous San Andreas fault. The chances are extremely slim, however, to pinpoint if the next gigantic slide could occur within the next decade or even the next millennium.

B. What are the implications for the people of Hawaii?

It is important for the people of Hawaii to know about the possibility of a large section of the island sliding off because it could mean tremendous loss of life and property. The major slope failures happen very fast and it is impossible to give advance warning to people. That is why it is desirable to not encourage people to build close to the projected major slope failure.

Large tsunamis and earthquakes caused by the massive landslides are the biggest danger for the people of Hawaii. According to head of the Civil Defense Agency Harry Kim:

The biggest [likely] risk associated with the volcano would be as earthquake that would cause a tsunami that would obviously cause death and destruction. That is such a concern because this office will not be able to get advance warning to anyone [on the island], the sequence of events would be very similar to what occurred in 1975 Halape [in 1975] could be looked at as a forerunner of even bigger events of a similar nature. We as mankind must remember that the huge earthquake of 1868, which caused a huge tsunami, is a very real threat to this island (Monastersky 219).¹

V. Conclusion

The gigantic landslides of Hawaii in the past produced enormous physical effects on the islands, but now they can threaten life and property. Since, these landslides seem to happen very fast without warning, we cannot do anything to protect ourselves. However, we can prevent the loss of life and property in regards to smaller landslides and large earthquakes by discouraging people to build close to the projected major slope failure. People need to know that mother nature-- others would say Pele-- should be listened to because she is more powerful than us.¹

Endnotes

1. The Hawaiian deep is the moatlike depression surrounding the Hawaiian Islands. The Hawaiian arch is the gradual sloping upwards from the deep, which rises about 984 yards above the ocean floor (Coakley, Detrick, and Rees 184)
2. During the 1975 a 7.2 earthquake, a tsunami hit the south coast of the Big Island almost immediately, killing two boy scouts and their scout leader camped with their troops along the water at Halape. Within 12 minutes, Hilo was hit with a tsunami, causing damage to boats and piers but no deaths. The 1868 a 8.0 earthquake generated even larger tsunamis that broke over the tops of palm trees along the south coast, according to eyewitnesses at the time (Monastersky 219).
3. Pele is the goddess of the Hawaiian volcanoes and is revered today by residents and Native Hawaiians.

Works Cited

- Anderson, Dr. James Interview with the author. 9 October 1996
- Beeson, Melvin H., Wilfred B. Bryan, James G. Moore, and William R. Normark "Giant blocks in the South Kona landslide, Hawaii" *Geology* 23 2 (February 1995): 125-128
- Coakley, Bernard J., Robert S. Detrick and Beth A. Rees "Seismic stratigraphy of the Hawaiian flexural moat" *Geological Society of American Bulletin* 105 2 (February 1995) 189-205
- Garcia, Michael O., and Donna Meyerhoff Hull. "Turbidities from giant Hawaiian landslides: Results from the Ocean Drilling Program Site 842." *Geology* 22 2 (February 1994) 159-162.
- Holcomb, Robin T., James G. Moore and William R. Normark. "Giant Hawaiian Underwater Landslides." *Science* 264:5155 (1 April 1994): 46-47.
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- McGeary, David and Charles Plummer. *Physical Geology*. Iowa: Wm. C. Brown, 1993
- Monastersky, Richard "When Kilauea crumbles Hawaii trembles as a mountain slowly collapses." *Science News* 8 April 1995 v147 n14: 216-218.

R. M. TOWILL CORPORATION

420 Waiakamohi Rd #411 Honolulu, HI 96817-4041 Phone: 848-1135 Fax: 808-848-1037

February 19, 1997

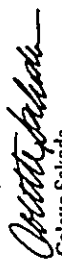
Ms. Amelia Myers
12-423 Ole Ole
Pahoa, HI 96778

Dear Ms. Myers:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Thank you for a copy of your report on gigantic landslides of Hawaii. Your concern about the potential impacts from such natural disasters is appreciated. Thus, a copy of your report will be included in the Final Environmental Impact Statement.

Sincerely,


Collette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Engineers Planners Photogrammetrists Surveyors
Architects



H.O.P.E.

Home Owners Preferring Electrification

c/o Ron Overmann
RR2 Box 4743
Kehena Beach, HI 96778

Telephone 808 965-0219

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|-------------|----------|----|
| DIC | 12/15/96 | PS |
| 12/15/96 | FF | |
| DEC 20 1996 | | |
| MAIL | | |

10 December, 1996

Virginia Goldstein, Director
Planning Department
25 Aupuni Street
Hilo Hawaii 96720

Re: SSPP Unit 71 12.47/7.2 kV Overhead Distribution System

Dear Ms. Goldstein:

As resident homeowners in Kalapana Seaview Estates, Puna Beach Palisades, and Kehena Beach Estates, we are directly affected and vitally interested in the decisions concerning HELCO bringing electricity to our communities. Our livelihoods, our lifestyles, our health and our security will be greatly enhanced with the completion of this project. Upon reviewing the draft Environmental Impact Statement prepared for HELCO by R. M. Towill Corporation, we conclude that the EIS has fully and adequately described the major impacts of the proposed project, presented alternatives and addressed our issues and concerns. As interested parties, we, as members of Home Owners Preferring Electrification (H.O.P.E.), urge the County of Hawaii to clear the way for turning on power by a "no substantial impact" finding for this project.

Our major general concern when we submitted our letter August 19 was that the EIS should address the positive as well as negative impacts of the proposed project. Thus, we pointed out:

1. the proposed tree trimming necessitated by the installation of electrical wires and poles would enhance public safety;
2. the availability of electricity from HELCO would help to eliminate the lead pollution from electrical storage batteries;
3. air quality would be enhanced by helping to eliminate the need for running of gasoline, propane or diesel generators;
4. noise pollution would be lessened as fewer people would run generators;

5. exposure to EMF radiation would be decreased with the elimination of generators, batteries, inverters and solar panels which have been shown to pose far greater exposure to radiation than overhead electrical wires;
6. as the testimony from Harry Kim shows, electrification would enhance the ability of Civil Defense officials to communicate with residents;
7. by switching from solar to grid power, our residents who live on lots as small as 1/5th acre would eliminate the need to cut down trees in order to allow sunlight to get to their solar panels;
8. risk of fire will be substantially reduced because many residents will no longer have to haul and store fuel for generators; fewer people will have to use kerosene or propane lamps at night again reducing fire risks; and the elimination of the need for storage batteries for many residents will reduce the chance of explosions from battery gases;
9. new jobs in construction and maintenance of property for carpenters, plumbers, painters, electricians; a greater demand for unskilled labor would also likely be created for yard work and gardening;
10. due to the current lack of capacity, the majority of residents have multi-party-line telephone service which prevent full participation in today's telecommunication age; and there are plans with the transfer of lines to HELCO poles to upgrade this service;
11. with regular electricity and enhanced telephone service, new jobs for people working in the computer industry as well as the possibility of telecommuting for people currently having to drive daily to other areas will be possible;
12. electrification would make it possible for the elderly, sick or infirm who are unable to continue maintaining their alternate power sources to remain in the area.

In addition to these, we would point out other positive impacts:

- A) there has been a marked increase in theft and vandalism as documented by the police department over the past three years; security systems dependent upon the availability of regular electrical service could be installed to thwart burglaries;
- B) the County has scheduled completion of re-pavement of the entire Red Road (Highway 137) by the end of 1997, from Kalapana to the Seaview Subdivision entrance, mitigating any potential increase in traffic by providing a more serviceable road.

The Draft EIS adequately addresses each of our original points in a balanced and unbiased presentation. This document also makes clear how alternate approaches to providing power are not viable. The cost of installing and maintaining lines buried beneath the ground would put access to HELCO electricity (\$32,000 per user) beyond the reach of most members of our community while the \$15000+ cost of a barely adequate solar power system is also not feasible for many of our residents.

With all the discussion and research that has been done regarding the Newell Shearwater, there is no evidence whatsoever that any of the three subdivisions with the electrical poles and wires would adversely impact the flight patterns of this species. There has also

Errors in Draft EIS

- p. 2-6, Table 2-1, the number of homes should reflect the number of legally permitted residences as defined by the Hawaii County Building Department. There are a number of un-permitted and "un-finaled" structures and homes in Kalapana Sea View Estates that do not comply with County occupancy requirements.
- p. 2.8, section 2.5.2, the document states that 81 lots in the Kalapana Seaview Estates are in the SMA area. The SMA mapping, however, is more in line with 8 lots (see figure 5b). Please check and determine the correct figure.
- p. 3.23, section 3.4, the document states that the lots in the subdivision "generally conform to current subdivision standards." "generally" should be removed-these subdivisions do not conform to standards. You might add that the 9000 sq. foot lots do not conform to the designation of Agriculture in the zoning codes.
- p. 3.37, Table 3-3, the table does not make clear the comparison between the 12.47 kV overhead distribution lines and normal household appliances. It would help greatly to make this table much clearer. Isn't the large magnetic field for the washer and toaster actually the increase at the generator and inverter, not the appliances? And how does this compare to the magnetic radiation from the transmission lines at the normal distance from the overhead lines for pedestrians?
- p. 3.6, picture is mislabeled. It should be Highway 137 transfer station in Kaimu.
- p. 5-5, section 5.4, it states, "Kehena Beach is maintained by the County of Hawaii Parks and Recreation Department. . . The Beach is a public recreational resources within the Phase 2 area." This is not correct. Neither the County, State nor Federal governments recognize and/or sponsor any recreational activity in the area. "Kehena Beach" is considered a hazardous swimming area used by people at their own risk.
- p. 5.7, section 5.4, it states "The project is not subject to storm waves or erosion." This might be rephrased to consider the following: all three subdivisions are on cliffs of sufficient height that they will not be affected by Tsunamis, but storm waves and erosion occur at the base of the cliffs but with little or no impact to life and property.

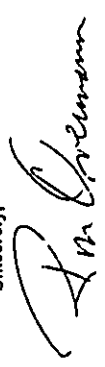
Figure 6a, Kehena Beach and Kalapana Sea View Estates are mislabeled.

been no discernible impact of the existing poles and wires on other fauna and little impact on the flora. Thus the environmental impacts seem to be well within the acceptable range. The visual, esthetic impact will be diminished with the elimination of existing telephone poles and the long-term growth of trees and shrubs. This is demonstrated by the experience in Kehena Beach Estates and Puna Palisades subdivisions. With owner-residents providing new plantings, a similar result should develop in Seaview.

Given the balance of positive impacts and the reduction of negative impacts, we strongly recommend approval of this project and a finding of no-substantial impact. Further, we believe that the negative and largely repetitive letters from opponents of the project do not document ownership-residency in the affected area nor do they reflect the majority view of the owner residents. Since impacts must be assessed on the environment and its inhabitants, our resident owners' views should receive greater consideration.

Attached is a list of errors we found in the document. They in no way change the conclusions of the report or our recommendation for approval of the project.

Unless otherwise indicated, rather than inundating the Planning Department with individual correspondence, the undersigned are in agreement with the observations and conclusions of this correspondence and will not submit separate letters.

Sincerely,

RON OWENMANN
TMK 3-1-2-30-55

cc: Clyde Nagata, HELCO
Colette Sakoda, R. M. Towill Corp.



H.O.P.E.

Home Owners Performing Electrification

Telephone 808 965-0239

c/o Ron Overmann
RR2 Box 4743
Kehena Beach, HI 96778

10 December, 1996

We the undersigned resident homeowners in Kalapana Sea View Estates, Puna Beach Palisades, and Kehena Beach Estates support and agree with the "H.O.P.E." letter of 10 December, 1996, Re: SSPP Unit 71 12.4777.2 kV Overhead Distribution System.

signature: Michelle Olsen signature: John Burroughs
 name: Elisabeth Olesen name: John Burroughs
 T.M.K. # 3-1-2-31-58 T.M.K. # 3-1-2-31-48

signature: Mark Embert signature: Mark E. Lane
 name: Karl Embert name: Mark E. Lane
 T.M.K. # 3-1-2-31-107 T.M.K. # 3-1-2-31-20

signature: Burt Chabot signature: Eileen Chabot
 name: Burt Chabot name: Eileen Chabot
 T.M.K. # 3-1-2-31-112 T.M.K. # 3-1-2-31-58

signature: Dan Lippert signature: Steve Lippert
 name: Dan Lippert name: Steve Lippert
 T.M.K. # 3-1-2-31-113 T.M.K. # 3-1-2-31-114



H.O.P.E.

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signature: Daniel Bona signature: Daniel Bona
 name: DANIEL SETTA name: DANIEL BONA
 T.M.K. # 3-1-2-30-55 T.M.K. # 3-1-2-33-131

signature: John Embert signature: John Embert
 name: RICH ROMO name: JOHN EMBERT
 T.M.K. # 3-1-2-31-47 T.M.K. # (3) 1-2-31-57

signature: Gene Goldberger signature: Helen Embert
 name: GENIE GOLDBERGER name: Helen Embert
 T.M.K. # 3-1-2-31-49-50 T.M.K. # 3-1-2-31-106

signature: Eric Rasse signature: John Broberg
 name: ERIC RASSE name: John Broberg
 T.M.K. # 3-1-2-31-109 T.M.K. # 3-1-2-34-59



H.O.P.E.

Home Owners Preferring Electrification

616 Ron Overmire
PO Box 4743
Kahuna Beach, HI 96778

Telephone 808 986-0239

10 December, 1996

We the undersigned resident homeowners in Kalapana Sea View Estates, Puna Beach Palisades, and Kahuna Beach Estates support and agree with the "H.O.P.E." letter of 10 December, 1996, Re: SSPP Unit 71 12.4777.2 kV Overhead Distribution System.

- | | |
|-----------------------------------|------------------------------------|
| signature: <u>Lewis H. Dawes</u> | signature: <u>Di Anelli</u> |
| name: <u>LEWIS H. DAWES</u> | name: <u>TIM HOOK</u> |
| T.M.K. # <u>3-1-2-33-41</u> | T.M.K. # <u>3-1-2-033-106</u> |
| signature: <u>Jeanette Dawes</u> | signature: <u>Sharon Carson</u> |
| name: <u>JEANETTE DAWES</u> | name: <u>SHARON CARSON</u> |
| T.M.K. # <u>3-1-2-33-41</u> | T.M.K. # <u>3-1-2-033-106</u> |
| signature: <u>James A. Agge</u> | signature: <u>Richard Waters</u> |
| name: <u>JAMES A. AGGE</u> | name: <u>RICHARD WATERS</u> |
| T.M.K. # <u>3-1-2-033-045</u> | T.M.K. # <u>3-1-2-33-100</u> |
| signature: <u>Barbara C. Agge</u> | signature: <u>Christine Walker</u> |
| name: <u>BARBARA C. AGGE</u> | name: <u>CHRISTINE WALKER</u> |
| T.M.K. # <u>3-1-2-033-045</u> | T.M.K. # <u>(3)1-2-33-100</u> |



H.O.P.E.

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616 Ron Overmire
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Kahuna Beach, HI 96778

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10 December, 1996

We the undersigned resident homeowners in Kalapana Sea View Estates, Puna Beach Palisades, and Kahuna Beach Estates support and agree with the "H.O.P.E." letter of 10 December, 1996, Re: SSPP Unit 71 12.4777.2 kV Overhead Distribution System.

- | | |
|------------------------------------|-----------------------------------------|
| signature: <u>Fred Bensch</u> | signature: <u>Steven Stickney</u> |
| name: <u>FRED BENSCH</u> | name: <u>STEVEN STICKNEY</u> |
| T.M.K. # <u>3-1-2-37-118/121</u> | T.M.K. # <u>3-1-2-32-39/40</u> |
| signature: <u>Debra L. Smith</u> | signature: <u>Mary E. Blair</u> |
| name: <u>DEBRA L. SMITH</u> | name: <u>MARY E. BLAIR</u> |
| T.M.K. # <u>3-1-2-31-104</u> | T.M.K. # <u>3-1-2-33-15</u> |
| signature: <u>R. Jeff Seyfried</u> | signature: <u>Maria Yontine-Dornier</u> |
| name: <u>R. JEFF SEYFRIED</u> | name: <u>L. MARIA YONTINE-DORNIER</u> |
| T.M.K. # <u>3-1-2-33-043</u> | T.M.K. # <u>3-1-2-33-32, 33</u> |
| signature: <u>Monica C. Lopez</u> | signature: <u>Maria Yontine-Dornier</u> |
| name: <u>MONICA C. LOPEZ</u> | name: <u>MARIA YONTINE-DORNIER</u> |
| T.M.K. # <u>3-1-2-33-110-117</u> | T.M.K. # <u>3-1-2-33-115-117</u> |

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H.O.P.E.
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c/o Ron Overmann
RR2 Box 4743
Kehena Beach, HI 96778
Telephone 808 965-0239

10 December, 1996

We the undersigned resident homeowners in Kalapana Sea View Estates, Puna Beach
Fallsides, and Kehena Beach Estates support and agree with the "H.O.P.E." letter of 10
December, 1996, Re: SSPP Unit 71 12.477.2 KV Overhead Distribution System.

- signature: Wayne Kuntz name: Wayne Kuntz T.M.K. # 1-2-36-39
- signature: Bo F. Redekin name: Bo F. Redekin T.M.K. # 1-2-35-67
- signature: Frank Walker name: Frank Walker T.M.K. # 3-1-2-035-033
- signature: Timothy S. Heiser name: Timothy S. Heiser T.M.K. # 1-2-35-22
- signature: Carolyn Heiser name: Carolyn Heiser T.M.K. # 1-2-36-79

R. M. TOWILL CORPORATION
480 Waiheke Road #411 Honolulu HI 96817-4041 (808) 848-1133 Fax (808) 848-1037

February 19, 1997

Home Owners Preferring Electrification
c/o Ron Overmann
RR2 Box 4743
Kehena Beach, HI 96778

Dear Mr. Overmann:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We have received your letter dated December 10, 1996 regarding the subject project. Your
comments regarding the following have been noted. Appropriate changes will be reflected in the
FEIS.

The word "generally" will be deleted from the description of lot sizes on Page 3-37.
Section 3.4.

Page 2-8, Section 2.5.2 regarding the number of lots in Kalapana Seaview Estates located
in the SMA, the actual lot count is 81, according to the County of Hawaii Planning
Department.

Page 3-6, name of transfer station, and Page 5-5, Section 5.4 discussion of Kehena Beach
will be edited in light of your comments. Further, Page 5-7, Section 5.4, discussion of
storm waves and erosion will be edited as appropriate. Lastly, Figure 6a will be
corrected.

Thank you for your participation in this project.

Sincerely,
Colette Sakoda
Project Manager

- cc: Planning Dept.
- DLNR
- HELCO
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R. M. TOWILL CORPORATION

420 WAIAHANA RD #411 HONOLULU HI 09817-4041 (808) 842-1133 FAX (808) 842-1037

February 19, 1997

Mr. Ken Klempan
Hale Koala
RR2 Box 4751
Kehena Beach, HI 96778

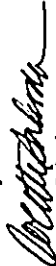
Dear Mr. Klempan:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We have received your letter dated December 7, 1996 regarding the subject project. Please be aware that I did receive your phone message of December 6, but was not successful in reaching you several days later.

Your comments have been noted and a copy of your letter will be included in the Final Environmental Impact Statement.

Sincerely,


Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

HALE KOALA
KEN & HIL KLEMPAN
ONE MOANA KAPILI PLAZA
RR2 / BOX 4751
KEHENA BEACH, HAWAII 96778

| | |
|------|--------------|
| DK | 175 |
| WIC | ME |
| FILE | FE |
| RECD | DEC 9 6 1996 |
| FILE | FILE |

December 7, 1996
Virginia Goldstein, Director
State of Hawaii OEQC Planning Department
25 Aupuni Street
Hilo, Hawaii 96720

Dear Ms. Goldstein:

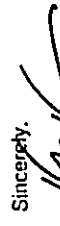
As a six year owner/resident at Kehena Beach, I want to first emphasize my appreciation of the nearly unobstructed beauty that Kehena Beach Estates allows us. As such, the preservation of the area's natural aesthetics remains one of my ongoing priorities.

I would also like to note that we have satisfactorily managed, over the years, to electrify our residence by way of solar panels, inverters, batteries and gasoline powered generator.

This is not to say, however, that we do not welcome the finality of HELCO-provided electricity. Having to contend with somewhat taller combination-telephone-electrical poles is a small price to pay for the convenience that being "on-grid" will bring us. Although we intend to keep our "off-grid" system intact (less generator), we look forward to, for us, a new form of alternative energy: *electricity from a commercial supplier.*

I would like to close by mentioning that four years ago my mother and her husband moved to the Big Island intending to reside at Kehena Beach. The difficulties associated with maintaining an off-grid system as well as living with its limitations were so severe for them that they finally gave up on Kehena Beach and moved to Nanawale Estates. I'm certain that their dilemma was far from unique.

I remain hopeful that our collective efforts will soon give us the desired results.

Sincerely,

Ken Klempan

cc: Colette Sakoda, R M Towill Corporation
Clyde Nannata, Hawaii Electric Light Company, Inc

Engineers • Planners • Photogrammetrists • Surveyors

Environmental Scientists • Environmental Engineers • Environmental Technicians

Architects • Urban Planners • Landscape Architects

Interior Designers • Civil Engineers • Mechanical Engineers

Electrical Engineers • Chemical Engineers • Industrial Engineers

Structural Engineers • Geotechnical Engineers • Environmental Engineers

Water Resources Engineers • Transportation Engineers • Surveyors

Professional Engineers in Various Disciplines

VIRGINIA GOLDSTEIN
PLANNING DEPT.
25 AUPUNI ST.
HILO, HI 96720

DECEMBER 7TH 1996

DEAR Ms GOLDSTEIN.

AS A PROPERTY OWNER WITH FOUR PROPERTIES IN THE SEAVIEW ESTATES SUBDIVISION (ONE IN WHICH I LIVE, AND THE OTHER THREE MORTGAGED), I REALLY APPRECIATED THE ENVIRONMENTAL REPORT THAT SHOWED CONCLUSIVELY THAT ELECTRICAL POWER WOULD BE A POSITIVE, NOT NEGATIVE, IMPACT FOR THE PROPERTY OWNERS HERE, AND WOULD HAVE LITTLE OR NO IMPACT ON OUR ENVIRONMENT.

WITH THE OUTRAGEOUS CONDUCT OF THE "FRIENDS OF THE RED ROAD" WHO PLACED SO MANY FOOLISH ROADBLOCKS IN THE WAY OF ELECTRIFICATION HERE, AND YOUR REPORT THAT PROVED THAT NONE OF THEIR CONCERNS WERE WARRANTED, YOU HAVE TAKEN A GIANT STEP FORWARD IN MAKING SENSE OUT OF ALL THE NONSENSE THAT THE RED ROAD-ERS HAVE PROVIDED.

NOTICE ALL THE DUPLICATED LETTERS THEY SENT YOU, AND THE LACK OF ANY PROOF THAT THOSE WHO SIGNED THOSE LETTERS ACTUALLY OWNED PROPERTY IN ONE OF THE THREE SUBDIVISIONS IN QUESTION. IN FACT, PROBABLY ONLY TWO PEOPLE IN THE RED ROAD GROUP ACTUALLY OWN PROPERTY. WHILE A RECENT SURVEY OF ALL PROPERTY OWNERS IN THE SEAVIEW SUBDIVISION ON THE QUESTION OF POWER PROVED THE VAST MAJORITY WANTED ELECTRICAL POWER.

THANK YOU FOR PROVIDING THE ANSWERS.

YOURS TRULY,



CC: COLETTE SAKODA, CLYDE NEGATA.

DAVID GHEE
RR2, 12-7007 KAHEUKAI ST.
PAHOA, HI 96778
(808)965-8122

R. M. TOWILL CORPORATION

420 WAIAKAMOHU RD #411 HONOLULU HI 96817-4041 (808)842-1133 FAX (808)848-1037

February 19, 1997

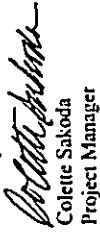
Mr. David Ghee
RR2 12-7007 Kaehukai St.
Pahoa, HI 96778

Dear Mr. Ghee:

Subject: SSPP Unit 71 12.4777.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We are in receipt of your letter dated December 7, 1996 regarding the subject project. A copy of it will be included in the Final Environmental Impact Statement.

Sincerely,



Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

Ronald Overmann, Ph.D.
James V. Setta, JD

RR 2 Box 4743
Kahana Beach, HI 96778
808-865-0228

December 10, 1996

Virginia Goldstein, Director
Planning Department
County of Hawaii
25 Aupuni Street
Hilo, HI 96720

Re: SSPP Unit 71

Dear Ms Goldstein:

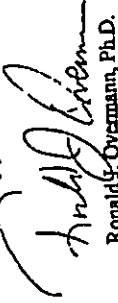
We are homeowners and residents in Kahana Beach Estates, one of the three subdivisions included in SSPP Unit 71. When we purchased our lot in 1993, we understood that grid power was going to be available within a short period of time. We signed a contract with HELCO and paid the full amount necessary to subscribe to their SSPP project. We began plans for our residence immediately and in 1995, still believing that grid power was just around the corner, we began construction of our current home. Our home was completed in January of 1996 and we have lived in it since then.

Our home was planned for grid power, including modern kitchen appliances, appropriate wiring and the necessary meter box. Imagine our chagrin when we discovered that a few opponents of modern living could subvert the wishes of the majority by using legal subterfuges to delay the installation of grid power to our subdivision. This delay has cost us many thousands of dollars for equipment such as generators, batteries, inverter, and a gas refrigerator. This is money we had no intention of spending, but in fact we were forced to dip into retirement savings in order to maintain some type of modern life style.

We are not anti-environment. We applaud those who wish to separate themselves from the rest of the modern world and live the simple life. However, Kahana Beach Estates, Puna Palisades and Sea View subdivisions are not the place to do it. It is lovely here, but not pristine, as they claim, since we have houses, roads, and telephone lines already in place. In addition, our small 1/5th acre lots are not amenable to off-grid living. Trees must be cut to allow sunlight to the solar panels, and when generators are necessary (on cloudy days or when using clothes washers, for example) the noise from close-by neighbors is very annoying. Those who wish to live in such a community should select a community designed that way from the beginning. It is totally unacceptable that these few people can come into an established community and tell lot owners and homeowners that they do not wish anyone in the community to have grid power.

We have read very carefully the draft EIS which the court required HELCO to pay for. It appears to be a very comprehensive and exhaustive study of potential negative and positive impacts. We believe that the opponents claims of great negative impact is greatly overblown. We see nothing in this document that indicates a diminution of quality of life as we currently enjoy it. In fact, the coverage of positive benefits from the installation of grid power, we believe, is very convincing and should weigh heavily in favor of immediate approval of the project by the County Planning Department. Our life style in Kahana deserves to be brought into the 20th Century (noting, of course, that we are about to enter the 21st). Your approval will help to bring equity to the preponderant majority of home and lot owners in the area who very much favor immediate access to grid power.

Sincerely yours,


Ronald Overmann, Ph.D.
TMK 3-1-2-30-55


James V. Setta, JD

cc: Clyde Negata, HELCO
Colente Sakoda, R. M. Towill Corp.

R. M. TOWILL CORPORATION

480 WAIKAMUI RD #411 HONOLULU HI 96817-4041 (808) 842-1133 FAX (808) 842-1037

February 19, 1997


Mr. Ronald Overmann, Ph.D.
Mr. James V. Setta, JD
RR2 Box 4743
Kehena Beach, HI 96778

Dear Mr. Overmann and Mr. Setta:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Thank you for your letter dated December 10, 1996 regarding the subject project. A copy of it will be included in the Final Environmental Impact Statement.

Sincerely,


Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

Engineers • Planners • Photogrammetrists • Surveyors
Construction Managers • Environmental Services

December 10, 1996

Collette Sakoda
R.W. Towill Corp.

I am writing to you in regards to the DEIS prepared pursuant to EIS law (H.R.S. Chapter 143) and the EIS rules (Ad. Rules Chapter 11, Chapter 200) for SSPP 71 Mit. the Helco overhead line extension in the Kehena area of the Big Island.

As outlined in the very thorough DEIS, there will be no significant environmental impact due to this project. In fact, it has been shown that the environment will greatly benefit from the decreased reliance on fossil fueled generators and lead acid batteries.

I noticed that none of the letters received from the Friends of the Red Road (FORR) contained in the DEIS included TMK numbers. I know for a fact that many of these correspondents live in areas outside of the 3 affected subdivisions. They live in areas already serviced by Helco - areas surrounding us here in Kehena that are also in lava zones 1 & 2, and are subject to all the "problems and disastrous impacts (SIC)" that they claim precludes allowing electrical service to our homes. From Kaimu/Kalapana, up Hiway 130, Black Sands, parts of Kalaimi Road, Leilani Estate to Pahoehoe, to Kapoho and back to Pohoiki we are surrounded by Helco powered communities. None of the supposed environmental "horrors" described in their letters has occurred there, nor is there any reason that they will occur.

In Spring 1995, I circulated a petition amongst some of the home/property owners here asking if they supported FORR or choice for power. I had neither the means nor the inclination to conduct an exhaustive study. However, it was quite easy to collect the following signatures, with TMKS, supporting the right to ~~elect~~ ^{choose} electrical source. I could have gotten many more.

The originals of these documents are being sent to Ms. Virginia Goldstein, Planning Director of the County of Hawaii. Copies of these documents, which include a sample of some of the personal anecdotes people choice to include with their petitions, are being sent to Mr. Clyde Nagata, HELCO, and to Ms. Collette Sakoda, R.M. Towill Corporation. I wish to have these documents submitted in support of a no significant impact on the environment ruling on this very important matter. We have been paying on signed contracts for electrical service from Helco for over three years.

MAIL ONLY:
PO BOX 11209 Hilo 96721
Phone 803-9659052
TAK'S 1-2-33-14219, 121, 040, 039

Sincerely, *Steven Stilkoff*
STEVEN STILKOFF
PS. This letter was written on an electrical typewriter powered by a very loud and smelly Generac generator, since our very costly (over \$15,000) "state of the art" solar power system was knocked out by lightning 2 weeks ago and it will be several more before a system is being installed.

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TMK NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|--------------------|---------|
| 1. C. MICHAEL FAIRMEN | <i>[Signature]</i> | 3-1-2-32-33 | 2115 WOLF RD | 6/20/95 |
| 2. P. Helco | <i>[Signature]</i> | | WAIKESHA LN. | |
| 3. I AM IN FAVOR OF THE SERVICE COMING INTO THE AREA BUT DID NOT REQUEST IT BEING INSTALLED UP TO MY LOT AT THIS TIME. | <i>[Signature]</i> | | | |

- | NAME (PRINT) | SIGNATURE | TMK NUMBER | ADDRESS (OPTIONAL) | DATE |
|-----------------|--------------------|---------------|--------------------|---------|
| 1. V.F. HEWMAN | <i>[Signature]</i> | 1-2-35:6 L35 | 324-72ND ST | 6/28/95 |
| 2. J.C. RUMMOND | <i>[Signature]</i> | 1-2-34:61 L95 | EVERETT, WA 98203 | |
| | | 1-2-34:62 L97 | | |

- | NAME (PRINT) | SIGNATURE | TMK NUMBER | ADDRESS (OPTIONAL) | DATE |
|--------------------|--------------------|-----------------|--------------------|---------|
| 1. STEPHEN SINKER | <i>[Signature]</i> | 1-2-34:39:2A-66 | 3142 24th Terrace | 6/22/95 |
| 2. [Name obscured] | <i>[Signature]</i> | | | |

- | NAME (PRINT) | SIGNATURE | TMK NUMBER | ADDRESS (OPTIONAL) | DATE |
|--------------------|--------------------|------------|--------------------|--------------|
| 1. MICHAEL K HALL | <i>[Signature]</i> | | 1-2-650-033-0220 | 6-27-95 |
| 2. DEN CROSS | <i>[Signature]</i> | | | June 18-1995 |
| 3. [Name obscured] | <i>[Signature]</i> | | | |
| 4. [Name obscured] | <i>[Signature]</i> | | | |

Return. P.O. Box 11209 Honolulu, HI 96721

PETITION

We, the undersigned, as property owners and/or permanent residents of Keheha, Puna, Beach Palisades, and Kalapana Saaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SPPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- 1. ELIZABETH ANDERSON *Elizabeth Anderson* 105 Palisades St 6-16-95
- 2. FRANK ANDERSON *Frank Anderson* 105 Palisades St 6-16-95

- 1. MAUREEN A. PIPER *Maureen A. Piper* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 2. MAX HALSEY *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 3. *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 4. *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95

- 1. MAUREEN A. PIPER *Maureen A. Piper* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 2. MAX HALSEY *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 3. *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 4. *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95

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- 1. MAUREEN A. PIPER *Maureen A. Piper* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 2. MAX HALSEY *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 3. *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95
- 4. *Max Halsey* 3-12-3156 12-7237 NAMAKAHA ST. 6-28-95

Return. P.O. Box 11209 Honolulu, HI 96721

PETITION

We, the undersigned, as property owners and/or permanent residents of Keheha, Puna, Beach Palisades, and Kalapana Saaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SPPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- 1. RAFAEL PAVIC *Rafael Pavic* 12-021 021 021 021 6-21-95
- 2. FAMELA PAUL *Famela Paul* 12-021 021 021 021 6-21-95
- 3. *Famela Paul* 12-021 021 021 021 6-21-95
- 4. *Famela Paul* 12-021 021 021 021 6-21-95

- 1. CHARLES D. AFTSARA *Charles D. Aftsara* 12-021 021 021 021 6-21-95
- 2. ROBERT T. SMITH *Robert T. Smith* 12-021 021 021 021 6-21-95
- 3. *Robert T. Smith* 12-021 021 021 021 6-21-95
- 4. *Robert T. Smith* 12-021 021 021 021 6-21-95

- 1. CHARLES D. AFTSARA *Charles D. Aftsara* 12-021 021 021 021 6-21-95
- 2. ROBERT T. SMITH *Robert T. Smith* 12-021 021 021 021 6-21-95
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- 4. *Robert T. Smith* 12-021 021 021 021 6-21-95

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- 1. CHARLES D. AFTSARA *Charles D. Aftsara* 12-021 021 021 021 6-21-95
- 2. ROBERT T. SMITH *Robert T. Smith* 12-021 021 021 021 6-21-95
- 3. *Robert T. Smith* 12-021 021 021 021 6-21-95
- 4. *Robert T. Smith* 12-021 021 021 021 6-21-95

Return. P.O. Box 1323, Keahu HI 96749 TIME 8 1995

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96301

PETITION

We, the undersigned, as property owners and/or permanent residents of Keolu, Puna Beach Palisades, and Kalapana Scaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual, and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SPPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We live here on the promise that electrical services would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|-------------------------|-----------------------------|------------|--------------------------------------|--------------|
| 1. MARTY A. GARRETT | <i>Marty A. Garrett</i> | 1-2-038-78 | | 6-10-95 |
| 2. RUTH C. GARRETT | <i>Ruth C. Garrett</i> | 1-2-38-052 | | June 10, 95 |
| 3. MARY A. GARRETT SA. | <i>Mary A. Garrett SA.</i> | 1-2-37-008 | | June 10, 95 |
| 4. MARY A. GARRETT SA. | <i>Mary A. Garrett SA.</i> | 1-2-39-016 | | June 10, 95 |
| 5. WALTER A. GAMES | <i>Walter A. Games</i> | | 12-31-65 L59 AND 1-2-31-65 L64 | DATE 5/19/95 |
| 1. JAMES L. HELTON | <i>James L. Helton</i> | | 12-31-65 L59 AND 1-2-31-65 L64 | DATE 5/19/95 |
| 2. MARZELINE C. HELTON | <i>Marzeline C. Helton</i> | | 12-31-65 L59 AND 1-2-31-65 L64 | DATE 5/19/95 |
| 3. JACQUELINE C. HELTON | <i>Jacqueline C. Helton</i> | | 12-31-65 L59 AND 1-2-31-65 L64 | DATE 5/19/95 |

- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|----------------------|--------------------------|-------------|--------------------------------------|---------------|
| 1. CRAIG LYMAN | <i>Craig Lyman</i> | 1-2-033-134 | 12-31-65 L59 AND 1-2-31-65 L64 | 5/19/95 |
| 2. DAN MEYER | <i>Dan Meyer</i> | 1-2-33-121 | | 5-19-95 |
| 3. NED MEYER | <i>Ned Meyer</i> | 12-3135 | KALAPANA PBP | |
| 4. ARTHUR E. STEWART | <i>Arthur E. Stewart</i> | 1-2-33-121 | | June 20, 1995 |
| 1. JESSIE C. KIM | <i>Jessie C. Kim</i> | 1-2-036-043 | | DATE 6-7-95 |

PETITION

We, the undersigned, as property owners and/or permanent residents of Keolu, Puna Beach Palisades, and Kalapana Scaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual, and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SPPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We live here on the promise that electrical services would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------------|----------------------------------|--------------|--------------------|---------|
| 1. JOAQUIN M. PEREIRA | <i>Joaquin M. Pereira</i> | 3-12-040-035 | | 6-15-95 |
| 2. ROSE Y. FERREIRA | <i>Rose Y. Ferreira</i> | | | 6-15-95 |
| 3. PROFIT INVESTMENT CO. INC | <i>Profit Investment Co. Inc</i> | 3-12-034-004 | | 6-15-95 |
| 4. PROFIT INVESTMENT CO. INC | <i>Profit Investment Co. Inc</i> | 3-12-034-004 | | 6-15-95 |
| 5. JOAQUIN M. PEREIRA | <i>Joaquin M. Pereira</i> | 3-12-037-001 | | 6-15-95 |
| 6. JOAQUIN M. PEREIRA | <i>Joaquin M. Pereira</i> | 3-12-037-001 | | 6-15-95 |
| 7. ROSE Y. FERREIRA | <i>Rose Y. Ferreira</i> | 3-12-037-001 | | 6-15-95 |
| 8. JOAQUIN M. PEREIRA | <i>Joaquin M. Pereira</i> | 3-12-037-001 | | 6-15-95 |
| 9. JOAQUIN M. PEREIRA | <i>Joaquin M. Pereira</i> | 3-12-037-001 | | 6-15-95 |
| 10. JOAQUIN M. PEREIRA | <i>Joaquin M. Pereira</i> | 3-12-037-001 | | 6-15-95 |
| 11. JOAQUIN M. PEREIRA | <i>Joaquin M. Pereira</i> | 3-12-037-001 | | 6-15-95 |
| 12. JOAQUIN M. PEREIRA | <i>Joaquin M. Pereira</i> | 3-12-037-001 | | 6-15-95 |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

11-11-11 11:11:11 AM

June 19, 1995

PETITION

I, Tyler R. Womack, as property owner and/or permanent resident of Keheha, Puna Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and HELCO to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

The Friends of the Red Road never consulted me about my rights, needs and concerns. On several occasions HELCO did contact me through their mail-in survey regarding homeowners/property owners request for electrical power.

Please expedite the permit process and continue the deliverance of electrical power to those homes and property owners whom you have under contract.

Tyler R. Womack
100- R Womack
P.O. Box 10767
Hilo, Hawaii 96721

TMK#: 1-2-41:85-86
SSPP-71

- | NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
|----------------------|--------------------|-------------|--------------------|---------|
| 1. Robert Supac | <i>[Signature]</i> | 1-2-40-113 | | 6/19/95 |
| 2. Michael Jackson | <i>[Signature]</i> | 1-2-039-108 | | 6/18/95 |
| 3. Carrie VanDenBerg | <i>[Signature]</i> | 1-2-039-108 | | 6/18/95 |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |

PETITION

We, the undersigned, as property owners and/or permanent residents of Keheha, Puna Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------|--------------------|------------------|------------------------------------------------|-------------|
| 1. James V. Seita | <i>[Signature]</i> | (3) 1-2-30-55 | 12-414 Palisades St | 6/19/95 |
| 2. Ronald J. J. J. J. | <i>[Signature]</i> | (3) 1-2-30-55 | 12-414 Palisades St | 6/19/95 |
| 3. | | | | |
| 1. Bill Barden | <i>[Signature]</i> | 1-2-031-094-0000 | | 6-12-95 |
| 2. Judy Overal | <i>[Signature]</i> | 1-2-031-094-0000 | | 6-12-95 |
| 3. | | | | |
| NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
| 1. Gerard Olinard | <i>[Signature]</i> | 1-2-30:42 | 3790 Florida St. #3114 | 6-10-95 |
| 2. | <i>[Signature]</i> | 1-2-30:42 | San Diego, CA 92104 | |
| NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
| 1. Cecil P. Lewis | <i>[Signature]</i> | C.P. Lewis | TKM 1-2-30:42 Lot 49 | 8 June 1995 |
| NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
| 1. William E. Franklin | <i>[Signature]</i> | 1-2-31:60 | L50 P. O. Box 1412, Rancho Santa Fe, CA. 92067 | JUN 19 1995 |
| 2. Margaret Franklin | <i>[Signature]</i> | 1-2-31:60 | L50 Same as above. | |
| 3. | | | | |
| NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
| 1. Wanda Lee Spolin | <i>[Signature]</i> | | | 6/16/95 |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

Return to 11209 Hale, HI 96721
 Return to 11209 Hale, HI 96721

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SPPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

NAME (PRINT) SIGNATURE TRK NUMBER ADDRESS (OPTIONAL) DATE
 1. MARGARET A. BLAKE 1-2-031-059 45 K. Laguna Bay Road, Keolu, HI 96752 June 8, 1995
 TRUSTEE SPARRACK & GARRETT TRUST LTD July 21, 1997

1. ROBERT G. GARDNER Robert Gardner 41374 223 6/8/95

1. DAVID ANTONIUCIO David Antonuccio TMK (3) 1-2-36-16 6-7-95
 Yvonne Wood Yvonne Wood TMK (3) 1-2-36-16 6-7-95

1. EDWIN I. DARNALL Edwin I. Darnall HC 31 Box 524 6/8/95
 BETTY J. DARNALL Betty J. Darnall 86401

1. DON VONGER Don Vonger Dual Cluys Lot # 1-2-30:5 6/8/95
 DON VONGER Don Vonger Lot # 1-2-30:6 6/8/95

1. WILLIAMS T. ARAGAKI Williams T. Aragaki 1-2-36:8 Lot 4 6/8/95
 TONY T. ARAGAKI Tony T. Aragaki

Return to P.O. Box 11209 Hale HI 96721

PETITION

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NAME (PRINT) SIGNATURE TRK NUMBER ADDRESS (OPTIONAL) DATE
 1. A Glenn Mehl A Glenn Mehl P.O. Box 153 6/8/95
 H Glenn Mehl H Glenn Mehl
 Shirley Ann Mehl Shirley Ann Mehl
 Shirley Ann Mehl Shirley Ann Mehl

1. ROBERT W. HEILER Robert W. Heiler LOT 161 536 Kihuna Pt. 6/9/95
 K.S.E. Kihuna Pt. 96777

1. DONALD E. LEONARD Donald E. Leonard 1-2-31:95 Lot B 96778 6/9/95
 Donald E. Leonard

1. ERIC ROSSE Eric Rosse 312 031 109 1103 Rose Valley Rd 6/9/95
 Jennifer Rosse Jennifer Rosse Republic WA 99166

1. ERIC ROSSE Eric Rosse RR2 Box 4772
 Jennifer Rosse Jennifer Rosse Pahoa HI 96778

1. BARBARA C. DUNNELL Barbara C. Dunnell 1-2-39:3c 5334 Lina Pt, HNL 6/9/95
 R. Charles C. Dunnell R. Charles C. Dunnell 1-2-39:3c 5334 Lina Pt, HNL 6/9/95

1. DON VONGER Don Vonger Dual Cluys Lot # 1-2-30:5 6/8/95
 DON VONGER Don Vonger Lot # 1-2-30:6 6/8/95

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 DON VONGER Don Vonger Lot # 1-2-30:6 6/8/95

PETITION

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- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|-----------------------|--------------------|------------|-------------------------|---------|
| 1. <i>[Signature]</i> | <i>[Signature]</i> | 1-2-31-106 | P.O. Box 4757 Puhon | 6-16-95 |
| 2. <i>[Signature]</i> | <i>[Signature]</i> | | | |
| 1. WAYNE KUNISON | <i>[Signature]</i> | 1-2-36-33 | P.O. Box 1136 Puhon, HI | 6/6/95 |
| 2. CAROL KUNISON | <i>[Signature]</i> | 1-2-36-31 | P.O. Box 1136 Puhon, HI | 6/6/95 |
| 1. AMENIA EMANUS | <i>[Signature]</i> | | TRK 1-2-35: 10 LOT 42 | 6-13-95 |
| 2. WILLIAM EMANUS | <i>[Signature]</i> | | TRK 1-2-35: 10 LOT 42 | |

- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|-----------------------|--------------------|--------------|---------------------|---------|
| 1. KENNETH WAKA | <i>[Signature]</i> | 3-1-2-33-102 | P.O. Box 1351 Keolu | 6-7-95 |
| 2. Marcelle Kuen | <i>[Signature]</i> | 3-1-2-33-102 | P.O. Box 1351 Keolu | 6-7-95 |
| 1. <i>[Signature]</i> | <i>[Signature]</i> | 1-2-030-007 | P.O. Box 49 Puhon | 6-16-75 |
| 2. <i>[Signature]</i> | <i>[Signature]</i> | 1-2-030-007 | TRK 1-2-33: 136 | 6-16-75 |
| 1. HELEN de Vries | <i>[Signature]</i> | 1-2-33-119 | P.O. Box 1074 | 6-1-95 |
| 2. <i>[Signature]</i> | <i>[Signature]</i> | 1-2-33-136 | | |
| 3. WENDY THOMAS | <i>[Signature]</i> | 1-2-33-137 | | |
| 4. <i>[Signature]</i> | <i>[Signature]</i> | | | |
| 5. <i>[Signature]</i> | <i>[Signature]</i> | | | |

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- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|-----------------------|--------------------|-------------|------------------------------|---------|
| 1. TIMMOCK | <i>[Signature]</i> | 1-2-33-106 | Box 1410 Puhon, HI | 5/11/95 |
| 2. <i>[Signature]</i> | <i>[Signature]</i> | 1-2-33-121 | P.O. Box 1129 Puhon | 5-17-95 |
| 3. <i>[Signature]</i> | <i>[Signature]</i> | 1-2-33-118 | 12-735 Kalamela Puhon | 5-17-95 |
| 4. RICH BOMO | <i>[Signature]</i> | 3-1-2-31-47 | REZ BOX 474 Puhon, HI | 5/17/95 |
| 5. <i>[Signature]</i> | <i>[Signature]</i> | 3-1-2-31-45 | REZ BOX 475 Puhon | 5/20/95 |
| 6. NORMAN CLESEN | <i>[Signature]</i> | 5-1-2-31-57 | P.O. Box 1228 Puhon | 5/20/95 |
| 7. DAVID FOWLER | <i>[Signature]</i> | 3-1-2-31-62 | R.R. 4756 Puhon | 5-21-95 |
| 8. <i>[Signature]</i> | <i>[Signature]</i> | 3-1-2-31-49 | 517 thru by sub ed. cl. 1216 | 5-22-95 |
| 1. JOSHUA D'AMORE | <i>[Signature]</i> | 3-1-2-30-83 | | 4/20/95 |
| 2. HAROLD MEYER | <i>[Signature]</i> | 3-1-2-30-89 | | 4/20/95 |
| 1. CARL J. MUIA | <i>[Signature]</i> | Lot 239 | P.O. Box 16438 | 6-9-95 |
| 2. <i>[Signature]</i> | <i>[Signature]</i> | | | |
| 3. <i>[Signature]</i> | <i>[Signature]</i> | | | |
| 4. <i>[Signature]</i> | <i>[Signature]</i> | | | |
| 5. <i>[Signature]</i> | <i>[Signature]</i> | | | |
| 6. <i>[Signature]</i> | <i>[Signature]</i> | | | |
| 7. <i>[Signature]</i> | <i>[Signature]</i> | | | |
| 8. <i>[Signature]</i> | <i>[Signature]</i> | | | |

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|--------------------------|--------------------|------------|--------------------|------------|
| 1. Patricia Bernal | <i>[Signature]</i> | | | 6/15/95 |
| 1. STEVEN J. LAARNS | <i>[Signature]</i> | 1-2-36110 | LS7 MAUIKA 9452Z | 14 JUNE 95 |
| 1. NICHOLAS JON SCHWARZE | <i>[Signature]</i> | 3 12 018 | 001 0000 001 2 | 6-8-95 |
| 2. NICHOLAS JON SCHWARZE | <i>[Signature]</i> | 3 12 33 | 26 | 6-8-95 |
| 3. NICHOLAS JON SCHWARZE | <i>[Signature]</i> | 3 12 33 | 155 | 6-8-95 |

I am in favor of Helco plans to install lines & poles "on schedule" w/out delay.

Thank you
Nicholas Schlarke

PETITION

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|-------------------|--------------------|------------|--------------------|---------------|
| 1. FAYE KOZUMA | <i>[Signature]</i> | 12036034 | | 6-19-95 |
| 2. FAYE KOZUMA | <i>[Signature]</i> | 12036087 | | 6-19-95 |
| 1. Allan Don | <i>[Signature]</i> | 3-1-2-031 | 070 (SSPP Unit 71) | June 14, 1995 |
| 1. Mandalee Spini | <i>[Signature]</i> | | | 6/16/95 |
| 1. JESSE OTA | <i>[Signature]</i> | 312035089 | | 6-15-95 |

| NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------------|--------------------|------------|--------------------|---------------|
| 1. Clifford Ayama | <i>[Signature]</i> | 1-2-34-90 | Lot 126 | |
| 2. Arisella Arane | <i>[Signature]</i> | 1-2-34-90 | Lot 126 | |
| 1. Victor M. Ethel K. Fukuda | <i>[Signature]</i> | | | 3-1-2-535-004 |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

for non-performance. Friends of the Red Road is a species organization which in my view is obstructive. If "Friends" want to preserve this slice of Hawaii, they should purchase and control a majority of the property there. Otherwise, they are evidently interfering with my past and current investments and I should love rights before the law also.

To PoBI 1209 Michael C. McGowan

Dear Sir,
I did receive your letter asking me to collect money for electric Poles, as I am for I can't go home to house asking for support I am too sick for that since I am an eye surgeon I can't work 24 hours a day, so please try to find someone else, Paul H. H. H. H.

PETITION

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- | NAME (PRINT) SIGNATURE | LINE NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------------------------------|-------------|--------------------|-------------|
| 1. Michael C. McGowan | 1-2-30:25 | | 17 June '95 |
| 2. Michael C. McGowan | | | |
| 3. | | | |
| 4. Michael C. McGowan | | | |
| 5. Michael C. McGowan | 1-2-30:26 | | 17 June '95 |
| 6. Michael C. McGowan | | | |
| 7. Michael C. McGowan | | | |
| 8. Contact Address | | | |
| 9. R. Dempo I/II | | | |
| 10. Jakarta 12120 | | | |
| 11. Indonesia | | | |
| 12. The home owners / property owners who | | | |
| 13. pay taxes in Puna appraised this extension | | | |
| 14. project and have been paying for it since | | | |
| 15. June, 1994. The power that be should | | | |
| 16. listen to the property owners and the | | | |
| 17. payers and get this work completed | | | |
| 18. immediately. Perhaps the property owners | | | |
| 19. who are paying for this should see the | | | |
| 20. 1 more | | | |

DOCUMENT CAPTURED AS RECEIVED

5-3-95

June 16, 1995

Dear Steven,

Thank you for keeping us informed. I agree with you wholeheartedly. Let's bring in the power without further delay!

Richard Olsen
Ray Anderson

Dear Mr. Stickney,

I was off island for the last three weeks but did receive your letter and petition.

I have personally gone down to Kalapana Seaview Estates, where my two lots are located, and have seen the progress that HELCO has made in delivering electrical power to the subdivision. I have no problems with the location of the poles nor do I have a problem with the birds, whales or dolphins. Please find enclosed dated and signed petition with the hope that it helps in your efforts.

Sincerely,
Tyler R. Womack
Tyler R. Womack

The Allan Dow Co.
P.O. Box 1201
Santa Cruz, CA 95061
(408) 462-6274

To Steven Stickney

462-6274
6/14/95

Memo from ALLAN DOW

Thank you for taking action to do what is needed in this strange controversy.

Since I can't retire, my wife and I may never get to build on our lot, but we do come to Hawaii every year and want to see logical progress.

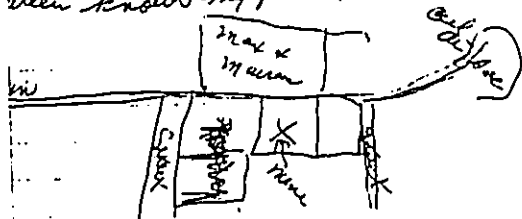
We may sell our lot to a friend here who would build within 3 years. If you are a builder you may want to put you in touch. P. Dow

6/6/95

Hello,

I am very glad to see some help in obtaining long overdue elec.

I'm sorry I'm not able to create my TRM - as am home from Hosp & not able to get around (in hosp bed) yet. My prop is across from Mox + Maureen - the pole. Thanks to the power house. I've known my parcel #



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

December 10, 1994
DEC 15 1996
CLYDE NAGATA
HELCO

Ben Cayetano
GOVERNOR
STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
120 SOUTH KING STREET
FOURTH FLOOR
HONOLULU HAWAII 96813
TELEPHONE: (808) 588-4100
FAX: (808) 588-4100
Gary Gill
ADMINISTRATOR
STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

Dear Participant:
Attached for your review is a Draft Environmental Impact Statement (DEIS) which was prepared pursuant to the EIS law (Hawaii Revised Statutes, Chapter 343) and the EIS rules (Administrative Rules, Title 11, Chapter 200).
TITLE OF PROJECT: SPPP Unit 71 12.47/7.2 kV Overhead Distribution System

LOCATION: ISLAND: Hawaii DISTRICT: Puna
TAX MAP KEY NUMBER: 1-2-09-03 (POR): 1-2-30 to 41
AGENCY ACTION: _____ APPLICANT ACTION: X
YOUR COMMENTS MUST BE RECEIVED OR POSTMARKED BY (maximum 45 day comment period): Dec. 23, 1996
PLEASE SEND ORIGINAL COMMENTS TO THE:
ACCEPTING AUTHORITY: Planning Department
ADDRESS: 25 Aupuni Street
Hilo, HI 96720
CONTACT: Virginia Goldstein, Director PHONE: (808) 961-8288

COPIES OF THE COMMENTS SHOULD BE SENT TO DEQC AND THE FOLLOWING:
PROPOSING AGENCY OR APPLICANT: Hawaii Electric Light Company, Inc.
ADDRESS: P. O. Box 1027
Hilo, HI 96721-1027
CONTACT: Clyde Nagata PHONE: (808) 969-0333
CONSULTANT: R. M. Towill Corporation
ADDRESS: 420 Maikamilo Rd., Ste. 411
Hon., HI 96817-4941
CONTACT: Colette Sakoda PHONE: (808) 842-1133

If you no longer need this EIS, please return it to DEQC. Thank you for your participation in the EIS process.
Draft EIS Cover Letter - Revision 8/92

I am writing to you in regards to the DEIS prepared pursuant to EIS law (H.R.S. Chapter 343) and the EIS rules (Ad. Rules Chapter 11, Chapter 200) for SPPP 71 unit, the Helco overhead line extension in the Kehena area of the Big Island.

As outlined in the very thorough DEIS, there will be no significant environmental impact due to this project. In fact, it has been shown that the environment will greatly benefit from the decreased reliance on fossil fueled generators and lead acid batteries.

I noticed that none of the letters received from the Friends of the Red Road (FORR) contained in the DEIS included TMK numbers. I know for a fact that many of these correspondents live in areas outside of the 3 affected subdivisions. They live in areas already serviced by Helco - areas surrounding us here in Kehena that are also in lava zones 1 & 2, and are subject to all the "problems and disastrous impacts (SIC)" that they claim precludes allowing electrical service to our homes. From Kaimu/Kalapana, up Hiway 130, Black Sands, parts of Kalaimi Road, Leilani Estate to Pahoehoe, to Kapoho and back to Pohoiki we are surrounded by Helco powered communities. None of the supposed environmental "horrors" described in their letters has occurred there, nor is there any reason that they will occur.

In Spring 1995, I circulated a petition amongst some of the home/property owners here asking if they supported FORR or choice for power. I had neither the means nor the inclination to conduct an exhaustive study. However, it was quite easy to collect the following signatures, with TMKS, supporting the right to choose one's electrical source. I could have gotten many more. Choose.

The originals of these documents are being sent to Ms. Virginia Goldstein, Planning Director of the County of Hawaii. Copies of these documents, which include a sample of some of the personal anecdotes people choice to include with their petitions, are being sent to Mr. Clyde Nagata, HELCO, and to Ms. Colette Sakoda, R.M. Towill Corporation. I wish to have these documents submitted in support of a no significant impact on the environment ruling on this very important matter. We have been paying on signed contracts for electrical service from Helco for over three years.

Sincerely,
STEVEN STICKNEY

MAIL ONLY:
PO Box 11209 Hilo 96721
Phone 808-965-9652
Fax 808-965-9652
This letter was written on an electrical typewriter powered by a very loud and smelly Generac generator, since our very costly (over \$15,000) "state of the art" solar power system was knocked out by lightning 2 weeks ago and it will be several more before this system can be repaired.
Mr. R. Ratific, A. Urabe, D. Murakami, C. Sakoda

Return. Prox 11209 Helco, 17
96221

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------------------------------|--------------------|------------|-----------------------------|---------|
| 1. C. MICHAEL FARMER | <i>[Signature]</i> | 3-1-2-3-33 | 2115 WOLF RD WAIKESHA HI | 6/20/95 |
| 2. P. HEDGECOCK | <i>[Signature]</i> | | | |
| 3. TARA M. FALLO | <i>[Signature]</i> | | TK SERVICE COMPANY NITO | |
| 4. TK AND D.D. M. REOS | <i>[Signature]</i> | | | |
| 5. BEING INSTALLED UP TO MY HOME AT THIS TIME. | <i>[Signature]</i> | | | |
| 6. P. HEDGECOCK | <i>[Signature]</i> | | | |
| 7. | | | | |

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
|---------------------------|--------------------|------------|-----------------------------|---------|
| 1. RAYLYAN S.H.L PEREZ | <i>[Signature]</i> | | | 9/8/95 |
| 2. LEONOR A. PEREZ | <i>[Signature]</i> | | P.O. Box 19151 HAWAII 96717 | 6/18/95 |
| 1. DON H. BARTRON SR. | <i>[Signature]</i> | | | 6-23-95 |
| 2. MYRTLE M. BARTRON | <i>[Signature]</i> | | | 6-23-95 |
| 3. TMK # 1-2-30136 LOT 20 | | | | |

- | NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
|-------------------|--------------------|-------------------|----------------------------------|--------------|
| 1. V.C. HEWMAN | <i>[Signature]</i> | 1-2-35:6 L35 | 314-72ND ST EVERETT, WA 98203 | 6/28/95 |
| 2. J.C. (NORMAN) | <i>[Signature]</i> | 1-2-34:61 L95 | | |
| 1. S. GARDNER | <i>[Signature]</i> | 1-2-34:38: Lot 66 | | 6/23/95 |
| 2. S. GARDNER | <i>[Signature]</i> | | | |
| 1. MICHAEL K HALL | <i>[Signature]</i> | | 314-2-24 TORRANCE | 6-27-95 |
| 1. DEN CROSS | <i>[Signature]</i> | | | June 19-1995 |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |

- | NAME (PRINT) | SIGNATURE | TKM NUMBER | ADDRESS (OPTIONAL) | DATE |
|---------------------|--------------------|--------------------|-------------------------------------|---------|
| 1. RALPH PAULI | <i>[Signature]</i> | 12 031 027 000 00 | | 6-21-95 |
| 2. S. GARDNER | <i>[Signature]</i> | | | 6-21-95 |
| 1. CHARLES E. AFTON | <i>[Signature]</i> | 1-2 020 010 000 00 | | |
| 2. ROBERT T. SMITH | <i>[Signature]</i> | | 8526 HAWAIIAN BL LOS ANGELES, CA | |
| 3. S. GARDNER | <i>[Signature]</i> | | | |
| 4. S. GARDNER | <i>[Signature]</i> | | | 6/12/95 |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |

Kekaha. P.O. Box 11209 Hilo, HI 96721

PETITION

We, the undersigned, as property owners and/or permanent residents of Kekaha, Puna, Beach Palisades, and Kalapana Saaviu subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TKN NUMBER | ADDRESS (OPTIONAL) | DATE |
|-----------------------|---------------------------|--------------|-------------------------|---------|
| 1. ELIZABETH ANDERSON | <i>Elizabeth Anderson</i> | | 104 | 6-16-95 |
| 2. FRANK ANDERSON | <i>Frank Anderson</i> | | 105 Palisades St | 6-16-95 |
| NAME (PRINT) | SIGNATURE | TKN NUMBER | ADDRESS (OPTIONAL) | DATE |
| 1. Maureen Mgratt | <i>Maureen Mgratt</i> | 3-1-2041-117 | P.O. Box 1128 Palisades | 6-17-95 |
| 2. JOHN G. GARR | <i>John G. Garr</i> | 3-1-2034-047 | P.O. Box 1128 Palisades | 6-17-95 |

- | NAME (PRINT) | SIGNATURE | TKN NUMBER | ADDRESS (OPTIONAL) | DATE |
|----------------------|--------------------------|------------|-----------------------------|---------|
| 1. ANDREY PAH SING | <i>Andrey Pah Sing</i> | 3-17-3156 | KEKHA 12-7237 KAHALAHUA ST. | 6-28-95 |
| 2. MELVYN C. AH SING | <i>Melvyn C. Ah Sing</i> | 3-17-3156 | 12-7237 KAHALAHUA ST. | 6-28-95 |
| 3. JAMES C. ... | <i>James C. ...</i> | | | |
| 4. ... | <i>...</i> | | | |

- | NAME (PRINT) | SIGNATURE | TKN NUMBER | ADDRESS (OPTIONAL) | DATE |
|---------------------|-------------------------|-------------|--------------------|---------|
| 1. MAUREEN A. PIPER | <i>Maureen A. Piper</i> | 3-12-33-115 | | 5/18/95 |
| 2. MAX HARSEY | <i>Max Harsey</i> | 3-12-33-117 | | 5/18/95 |
| 3. ... | <i>...</i> | 3-12-33-38 | | 5/17/95 |

On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TKN NUMBER | ADDRESS (OPTIONAL) | DATE |
|--------------|-----------------|------------|--------------------------------------|----------------------|
| 1. DOLE ... | <i>Dole ...</i> | | 3-1-2-33-120 P.O. Box 1323, KEAAU HI | 96749 JUNE 8 1995 |

PETITION

We, the undersigned, as property owners and/or permanent residents of Kekaha, Puna, Beach Palisades, and Kalapana Saaviu subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TKN NUMBER | ADDRESS (OPTIONAL) | DATE |
|---------------------|-------------------------|---------------|------------------------------------------------------|--------------|
| 1. MARTY A. GARRETT | <i>Marty A. Garrett</i> | 1-2-038-78 | | 6-10-95 |
| 2. ... | <i>...</i> | | | June 10, 95 |
| 3. ... | <i>...</i> | 1-2-38-052 | | June 1995 |
| 4. ... | <i>...</i> | 1-2-37-008 | | June 10, 95 |
| 5. ... | <i>...</i> | 1-2-39-016 | | DATE 5/18/95 |
| 1. Walter A Gomes | <i>Walter A Gomes</i> | ask Helco | ADDRESS (OPTIONAL) 258 CAHILL AVE KAHALAHUA HI 96746 | DATE 6-6-95 |
| 1. JAMES L. HELCO | <i>James L. Helco</i> | 1-2-31-65 L59 | ADDRESS (OPTIONAL) 12-7237 KAHALAHUA ST. | DATE 6-6-95 |
| 2. ... | <i>...</i> | 1-2-31-65 L64 | | |
| 3. ... | <i>...</i> | 1-2-31-65 L64 | | |

- | NAME (PRINT) | SIGNATURE | TKN NUMBER | ADDRESS (OPTIONAL) | DATE |
|----------------------|--------------------------|-------------|-----------------------|---------------|
| 1. CRAIG LYMAN | <i>Craig Lyman</i> | 1-2-033-134 | 12-7237 KAHALAHUA ST. | 5/19/95 PDP |
| 2. SAN MEYER | <i>San Meyer</i> | 1-2-33-121 | | 5-19-95 |
| 3. NED MEYER | <i>Ned Meyer</i> | 12-7135 | KALAHUA PDP | |
| 4. ARTHUR E. STEWART | <i>Arthur E. Stewart</i> | 1-2-33-121 | | June 20, 1995 |
| 1. JESSIE C. KIM | <i>Jessie C. Kim</i> | 1-2-036-043 | | 6-7-95 |

11209 H20 14 96300

June 19, 1995

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Keheha, Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and HELCO to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between HELCO and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, HELCO conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

1. Tyler R. Womack, as property owner and/or permanent resident of Kehena, Puna Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and HELCO to live up to their legal, contractual and moral obligations to provide permanent fulltime electrical service as outlined in the agreement between myself and HELCO in SSPP 71.

The Friends of the Red Road never consulted me about my rights, needs and concerns. On several occasions HELCO did contact me through their mail-in survey regarding homeowners/property owners request for electrical power.

Please expedite the permit process and continue the deliverance of electrical power to those homes and property owners whom you have under contract.

Tyler R. Womack
P.O. Box 10767
Hilo, Hawaii 96721

TMK#: 1-2-41-85-86
SSPP-71

NAME (PRINT) SIGNATURE TRK NUMBER ADDRESS (OPTIONAL) DATE
1. Robert Supak 1-2-40-113 6/14/95
2. Michael Jackson 1-2-039-108 6/18/95
3. Carrie VanDenBerg 1-2-039-108 6/18/95

- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|--------------------------|-----------------------|--------------|--------------------|---------|
| 1. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-12-04D035 | | 6-15-95 |
| 2. ROSEY PEREIRA | Rosey Pereira | | | 6-15-95 |
| 3. PROFIT INVESTMENT CO. | Profit Investment Co. | | | 6-15-95 |
| 4. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 5. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 6. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 7. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 8. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 9. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 10. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 11. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 12. JOAQUIM M. PEREIRA | Joaquim M Pereira | 3-1-2-37-001 | | 6-15-95 |
| 13. | | | | |
| 14. | | | | |
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| 19. | | | | |
| 20. | | | | |

11209 H20 14 96300

Petition No. Box 1209 141
96721

PETITION

We, the undersigned, as property owners and/or permanent residents of Keheha, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

| NAME (PRINT) | SIGNATURE | TK# NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------|----------------------------|------------------|----------------------------------------------|-------------|
| 1. JAMES V SEITA | <i>James V Seita</i> | (3) 1-2-30-55 | 12-414 Ruben St | 4/9/95 |
| 2. ROMEO JOUDEMANN | <i>Romeo Joude mann</i> | (3) 1-2-30-55 | 12-414 Ruben St | 6/19/95 |
| 3. BILL BURDEN | <i>Bill Burden</i> | TK# Number | 1-2-031-094-0000 | 6-12-95 |
| 2. JUDY BURDEL | <i>Judy Burdel</i> | 1-2-031-094-0000 | | 6-12-95 |
| 3. GEORGE OLIVAS | <i>George Olivas</i> | TK# NUMBER | 3790 FLORIDA ST. #3114 SAN DIEGO, CA. 92104. | 6-10-95 |
| 1. CECIL P. LEWIS | <i>Cecil P Lewis</i> | TK# NUMBER | TK M 1-2-30 71 Lot 49 | 8 June 1995 |
| 1. William E. Franklin | <i>William E. Franklin</i> | TK# NUMBER | 7. O. Box 1412, Rancho Santa Fe, CA. 92067 | JUL 12 1995 |
| 2. Margaret Franklin | <i>Margaret Franklin</i> | TK# NUMBER | Same as above. | JUL 12 1995 |
| 1. Mandalee Spolin | <i>Mandalee Spolin</i> | TK# NUMBER | ADDRESS (OPTIONAL) | 6/10/95 |

We, the undersigned, as property owners and/or permanent residents of Keheha, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

| NAME (PRINT) | SIGNATURE | TK# NUMBER | ADDRESS (OPTIONAL) | DATE |
|---------------------------|----------------------------|---------------------|--------------------------------------|--------------|
| 1. A Glenn Mehl | <i>A Glenn Mehl</i> | P.O. Box 153 | | 6/8/95 |
| 2. Shirley Ann (Mrs) Mehl | <i>Shirley Ann Mehl</i> | 644 Hale, CA 95745. | | Mehls Family |
| 1. ROBERT W. HEISLER | <i>Robert W Heisler</i> | TK# 161 | 526 KIHAPAI ST. HAWAII HI 96744 | 6/9/95 |
| 1. DONALD E. LEONARD | <i>Donald E Leonard</i> | TK# 1-2-31-95 Lot B | Box 1082, Pahaia HI. | 6/9/95 |
| 2. ERIC ROSSE | <i>Eric Rosse</i> | TK# 312.031109 | 1103 Rose Alley RD Republic WA 99166 | 6/9/95 |
| 3. Jennifer Rosse | <i>Jennifer Rosse</i> | | RR2 Box 4772 Pahaia HI 96778 | |
| 1. BARBARA E. DUNNIZEL | <i>Barbara E. Dunnizel</i> | TK# NUMBER | ADDRESS (OPTIONAL) | DATE |
| 2. R. C. ... | <i>R. C. ...</i> | | 5334 Lina St, HI 96744 | 6/10/95 |

Petition Lot
11704
H. 96721

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested years on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|----------------------|--------------------------|-------------------|---------------------------|--------------|
| 1. MARGARET A. BLAKE | <i>Margaret A. Blake</i> | 1-2-031-059 | 437 Laguna Highway, Keolu | June 8, 1995 |
| 2. ROBERT K. GORDON | <i>Robert K. Gordon</i> | 1-2-031-059 | 437 Laguna Highway, Keolu | 6/8/95 |
| 1. David Antonaccio | <i>David Antonaccio</i> | TMK (3) 1-2-36-16 | | 6-7-95 |
| 2. Yuone Wood | <i>Yuone Wood</i> | TMK (3) 1-2-36-16 | | 6-7-95 |
| 1. EDWIN I DARNALL | <i>Edwin I Darnall</i> | HC 31 Box 524 | Kingman | 6/8/95 |
| 2. BETTY J. DARNALL | <i>Betty J. Darnall</i> | HC 31 Box 524 | Kingman | 6/8/95 |
| 1. DON VONKER | <i>Don Vonker</i> | Lot # 1-2-30:5 | | 6/8/95 |
| 2. DON VONKER | <i>Don Vonker</i> | Lot # 1-2-30:6 | | 6/8/95 |
| 1. THOMAS T. ARAGAKI | <i>Thomas T. Aragaki</i> | 1-2-36:8 | Lot 4 | 6/8/95 |
| 2. THOMAS T. ARAGAKI | <i>Thomas T. Aragaki</i> | 1-2-36:8 | Lot 4 | 6/8/95 |

PETITION

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- | NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------------|----------------------------------|--------------|---------------------------|---------|
| 1. KAREN SANDY | <i>Karen Sandy</i> | 1-2-31-106 | RR Box 4757 Puhon | 6-16-95 |
| 2. KARL E. SMITH | <i>Karl E. Smith</i> | 1-2-36:31 | P.O. Box 1136 Puhon, HI | 6/8/95 |
| 1. WAYNE KUSTON | <i>Wayne Kuston</i> | 1-2-36:31 | P.O. Box 1136 Puhon, HI | 6/8/95 |
| 2. CAROL KUSTON | <i>Carol Kuston</i> | 1-2-36:31 | P.O. Box 1136 Puhon, HI | 6/8/95 |
| 1. AMELIA EMKINS | <i>Amelia Emkins</i> | TMK 1-2-35 | 10 LOT 42 | 6-13-95 |
| 2. WILLIAM EMKINS | <i>William Emkins</i> | TMK 1-2-35 | 10 LOT 42 | 6-13-95 |
| 1. KENNETH WACA | <i>Kenneth Waca</i> | 3-1-2-33-102 | P.O. Box 1351 Keolu | 6-7-95 |
| 2. MARCELLE KERN MURCILLAKOM | <i>Marcelle Kern Murcillakom</i> | 3-1-2-33-102 | P.O. Box 1351 Keolu | 6-7-95 |
| 1. RICHARD JOHN | <i>Richard John</i> | 1-2-030-007 | P.O. Box 49 Puhon | 6-16-95 |
| 2. KRISTIN WILDEG | <i>Kristin Wildeg</i> | 1-2-030-007 | HC 1 BOX 5013 Keolu 96747 | 6-16-95 |
| 1. HELEN DE VRIES | <i>Helen de Vries</i> | 2-2-33-119 | Puhon 10074 | 6/8/95 |
| 2. VINCENT THOMAS | <i>Vincent Thomas</i> | 1-2-33:136 | 42074 Puhon 10074 | 6-8-95 |
| 3. VINCENT THOMAS | <i>Vincent Thomas</i> | 1-2-33:137 | 42074 Puhon 10074 | 6-8-95 |
| 4. VINCENT THOMAS | <i>Vincent Thomas</i> | 1-2-33:137 | 42074 Puhon 10074 | 6-8-95 |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

| NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|--------------------------|--------------------|------------|-----------------------------|------------|
| 1. Patricia Bernal | <i>[Signature]</i> | | | 6/15/95 |
| 1. STEVEN M. CRAMPTON | <i>[Signature]</i> | 1-2-36110 | PO BOX 201966 MAUI HI 99522 | 14 JUNE 95 |
| 1. NICHOLAS JON SCHWARZE | <i>[Signature]</i> | 3 12 018 | 001 0000 001 2 | 6-8-95 |
| 2. NICHOLAS JON SCHWARZE | <i>[Signature]</i> | 3 12 33 | 26 | 6-8-95 |
| 3. NICHOLAS JON SCHWARZE | <i>[Signature]</i> | 3 12 33 | 155 | 6-8-95 |

I Am in favor of
 Helco plans to intall lines & poles
 "on schedule" w/out delay.
 Thank you
 Nicholas Schwarze
 19- 792-6313

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

| NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|--------------------|--------------------|--------------|--------------------|---------------|
| 1. FAYE KOZUMA | <i>[Signature]</i> | 1-2-036 034 | | 6-19-95 |
| 2. FAYE KOZUMA | <i>[Signature]</i> | 1-2-036 087 | | 6-19-95 |
| 1. Allan Don | <i>[Signature]</i> | 3-1-2 031 | 070 (SSPP Unit 71) | June 14, 1995 |
| 2. Mandalee Spini | <i>[Signature]</i> | | | 6/16/95 |
| 1. JESSE ORA JAMES | <i>[Signature]</i> | 3 12 035 089 | | 6-15-95 |

| NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|------------------------------|--------------------|---------------|--------------------|------|
| 1. Clifford Agama | <i>[Signature]</i> | 1-2-34-70 | Lot 126 | |
| 2. Priscilla Agama | <i>[Signature]</i> | 1-2-34-90 | Lot 126 | |
| 1. Victor M. Ethel K. Fukuda | <i>[Signature]</i> | 3-1-2-555-004 | | |

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

| NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|---------------------|--------------------|-------------|--------------------------------------|---------|
| 1. TIMMOCK | <i>[Signature]</i> | 12023-106 | BOX 1410 PAHOA HI | 5/17/95 |
| 2. STEVEN STINE | <i>[Signature]</i> | 12-33-121 | 70287 112-9 HLC | 5-12-95 |
| 3. FRED BRADSHAW | <i>[Signature]</i> | 113 | 12-735 KALANAILUA PUNA OAHU HI 96744 | |
| 4. RICH EDHO | <i>[Signature]</i> | 3-1-2-31-47 | RR2 BOX 4771 PAHOA HI 96738 | 5/19/95 |
| 5. GENIE LOEBBERGER | <i>[Signature]</i> | 5-1-2-31-45 | RR2 BOX 4735 PAHOA HI 96738 | 5/20/95 |
| 6. NORMAN CLESEN | <i>[Signature]</i> | 5-1-2-31-57 | RR1 BOX 1228 PAHOA HI 96738 | 5/21/95 |
| 7. DAVID FOWLER | <i>[Signature]</i> | 3-1-2-31-62 | RR 4776 PAHOA HI 96778 | 5-21-95 |
| 8. MARY WINE | <i>[Signature]</i> | 3-1-2-31-9 | 5177 WINEY ROAD RD. CA. HI 96738 | 5-22-95 |
| 1. JESSIE D'AMORE | <i>[Signature]</i> | | 312-30-03 | 4/20/98 |
| 2. HAROLD MERTZER | <i>[Signature]</i> | | 312-36-09 | 6/20/98 |
| 1. CARL J. MUIA | <i>[Signature]</i> | | Lot 239 P.O. Box 16438 | 6-9-95 |
| 2. | | | | |
| 3. | | | | |
| 4. | | | Swath, WA-98116 | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |

PETITION

We, the undersigned, as property owners and/or permanent residents of Kehena, Puna, Beach Palisades, and Kalapana Seaview subdivisions call on the County of Hawaii and Helco to live up to their legal, contractual and moral obligations to us and provide us with permanent, fulltime electrical service as outlined in the agreements between Helco and property owners in SSPP 71. Friends of the Red Road has never consulted with us about our rights, needs, and concerns. The do not represent our viewpoints. On several occasions, Helco conducted a mail in survey of landowners and came up with a mostly positive response requesting that electrical service be provided to these subdivisions. In contrast to many of the Friends of the Red Road, we live here, own property here and have invested heavily in our future here. We invested here on the promise that electrical service would be available. We are already several years behind schedule. Please expedite the permit process and begin delivery of electricity to those home and property owners who choose to utilize it.

| NAME (PRINT) | SIGNATURE | TRK NUMBER | ADDRESS (OPTIONAL) | DATE |
|-----------------------|--------------------|------------|--------------------|-------------|
| 1. MICHAEL C. MCGOWAN | <i>[Signature]</i> | 1-2-30 | 25 | 17 June '95 |
| 2. | <i>[Signature]</i> | | | |
| 3. | <i>[Signature]</i> | | | |
| 4. MICHAEL C. MCGOWAN | <i>[Signature]</i> | | | 17 June '95 |
| 5. | | 1-2-30 | 26 | |
| 6. | <i>[Signature]</i> | | | |
| 7. | | | Contact Albasad | |
| 8. | | | JR. Dempo I/II | |
| 9. | | | Jakarta 12120 | |
| 10. | | | Indonesia | |
| 11. | | | | |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 20. | | | | |

The home owners / property owners who pay taxes in Aina approved this extension project and have been paying for it since June, 1994. The powers that be should listen to the property owners and payers and get this work completed immediately. Perhaps the property owner should pay for this should area be...

for non-performance. Friends of the Red Road
is a spurious organization which in my
view is obstructive. If "Friends" want
to preserve this slice of Hawaii, they should
purchase and control a majority of the
property there. Otherwise, they are
evidently interfering with my past and
current investments and I should have
rights before the law also.

To: PO BOX 1209

Mr. [unclear] did receive your letter
asking me to collect money
for electric Poles.

As I am for it I can't go home
to house asking for support
I am too sick for that since
I am an organ about
24 hours a day, so please
try to find somebody

Paul H. H. [unclear]

Michael O. [unclear]

6-10-75

June 16,

Dear Steven,

Thank you for
keeping us informed.
I agree with you
wholeheartedly. Lets bring
the power without further
delay!
My Phone #
(714) 364-5552

Richard H. [unclear]

Kay Anderson

Dear Mr. Stickney,

I was off island for the last three weeks but did receive your letter and petition.

I have personally gone down to Kalapana Seaview Estates, where my two lots
are located, and have seen the progress that HELCO has made in delivering electrical
power to the subdivision. I have no problems with the location of the poles nor do I have
a problem with the birds, whales or dolphins.

Please find enclosed dated and signed petition with the hope that it helps in your
efforts.

Sincerely,
Tyler R. Womack
Tyler R. Womack

The Allan Dow Co.
P.O. Box 1201
Santa Cruz, CA 95061
(408) 422-2264
462-6274
6/14/95

To Steven Stickney

Memo from ALLAN DOW

Thank you for taking action to do what is needed in this strange controversy.

Since I can't retire, my wife and I may never get to build on our lot, but we do come to Hawaii every year and want to see logical progress.

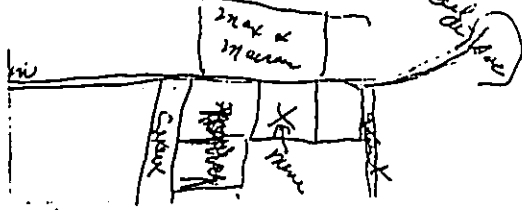
We may sell our lot to a friend here who would build within 3 years. If you are a builder you may want to put you in touch. *AD*

6/6/95
Hello,
I am very glad to see some help in obtaining long overdue elec.

I'm sorry I'm not able to write my TMK -

As am home from Hoop & not able to get around (in hoop bed) yet.

My prop is across from Mox & Maureen - the pole Thelma & Howard have been knows my parcel #



R. M. TOWILL CORPORATION
480 Waikeamahu Rd #411 Honolulu HI 96817-4041 (808) 842-1133 Fax (808) 842-1037

February 19, 1997

Mr. Steven Stickney
P.O. Box 11209
Hilo, HI 96721

Dear Mr. Stickney:

Subject: SSP Unit 71 12.4772 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Thank you for your letter of December 10, 1996 regarding the subject project. Your comments and copy of the petition will be included in the Final Environmental Impact Statement.

Sincerely,

Collette Sakoda

Collette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodwill Anderson et al

Engineers • Planners • Photographers • Surveyors
Construction Management • Environmental Services

P. R. PRODUCTIONS

Pat Rocco RR2, 12-7007 Kaehukai St. Pahoeh, Hawaii (808) 965-8122

VIRGINIA GOLDSTEIN
PLANNING DEPT.
25 AUPUNI ST.
HILO, HI 96720

H.E.L.C.O
CLYDE NAGATA
P.O. Box 1027
HILO, HI 96721

COLETTIE SAKADO
R.M. TOWILL CORP.
420 WALAKAHILO RD, STE. 411
HONOLULU, HI 96817

DECEMBER 5TH 1996

DEAR VIRGINIA, CLYDE AND COLETTIE,

THIS LETTER IS TO THANK YOU FOR THE RECENT ENVIRONMENTAL IMPACT REPORT FOR THE SEAVIEW, PUNA PALISADES AND KEHENA SUBDIVISIONS. THE REPORT WAS MUCH MORE DETAILED AND IN-DEPTH THAN I HAD HOPED FOR, AND PRESENTED A BALANCED VIEW OF THE IMPACT OF ELECTRICAL POWER IN THIS AREA.

IF I WERE TO FIND ANY FAULT, IT WOULD BE THAT THE REPORT SEEMED TO BEND OVER BACKWARDS TO ACCOMODATE THE "QUESTIONS" OF THE SO-CALLED "FRIENDS OF THE RED ROAD". WHILE GIVING LESSER REPORTS TO THOSE ACTUAL PROPERTY OWNERS WHO LIVE IN THE SUBDIVISIONS.

SPEAKING OF THAT, IT WAS QUITE NOTICABLE THAT THE "RED ROAD" LETTERS LACKED ANY EVIDENCE OF TMK NUMBERS, WHICH WOULD NEGATE THE IMPACT ON THE "INHABITANTS" COVERED IN YOUR REPORT, AND THE DUPLICATED "RED ROAD" LETTERS.

AT THE SAME TIME, PERSONS WHO ARE FOR POWER, AND WHO OWN PROPERTY, AND WHO ACTUALLY LIVE IN ONE OF THE THREE SUBDIVISIONS, WERE NOT RELUCTANT TO PROVIDE THEIR TMK'S. WE ARE THE INHABITANTS WHO WILL BE MOST AFFECTED BY THE POSITIVE IMPACT OF THE COMING OF POWER TO OUR SUBDIVISIONS, AND WE LOOK FORWARD, ANXIOUSLY, TO THE DAY THAT THIS WILL HAPPEN.

AGAIN, THANK YOU FOR AN EXCELLENT REPORT, AND I LOOK FORWARD TO MEANINGFUL CONTACTS WITH YOU OR YOUR REPRESENTATIVES IN THE FUTURE.

VERY TRULY YOURS,

Pat Rocco

R. M. TOWILL CORPORATION

420 WALAKAHILO RD #411 HONOLULU HI 96817-4041 (808) 942-1133 FAX (808) 942-1037

February 19, 1997

P. R. Productions
Pat Rocco
RR2 12-7007 Kaehukai Street
Pahoeh, HI 96778

Dear Mr. Rocco:

Subject: SSPP Unit 71 12.477.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

Thank you for your letter of December 5, 1996 regarding the subject project. Your comments have been noted, and a copy of your letter will be included in the Final Environmental Impact Statement.

Sincerely,

Colette Sakoda
Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodsill Anderson et al

R. M. TOWILL CORPORATION

420 WAIKAMILLO RD #411 HONOLULU HI 96817-4041 (808) 848-1123 FAX (808) 842-1937

November 24, 1996

Virginia Goldstein
Director Planning Department
25 Aupuni Street
Hilo, Hawaii 97620

Dear Director:

Once again I am writing in support of the Helco SSPP 71 project in the Kehena Bch Ests. area. I know that letters to your department in favor of this project out number those opposed to it by about 50 to 1. I know because I have seen the file and have counted the letters. My question is when are all these letters going to be taken into account for deciding this case. In my opinion the actions brought against Helco constitute a frivolous law suit. The utility poles are no different than any others on the island and they are not endangering any species. The A'o bird no longer lives in the area and has not been seen there for many years. Common sense tells us that you cannot protect something that does not exist. If the bird does still live there, it exists in such small numbers that to stop the project is still not reasonable. Are the courts going to listen to reason or continue to pander to a misguided minority. Every survey taken thus far including the opposition's (the Friends of the Red Road) own survey, has shown property owners are in favor of power by at least a two to one margin. So what is the problem? I and others have made an investment in power and have been waiting over three years for a final decision. We should demand the right to have the court officials responsible for this unconscionable delay prosecuted for obstruction of justice. MAKE THE FINAL DECISION ALREADY!

Richard Hahn
Richard Hahn
Kehena Beach Ests.

c.c.
Clyde Nagata
Helco
P.O.B. 1027
Hilo, Hawaii 96721

Collet Sakoda
R.M. Towill Corp.
Suite 411
420 Waiakamilo Rd.
Honolulu Hawaii 96817

February 19, 1997

Mr. Richard Hahn
12-7217 Moana Kai Pali
Kehena Beach, HI 96778

Dear Mr. Hahn:

Subject: SSPP Unit 71 12-4777.2 Overhead Distribution System, Puna, Hawaii
Draft Environmental Impact Statement

We have received your letter of November 24, 1996 regarding the subject project. Your participation in this process is appreciated. A copy of your letter will be included in the Final Environmental Impact Statement.

Sincerely,

Colette Sakoda
Colette Sakoda
Project Manager

cc: Planning Dept.
DLNR
HELCO
OEQC
Goodstill Anderson et al

BOTANICAL RESOURCES SURVEY
FOR
ENVIRONMENTAL ASSESSMENT
ELECTRICAL UTILITY EASEMENT REQUEST
SPECIAL SUBDIVISION PROJECT PROVISION (SSPP) PROGRAM
UNIT-71 KAUEHORST
TAX MAP KEY NO. 1-2-09103 (PORTION)
PUNA, HAWAII

BOTANICAL RESOURCES SURVEY
FOR
ENVIRONMENTAL ASSESSMENT
ELECTRICAL UTILITY EASEMENT REQUEST
SPECIAL SUBDIVISION PROJECT PROVISION (SSPP) PROGRAM
UNIT-71 KAUEHORST
TAX MAP KEY NO. 1-2-09103 (PORTION)
PUNA, HAWAII

SUMMARY

A field survey was conducted for endangered plant species and unique biological communities in and adjacent to powerline routes in the subdivisions of Kehena Beach, Puna Fallsides, and Seaview in Puna, Hawaii. A proposed electric utility easement extending from the upper end of Seaview Subdivision mauka to the utility corridor along highway 130 was also surveyed. No plant species listed as endangered, threatened, or candidate under the U. S. Endangered Species Act or the State of Hawaii's endangered species program were found in the survey area. One federally listed endangered plant species, *Ischaemum byrone*, occurs on coastal bluffs near the survey area approximately one-half mile south of Kehena Beach Subdivision. However, no *Ischaemum byrone* occurs in the subdivisions or in the proposed utility easement. The species is not expected to occur mauka of the beach road since it is always confined to the immediate coast in the spray zone where ever it is found. Rare and unusual Hawaiian native plants were found in the study area but none have legal status requiring planning consideration. Unique biological communities were found in forested portions of Kehena Beach and Seaview subdivisions and approximately 60 meters south of the proposed utility easement in the form of forested kipukas. Except for the lowest, these kipukas will not be directly affected by the proposed action and it is recommended that they be avoided in any future projects in the area. The lowest kipuka on the proposed easement contains 'ohi'a/hala forest already affected by the existing telephone line. The proposed utility easement, which follows the existing telephone line easement, will have little additional affect.

INTRODUCTION

HELCO has recently begun construction of overhead power lines in Kehena Beach, Puna Fallsides, and Seaview subdivisions in Puna, Hawaii. HELCO also proposes to construct an overhead

SUBMITTED BY:
REXFORD E. PALMER, Ph.D.
BOTANICAL CONSULTING
P.O. BOX 637
PAHOA, HAWAII 96778
(808) 334-4090

PREPARED FOR:
R.M. TOWILL CORPORATION
420 WAIKAMUI ROAD, STE. 411
HONOLULU, HAWAII 96817-4941

PREPARED BY:
REXFORD PALMER AND DAVID PAUL
APRIL 1995

power line along the existing telephone line easement from Seaview Subdivision mauka to the utility corridor along highway 130. A botanical survey was conducted to determine if any plant species occurred in the project area that would legally require planning consideration. This survey was conducted as part of a required Environmental Assessment.

METHODS

Field surveys were conducted on March 29 and 30, and April 18, 1995. The project area surveyed included powerline routes within and between the three subdivisions. A corridor 50 feet wide extending from highway 130 to the mauka end of Seaview Subdivision along the existing telephone line was also surveyed. The majority of the land surface in the telephone line easement is given over to an access/service road. Two botanists surveyed the entire project area on foot. Adjacent sites of botanical interest were also examined for rare plants.

RESULTS

Rare Plants: All plant species encountered during the field survey are listed in Table I. No plant species were found in the project area that are listed as endangered, threatened, or candidates under the federal Endangered Species Act, or that are listed by the State of Hawai'i endangered species program.

A federally listed endangered plant species (*Ischaemum byrone*) occurs on coastal bluffs overlooking the ocean in scattered locations on the coast in east Hawai'i. No *Ischaemum byrone* was found in the project area. An extensive population of *Ischaemum byrone* occurs on coastal bluffs approximately one-half mile south of Kehena Beach subdivision, but this population appears to occur on a different type of lava flow than found in the project area.

Several unique endemic Hawaiian plant species were found that do not have legal status as endangered species but that are sufficiently restricted in their distributions to merit discussion:

The Hawaiian ko'oko'olau (*Bidens hawaiiensis*) was found in the lower portions of the existing telephone easement and on the north-east edge of Seaview subdivision. This species is restricted in distribution to the Seaview area and southward into Hawai'i Volcanoes National Park. Much of its original habitat has been destroyed by lava flows in recent years. Remaining populations are threatened by development. The population in the Seaview area is regularly harvested as a medicinal herb, further increasing threats to the species.

The pilo (*Coprosma rhynchocarpa*) was found in kipukas just outside of the proposed utility corridor mauka of Seaview subdivision. This is apparently the lowest elevation population of the species in the area and may represent a unique ecotype. No direct effects of the proposed project on this species are anticipated.

A species of 'akia confined to Puna and Kau (*Wikstroemia phillyreifolia*) was also found in the kipukas on the south side of the proposed utility corridor. This species is a unique endemic but has no legal standing. No direct effects of the proposed project on this species are anticipated.

A distinctive population of maile (*Alyxia oliviformis*) was also found in the kipukas on the south side of the proposed corridor. Varieties of maile have recently been reduced to synonyms for a single polymorphic species (Wagner, et al 1990). Some direct project effects could occur on this species where the corridor passes through a kipuka located just outside Seaview subdivision.

Unique Biological Communities: The following unique biological communities were found in and adjacent to portions of the project area:

Maupaka Kahakai Shrubland - This coastal community is found on the tops of the seacliffs along the ocean in Kehena Beach, Puna Pallisades, and Seaview subdivisions. Extensive portions of this community type are infested with *Wedelia*. This vegetation is associated with the federally listed endangered plant species *Ischaemum byrone*. No *Ischaemum byrone* was found in the project area however.

Hala Forest - This vegetation occurs extensively along the coast in Kehena Beach subdivision and southward. It is also well developed along the Puna coast north of Seaview subdivision. Small patches occur makai of Puna Pallisades and Seaview. Hala forest in Kehena Beach subdivision grades into 'Ohi'a/Hala Forest inland. This forest is now largely occupied by residences and is highly disturbed. Stands of hala forest also occur on the north and south edges of Seaview subdivision.

'Ohi'a/Hala Forest - Upper portions of Kehena Beach subdivision are occupied by disturbed stands of this vegetation. The community also occurs on the north and south edges of Seaview subdivision. Between poles 27 and 31 the existing telephone line easement passes through a portion of an extensive kipuka containing a stand of 'Ohi'a/Hala forest. This stand is a mixed lowland forest containing hala (*Pandanus tectoris*), 'Ohi'a (*Metrosideros polymorpha*), 'akia (*Wikstroemia phillyreifolia*), and lama (*Diospyros sandwicensis*).

'Ohi'a Lowland Mesic Forest - This community is found in a series of kipukas approximately 60 meters south of the existing telephone easement mauka of Seaview subdivision. These kipukas occur opposite existing telephone line pole numbers 12-20 and 24. A small kipuka occurs on the north side of the existing telephone easement at pole 22. These kipukas contain 'ohi'a/hapu'u lowland mesic forest with numerous subsidiary forest species including kolea (*Myrsine lessertiana*), kopiko (*Psychotria hawaiiensis*), pilo (*Coprosma rhynchoarpa*), 'akia (*Wikstroemia phillyreifolia*), lama (*Diospyros sandwicensis*) and maile (*Alyxia oliviformis*).

'Ohi'a Lava Lands - The majority of the existing telephone line easement passes through 'ohi'a lava lands. This vegetation is characterized by scattered small 'ohi'a trees forming open stands on recent lava flows. The surface between the trees is a lava with little vegetation except lichens.

Ruderal Vegetation - Ruderal vegetation or disturbance communities consisting of various introduced weeds occur throughout the three subdivisions and in the existing telephone line access road.

RECOMMENDATIONS

Direct effects of the project on endangered plants and unique biological communities will be minimal. Indirect effects may include introduction of additional weed species. Due care should be taken during any construction activities to avoid the kipukas adjacent to the existing telephone line easement. In particular the lowest kipuka, already bisected by the existing telephone line, should not be further degraded. It is recommended that additional clearing or tree removal in this kipuka be minimized during construction.

The present survey for botanical resources does not constitute a wildlife survey. However, numerous forest and shore birds were observed in the study area. We also observed 10 (Hawaiian Hawk) and Pueo (Hawaiian Owl) in the study area. The area is also known to be one of only two places in Hawai'i where the A'o bird (Newell's Shearwater) occurs. We recommend that the entire project area be surveyed by a qualified ornithologist or wildlife biologist.

REFERENCES

- Neal, M.C. 1965. In Gardens of Hawai'i. Bishop Museum Special Publication 50. Bishop Museum Press. Honolulu, Hawai'i.
- St. John, H. 1973. List and Summary of the Flowering Plants in the Hawaiian Islands. Pacific Tropical Botanical Garden. Memoir Number 1. Lawai, Kaua'i, Hawai'i.
- Wagner, W.L., D.R. Herbst and S.H. Sohmer. 1990. Manual of the Flowering Plants of Hawai'i. Bishop Museum Press and the University of Hawai'i Press. Honolulu, Hawai'i.

TABLE I. Plant Species encountered in and adjacent to project area.

| Botanical Name | Common Name | Distr. Status |
|--------------------------------------------------------|--------------------|---------------|
| PTERIDOPHYTA | | |
| DICKSONIACEAE Tree Fern Family | | |
| <i>Cibotium glaucum</i> (Sm.) H. & A. | hapu'u | E, C - |
| GLEICHENIACEAE Winged-Fern Family | | |
| <i>Dicranopteris linearis</i> (Burm.) Underw. | 'uluhe | I, C - |
| LYCOPODIACEAE Club Moss Family | | |
| <i>Lycopodium cernuum</i> L. | wavae'iole | I, C - |
| <i>Lycopodium phyllanthum</i> H. & A. | wavae'iole | I, C - |
| OPHIOGLOSSACEAE Adder's Tongue Family | | |
| <i>Ophioglossum pendulum</i> L. | adder's tongue | I, C - |
| POLYPODIACEAE Common Fern Family | | |
| <i>Adiantum cuneatum</i> Langsd. | maidenhair fern | A, C - |
| <i>Asplenium nidus</i> L. | hoe a Maui | I, C - |
| <i>Elephoglossum reticulatum</i> (Kaulf.) Gaud. | 'akaha | E, C - |
| <i>Microsorium scolopendria</i> (Burm.) Copel. | laua'e | I, C - |
| <i>Nephrolepis exaltata</i> (L.) Schott. | ni'ani'au | I, C - |
| <i>Nephrolepis hirsutula</i> (L.) Schott. | sword fern | A, C - |
| <i>Pityrogramma calomelanos</i> (L.) Link | silver fern | A, C - |
| <i>Pityrogramma chrysophylla</i> (Sw.) Link | gold fern | A, C - |
| <i>Pleopeltis thunbergiana</i> Kaulf. | pakahakaha | I, C - |
| <i>Polypodium pellucidum</i> Kaulf. | 'ae | E, C - |
| <i>Sadleria cyatheoides</i> Kaulf. | 'ama'u | E, C - |
| PSILOTTACEAE Wisk Fern Family | | |
| <i>Psilotum nudum</i> (L.) Griseb. | moa | I, C - |
| VITTARIACEAE Shoestring Fern Fam. | | |
| <i>Vittaria elongata</i> | shoestring fern | I, C - |
| DICOTYLEDONAE | | |
| ACANTHACEAE Acanthus Family | | |
| <i>Thunbergia fragrans</i> Roxb. | clockvine | A, C - |
| ANACARDIACEAE Sumac Family | | |
| <i>Mangifera indica</i> L. | mango | A, C - |
| <i>Schinus terebinthifolius</i> Raddi | Christmasberry | A, C - |
| APOCYNACEAE Plumeria Family | | |
| <i>Alyxia oliviformis</i> Gaud. | malie | E, C - |
| ARALIACEAE Aralia Family | | |
| <i>Schefflera actinophylla</i> (Endl.) Harms | octopus tree | A, C - |
| ASTERACEAE Sunflower Family | | |
| <i>Ageratina riparia</i> (Regel) R. King & H. Robinson | pamakani | A, C - |
| <i>Ageratum houstonianum</i> Mill. | malie hohono | A, C - |
| <i>Bidens hawaiiensis</i> A. Gray | ko'oko'olau | E, R - |
| <i>Bidens pilosa</i> L. | kinehe | A, C - |
| <i>Conyza canadensis</i> (L.) Cronq. | horseweed | A, C - |
| <i>Crassocephalum crepidioides</i> (Benth.) S. Moore | pualele | A, C - |
| <i>Emilia fosbergii</i> Nicolson | flora's paintbrush | A, C - |
| <i>Emilia sonchifolia</i> (L.) DC | fireweed | A, C - |
| <i>Erechtites valerianifolia</i> (Wolf) DC | sourbush | A, C - |
| <i>Pluchea symphytifolia</i> (Mill.) Gillis | nodeweed | A, C - |
| <i>Synedrella nodiflora</i> (L.) Gaertn. | vedellia | A, C - |
| <i>Wedelia trilobata</i> (L.) Hitch. | | A, C - |
| BUDDLEIACEAE Butterfly Bush Family | | |
| <i>Buddleia asiatica</i> Lour. | dog tail | A, C - |

| | | | | | | | |
|----------------------------------------------------------------|----------------------|-----------------|------|---|--|-------------------------|------|
| CASUARINACEAE | Ironwood Family | | | | | | |
| <i>Casuarina equisetifolia</i> L. | | ironwood | A, C | - | | naupaka | I, C |
| CLUSIACEAE | Clusia Family | | | | | | |
| <i>Clusia rosea</i> Jacq. | | autograph tree | A, C | - | | coleus | A, C |
| COMBRETACEAE | Terminalia Family | | | | | comb hyptis | A, C |
| <i>Terminalia catappa</i> L. | | tropical almond | A, C | - | | 'ala'ala wai nui pua ki | I, C |
| CONVOLVULACEAE | Morning Glory Family | | | | | | |
| <i>Ipomoea indica</i> (J.Burm.)Merr. | | koali | I, C | - | | avacado | A, C |
| <i>Ipomoea tuboides</i> Dgener & Ooststr. | | moon flower | E, C | - | | | |
| CRASSULACEAE | Crassula Family | | | | | | |
| <i>Kalanchoe pinnata</i> (Lam.)Perr. | | air plant | A, C | - | | ilima haole | A, C |
| EBENACEAE | Perseimon Family | | | | | milo | I, C |
| <i>Diospyros sandwicensis</i> (A.DC) Fosb. | | lama | E, C | - | | glory bush | A, C |
| EPACRIDACEAE | Epacris Family | | | | | | |
| <i>Styphelia tameiameia</i> (Cham. & Schlechtend.) F.V. Muell. | | pukiawe | I, C | - | | huehue | I, C |
| EUPHORBACEAE | Spurge Family | | | | | | |
| <i>Aleurites moluccana</i> (L.) Willd. | | kukul | P, C | - | | banyan | A, C |
| <i>Phyllanthus debilis</i> Klein ex. Willd. | | nirul | A, C | - | | kolea | E, C |
| FABACEAE | Bean Family | | | | | | |
| <i>Chamaecrista nictitans</i> (L.) Moench | | partridge pea | A, C | - | | | |
| <i>Crotalaria assamica</i> Benth. | | rattlepod | A, C | - | | 'ohi'a | E, C |
| <i>Desmodium sandwicense</i> E. Mey. | | beggar's tick | A, C | - | | | |
| <i>Desmodium triflorum</i> (L.) DC | | tick trefoli | A, C | - | | | |
| <i>Himosa pudica</i> L. | | sleeping grass | A, C | - | | | |
| <i>Mucuna gigantea</i> (Wild.) DC | | 'ka'e'e | I, C | - | | | |
| <i>Paraserianthes falcataria</i> (L.) I.Nielsen | | albizia | A, C | - | | | |
| <i>Vigna marina</i> (J.Burm.)Merr. | | nanea | I, C | - | | waiavi | A, C |
| GOODENIACEAE | Naupaka Family | | | | | | |
| <i>Scaevola sericea</i> Vahl | | | | | | | |
| LAMIACEAE | Mint Family | | | | | | |
| <i>Coleus blumei</i> Benth. | | | | | | | |
| <i>Hyptis pectinata</i> (L.) Poit. | | | | | | | |
| <i>Plectranthus parviflorus</i> Willd. | | | | | | | |
| Lauraceae | Laural Family | | | | | | |
| <i>Persea americana</i> Mill. | | | | | | | |
| MALVACEAE | Mallow Family | | | | | | |
| <i>Sida rhombifolia</i> L. | | | | | | | |
| <i>Thespesia populnea</i> (L.) Sal. ex Correa | | | | | | | |
| MELASTOMACEAE | Melastoma Family | | | | | | |
| <i>Melastoma candidum</i> D. Don | | | | | | | |
| MENISPERMACEAE | Mooneed Family | | | | | | |
| <i>Coccolus trilobus</i> (Thunb.) DC | | | | | | | |
| MORACEAE | Fig Family | | | | | | |
| <i>Ficus microcarpa</i> L. Fil. | | | | | | | |
| MYRSINACEAE | Myrsine Family | | | | | | |
| <i>Myrsine lessertiana</i> A. DC | | | | | | | |
| MYRTACEAE | Myrtle Family | | | | | | |
| <i>Metrosideros polymorpha</i> Gaud. | | | | | | | |
| <i>M. p. var. glaberrima</i> | | | | | | | |
| <i>M. p. var. incana</i> | | | | | | | |
| <i>M. p. var. macrophylla</i> | | | | | | | |
| <i>M. p. var. polymorpha</i> | | | | | | | |
| <i>Psidium cattleianum</i> Sabine | | | | | | | |

| | | | | | |
|-------------------------------------------|----------------|------|------------|---------------|--|
| Psidium guajava L. | quava | A, C | URTICACEAE | Nettle Family | |
| Syzygium cumini (L.) Skeels | java plum | A, C | | | |
| Syzygium jambos (L.) Alston | rose apple | A, C | | | |
| PASSIFLORACEAE Passion Fruit Family | | | | | |
| Passiflora foetida L. | love-in-a-mist | A, C | | | |
| POLYGALACEAE Milkwort Family | | | | | |
| Polygala paniculata L. | milkwort | A, C | | | |
| POLYGONACEAE Buckwheat Family | | | | | |
| Polygonum capitatum P. Ham. | knotweed | A, C | | | |
| ROSACEAE Rose Family | | | | | |
| Rubus rosifolius Sm. | thimbleberry | A, C | | | |
| RUBIACEAE Coffee Family | | | | | |
| Coprosma rhyncocarpa A. Gray | pilo | E, R | | | |
| Morinda citrifolia L. | noni | P, C | | | |
| Psychotria hawaiiensis (A. Gray) Fosb. | kopiko | E, C | | | |
| Spermacoce assurgens Ruiz. ex Pav. | buttonweed | A, C | | | |
| SOLANACEAE Nightshade Family | | | | | |
| Solanum americanum Mill. | popolo | I, C | | | |
| STERCULIACEAE Chocolate Family | | | | | |
| Melochia umbellata (Houtt.) Stapf | malochia | A, C | | | |
| Waltheria indica L. | 'uhaloa | I, C | | | |
| THYMELAEACEAE 'Akia Family | | | | | |
| Mikstroemia phillyreifolia A. Gray | 'akia | E, R | | | |
| ULMACEAE Elm Family | | | | | |
| Trema orientalis (L.) Blume | gunpowder tree | A, C | | | |
| URTIACEAE Nettle Family | | | | | |
| Pipturus albidus (Hook & Arnott) A. Gray | mamaki | E, C | | | |
| VERBENACEAE Vervain Family | | | | | |
| Lantana camara L. | lantana | A, C | | | |
| Stachytarpheta jamaicensis (L.) Vahl | Jam. vervain | A, C | | | |
| MONOCOTYLEDONAE | | | | | |
| AGAVACEAE Agave Family | | | | | |
| Cordyline fruticosa (L.) A. Chev. | ki | P, C | | | |
| ARACEAE Taro Family | | | | | |
| Scindapsus aureus (Lind. & Andre) Engl. | philodendron | A, C | | | |
| ARECACEAE Coconut Family | | | | | |
| Cocos nucifera L. | niu | P, C | | | |
| COMELINACEAE Spiderwort Family | | | | | |
| Commelina diffusa N. L. Burm. | honohono | A, C | | | |
| CYPERACEAE Sedge Family | | | | | |
| Fimbristylis dichotoma (L.) Vahl | mau'u 'aki'aki | I, C | | | |
| Machaerina angustifolia (Gaud.) T. Koyama | 'uki | I, C | | | |
| Pycnus polystachyos (Rottb.) P. Beauv. | nutgrass | I, C | | | |
| ORCHIDACEAE Orchid Family | | | | | |
| Arundina graminifolia (D. Don) Hochr. | bamboo orchid | A, C | | | |
| Epidendrum X obrienianum Rolfe | baby orchid | A, C | | | |
| Spathoglottis plicata Blume | ground orchid | A, C | | | |
| PANDANACEAE Screwpine Family | | | | | |
| Pandanus tectoris S. Parkinson ex Z | hala | I, C | | | |

POACEAE Grass Family

| | | |
|-----------------------------------------------|----------------|------|
| <i>Andropogon virginicus</i> L. | broomsedge | A, C |
| <i>Cynodon dactylon</i> (L.) Pers. | manienie | A, C |
| <i>Digitaria setigera</i> Roth | kukaepua'a | I, C |
| <i>Eieusine indica</i> (L.) Gaertn. | goosegrass | A, C |
| <i>Melinis minutifolia</i> P. Beauv. | molasses grass | A, C |
| <i>Panicum maximum</i> Jacq. | gulnea grass | A, C |
| <i>Paspalum conjugatum</i> Bergius | Hilo grass | A, C |
| <i>Paspalum scrobiculatum</i> L. | mau'u laiki | I, C |
| <i>Paspalum urvillei</i> Steud. | vasey grass | A, C |
| <i>Rhynchelytrum repens</i> (Wukkd.) Hubb. | natal redtop | A, C |
| <i>Sacciolepis indica</i> (L.) Chase | Glenwood grass | A, C |
| <i>Schizachyrium condensatum</i> (Kunth) Nees | beardgrass | A, C |
| <i>Setaria gracilis</i> Kunth. | yellow foxtail | A, C |
| <i>Sporobolus indicus</i> (L.) R. & C. | smut grass | A, C |

*Distribution:

- E = Endemic, native plants found only in Hawai'i
- I = Indigenous, native plants found in Hawai'i and elsewhere
- P = Polynesian, plants introduced to Hawai'i prior to European contact by Polynesian immigrants
- A = Alien, plants introduced to Hawai'i after European contact
- C = Common, plants found in abundance in many areas
- R = Rare, plants which have restricted and/or localized populations

**Status:

- LE = Plants listed as "Endangered" under the federal Endangered Species Act
- LT = Plants listed as "Threatened" under the federal Endangered Species Act
- C1, C2, C3 = Plants listed as "Candidates" for listing under the federal Endangered Species Act
- LH = Plants listed by the State of Hawai'i as endangered or threatened

botanical consultants

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January 16, 1997

Ms. Collette Sakoda, Planner
R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

Dear Ms. Sakoda,

Re:SSPP Unit-71 12.47/7.2 kV Overhead Distribution System Project DEIS

On January 14, 1997 I conducted a botanical survey along two segments of the above project right-of-way in the Puna area of the Island of Hawaii. Segment A consisted of a 14 meter swath (7 meters on either side of the existing transmission line) from Pole 27 to Pole 31. Segment B consisted of a swath 5 meters wide along both sides of West Pohakupele Street between Moaniala Street and Wehealuniu Street in Kalapana Seaview Estates.

There are two vegetation types found between Pole 27 and Pole 31. From Pole 27 southward for approximately 160 meters the substrate is lichen (*Stereocaulon vulcani*) covered a'a lava and the vegetation is scattered ohia (*Metrosideros polymorpha* Gaud.) scrub with a scant ground cover of ferns (*Nephrolepis* spp. and *Polypodium pellucidum* Kaulf.). The second vegetation type found along the remaining 160 meters of right-of-way to Pole 31 is Dense Ohia Forest with a mixed Understory of Introduced Trees and Shrubs. The ohia trees are from ten to twelve meters in height and the understory guava (*Psidium guajava* L. and *P. cattleianum* Sabine), melochia (*Melochia umbellata* (Houtt.) Stepf), gun powder tree (*Trema orientalis* (L.) Blume), and others are from two to eight meters in height. In the vicinity of the access road a thin cover of weedy species has become established, however, these do not appear to have penetrated beyond the verge of the access road.

A species of ko'oko'olau (*Bidens hawaiiensis* A. Gray), a member of the sunflower family, is common in this area. It is a staple in traditional Hawaiian medicine and is probably over harvested by local healers (Pers. Comm. Howard Horiuchi, DLNR Forestry and Wildlife Division). Also, about one hundred fifty meters east of the study area, there is a fairly abrupt decline into a small kipuka. Within this kipuka is what appears to be a fairly pristine bit of native Hawaiian forest. No introduced vegetation appears to have penetrated into this area probably because it is so far from the access road. However, the area is outside the scope of this study.

Otherwise, the vegetation of this portion of the study area consists of plants common to other dry to mesic lowland areas in this part of the Island of Hawaii.

Fifty-one species were found along this segment of the right-of-way. Of these, 14 are native to the Hawaiian Islands and 37 or 73% are alien species.

A single vegetation type is found in Segment B. It is Melochia Trees with a Mixed Ruderal Understory. One to 1.5 meters from the edge of the paving the ground cover is mowed and consists of mixed grasses and weeds. Among the grasses are natal reedtop (*Rhynchelytrum repens* (Willd.) Hubb.), buffalo grass (*Stenotaphrum secundatum* (Walter) Kuntze), broom sedge (*Schizachyrium condensatum* (Kunth) Nees), molassas grass (*Melinis minutifolia* P. Breauv.), and many others. Beyond the grassy verge, both along the eastern and western sides of the street, there is a broad, (3 to 5 meters wide) border of dense, introduced melochia trees. These weed trees are from 8 to 10 meters in height and some have trunks up to 30 centimeters in diameter. There are also some rubber trees (*Manihot glaziovii* Mull Arg.) 15 to 18 meters in height, interspersed among the melochia trees. Beyond this band of weed trees can be seen dense stands of hala trees (*Pandanus tectorius* S. Parkinson ex Z).

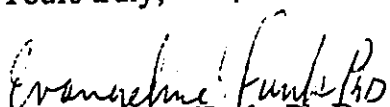
The weedy melochia trees were aerially seeded in this area in 1928 and have become naturalized. They can be found along many of the streets in this subdivision where they seem to thrive whether powerlines are present or not.

A list of all plant species found in this segment of the study site can be found in Appendix B.

No listed candidate, threatened, or endangered plant species were found in either study site.

If you have any questions regarding any of these charges, please do not hesitate to call me.

Yours truly,


Evangelhne J. Funk, Ph.D.
Botany Department
University of Hawaii
Class of June 1988

APPENDIX A - A LIST OF PLANTS FOUND IN THE SEGMENT A STUDY AREA

The scientific name, the common name, and the status of the taxon i.e. N = native to the Hawaiian Islands and A = alien or introduced by humans, is given for each species. A complete species list for the entire project can be found in the DEIS.

Ferns and Fern Allies

| | | |
|------------------------------------------------|------------|---|
| <i>Psilotum nudium</i> (L.) Griseb. | Moa | N |
| <i>Dicranopteris linearis</i> (Burm.) Underw. | Uluhe | N |
| <i>Microsorium scolopendria</i> (Burm.) Copel. | Laua'e | A |
| <i>Nephrolepis exaltata</i> (L.) Schott. | Ni'ani'au | N |
| <i>N. hirsutula</i> (L.) Schott | Sword fern | A |
| <i>Polypodium pellucidum</i> Kaulf. | 'Ae | N |

Dicotyledons

| | | |
|-----------------------------------------------------------------|---------------------|---|
| <i>Thunbergia fragrans</i> Roxb. | Clockvine | A |
| <i>Alyxia oliviformis</i> Gaud. | Maile | N |
| <i>Ageratina adenophora</i> (Spreng.) R. King | Maui pamakani | A |
| <i>Ageratum conyzoides</i> L. | Maile honohono | A |
| <i>Bidens hawaiiensis</i> A. Gray | Ko'oko'olau | N |
| <i>Bidens pilosa</i> L. | Spanish needle | A |
| <i>Emilia fosbergii</i> Nicolson | Pualele | A |
| <i>E. sonchifolia</i> (L.) DC | Flora's paint brush | A |
| <i>Pluchea symphytifolia</i> (Mill.) Gillis | Sourbush | A |
| <i>Synedrella nodiflora</i> (L.) Gaertn. | Nodeweed | A |
| <i>Cecropia obtusifolia</i> Bertol. | Trumpet tree | A |
| <i>Buddleia asiatica</i> Lour. | Dog tail | A |
| <i>Diospyros sandwicensis</i> (A. DC) Fosb. | Lama | N |
| <i>Styphelia tameiameia</i> (Cham. & Schlechtend.) F. V. Muell. | Pukiawe | N |
| <i>Chamaesyce hirta</i> (L.) Millsp. | Hairy spurge | A |
| <i>Chamaecrista nictitans</i> (L.) Moench | Partridge pea | A |
| <i>Crotalaria assamica</i> Benth | Rattle box | A |
| <i>Desmodium sandwicense</i> E. Mey. | Beggar's tick | A |
| <i>D. triflorum</i> (L.) DC | Tick trefoil | A |
| <i>Mimosa pudica</i> L. | Sleeping grass | A |
| <i>Coleus blumei</i> Benth | Coleus | A |
| <i>Cocculus trilobus</i> (Thunb.) DC | Huehue | N |
| <i>Myrsine lessertiana</i> A. DC | Kolea | N |
| <i>Metrosideros polymorpha</i> Gaud. | Ohi'a | N |
| <i>Psidium cattleianum</i> Sabine | Guava | A |
| <i>P. guajava</i> L. | Yellow guava | A |
| <i>Rubus rosifolius</i> Sm. | Thimbleberry | A |
| <i>Spermacoce assurgens</i> Ruiz. ex Pav. | Buttonweed | A |
| <i>Castilleja arvensis</i> Cham. & Schlechtend. | Indian paintbrush | A |
| <i>Melochia umbellata</i> (houtt.) Stapf | Melochia | A |
| <i>Wikstroemia phillyreifolia</i> A. Gray | 'Akia | N |
| <i>Trema orientalis</i> (L.) Blume | Gunpowder tree | A |
| <i>Pipturus alba</i> (Hook & Arnott) A. Gray | Mamake | N |

| | | |
|----------------------------------------------|---------|---|
| <i>Lantana camara</i> L. | Lantana | A |
| <i>Stachytarpheta jamaicensis</i> (L.) Vahl. | Vervain | A |

MONOCOTYLEDONS

| | | |
|------------------------------------------------|-----------------|---|
| <i>Kyllinga brevifolia</i> Rottb. | Kili'o'pu | A |
| <i>Pycerus polystachyos</i> (Rottb.) P. Beauv. | | N |
| <i>Arundina graminifolia</i> (D. Don.) Hochr. | Bamboo orchid | A |
| <i>Spathoglottis plicata</i> Blume | Ground orchid | A |
| <i>Cynodon dactylon</i> (L.) Pers. | Bermuda grass | A |
| <i>Hyparrhenia rufa</i> (Nees) Stapf | Thatching grass | A |
| <i>Melinis minutifolia</i> P. Beauv. | Mollassas grass | A |
| <i>Paspalum scrobiculatum</i> L. | Rice grass | A |
| <i>Sacciolepis indica</i> (L.) Chase | Glenwood grass | A |
| <i>Schizachyrium condensatum</i> (Kunth) Nees | Beardgrass | A |

APPENDIX B A LIST OF PLANTS FOUND IN THE SEGMENT B STUDY AREA

The scientific name, the common name, and the status of the taxon i.e. N = native to the Hawaiian Islands and A = alien or introduced by humans, is given for each species. A complete species list for the entire project can be found in the DEIS.

Ferns and Fern Allies

| | | |
|------------------------------------------------|-----------|---|
| <i>Microsorium scolopendria</i> (Burm.) Copel. | Laua'e | A |
| <i>Nephrolepis exaltata</i> (L.) Schott. | Ni'ani'au | N |

Dicotyledons

| | | |
|----------------------------------------------|-----------------|---|
| <i>Thunbergia fragrans</i> Roxb. | Clockvine | A |
| <i>Ageratum conyzoides</i> L. | Maile honohono | A |
| <i>Bidens pilosa</i> L. | Spanish needle | A |
| <i>Pluchea symphytifolia</i> (Mill.) Gillis | Sourbush | A |
| <i>Synedrella nodiflora</i> (L.) Gaertn. | Nodeweed | A |
| <i>Vernonia cinerea</i> (L.) Less | Little ironweed | A |
| <i>Ipomoea indica</i> (J. Burm.) Merr. | Koali | N |
| <i>I. tuboides</i> Degener & Coststr. | Moon flower | N |
| <i>Chamaecrista nictitans</i> (L.) Moench | Partridge pea | A |
| <i>Crotalaria assamica</i> Benth | Rattle box | A |
| <i>Desmodium triflorum</i> (L.) DC | Tick trefoil | A |
| <i>Mimosa pudica</i> L. | Sleeping grass | A |
| <i>Mucuna gigantea</i> (Wild.) DC | Sea bean | N |
| <i>Rubus rosifolius</i> Sm. | Thimbleberry | A |
| <i>Psidium guajava</i> L. | Yellow guava | A |
| <i>Melochia umbellata</i> (houtt.) Stapf | Melochia | A |
| <i>Trema orientalis</i> (L.) Blume | Gunpowder tree | A |
| <i>Lantana camara</i> L. | Lantana | A |
| <i>Stachytarpheta jamaicensis</i> (L.) Vahl. | Vervain | A |

MONOCOTYLEDONS

| | | |
|-----------------------------------------------|----------------------|---|
| <i>Cordyline fruticosa</i> (L.) A. Chev. | Ti | A |
| <i>Commelina diffusa</i> N. L. Burm. | Honohono | A |
| <i>Spathoglottis plicata</i> Blume | Ground orchid | A |
| <i>Cynodon dactylon</i> (L.) Pers. | Bermuda grass | A |
| <i>Melinis minutifolia</i> P. Beauv. | Molasses grass | A |
| <i>Oplismenus compositus</i> (L.) P. Beauv. | | A |
| <i>Paspalum conjugatum</i> Bergius | Hilo grass | A |
| <i>Rhynchelytrum repens</i> (Willd.) Hubb. | Natal grass | A |
| <i>Sacciolepis indica</i> (L.) Chase | Glenwood grass | A |
| <i>Schizachyrium condensatum</i> (Kunth) Nees | Beardgrass | A |
| <i>Stenotaphrum secundatum</i> (Walter) Kuntz | St. Augustine grass | A |
| <i>Sporobolus indicus</i> (L.) R. Br. | West Indian dropseed | A |

APPENDIX B

FAUNA STUDIES

REPORT:

FAUNAL SURVEY OF HELCO SSPP UNIT 71 -
RAUENHORST, KEHENA - KEEKEE HOMESTEAD,
PUNA, HAWAII.

Prepared by:
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Rana Productions Ltd.
P.O. Box 1371
Kailua-Kona, Hawaii 96745

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Summary

This report summarizes the findings of a two day ornithological and mammalian survey conducted along the proposed utility easement at Kahena, Keekes Homestead, Puna, Hawaii, between April 4th and April 5th, 1995. (see Fig. 1). The purpose of the survey was to: (1) document what bird and mammal species occur on the site, or are likely to occur given the type of habitat available; (2) provide some baseline data on the relative abundance of the species found and (3) determine the presence of any native species, particularly any that are listed as threatened or endangered by either the United States Fish and Wildlife Service (USFWS) or the State of Hawaii, Division of Land and Natural Resources (DLNR); (4) determine if there was any nesting activity by Hawaiian Hawks (*Buteo solitarius*) on the subject property.

A total of 548 birds of 16 species representing 12 families were detected during the course of this survey (Table 1). Of these 16 species, 2 are endemic Hawaiian Honeycreepers (native and unique to Hawaii), 1 indigenous migrant shorebird (native to but also found elsewhere), 1 native seabird and the remaining 11 are alien (introduced by man) species one of which is a domesticated species. None of the birds recorded are listed as either endangered or threatened by either the USFWS or the State of Hawaii DLNR.

During the course of this survey 6 mammalian species were detected (Table 3). Five of these were terrestrial species all introduced by man and the sixth was an indigenous whale species. None of the mammals detected are listed as either endangered or threatened by either the USFWS or the State of Hawaii DLNR. No Hawaiian hoary bats (*Lasiurus chiroreus semotis*) were detected.

The species list of both birds and mammals gathered during this survey is typical of what one would expect from habitat of this type located at this elevation along the Puna Coast of the island of Hawaii, at this time of the year. There is nothing unique about the habitat within the site, and none could be considered essential habitat for any of the four listed species that may utilize the site upon occasion.

The installation of a set of poles and a distribution line on the north side of Highway 137 may have an effect on the passage of transiting seabirds. Collision with utility structures is considered by many to be the second most significant cause of seabird mortality in Hawaii (Reynolds et al. 1994, Cooper et al. 1994, Ainley et al. 1993). In so much as it is unclear at what altitude Newell's Shearwaters fly when crossing the coast line it is difficult if not impossible to state whether the proposed poles and distribution line on the mauka side of Highway 137 will constitute a significant threat to this species. It should borne in mind; that at least in the Kalapana Subdivision there are already poles and lines going in all directions. The placement of another line on the existing poles that descend from Highway 130 to the coast should have a negligible effect on the avian and mammalian species present on the site.

Recommendations

- 1) Install plastic marker balls on the transmission line running along route 137 in an attempt to warn off transiting seabirds. Marker balls have been shown to reduce avian collisions (Reynolds et al. 1994, Cooper & Day 1994).

- 2) Do not install lights on the power poles, since this can disorient seabirds on dark nights, causing "fallout".
- 3) Establish a program for the handling of downed seabirds. Successful programs of this type have been implemented on Kauai, Oahu and Maui.
- 4) There will little vegetation clearing associated with this project; however wherever possible the clearing of native vegetation should be kept to a minimum.

Introduction

This report summarizes the findings of a two day ornithological and mammalian survey conducted along the proposed utility easement at Kehena, Keekae Homestead, Puna, Hawaii, between April 4th and April 5th, 1995. (see Fig. 1). The purpose of the survey was to: (1) document what bird and mammal species occur on the site, or are likely to occur given the type of habitat available; (2) provide some baseline data on the relative abundance of the species found and (3) determine the presence of any native species, particularly any that are listed as threatened or endangered by either the United States Fish and Wildlife Service (USFWS) or the State of Hawaii, Division of Land and Natural Resources (DLNR); (4) determine if there was any nesting activity by Hawaiian Hawks (*Buteo solitarius*) on the subject property.

General Site Description

The project site is 8710 linear feet long and 50 feet wide, encompassing approximately 9.9 acres in Kehena, Puna District, Island and County of Hawaii. The area is currently zoned for agricultural usage. The area surveyed was divided into two sections. The first runs south from approximately mile marker 16 on Highway 130 across approximately 4000 feet of undeveloped land and then through the Kalapana Seaview Estates Subdivision ultimately connecting with Highway 137 on the Puna coast. The second runs on the north side of Highway 137 from the Kehena Beech Estates Subdivision past the Puna Beach Palisades Subdivision and ending just east of the Kalapana Seaview Estates Subdivision (Fig.1).

The first section surveyed along the Hawaiian Telephone Co. 1984 pole line is located on the 1955 lava flow. The vegetation is predominantly low stature 'ohi'a (*Metrosideros polymorpha*) on a'a which is covered with *Stereocaulon* lichen. There are several Kipukas along the route, none of these are closer than 150 meters from the existing poles. The second area is immediately adjacent to Highway 137, the vegetation is dominated by introduced species.

Weather during the survey was cloudy in the mornings, clearing shortly after 0900 each day. There was no appreciable precipitation during the course of this survey.

Previous Surveys

The first systematic surveys of the avifauna of Hawaii were not undertaken until 1976. Starting in that year and continuing until 1983 the U. S. Fish and Wildlife Service (USFWS) conducted a state wide survey of the avifauna of Hawaii (Scott et al. 1986). During the course of the Hawaii Forest Bird Surveys (HFBS) none of their transects were filled in the current survey site. The HFBS did survey the bulk of the native forest within the Puna District. Since then most of the surveys in this area have been short one visit surveys to fill the requirements of EA and EIS type documents. The one exception were the extensive surveys conducted for the Puna Geothermal Project Subzones by the Hawaii Field Station of the USFWS (Reynolds et al. 1994, Reynolds et al. 1985 in prep.).

Study Methods

One transect was laid through the north-south right of way and another along the east-west (shoreline) right of way. Count stations were placed 150 meters apart along these transects. Eight-minute unlimited distance circular plot counts (Reynolds et al. 1980) were made at each of the count stations. Field observations were made with the aid of Leitz 10 X 40 binoculars and by listening for vocalizations. Counts were concentrated during the early morning hours (between 0600 hrs and 1100 hrs), the peak bird activity time. Four separate crepuscular counts were made in an attempt to locate Hawaiian hoary bats (*Lasiurus cinereus semotus*) and seabirds. These counts are the basis for the relative abundance estimates in this report (see Table 1). Time on site not spent either laying or counting transects was spent "prospecting" in pockets of vegetation away from the transects, in an attempt to locate any species not recorded during count periods. Furthermore, a thorough search for Hawaiian Hawk (*Buteo solitarius*) nests was also made. In addition Michelle Reynolds an avian biologist with the U. S. Fish and Wildlife Service (USFWS) who has experience surveying for seabirds and bats in Puna was contacted for additional information on the avian and mammalian fauna, especially seabirds of the surrounding area. Observations of feral mammals were limited to visual and auditory detection, as well as observation of scat, tracks and road kills. No trapping study was conducted to obtain data on their relative abundance.

Avian phylogenetic order used in this report follows *Birds Of The World: A Checklist* (Clements

1991); scientific nomenclature follows *The AOU Checklist of North American Birds* (AOU 1983) and the 35th through the 39th Supplements to *The AOU Checklist* (AOU 1985-1993). Mammal scientific names follow *Mammals in Hawaii* (Tomich 1986), and plant names follow *Manual of the Flowering Plants of Hawaii* (Viegner et al. 1990).

Results

A total of 548 birds of 16 species representing 12 families were detected during the course of this survey (Table 1). Of these 16 species, 2 are endemic Hawaiian Honeycreepers (native and unique to Hawaii), 1 indigenous migrant shorebird (native to but also found elsewhere), 1 native seabird and the remaining 11 are alien (introduced by man) species one of which is a domesticated species. None of the birds recorded are listed as either endangered or threatened by either the USFWS or the State of Hawaii DLNR.

During the course of this survey 6 mammalian species were detected (Table 3). Five of these were terrestrial species all introduced by man and the sixth was an indigenous whale species. None of the mammal detected are listed as either endangered or threatened by either the USFWS or the State of Hawaii DLNR. No Hawaiian hoary bats (*Lasiurus cinereus semotus*) were detected.

Avian Resources

The avifauna of this region of Puna is dominated by introduced species, as clearly demonstrated by this survey's results (Table 1). This alien avifauna is augmented from September to the end of April by several species of migratory shorebirds (R. Pyle 1992, David 1991b, P. Pyle et al. 1988). It is also probable that in the summer months there is some passage of nesting pelagic seabirds over the site, as they fly upstate to their breeding colonies (Reynolds et al. 1994, Banko et al. 1991, Banko 1980 a, 1980 b).

Endangered Avian Resources

Hawaii's native avifauna has been inextricably changed by the hand of man. To date, more than 60% of Hawaii's endemic avifauna has gone extinct. Within historical times a total of 69 endemic avian species and sub-species have been described from Hawaii (Pyle 1992). Of these

23 have gone extinct. Of the remaining 46, a total of 32 are currently listed as endangered or threatened by the United States Fish and Wildlife Service (USFWS 1992). Thirteen of these are critically endangered or may in fact have already gone extinct. A further 35 species of extinct endemic birds have been described from sub-fossil remains (Olson & James 1982, 1991, James & Olsen 1991). There may be as many as 26 more undescribed species amongst the bones that have already been collected (Olsen & James 1991, James & Olsen 1991, Giffin 1993). In addition, the only endemic terrestrial mammalian species in Hawaii, the Hawaiian hoary bat (*Lasiurus cinereus semotus*), is also listed as endangered (USFWS 1992). Of the 32 currently listed endangered avian species and sub-species found in Hawaii a total of 13 are found on the island of Hawaii, as is the endangered Hawaiian hoary bat see (Table 2).

Given the low altitude and vegetation on the proposed development site the only endangered or threatened avian species likely to be detected on the site are the Hawaiian Hawk or 'i'o (*Buteo solitarius*), Newell's Shearwater or 'A'o (*Puffinus newelli*) and possibly Dark-rumped Petrel or Ua'u (*Pterodroma phaeopygia sandwichensis*). A fourth species the Band-rumped Storm Petrel or 'Ake'ake (*Oceanodroma castro*) is listed as endangered by the DLNR and as a candidate species by the USFWS may also fly over the site. (David pers. obs., Morrison et al. 1994, Reynolds et al. 1994, Banko et al. 1991, Banko 1980 a, 1990 b, Banko 1980 c).

Avian Species Accounts

In the following species accounts I briefly discuss the natural history and origin of each species. Details of their distribution during the course of this survey, Federally listed endangered and threatened species that were not detected but may also occur on the site have also been included. The Federally listed species are addressed first, then the indigenous ones, and finally the remainder are addressed in taxonomic order.

Dark-rumped Petrel: *Pterodroma phaeopygia sandwichensis*

Ua'u

The endemic Hawaiian subspecies of the Dark-rumped Petrel was formerly very common on the island of Hawaii (Wilson & Evans 1990-1999). This pelagic seabird species reportedly nested in large numbers on the slopes of Mauna Loa and in the saddle area between Mauna Loa and Mauna Kea (Henshaw 1902), as well as the mid to high elevations of Mount Hualalai. Munro saw one on

the ground in 1891 at 1370 meters (4500') in Honaunau, Kona (Banko 1980 b). Ua'u was a food source of the Hawaiians, and bones of this species are common in ancient Hawaiian middens excavated in numerous locations on Hawaii (Banko 1980 b). By the turn of the century the decline in this species had been noted by local residents, and by the early 1940's at least one observer, George Munro feared for this species survival in Hawaii (Munro 1941, 1944). Dark-rumped Petrels were finally listed as endangered by the United States Fish & Wildlife Service in 1967 (USFWS 1992b). This species still nests in low numbers in the upper elevations of the Mauna Loa. The most recent record of this species in Puna were made by Banko in 1972 (Banko 1980). Due to the vast reduction in the population of this species any nesting habitat available is critical. Seabirds are especially vulnerable to predation by terrestrial mammals. Their nesting burrows are quite odoriferous, especially when there are young birds present, this making it easy for cats, rats, mongoose and humans to find them. A secondary threat especially to fledging birds is being disoriented by lights on their way to sea. When disoriented, seabirds often collide with man made structures and if not killed outright, the dazed or injured birds are easy targets of opportunity for feral mammals. This species was not detected during the course of this survey or any other recent ones in the Puna area (David pers. obs., Reynolds et al. 1994). Ua'u may transit the site on their way to nesting colonies on the upper slope of Mauna Loa.

Newell's Shearwater: *Puffinus newelli*

'A'o

Newell's Shearwaters were listed as threatened by the USFWS in 1975 (USFWS 1992). This species breeds on Kauai, Hawaii and Molokai in extremely small numbers. Newell's Shearwater populations have dropped precipitously since the 1980's (Banko 1980 a). The taxonomy of this species is poorly resolved. It has long been considered a sub-species of the Manx Shearwater *Puffinus puffinus*. In 1983 the AOU separated the Pacific forms of the Manx Shearwater from this species. Hawaii's race became a sub-species of the Townsend's Shearwater *Puffinus auricularis* (AOU 1983), although other authors, myself included, prefer to consider this a separate species *Puffinus newelli* (Pratt 1987, Clements 1991). This pelagic species nests in burrows excavated under thick vegetation. There are at least 2 nesting colonies in the immediate vicinity of the subject site. One near Heiheiuhulu some 4.5 kilometers northwest of the top of the site, and the other on Pu'ukena Crater which is located approximately 7 kilometers north east of the site. Evidence also indicates a possible flyway below Pu'u Kaula some 4 kilometers east of the site. It is also possible that there are colonies on Iiwea directly

above the site and also on Kahawai crater (Fig 2) (David pers. obs., Reynolds et al. 1994, Banko 1980 a). Given the proximity of 2 known nesting colonies in the immediate area and a possibility of others, especially on Iiwea Crater directly above the site, there is a likelihood that 'A'o transit the site on their way to and from their breeding colonies (Fig 2).

'10

Hawaiian Hawk: *Buteo solitarius*

The Hawaiian Hawk is the only extant falconiform in Hawaii, it currently is endemic to the island of Hawaii, sub-fossil remains indicate that it was also formerly found on Molokai (Olson & James 1982). Several incidental unconfirmed sightings of this species exist from Kaula (Dole 1879, Beaglehole 1980) and Maui (Banko 1980c). This species was scientifically described by Peale in 1848 from a specimen collected from Kealakua (Banko 1980c). The Hawaiian Hawk was first listed as endangered in 1967 (USFWS 1992). This species has probably adapted better than any other endemic avian species to the alien dominated lowland areas of the island. Hawaiian Hawks occupy a wide variety of habitats, in fact they are to be found in almost all habitats not lacking trees. They are all but absent from treeless or close to treeless grasslands and lava fields. During the course of the HFBS no population estimate was made, due in part to the fact that as with most raptors Hawaiian Hawks do not meet the basic assumptions that are used in computing forest bird community densities (Scott et al. 1986). In 1984 Griffin estimated a population of some where between 1400-2500 birds (Griffin 1984). This species is currently under review by the USFWS for down listing from endangered to threatened status (USFWS 1993). In an attempt to get solid numbers for this downlisting proposal the USFWS sponsored an island wide survey specifically targeting Hawaiian Hawks. The survey results put the present population of this species at 1600 birds (Morrison et al. 1994). It is generally thought that the population is healthy and maintaining itself, unlike many other endemic species. Although no Hawaiian Hawks were detected during this present survey, it is safe to say that there is some usage of the site by this species. A concerted effort was mounted to locate any nests, none were found.

'Amakihī

Common 'Amakihī: *Hemiphysalis virens virens*

The nominate race of 'Amakihī was described by Gmelin in 1788 from one of several specimens collected by Captain Cook's party at Kealakua in 1779 (Medway 1981). This species is the most adaptive of the drepanids, it was extremely common in Cook's day and is still numerous.

'Amakihī are currently found as low as 150 meters (500') and are also found in the highest reaches of vegetation on the island (Banko 1984 a, David 1989, 1990, 1991, 1992, 1993). During the course of the HFBS it was estimated that there was a total population on the island of some 870,000 ± 11000 birds. They were found in all of the HFBS study areas. Common 'Amakihī unlike other drepanids has adapted to eat a wide selection of food sources, ranging from insects and invertebrates to nectar and fruit, often in highly disturbed areas. They are to be found feeding in the canopy, sub-canopy, branches, and even on the ground (Richards and Bock 1973, R. David pers. obs.). At present this species is doing well. During this survey a total of 59 individuals of this species were recorded.

'Apapane

'Apapane: *Himantopus mexicanus*

'Apapane was first described by Gmelin in 1788 from Latham's description of birds collected by Captain Cook's men in 1788-1789 in the Kealakua area (Medway 1981, Banko 1987). The 'Apapane is the most plentiful of the endemic drepanids. During the course of the 1976-1983 HFBS a population estimate of >1,000,000 birds was calculated for this species on the island of Hawaii (Scott et al. 1986). The main population runs continuously from Hamakua to Kona circling the island in a clockwise manner. This species ranges from sea level in the Puna region to 2,900 meters (9,500 feet) on Mauna Kea. Low densities of this species are in direct correlation to lands that have been cleared of native vegetation and areas that naturally lack vegetation. At present 'Apapane are in little danger of a major population reduction. During this survey a total of 25 individuals of this species were recorded.

Noko

Black Noddy: *Anous minutus melanopenys*

This endemic Hawaiian subspecies was formerly considered a full species the Hawaiian Noddy. It is known to nest in noho caves all along the southern coast of Hawaii as well as several locations on the north Hilo coast (Harrison 1990, R. David pers. obs.). Black Noddies are one of the commonest of Hawaii's breeding seabirds. Seventeen individuals of this species were seen returning and leaving from the sea caves along the coast south of Highway 137.

Migratory Avian Species

Migratory waterbirds and shorebirds make up a large part of the winter avian population of

Hawaii. These annual visitors are found throughout the island from August through May. Currently 81 separate migratory and extralimital waterbird and shorebird species have been documented from the Islands (Pyle 1992). It can be expected that during migration season, several of these species utilize the proposed site. Only one indigenous (native) migratory bird species was detected during this survey. It is to be expected that several other species utilize the site at times. The most likely species being Fluddy Turnstone (*Arenaria interpres*) and Wandering Tattler (*Heteroscelus incanus*).

Pacific Golden Plover: *Pluvialis fulva*

Kolea

The most common of the migratory shorebirds that visit Hawaii each year. Pacific Golden Plover usually start arriving from their arctic breeding grounds in August. They spend the winter here and on other islands in the Pacific. Many defend wintering grounds and are site relative, this meaning that they return to the same territory every year. They leave to head back to their arctic breeding grounds in late April and early May. Some individuals overwinter in Hawaii. During this survey a total of 8 individuals of this species were recorded.

Introduced Avian Species

During the last hundred years more than a 160 species of alien birds have been introduced to the Hawaiian Islands (Long 1981, HAS 1993). Many of these species were game birds introduced by, private landowners, the Territorial Division of Fish and Game, and following statehood, by the State of Hawaii's Division of Land and Natural Resources. These birds were introduced in the hope that they would become established and provide a recreational hunting resource. Less than a quarter of these introductions have been successful. On the island of Hawaii more than 60 species of game birds have been introduced. Currently 14 of those alien introductions have survived and are considered to be established on the island (Pyle 1992, David 1995 in prep.).

Little is known of the effect that these species have on Hawaii's native bird populations. They are, by and large, aggressive birds that are native to areas that have many predators. Many of these alien birds probably out compete Hawaii's native species, for food, cover and nesting

resources. They have been implicated in the spread of alien plant species, which all too often have proven to have a deleterious effect on our ecosystems. Some are thought to be reservoirs for diseases, some of which probably can and do negatively impact Hawaii's endemic avifauna. Systematic scientific studies of these problems have commenced, but all are nascent.

The bulk of the avian species detected on the site were all introduced to Hawaii by man, and have managed to sustain viable wild populations. A total of 12 introduced (alien) bird species were detected on the site. One of these the Red Junglefowl or Moa (*Gallus gallus*) at least in Puna is a domesticated rather than an established feral species.

Red Junglefowl *Gallus gallus*

Moa

This species native to Malaysia and most of the Southeast Asia was introduced to the Hawaiian Islands by aboriginal settlers (Scott et al. 1982). There have been so many different races introduced over the intervening years that in many cases it is impossible to determine whether birds are in fact feral or simply someone's domestic chickens, especially since the majority of detections are by auditory means. In the case of this survey it is probably safe to say that all 6 detections of this species represent domestic animals. There are known feral birds in the Puna region of Hawaii (Scott et al. 1982, David pers. obs.).

Rock Dove: *Columba livia*

The Rock Dove was native to the coastlines of England, southern Europe the Mediterranean, and north Africa east to the Indian sub-continent (Sibley and Munroe Jr. 1990). Widely domesticated and even more widely introduced this species has interbred so extensively with domestic stock that it is difficult, if not impossible, to reconstruct its original range (Terres 1980). Rock Doves were one of the first avian introductions to the Islands they probably escaped from captivity in 1796 (Walker 1967). It's current population is much reduced from the immense flocks reported from the island of Hawaii in 1891 (Munro 1960).

Rock Doves breed year round and may do so as many as five times a year. They feed on seeds, grasses, worms, insects and berries. They usually lay two eggs in a flimsily constructed nest made of small twigs that are usually placed on ledges and in caves as well as in buildings and under bridges. On Hawaii they breed in many of the valleys of the North Kona Coast and

probably also in abandoned buildings etc. During this survey only one individual of this species was recorded.

Spotted Dove: *Streptopelia chinensis*

This species is native to a large part of southeast Asia and the Malay Archipelago (Sibley & Munroe Jr. 1990). The race *Streptopelia chinensis chinensis* was introduced to the Hawaiian Islands prior to 1900 (Caum 1933). Spotted Doves were well established on Hawaii by 1940 (Munro 1960). For some unknown reason the owners of Pu'u Wa'awa'a released 8 birds on the ranch in 1961 (Lawin 1971). This species is found in residential as well as in most other habitats throughout the main Hawaiian Islands.

Spotted Doves eat seed, grain plant material and scraps. In Hawaii they breed from February to October. They usually lay two eggs in a messy platform nest made of small sticks which is usually placed from 8 to 40 feet in vegetation or on buildings (Terres 1980). During this survey a total of 18 individuals of this species were recorded.

Zebra Dove: *Geopelia striata*

This species is native to southeast Asia and the Malaysian Peninsula was first introduced to Hawaii in 1922 (Munro 1960). There is real confusion as to which races were released when and where in the islands. By 1950 The Schwartz's considered the species to be well established throughout the Hawaiian Islands (Schwartz & Schwartz 1950).

In Hawaii this species is found in almost all habitats. They feed on seeds, grain, insects and ors. They nest year round often as many as five times a year. They usually lay two eggs in a small flimsy nest made of kite sticks that are precariously placed in vegetation, and sometimes on and in buildings (Terres 1980). During this survey a total of 2 individuals of this species were recorded.

Common Myna: *Acridotheres tristis*

The Common Myna is native to southern and southeast Asia (Sibley & Munroe Jr. 1990). It was introduced to the Hawaiian Islands in 1865 by Dr. Hillebrandt, with the hope that they would prey on army worms and other insect pests (Caum 1933, Munro 1960). This very aggressive

species rapidly became established and has become ubiquitous. It tends to be a commensal species and is found in extremely large numbers in cities and towns. Due to its gregarious nature and its proclivity to roost communally - up to 5000 birds in one tree, many late rising humans have been less than enchanted with this species.

Common Mynas are omnivorous feeders eating everything from nectar to ors. In Hawaii they breed from February to August often times having as many as three broods per season. They lay between two and five eggs in a messy nest made of twigs, trash, plant bits and often times paper or plastic (Ali & Ripley 1968-1974, David pers. obs.). During this survey a total of 68 individuals of this species were recorded.

Japanese White-eye: *Zosterops japonica*

The Japanese White-eye is native to east Asia from southern China to Korea and Japan and in winter, Thailand, Burma and Laos (Sibley & Munroe Jr. 1990). Exactly when this species was first introduced to Hawaii is uncertain. In 1929 the Territorial Board of Agriculture released birds from Japan on Oahu (Caum 1933, Munro 1960). There were several more releases by both the Board of Agriculture and by the Hui O Manu. They were released on Hawaii in 1937 (Hawaii Audubon Society 1975). This species has been considered to be established on all main islands since at least the mid 1950's (Berger 1972, Hawaii Audubon Society 1993).

Locally called Ma'iho this ubiquitous species is probably the most common bird in the state. It feeds on a mixed diet of arthropods, nectar and berries. It has been recorded nesting from February through November; its nest is a small box deeply cupped affair, well finished out of a blend of grasses, often lined with lichens and spider webs. In Hawaii, Japanese White-eyes lay three to four eggs, slightly more than in its native range. During this survey a total of 106 individuals of this species were recorded, making it the second most commonly recorded species.

Melodious Laughing-thrush: *Garrulax canorus*

Melodious Laughing-thrush, better known in Hawaii as Hwamei are native to southern Asia from China to northern Laos and Vietnam, they are also found in Taiwan (Sibley and Monroe Jr. 1990). It is thought that this species escaped from captivity during the 1900 Chinatown fire on

Oahu. (Caum 1933). Following its unintentioned release on the island of Oahu, this species was imported for release on Kaua'i, Maui and Hawaii. (Berger 1972). Melodious Laughing-thrush are now established on all the main islands with the exception of Lanai (Hawaii Audubon Society 1993). Its distribution is very patchy.

Melodious Laughing-thrush are omnivorous feeders, eating everything from insects to vegetable matter. In Hawaii they breed from May to July, laying between three and five eggs in a large bowl shaped nest often placed close to the ground in dense bushes such as Christmas berry (Long 1991, David pers. obs.). During this survey a total of 29 individuals of this species were recorded.

House Sparrow: *Passer domesticus*

House Sparrows are native to most of Eurasia, from the British Isles, east to the Pacific ocean and north to Siberia, south through the Indian sub-continent and North Africa (Sibley & Monroe Jr. 1990). House Sparrows have been introduced all over the world. This commensal species is now almost cosmopolitan in range. Little is known of this species introduction to the Hawaiian Islands. Caum reported that nine birds had been released on Oahu in 1871 (Caum 1933). It is not known if there were further introductions. They were numerous around Honolulu in 1902 (McGregor 1902). By the late 1960's House Sparrows of the nominate race *Passer domesticus domesticus* were common on all main islands (Peters 1982, Hawaii Audubon Society 1975). This species is common throughout the State but tends to be commensal and does not occur in large numbers far from mans settlements and developments.

House Sparrows breed year round in Hawaii, often raising as many as three broods a year. They build very messy nests of twigs, grasses and litter often just stuffed into a crack or opening. When nesting in trees they build a domed nest with a side entrance. Clutch size ranges from four to six eggs. House Finch feed on a wide variety of foodstuffs from seed, grain and other plant materials to insects, worms and orts (Terres 1980, Long 1981). During this survey a total of 4 individuals of this commensal species were recorded, not surprisingly all were recorded in the lower section of the Kalapana Seaview subdivision.

Nutmeg Mannikin or Scaly-breasted Munia: *Lonchura punctulata*

Nutmeg Mannikins are native to Southern and Southeast Asia from India east to Java and the Philippines (Sibley & Munroe 1992). The race *Lonchura punctulata fopela* was introduced to Hawaii by Dr. Hillebrand around 1865 (Caum 1933, Berger 1981).

Little is known about this species life history in Hawaii. In Malaysia this species breed from February through August, Berger reports that he found nests in all months except August (Berger 1981). They build a large covered nest which has a side tunnel entrance. They lay between three and four eggs per clutch. They continue to use the nest as a dormitory following fledging. They feed on seeds, rice and insects. During this survey a total of 6 individuals of this species were recorded.

House Finch: *Carpodacus mexicanus*

House finches are native to western U.S.A. from west of Kansas, north to British Columbia and south to central Mexico (AOU 1983, Sibley & Munroe Jr. 1990). This species has been successfully introduced to the Eastern U.S.A. House Finches have been in the Hawaiian Islands since the 1870's; they were popular cage birds and probably escaped soon after their first arrival in Hawaii. The race *Carpodacus mexicanus frontalis* from California has been established on all main islands since the early 1920's (Caum 1933, Berger 1972, Hawaii Audubon Society 1975).

This species is considered an agricultural pest in its native range (Terres 1980). In Hawaii, this species feeds on fruit, berries and insects. Papaya farms consider this species a pest as they apparently do some damage to this commercially grown fruit crop. They nest year round, making a grass and twig built nest usually placed in a tree cavity, roof, tree crown. Clutch size ranges from two to six eggs (Long 1981). During this survey a total of 168 individuals of this species were recorded, easily making it the most common species recorded.

Northern Cardinal *Cardinalis cardinalis*

Northern Cardinals are native to the eastern part of the U.S.A. they range west to Colorado and southwest to southern Arizona. South to northern Guatemala and Belize (AOU 1983). It has also been successfully introduced to southern California. Northern Cardinals were first introduced to the Hawaiian Islands in 1929. Birds were released on all main islands. Several separate

introductions of this species of several races were made in Hilo between 1929 and 1931. They were considered to be established on all main islands by the 1940's (Caum 1933, Berger 1972, Hawaii Audubon Society 1975). They are to be found in almost all habitats in the islands.

This species eats a mixed diet of seeds, berries, plant material and insects. In Hawaii Northern Cardinals breed in all months of the year. They construct a loosely built shallow nest made of small twigs, grasses and other plant material, it is lined with fine grasses. Clutches consist of two to six eggs (Terres 1980, David pers. obs.). During this survey a total of 33 individuals of this species were recorded.

Mammalian Resources

The Hawaiian hoary bat (*Lasiurus cinereus semotus*) or 'Ope'ape'a is Hawaii's only endemic terrestrial mammal. All the other resident mammals were introduced by man. This process started when the first aboriginal settlers landed in the islands some 1500 years ago (Stone et al. 1985). The aboriginal peoples brought numerous alien species such as pigs (*Sus scrofa*), dogs (*Canis familiaris*) and Polynesian rats (*Rattus exulans*); as well as non-native plants and insects of many kinds with them. Many of Hawaii's endemic birds, especially the flightless and ground nesting ones, were easy prey for the introduced dogs and hungry humans (Kirch 1982, Steadman 1989, Banko et al. 1990). Both the aboriginal people and their pigs proceeded to markedly alter the endemic ecosystems. The humans cleared and burned the lowlands for agricultural purposes and the pigs moved into the wet forests where they found abundant food in the myriad of endemic understory plants (Kirch 1982). Very little is known of what effect the introduced insect species had, but it is safe to surmise that they had a large effect on the endemic insect and plant populations and in turn on the native avian species. The European re-discovery of the islands in the late 1700's heralded another wave of introductions that included European rabbits (*Oryctolagus cuniculus*), roof rats (*Rattus rattus*), Norway rats (*Rattus norvegicus*), European house mice (*Mus domesticus*), small Indian mongooses (*Herpestes aurunculatus aurunculatus*), cats (*Felis catus*), horses (*Equus caballus*), cattle (*Bos taurus*), goats (*Capra hircus*) and sheep (*Ovis aries*), as well as countless insect and plant species. All of the introduced mammalian species including man have had a deleterious effect on the native avian and mammalian populations of the islands.

A total of 6 species of mammals were detected during this survey (see Table 3). A pod of Short-finned pilot whale (*Globicephala macrorhynchus*) were seen some 50 meters out to sea. Feral dogs (*Canis familiaris*) were seen on both days of the survey. One feral cat (*Felis catus*) was seen within the site, as was lots of cat sign. Several small Indian mongooses (*Herpestes aurunculatus*) were seen within the site. One unidentified species of rat was found dead on a roadway within the site. It is likely that roof rats (*Rattus rattus*), Norway rats (*Rattus norvegicus*), Polynesian rats (*Rattus exulans hawaiiensis*) and European house mice (*Mus musculus*), are to be the site. Without conducting a trapping program it is difficult to assess the population densities of these often hard to see mammals.

Table 4 on page 31 represents the mammalian species that are likely to utilize the site at least upon occasion.

Endangered Mammalian Species

Hawaiian_hoary_bat: *Lasiurus cinereus semotus*

'Ope'ape'a

The Hawaiian hoary bat is Hawaii's only endemic terrestrial mammal. It was first listed as endangered by the USFWS in 1970 (USFWS 1982). Originally considered to be a distinct species, it is now taxonomically classified as an endemic Hawaiian sub-species of the American hoary bat (Tomich 1986). There has been very little scientific work attempted on this species. In no small part due to the fact that this bat is usually a solitary arboreal rooster and therefore difficult to study. Hawaiian hoary bats have been seen within the area (Reynolds et al. 1994, David, pers. obs.).

Limitations of this Report

A short two day survey can not provide a total picture of the Wildlife utilizing any given area. Certain species will not be observed for one reason or another. Seasonal variations in populations coupled with seasonal usage and availability of resources will cause different usage patterns throughout a year or, in fact over a number of years. A one time survey can usually only provide baseline information. Coupling that baseline information with data gathered from similar habitat and from previous studies in the same general area can greatly enhance the

value of the gathered baseline data; resulting in a much more complete assessment of the natural resources and their utilization at the given site.

That neither Hawaiian Hawk - I'o (*Buteo solitarius*), Newell's Shearwater - 'A'o (*Puffinus newelli*) or Dark-rumped Petrel - Ua'u (*Pterodroma phaeopygia sandwichensis*) were detected during the course of this survey is not surprising. Given the population size of the Hawaiian Hawk one can not expect to always find them even in suitable habitat. That neither of the listed seabird species was detected is equally understandable since they usually do not return to their breeding colonies until the end of May.

Conclusions

The species list of both birds and mammals gathered during this survey is typical of what one would expect from habitat of this type located at this elevation along the Puna Coast of the island of Hawaii, at this time of the year. There is nothing unique about the habitat within the site, and none could be considered essential habitat for any of the four listed species that may utilize the site upon occasion.

The installation of a set of poles and a distribution line on the north side of Highway 137 may have an effect on the passage of transiting seabirds. Collision with utility structures is considered by many to be the second most significant cause of seabird mortality in Hawaii (Reynolds et al. 1994, Cooper et al. 1994, Ainley et al. 1993). In so much as it is unclear at what altitude Newell's Shearwaters fly when crossing the coast line it is difficult if not impossible to state whether the proposed poles and distribution line on the mauka side of Highway 137 will constitute a significant threat to this species. It should be borne in mind; that at least in the Kalapana Subdivision there are already poles and lines going in all directions. The placement of another line on the existing poles that descend from Highway 130 to the coast should have a negligible effect on the avian and mammalian species present on the site.

Recommendations

- 1) Install plastic marker balls on the distribution line running along route 137 in an attempt to warn off transiting seabirds. Marker balls have been shown to reduce avian collisions (Reynolds et al. 1994, Cooper et al. 1994).

- 2) Do not install lights on the power poles, since this can disorient seabirds on dark nights, causing "fallout".

- 3) Establish a program for the handling of downed seabirds. Successful programs of this type have been implemented on Kauai, Oahu and Maui.

- 4) There will little vegetation clearing associated with this project; however wherever possible the clearing of native vegetation should be kept to a minimum.

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Key to Table 1.

- Status
 E = Endemic Species
 Es = Endemic Subspecies
 IM = Indigenous migratory species
 A = Alien/ introduced species
 D = Domestic species / no self sustaining population

Relative abundance = the number of times recorded during the survey

- A = Abundant (≥100) individuals recorded
 C = Common (250-999) individuals recorded
 U = Uncommon (25-99) individuals recorded
 R = Rare (5-24) individuals recorded

Table 1.

| COMMON NAME | SCIENTIFIC NAME | STATUS | RELATIVE ABUNDANCE |
|----------------------------------------------|----------------------------------|--------|--------------------|
| PHEASANTS & ALLIES - Phasianidae | | | |
| Red Junglefowl | <i>Gallus gallus</i> | D | U - 8 |
| PLOVERS & LAPWINGS - Charadriidae | | | |
| Pacific Golden Plover | <i>Pluvialis fulva</i> | IM | U - 8 |
| GULLS & TERNS - Laridae | | | |
| Black Noddy | <i>Anous minutus melanogerys</i> | Es | U - 17 |
| PIGEONS & DOVES - Columbidae | | | |
| Rock Dove | <i>Columba livia</i> | A | R - 1 |
| Spotted Dove | <i>Streptopelia chinensis</i> | A | U - 18 |
| Zebra Dove | <i>Geopelia striata</i> | A | R - 2 |
| STARLINGS - Sturnidae | | | |
| Common Myna | <i>Acridotheres tristis</i> | A | C - 68 |

| | | | |
|----------------------------------------------|---------------------------------------|---|---------|
| SILVEREYES - Zosteropidae | | | |
| Japanese White-Eye | <i>Zosteropus japonica</i> | A | A - 106 |
| BABBLERS - Timaliidae | | | |
| Melodius Laughing Thrush | <i>Garrulus canorus</i> | A | U - 29 |
| OLD WORLD SPARROWS - Passeridae | | | |
| House Sparrow | <i>Passer domesticus</i> | A | R - 4 |
| WAXBILLS & ALLIES - Estrifidae | | | |
| Mungie Manikin (Scaly-breasted Munia) | <i>Lonchura punctulata lepida</i> | A | U - 6 |
| FRINGILLIDS - Fringillidae | | | |
| House Finch | <i>Carpodacus mexicanus mexicanus</i> | A | A - 166 |
| HAWAIIAN HONEYCREEPERS - Drepanididae | | | |
| Common Amakihi | <i>Hemignathus virens virens</i> | E | C - 59 |
| Aopape | <i>Hemignathus sanguineus</i> | E | U - 25 |
| EMBERIZIDS - Emberizidae | | | |
| Northem Cardinal | <i>Cardinalis cardinalis</i> | A | U - 33 |

Table 2.

ENDANGERED AND THREATENED AVIAN AND BAT SPECIES AND SUB-SPECIES ON THE ISLAND OF HAWAII

| COMMON NAME | HAWAIIAN NAME | SCIENTIFIC NAME |
|---------------------|----------------|--------------------------------------------|
| BIRDS: | | |
| Dark-rumped Petrel | Ua'u | <i>Pterodroma phaeopygia sandwichensis</i> |
| Newell's Shearwater | 'A'o | <i>Puffinus newelli</i> |
| Hawaiian Goose | Nene | <i>Branta sandvicensis</i> |
| Hawaiian Duck | Koaha | <i>Anas wyvilliana</i> |
| Hawaiian Hawk | 'Io | <i>Buteo solitarius</i> |
| Hawaiian Coot | 'Aiea ka'oke'o | <i>Fulica alai</i> |
| Black-necked Stilt | Ae'o | <i>Himantopus mexicanus knudseni</i> |
| Hawaiian Crow | 'Alala | <i>Corvus hawaiiensis</i> |
| 'O'u *** | 'O'u | <i>Psaltriparus psittacus</i> |
| Pallid | Pellia | <i>Loxia baileyi</i> |
| Akiapola'au | Akiapola'au | <i>Hemignathus munroi</i> |
| Hawai'i Creeper | 'Alaugho | <i>Oreomystis mana</i> |
| Hawai'i Akape | 'Alakane | <i>Lomops coccineus coccineus</i> |
| BATS: | | |
| Hawaiian hoary bat | 'Ope'ape'a | <i>Lasiurus cinereus semotus</i> |

*** This species is critically endangered, it may in fact have been extirpated from the island of Hawaii.

All of the above species and sub-species are listed as endangered by the USFWS, with the exception of the Newell's Shearwater which is listed as threatened (USFWS 1992).

Table 3.

MAMMALIAN SPECIES DETECTED

| | |
|--------------------------|----------------------------------------------|
| Short-finned pilot whale | <i>Globicephala macrohynchus</i> |
| Rat (species ?) | <i>Rattus sp.</i> |
| Domestic dog | <i>Canis familiaris familiaris</i> |
| Small Indian Mongoose | <i>Herpestes europunctatus europunctatus</i> |
| Feral cat | <i>Felis catus</i> |
| Feral pig | <i>Sus scrofa scrofa</i> |

Table 4.

ADDITIONAL MAMMALIAN SPECIES TO BE EXPECTED ON THE SITE

| | |
|----------------------|-------------------------------------|
| Hawaiian hoary bat | <i>Lasiurus cinereus semotus</i> |
| Roof rat | <i>Rattus rattus rattus</i> |
| Norway rat | <i>Rattus norvegicus norvegicus</i> |
| Polynesian rat | <i>Rattus exulans hawaiiensis</i> |
| European house mouse | <i>Mus domesticus</i> |

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FINAL REPORT

Prepared for
R. M. Towill Corporation
420 Waiakamilo Road
Honolulu, HI 96817-4941

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INTRODUCTION

Two races of tubenose seabird species are endangered in the Hawaiian Islands. Both the Hawaiian races of the Dark-rumped Petrel or Ua'u (*Pterodroma phaeopygia sandwichensis*, hereafter called the Dark-rumped Petrel) and the Townsend's Shearwater or 'A'o (*Puffinus auricularis newelli*, hereafter called Newell's Shearwater) are central Pacific forms of polytypic species in the tropical Pacific (American Ornithologists' Union 1983). The Dark-rumped Petrel was listed as an endangered species by the U.S. Fish and Wildlife Service (USFWS) in 1967 because it was in danger of extinction throughout all or a significant portion of its range (USFWS 1983, Harrison 1990); the Newell's Shearwater was listed as a threatened species by the USFWS in 1975 because it was likely to become endangered in the near future. Hence, populations of both species are small and highly vulnerable to any sources of excessive mortality of either young or adult birds. A third species, the Band-rumped Storm-Petrel or 'Ake'ake (*Oceanodroma castro*) is listed as endangered by the DNL and as a candidate species by the USFWS.

The endemic Hawaiian subspecies of the Dark-rumped Petrel was formerly very common on the Island of Hawaii (Wilson & Evans 1890-1899). This pelagic seabird species reportedly nested in large numbers on the slopes of Mauna Loa and in the saddle area between Mauna Loa and Mauna Kea (Henshaw 1902, Richardson and Woodside 1954), as well as the mid to high elevations of Mount Hualalai. Munro saw one on the ground in 1891 at 1370 meters (4500') in Honaunau, Kona (Banko 1980 a). The Dark-rumped Petrel was a food source of the Hawaiians, and bones of this species are common in ancient Hawaiian middens excavated in numerous locations on Hawaii (Banko 1980a). By the turn of the century the decline in this species had been noted by local residents, and by the early 1940's at least one observer, George Munro, feared for this species survival in Hawaii (Munro 1944). This species still nests in low numbers in the upper elevations of

Mauna Loa. The most recent record of this species in Puna were made by Banko in 1972 (Banko 1980b). This species was not detected during the course of this survey or any other recent ones in the Puna area (R. David, pers. obs.; M. Reynolds, USFWS, pers. comm.), however, Dark-rumped Petrels may transit the site on their way to nesting colonies on the upper slope of Mauna Loa.

Newell's Shearwater breeds on Kaua'i, and on Hawaii and Moloka'i in extremely small numbers. Newell's Shearwater populations have dropped precipitously since the 1880's and continue to decline (Banko 1980b, Ainley *et al.* 1995). This pelagic species nests in burrows excavated under thick vegetation. There are at least 2 nesting colonies in the immediate vicinity of the subject site. One near Heiheiuhulu some 4.5 kilometers northwest of the upper end of the site, and the other on Pu'ulena Crater which is located approximately 7 kilometers north east of the site. Evidence also indicates a possible flyway below Pu'u Kailu some 4 kilometers east of the site. It also is possible that there are colonies on Iliewa directly above the site and also on Kahuwai crater (R. David, pers. obs.; M. Reynolds, USFWS, pers. comm.; Banko 1980b). Given the proximity of two known nesting colonies in the immediate area and a possibility of others, especially on Iliewa Crater directly above the site, there is a likelihood that Newell's Shearwaters transit the site on their way to and from their breeding colonies.

Reasons for the declines of both species are not entirely clear, primarily because there are a number of potential causes. Introduced wild pigs (*Sus scrofa*) dig up and eat Newell's Shearwaters, wild pigs and goats (*Capra hircus*) trample nesting colonies (Sincock and Swedberg 1969, USFWS 1983), and introduced feral cats (*Felis catus*) and dogs (*Canis familiaris*) prey on both species (Richardson and Woodside 1954; Conant 1980; USFWS 1983; Simons 1984, 1985, Ainley *et al.* 1995). The introduced Indian mongoose (*Herpestes auropunctatus*), however, is believed to be the primary cause for

the declines of both species (USFWS 1983). Introduced Norway (*Rattus norvegicus*), black (*R. rattus*), and Polynesian (*R. exulans*) rats prey on nesting birds and eggs (USFWS 1983), and introduced Barn Owls (*Tyto alba*), endemic Short-eared Owls (*Asio flammeus sandwicensis*), and introduced Common Mynas (*Acridotheres tristis*) prey on eggs and birds (Byrd 1979, Byrd and Telfer 1980, Byrd and Moriarty 1981, Simons 1985, Ainley *et al.* 1995). Finally, avian malaria and avian poxviruses from introduced birds may have had a deleterious effect on populations of both species, particularly on populations that were nesting at low elevations (Sincock and Swedberg 1969, USFWS 1983, Simons 1985). Predation by introduced mammals, however, is thought to be the primary cause of extirpation of both species on most islands and is considered to be the major threat to the surviving populations at this time (USFWS 1983, Harrison *et al.* 1984, Harrison 1990).

A secondary threat to the survival and health of populations of these two species is their collision with utility structures and subsequent predation during the annual fallout of birds, primarily juvenile Newell's Shearwaters that are on their way to the sea for the first time (Hudley 1961, Telfer 1979, Sincock 1981, USFWS 1983, Reed *et al.* 1985, Telfer *et al.* 1987, Cooper and Day 1994, Ainley *et al.* 1995). "Fallout" is a term for the attraction of petrels and shearwaters to lights and consequent collision, exhaustion, or disorientation that brings these birds to the ground—they "fall out" of the sky. Attraction to or disorientation of birds by lights during fallout results in either the birds' dropping to the ground in exhaustion or their colliding with man-made structures, particularly powerlines and other utility structures (Reed *et al.* 1985, Telfer *et al.* 1987). Collision with powerlines may result in direct mortality or injury of birds (Anderson 1978, Malcolm 1982, Reed *et al.* 1985, Ruzs *et al.* 1986, Telfer *et al.* 1987, Cooper and Day 1994, Ainley *et al.* 1995). Downed birds may be injured only slightly and subsequently escape or may be killed by automobiles or by feral cats and dogs, which are abundant (USFWS 1983).

OBJECTIVES

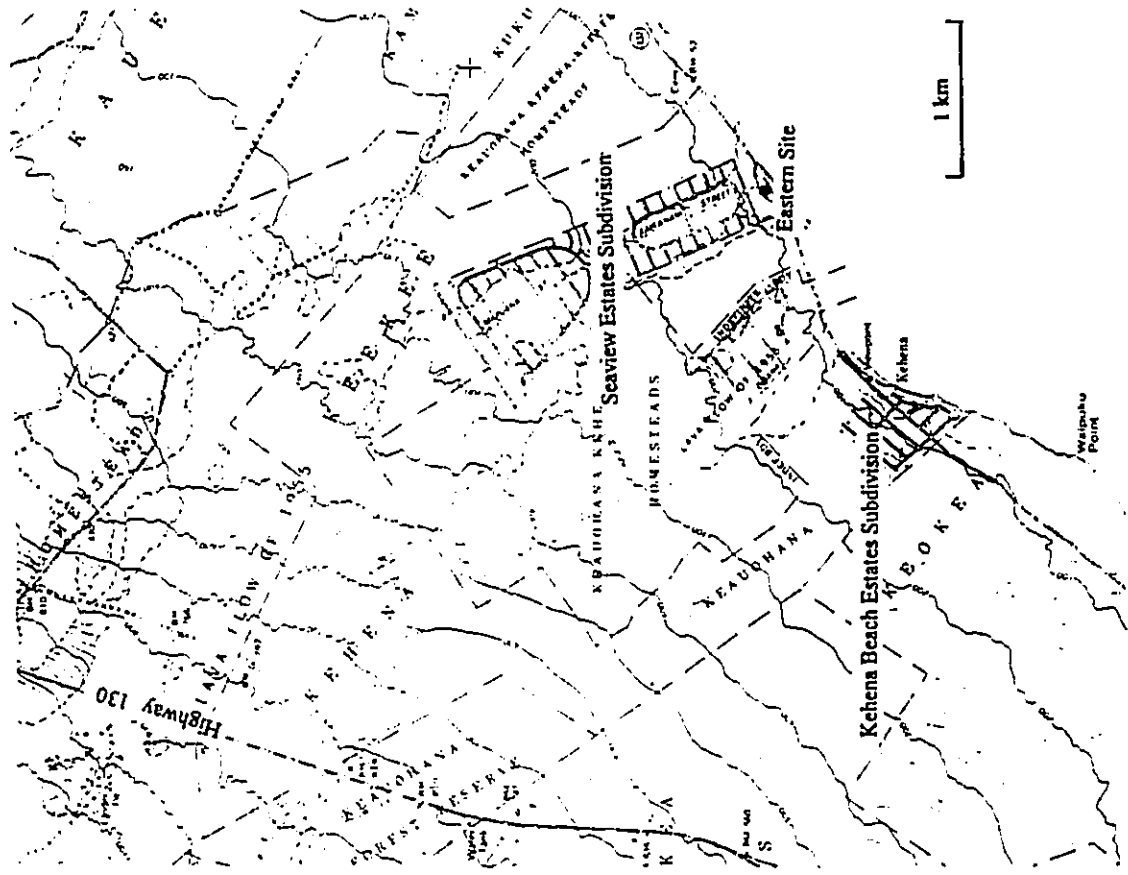
This report summarizes the findings of a four-day radar and visual survey of seabirds conducted along the proposed utility easement at Kehena, Keekehe Homestead, Puna, Hawaii, between 10 July and 14 July 1995. The purpose of the survey was to collect baseline information on seabird abundance and flight behavior over the proposed powerline route.

STUDY AREA

The project site is 2655 m long and 15 m wide, encompassing approximately 4 ha in Kehena, Puna District, Island and County of Hawaii. One of the proposed powerline corridors runs south from approximately mile marker 16 on Highway 130 across approximately 1200 m of undeveloped land and then through the Kalapana Seaview Estates Subdivision, ending at Highway 137 along the coast. The other proposed corridor runs east for approximately 1.5 km along Highway 137 from the Seaview Estates Subdivision to the Kehena Beach Estates Subdivision (Figure 1).

The area was surveyed from two locations. The first sampling location (i.e., Eastern Site) was located on the seaward side of the Seaview Estates Subdivision, near the community mailbox at the south end of Kaikanani Street (Figure 1). The second sampling site (i.e., Western Site) was located 4 km towards the southeast, at milepost 20.8 along Highway 137.

FIGURE 1.
SITE LOCATION MAP



METHODS

GENERAL SAMPLING STRATEGY

We conducted two types of sampling: surveillance radar and visual sampling (Table 1). Visual sampling was conducted concurrently with radar sampling. When sampling, we recorded standardized weather and environmental data at the beginning of each 25-min surveillance radar and visual sampling period. The standardized weather and environmental data were: wind speed (to the nearest 5 mph), wind direction (the eight ordinal points; e.g., from the N, NE, E), percent cloud cover (to the nearest 5%), cloud ceiling height (in height categories), visibility (maximal distance we could see), light condition (daylight, crepuscular, or nocturnal; with or without precipitation), light level (incident light reading on a Gossen Multi-Pro light meter, in lux), precipitation type (e.g., drizzle, heavy rain, none), and moon phase (phase and whether the moon was absent or present above the horizon).

RADAR

Equipment

Our mobile laboratory consisted of a small marine radar mounted in the back of a pick-up truck. This surveillance radar scanned the entire area around the lab and was used to obtain information on flight paths, movement rates, and ground speeds of petrels and shearwaters. A description of a similar radar laboratory can be found in Gauthreaux (1985a,b) and Cooper *et al.* (1991). The lab was powered by two 12-V batteries linked in series; when fully charged, these batteries could power the lab continuously for approximately 10 h.

Table 1. Dates, sites, and effort for surveillance radar and visual sampling near Kehena, Hawaii, during July 1995.

| Date | Sampling Site | Sampling Period (h) |
|------------|---------------|------------------------------------|
| 10-11 July | Eastern | 1900-2130 ¹ ; 0430-0600 |
| 11-12 July | Western | 1900-2130; 0430-0600 ¹ |
| 12-13 July | Eastern | 1900-2130; 0430-0600 |
| 13-14 July | Western | 1900-2130; 0430-0600 |

¹ Because of excessive rain, one or more sampling sessions were canceled.

The surveillance radar (Fununo Model FCR-1411, Fununo Electric Company, Nishinomiya, Japan) is a standard marine radar transmitting at 9410 MHz (i.e., X-band) through a slotted wave guide 2 m long; the peak power output is 10 kW. This radar can be operated at a variety of ranges from 0.5 km to 133 km. Pulse length can be set at 0.08, 0.6, or 1.0 μ sec, depending on the range setting used. At the shorter pulse lengths, echo definition is improved (giving more accurate information on target location and, hence, distance), whereas, at longer pulse lengths, echo detection is improved (increasing the probability of detecting a target). An echo is a picture of a target on the video display screen; a target is one or more birds that are flying so closely that the radar detects them as one echo on the display screen. This radar has a digital, color display with several scientifically useful features, including color-coded echoes (to differentiate the strength of return signals), on-screen plotting of a sequence of echoes (to depict flight paths), and True North correction for the display screen. A plotting function records the location of a target at selected intervals (15 or 30 sec or 1, 3, or 6 min). Because time intervals are fixed, ground speed is directly proportional to the distance between consecutive echoes and can be measured with a hand-held scale. In addition, an alarm function can be set to sound when echoes above a certain signal strength appear on the screen.

Whenever energy is reflected from the ground, surrounding vegetation, and other objects that surround the radar unit, a ground clutter echo appears on the display screen. Because ground clutter can obscure bird targets, we attempted to minimize it by elevating the forward edge of the antenna and by using a ground clutter reduction screen (described in Cooper *et al.* 1991). We also reduced ground clutter by parking the radar lab in locations that were surrounded closely by trees, buildings, or low hills. These objects acted as a radar fence that shielded the radar from low-flying objects farther away from the lab and that produced only a small amount of ground clutter in the center of the display

screen. For further discussion of radar fences, see Eastwood (1967), Williams *et al.* (1972), and Skolnik (1980).

Maximal distances of detection of birds by the surveillance radar depends on body size, flock size, flight profile, atmospheric conditions, and, to some extent, the amount and location of ground clutter. Individual hawks, which are of similar size to these petrels and shearwaters and which also fly singly or in very small flocks, usually are detectable to 2 km; single, small passerines are detectable to 1 km (Cooper *et al.* 1991).

Data Collection

We conducted radar sampling for 4 h/day between 10 and 14 July (Table 1). We operated the radar during the evening (1900-2130 h) and morning (0430-0600 h) peaks of movement. We could not collect data during periods of rain, because the adjustments required to remove the echoes of the precipitation from the display screen also removed bird-caused echoes. One or more 25-min sampling sessions were canceled because of rain during 2 of the 4 sampling nights.

During each hour of sampling, we operated the surveillance radar at the 1.4-km range for two 25-min sessions. Information recorded on targets seen on the surveillance radar consisted of: date, session number, time, direction of flight (to the nearest degree), tangential range (the minimal distance to the target when it passed closest to the lab; used in reconstructing actual flight paths if needed), transect crossed (the four cardinal points—000°, 090°, 180°, and 270°), species (if known), number (if known), flight behavior (straight, erratic, circling), and velocity (to the nearest 5 mph). To help eliminate species other than Dark-rumped Petrels and Newell's Shearwaters, we recorded information only on targets that had an air speed ≥ 35 mph (≥ 56 kph) and that flew only over land. A similar protocol was used by Cooper and Day (1994) and Day and Cooper (in press) to

eliminate non-target species from the radar data. We also eliminated three targets over the course of the study that had an air speed ≥ 35 mph, but were headed downwind and parallel to the coast. Based on target strength and on our experience elsewhere on Hawaii (Cooper, unpubl. data), we believe that these downwind targets probably were large moths.

VISUAL

We conducted visual sampling for 4 h/day between 10 and 14 July 1995 (Table 1). During daylight and crepuscular hours, we sampled with 10X binoculars, and at night we sampled with a 5X Noctron-V night-vision scope. Visual data also include any birds heard but not seen. We sampled during the evening (1900-2159 h) and morning (0430-0559 h) peaks of movement. The night-vision scope's performance was enhanced dramatically with indirect lighting from houses or street lights and with the use of a 1,250,000-candlepower spotlight.

During sampling, observers continuously scanned an area along the proposed coastal powerline corridor with the scope. Information recorded on birds seen during night-vision sampling consisted of: date, session number, time, species (to the lowest possible taxonomic unit; e.g., Newell's Shearwater, unidentified shearwater/petrel), number of birds, direction of flight (the eight ordinal points [e.g., toward the N, NE, E], plus circling and erratic behaviors), and flight altitude (in meters agl [above ground level]).

RESULTS

RELATIVE ABUNDANCE

Results of both the radar and visual surveys suggest that very low numbers of seabirds flew over the study area in the evening and morning hours (Table 2). Movement rates ranged from 0 to 1.6 on the surveillance radar and no seabirds were observed visually. We did make visual observations of a Hawaiian hoary bat (*Lasiurus cinereus semotus*) during the 12-13 July morning session and two bats during the 13-14 July evening session. All three bats were foraging.

FLIGHT DIRECTION AND LOCATION

All three radar targets observed from the Eastern Site were detected in the morning and all three were headed seaward (Table 3). The range in flight directions was small (i.e., 169° to 171°). These three targets all passed over the proposed powerline corridor 400 to 700 m west of the Eastern Site, which would have put the crossing point over or slightly east of Keheha. The only target observed from the Western Site was detected during the evening and was headed inland. That target crossed the coastal road approximately 600 m east of the Western Site.

FLIGHT ALTITUDE

No flight altitude data are available, because no birds were observed visually. Given such low densities of radar targets, however, it is not surprising that we did not have any visual detections.

Table 2. Summary of targets detected by radar and of seabirds and bats detected visually near Keheha, Hawaii, during July 1995.

| Date | Sampling Site | Time (h) | Targets/h (n) | Seabirds/h (n) | Bats/h (n) |
|------------|---------------|------------------------|---------------|----------------|------------|
| 10-11 July | Eastern | 1900-2130 ¹ | 0.0 (0) | 0.0 (0) | 0.0 (0) |
| | | 0430-0600 | 0.8 (1) | 0.0 (0) | 0.0 (0) |
| 11-12 July | Western | 1900-2130 | 0.5 (1) | 0.0 (0) | 0.0 (0) |
| | | 0430-0600 ¹ | 0.0 (0) | 0.0 (0) | 0.0 (0) |
| 12-13 July | Eastern | 1900-2130 | 0.0 (0) | 0.0 (0) | 0.0 (0) |
| | | 0430-0600 | 1.6 (2) | 0.0 (0) | 0.8 (1) |
| 13-14 July | Western | 1900-2190 | 0.0 (0) | 0.0 (0) | 1.0 (2) |
| | | 0430-0600 | 0.0 (0) | 0.0 (0) | 0.0 (0) |

¹ Because of excessive rain, one or more sampling sessions were canceled.

Table 3. Location and direction of each target detected by radar near Kehena, Hawaii, during July 1995.

| Date | Sampling Site | Time (h) | Location Relative to Site | Flight Dir. (°) |
|---------|---------------|----------|---------------------------|-----------------|
| 11 July | Eastern | 0512 | -0.7 km toward the SW | 171 |
| 11 July | Western | 1939 | -0.6 km toward the NE | 283 |
| 13 July | Eastern | 0435 | -0.4 km toward the SW | 171 |
| 13 July | Eastern | 0443 | -0.4 km toward the SW | 169 |

DISCUSSION

The low number of birds we observed was not unexpected, based upon the limited information currently available on nesting density of seabirds inland from the study site. Further, we suspect that most of the targets we observed were Newell's Shearwaters, rather than Dark-rumped Petrels, given the proximity of known nesting areas of Newell's Shearwaters at Heiheiulu and Pu'ulena Crater. Radar and visual observations at other coastal areas in Puna (e.g., Kapoho, Kahakai) also have suggested that the number of seabirds coming inland over the coast are relatively low (B. Cooper, pers. obs.). In contrast, radar and visual observations in the Waipio Valley of Hawaii and on the eastern and northern coasts of Kauai indicate that relatively high numbers of seabirds fly inland over those areas (Cooper and Day 1994; Day and Cooper, *in press*; B. Cooper, pers. obs.).

Given only four days of sampling, it is possible that the movement rates we observed were not representative of the true value. We believe that this scenario is unlikely, however, given the low variance in movement rates during the four sampling nights. Substantial among-night variation in evening movement rates was observed during radar studies of seabirds on Kauai, where a five-fold increase was seen at one site during June 1993 (Cooper and Day 1994; Day and Cooper, *in press*). This increase could have resulted from increasing numbers of nonbreeding birds visiting the colony as the season progressed. Our surveys at Kehena were done late enough in the breeding season that the proportion of nonbreeders probably already was high.

It is difficult to make any firm statements regarding the existence of flight corridors in the study area, given our low sample size of birds. Based on work elsewhere on Hawaii and on Kauai and on the uniform nature of the local topography, we believe that birds

cross over the area along a broad front and that the major feature that influences the position of seabird movements over the area probably is colony location.

Flight directions of birds were consistent with the pattern of birds moving inland during the evening and seaward in morning. A similar pattern of movement has been observed on Kauai (Cooper and Day 1994; Day and Cooper, *in press*). The morning flights we observed came from the NNW. Iilewa Crater is located approximately 6 km toward the NNW from the Eastern sample site. Perhaps there are birds nesting in that crater; to date, no surveys have been conducted to determine if seabirds breed in Iilewa Crater.

Along with number of birds, flight altitude is an important variable for determining the likelihood of bird collisions with proposed powerlines. Unfortunately, bird densities were so low during the course of this study that we did not obtain any flight altitude data (i.e., no visual observations of seabirds). Data from a similar study conducted on Kauai during summer 1993 may provide some insight into flight altitudes in the Kehena area, however (Cooper and Day 1994; Day and Cooper, *in press*). Two of the most heavily sampled sites on Kauai, Wailua and Kealia, were very similar to the Kehena area. Both sites were located within 100 m of the coast and were not directly adjacent to large mountains. At Wailua, mean flight altitudes (\pm SD) of all procellariids combined was 159 ± 95 m agl (above ground level) during the evening and 43 ± 28 m agl in the morning. At Kealia, mean flight altitudes of all procellariids combined was 93 ± 64 m agl during the evening and 37 ± 18 m agl in the morning. Assuming that seabird flight behavior is similar between the sites on Kauai and the Kehena site, these data suggest that the majority of seabirds in the Kehena study area may fly above the proposed powerline height (~ 15 m agl), especially during the evening hours.

Vegetation height also influences the potential for seabird collisions with powerlines. In Kauai, seabirds flying over the coast on their way to or from their colonies rarely if ever flew lower than the surrounding vegetation (Cooper and Day 1994). The area from approximately 0.6 km to 1.2 km west of the Eastern Site has a relatively dense forest that is approximately 15 m tall. It is unlikely that seabirds would fly within the canopy in that area and be exposed to the proposed powerline. The rest of the proposed powerline corridor along the coast has scattered trees, or low growing trees, where it would be possible for seabirds to fly at or below the powerline height.

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APPENDIX C
ARCHAEOLOGICAL RESOURCE ASSESSMENT

**REPORT ON MORTALITY RISK TO NEWELL'S SHEARWATERS AT HELCO
POWERLINE PROJECT, PUNA, HAWAII**

**ROBERT H. DAY, PH.D.
ABR, INC.
5 SEPTEMBER 1996**

SITE VISIT

I visited the HELCO powerline site on 14 May 1996 and on 18 June 1996. I was accompanied by Mr. Reginald E. David of Kailua-Kona on both occasions.

NW END OF POWERLINE

The powerline in contention intersects the existing HELCO powerline that lies along Highway 130 at Milepost 16.0. The study area encompasses the 1955 lava flow that goes down-slope to the sea. This lava flow covers essentially the entire area in question. Pu'u Kuliu lies a few km to the NE of this intersection. According to Mr. David, this pu'u lies on Bishop Estates land and is aggressively being mined for cinders; at the current rate of removal, this pu'u will disappear rapidly. To the WNW of this intersection lies two small unnamed pu'us that are visible and, behind them, Pu'u I'ilewa. Pu'u Heiheiahulu lies a few km to the W of these three pu'us.

At the upper end of the powerline in contention, the 1955 lava flow is covered in lichens, some small ferns, sparse, scattered ohia trees up to 3-4 m high, and some introduced plant species (orchids, sedges, and various weeds). This low, open growth of early successional ohia is called "scrub ohia," according to Mr. David. The powerline runs along the existing telephone right-of-way (which apparently was emplaced in 1986), with the two pole types (i.e., powerline and telephone) being situated adjacent to each other. A few of the scattered ohia trees are as tall as the phone line, but none are as tall as the powerline wires.

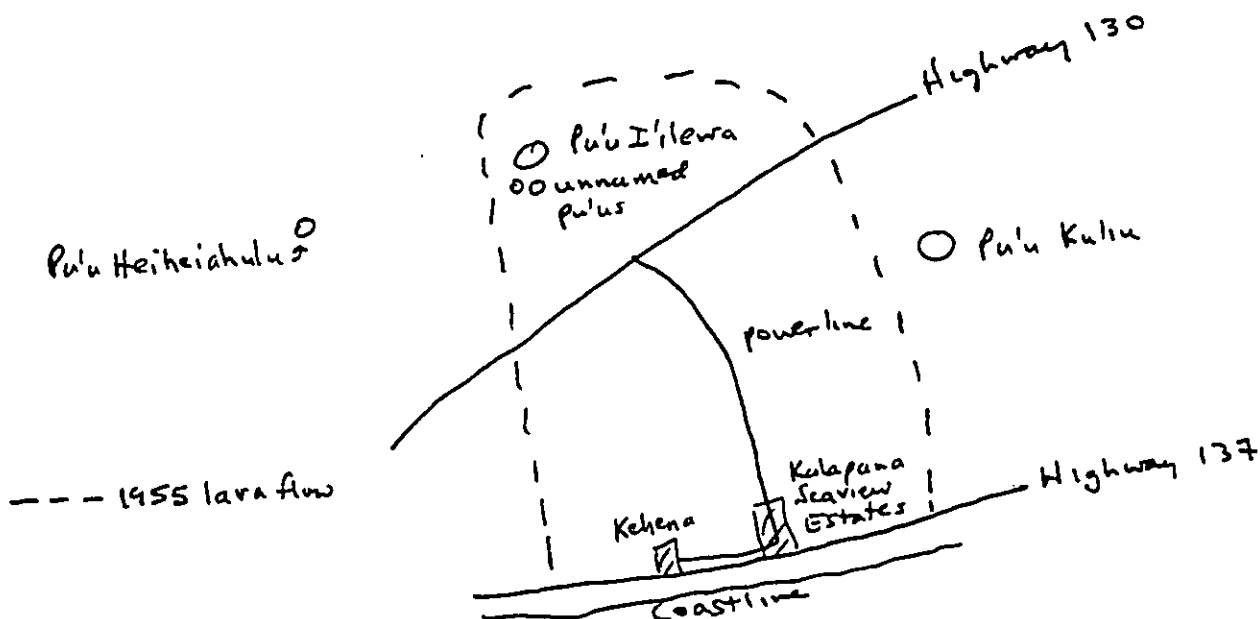
According to HELCO, the total powerline pole length is 40 ft (~12.2 m), with ~5 ft (~1.5 m) set in the ground, leaving ~35 ft (~10.5 m) above ground. The phone poles are 30 ft (~9.1 m) long, with 4 ft (~1.2 m) set in the ground, for a total above-ground height of 26 ft (~7.9 m). The top electric wires are about at the top of pole height (i.e., ~10.5 m above ground level [agl]), the ground line is ~2 m below the top lines (i.e., at ~8.5 m agl), and the phone line is ~2 m below the ground line (i.e., at ~6.5 m agl). The crossbar is near, but below, the top of the pole; because the electric lines are on insulators ~0.2 m high, however, they are located at about the top of pole height. There are three powerline wires on this crossbar. A few of the poles in the Kalapana Seaview Estates subdivision (hereafter, Seaview Estates) are 45 ft (~13.7 m) tall, with 5-6 ft (~1.5-1.8 m) set in the ground, for a total above-ground height of 39-40 ft (11.9-12.2 m).

While we were examining this site, Mr. David heard Amakihis, Melodious Laughing Thrushes, Spotted Doves, Zebra Doves, Common Mynahs, Japanese White-

Eyes, House Finches, 'Apapanes, Red-billed Leiothrixes, and Northern Cardinals singing or calling.

POWERLINE

From the intersection of this powerline with the existing powerline along Highway 130, this powerline runs downhill approximately to the ESE, then swings more SE to intersect the upper end of Seaview Estates. This downhill run of the powerline follows the slope of the land and runs through scrub ohia essentially the whole way to the subdivision. In the subdivision, it runs downhill toward the sea along Mapuana Avenue, which lies in the center of the lightly vegetated subdivision. At the bottom of the subdivision, it swings to the SW along N side of the "Red Road" (Highway 137). It terminates ~0.9 mi (~1.5 km) to the SW in the Kehena Beach Estates subdivision (hereafter, Kehena).



SW RADAR/NIGHT-VISION SITE

This radar/night-vision site actually occurred to the SW of the main part of the study area and to the SW of the SW end of the powerline in contention. It was located at Milepost ~20.8 along Highway 137. At the time Mr. Cooper and Mr. David sampled, no road had been pushed in on the uphill side of the sampling site; however, there is one now. The vegetation here is basically similar to that at the upper end of the powerline, except that there is a thicker understory (of grasses and beach heliotrope) at this site and that the ohias here are growing in higher density than they are at the upper end of the powerline and are mostly ~3-3.5 m high.

Mr. Cooper described this site as being very good for radar sampling: 8-9 on a scale of 1-10, with 10 being the best possible radar site. In an inland direction, a tall tree caused a pie-shaped radar shadow of perhaps 20°, but Mr. Cooper and Mr. David still

would have been able to see birds flying inland and seaward on either side of this shadow. There was little ground clutter overall, however.

For conducting night-vision sampling, Mr. David looked for birds crossing the road (i.e., to the NE and SW, or along the Red Road). In his opinion, the visibility was excellent. The erupting Pu'u 'O'o volcano created a nice background light for spotting birds to the SW in both the evening and morning, and the rising sun provided background light to the NE in the morning. There appeared to be little background light to the NE in the evening, however. Mr. David used the 1,250,000-candlepower spotlight everywhere after dark.

SW END OF THE POWERLINE

The powerline ends at 'Ole'ole Street in Kehena. In this area, there is heavy, tall vegetation—all introduced species (coconut, albezia, *Croton* spp., mango, magnolia, *Plumeria*, etc.). The vegetation is taller than the tops of the powerline poles in nearly all places. The powerline poles have been installed but have no crossbars installed or lines strung. There are telephone poles and lines here, however, with the new electric poles installed next to the existing telephone poles. This heavy, tall vegetation extends for ~0.3 mi (~0.5 km) to the NE along the Red Road, where it ends by the pullout by the nude beach (marked "Viewpoint" on the USGS topographic map). There are quite a few Black Noddies nesting in crevices in the cliffs by the beach.

KEHENA

Along the road and to the seaward of the road, there was heavy, tall vegetation that shielded the powerline. We did not drive into this subdivision to see what the line and vegetation layout were inland from the Red Road, but Mr. David's impression is that this subdivision is covered in tall vegetation.

RED ROAD

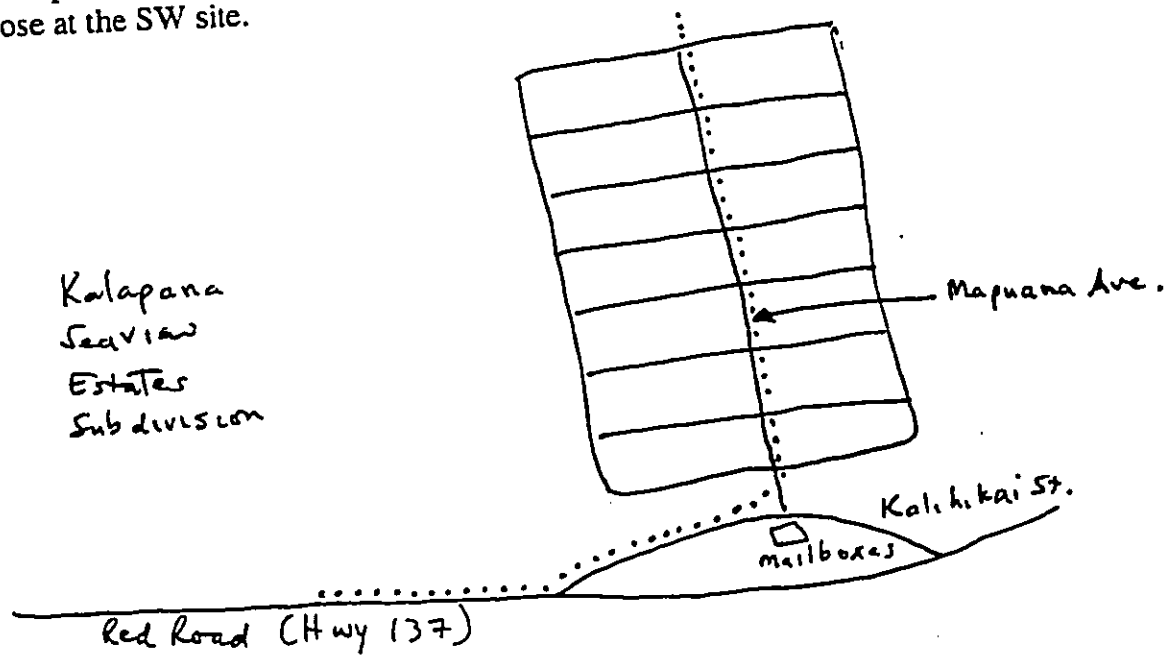
Of the ~0.9 mi (~1.4 km) of powerline along the Red Road, ~0.3 mi (~0.5 km) is in the heavy, tall vegetation at Kehena, leaving ~0.6 mi (~0.9 km) of powerline sticking out above the vegetation along this road. NE of the nude beach viewpoint, the vegetation is shorter and sparser (medium-tall ohia trees up to ~6 m high) than it was near Kehena; it also has a thick underbrush. After driving ~0.1 mi (~0.2 km) more to the NE along the Red Road, you get into low, scattered scrub ohia somewhat similar to that seen at the upper end of the powerline. This area also has ironwood (*Casuarina*) trees, however. It is here (i.e., ~0.1 mi NE of the nude beach viewpoint and ~0.4 mi NE of the end of the powerline at Kehena) that the powerline stringing was stopped, before it was strung in the heavy, tall vegetation near Kehena. In this area, many of the *Casuarina* trees already are taller than the powerline. Since these trees are fast growers (up to 1 ft [~0.3 m]/year; University of Hawaii Botany Department, *vide* Mr. David), they will grow even taller in the next several years and will obscure the powerline to flying birds along this next ~0.1-0.2 mi (~0.2-0.3 km) of road.

Driving to the NE from this spot to Seaview Estates, there then is a section of ~3 powerline poles that are completely exposed and well above the scrub ohia, then a section of ~5 poles just SW of Seaview Estates that are above the existing vegetation of shorter ohia and *Casuarina* trees and bare (unvegetated) 'a'a. However, the tops of some of these trees would appear nearly as high as the wires to a bird flying inland, for they are on small hills and knobs of 'a'a that make them stick up into the airspace higher than they would otherwise; however, this area is mostly bare 'a'a downhill from the powerline to the coastline (a few tens of meters). Thus, there is a stretch of ~0.3-0.4 mi (~0.5-0.6 km) of truly exposed powerline along the road, and some of it is not completely exposed because of the *Casuarina* trees on small hills. There were quite a few Black Noddies flying along this coastline.

NE RADAR/NIGHT-VISION SITE

This radar/night-vision site occurred at the bottom of Seaview Estates, by the mailboxes along Kalihikai Street. It is <100 m from the ocean. There are several buildings nearby and medium-tall (~5-7 m high) ohia trees nearby, to the SW. At this location, the nearby powerline is on a crossbar, with the phone line on separate poles below it. The subdivision is mostly unvegetated but has introduced vegetation around the scattered homes. Electric and phone lines run across the subdivision hillside on all streets.

At this site, Mr. Cooper and Mr. David parked the radar lab in the swale just downhill of the mailboxes, so they had a good radar fence in that direction. The radar screen also was clear to the NE, because of the slight rise there. Mr. Cooper also could see clearly on the radar screen uphill and over the ocean (he could detect boats on the water with the radar) and to the SW (low scrub ohias created a radar fence). Mr. Cooper described this site as 9 on a scale of 1-10, with 10 being the best possible radar site. There was very little ground clutter overall. Mr. David also had excellent visibility on the night-vision scope here, in that the area was primarily open and had lighting conditions similar to those at the SW site.



SEAVIEW ESTATES

Going uphill along Mapuana Avenue, you cross 17 streets that run across the subdivision hillside to both sides of the subdivision. At each of these streets, the numbers of powerline wires, ground wires, and telephone wires (respectively) running across the hillside and along these crossing streets are as follows:

- (1) Kalihikai Street: 3 (on crossbar)-1-1
- (2) Ka'eluika (spelling?) Street: 1-1-1
- (3) Moanauli Loop: 2 (on crossbar)-1-1
- (4) Lawaiinui Street: 0-0-1
- (5) Moanauli Street: 2-1-1
- (6) Ka'iwa Street: 1-1-1 (but just to NE, not to SW, of Mapuana Avenue)
- (7) Ko'aekea Street: 1-1-1
- (8) Akani Kolea Street: 1-1-0
- (9) Pohakupele Street: 2 (on crossbar)-1-1
- (10) Nahakulele Street: 1-1-1 (but just to NE of Mapuana Avenue)
- (11) Puulene Street: 1-1-0
- (12) Kehauopuna Street: 1-1-1 (but just to SW of Mapuana Avenue)
- (13) E'elekoa Street: 1-1-1 (but just to NE of Mapuana Avenue)
- (14) Moeniala Street: 1-1-1 (but just to SW of Mapuana Avenue)
- (15) Wehelaunui Street: 1-1-1
- (16) Pohakupele Street: 2 (on crossbar)-1-1
- (17) Kamoamo Street: 1-1-1 (but just to SW of Mapuana Avenue)

Within the subdivision, the powerline pole lines are ~10.5 m agl, and the telephone line is ~6 m agl. The crossing electric lines that come off this main line and follow the cross streets are between these heights and are ~9 m agl, with the ground line on these crossing lines below them at ~7-8 m agl.

At the upper end of the subdivision, the powerline pole lines are ~10.5 m high, the telephone line is ~6.5 m high (as at the upper end of the powerline). The overall placement and heights of the wires (both electric and telephone) are similar to those at the upper end of the powerline.

JULY 1995 SAMPLING

I reviewed several aspects of the July 1995 radar and visual survey that was conducted by Mr. Brian A. Cooper and Mr. David (Cooper and David 1995).

RAIN AND CANCELED SAMPLING SESSIONS

According to Mr. Cooper and Mr. David, only 3 of 32 sampling sessions were rained out, and 2 of those 3 were not completely rained out. Note that, in the 2 lost sessions on the night of 10-11 JL, they started sampling again as soon as possible after the rain stopped, to minimize the amount of sampling time lost.

- (1) the lost session at 19:35–20:00 (all darkness in this session) on 10–11 JL was lost when a rain squall came in off the ocean at 19:45. Because the rain was not heavy, Mr. David was able to continue the night-vision sampling without problem (but he did not see any birds). No radar targets were seen during the 10-min period when Mr. Cooper could sample with radar.
- (2) the lost session at 20:00–20:25 (all darkness in this session) on 10–11 JL was just heavy rain, so that neither Mr. Cooper nor Mr. David could sample.
- (3) the lost session at 05:35–06:00 (all daylight in this session) on 11–12 JL was just a very wet, low-lying cloud that the radar interpreted as rain, but it was not raining out. Mr. David was able to conduct the night-vision sampling (actually with binoculars at this time of day) without problem, but he did not see any birds. Mr. Cooper could not remember how far into the radar sampling he had to cancel sampling, but he saw no radar targets during the period he was able to sample.

GENERAL WEATHER

According to Mr. David, weather during his and Mr. Cooper's sampling generally was like that during our site visit on 18 JN 1996: partly cloudy with winds 1–5 mph out of the NE. During their sampling, they experienced winds out of the N during only 2 sessions and out of the NE the other 30 sessions. Winds during sampling were 1–5 mph during ~60% of the sampling sessions and were 6–10 mph during ~40% of the sessions.

EFFECTS OF WINDS ON FLIGHT SPEEDS OF BIRDS

Because winds were from the NE and, hence, cross-wind to the flight directions of these tubenoses, there should have been little effect on flight speeds. Further, because the winds also were light, there also should have been little effect on flight speeds. Finally, from my own experience and the experience of Mr. Cooper and Mr. David in watching large numbers of these birds flying inland and seaward, we all conclude that light–moderate winds have little effect on flight speeds of these tubenoses as they go inland and seaward to and from colonies: these birds simply compensate for this added wind if it is light–moderate. In addition, both of these species fly markedly differently at sea than they do on their way inland and seaward (when they fly directly and with greater speed than they do at sea).

FLIGHT SPEEDS OF BIRDS

According to the Cooper and David report, the minimal cutoff speed for radar targets was 35 mph. Note that this speed was greater than the 30 mph that we used at Kauai. Mr. David's memory was that 3 targets 30–35 mph were seen but not recorded because they were thought to be (1) a Wedge-tailed Shearwater flying parallel to the coast and just slightly inland, (2) a Black Noddy doing the same, and (3) an owl, based on flight direction and flight characteristics. None of these targets were flying in the direct seaward–inland direction that the tubenoses in question use, and none were flying in the same manner in which these tubenoses fly.

Mr. Cooper and Mr. David used 35, rather than 30, mph as the cutoff speed because of their experience in the Pohakuloa Training Area (PTA) of inland Hawaii, where they had been working just prior to the July 1995 HELCO sampling. At PTA, they switched to 35 mph because most moths there were going ~30 mph. Hence, to avoid problems with moths in the HELCO study area, they retained the minimal cutoff speed that they had used in PTA. In addition, they saw some moths in the HELCO study area, suggesting possible contamination of the radar data by moths there, so they wanted to avoid this contamination. (NOTE: A few moths may fly much faster than 30 mph if they are flying with a strong tailwind, but most fly up to about 30 mph with the winds that we have seen most often.)

Mr. Cooper and Mr. David did not include headwinds and tailwinds in correcting flight speeds. This correction was not done because, from experience, we have found that these birds generally adjust their flight speeds to adjust for variations in wind speeds (unless the winds are really strong and blowing as a direct headwind or tailwind) as they head inland or seaward. Because the flight speeds of birds were not corrected for wind speeds and directions and because flight speeds of moths would be increased by a tailwind, increasing the minimal cutoff flight speed to 35 mph also helped to eliminate contamination caused by moths.

OTHER TARGETS DISCARDED

Mr. Cooper and Mr. David discarded 3 radar targets ≥ 35 mph: one at 35 mph and two at 45 mph. They believed that all three targets were moths, based on the facts that their signal strengths were small and that they were flying parallel to the coast and, hence, in the direction of the wind (all were flying $\sim 230^\circ$). However, there was little insect activity in general at both of these coastal radar sites.

REASONS FOR ADDING THE SW SITE

Mr. Cooper and Mr. David expressed 4 reasons:

- (1) It was a different habitat from the NE site (it consisted of a denser ohia scrub than of the sparse ohia and lava at the other site), so more tubenoses possibly would use it.
- (2) There was essentially no tubenose action at the NE site, so they wanted to see if birds might be coming inland elsewhere (i.e., was there an anomalously low rate at the NE site?).
- (3) Birds flying into the Heihei ahulu colony probably were doing so somewhere along this coast.
- (4) The decision was to look elsewhere if you aren't seeing birds where you are sampling and want to discover if there are any birds in the vicinity.

PHYSIOGRAPHIC EFFECTS

Dave Ainley suggests that flight corridors of these tubenoses are caused by physiography of the area (Ainley et al. 1995). This claim is based on his few observations at Kauai. I generally agree with him that these birds sometimes use flight corridors, although the term flight corridor should be used carefully (more carefully than

he had used it), for birds on Kauai are flying inland in every location we visited—sometimes in great numbers—whether or not there are any physiographic characteristics that might concentrate them (Cooper and Day 1995). (In fact, I would be willing to predict that you would see birds flying inland and seaward anywhere on Kauai's perimeter road that you sampled with the radar lab.) This fact seriously weakens the claim of Dave Ainley that these birds use flight corridors extensively.

In addition to this fact, there are no physiographic characteristics in the Puna study area that would tend to concentrate flying birds, if one did accept Mr. Ainley's contention: there are no large rivers in or near the study area that are coming from far inland in the island, and there are no valleys at all. The area simply is a lightly sloping hill rising up from the ocean. On the other hand, there is a possibility that these birds are following the old lava flow on their way inland, but there is no evidence of any kind that these birds follow such landmarks or are able to follow such landmarks in the middle of the night.

PROBABILITY OF COLLISION

Anytime that you put up a structure in the airspace in which birds fly, there is a chance that a nocturnally-flying bird will collide with it. This fact is true of buildings, poles, wires (both electric and telephone), antennas, smokestacks, monuments, and other objects. However, the probability of collision with these electric wires in this study area would be so small that the mean collision rate would approach zero birds/year. There are several reasons for this conclusion:

- (1) The HELCO powerline primarily runs uphill-downhill for most of its length, so it primarily runs parallel to the primary flight direction of birds going inland-seaward.
- (2) That part of the HELCO powerline along the Red Road is located across the direction of flight of birds going inland-seaward. Most importantly, however: (a) it is short (~0.9 mi total); (b) almost half of it is located in vegetation that is higher than or about the same height as the powerline; (c) another part of it is by *Casuarina* trees that partially block the powerline and will do so even more in the next several years and (d) another part of it is by shorter ohia trees that are on small hills and stick up enough to block the powerline partially. Only a few tenths of a mile of this powerline along the road are completely exposed to flying birds.
- (3) The HELCO powerline height generally is ~10.5 m agl, or quite a bit lower than those powerlines on Kauai where birds were killed (>15 m—Ainley et al. 1995:31). (NOTE: These powerlines on Kauai were called 11-20 m high by Cooper and Day 1994 [page 87], but most were ~16 m high and a few were 30-m-high cross-island intertie powerlines. Further, the average height of powerlines on Kauai where Ainley and his coworkers found dead Newell's Shearwaters in the summer of 1994 was 22.6 m [Ainley et al. 1995, Table 9], or twice the height of the HELCO powerlines in question.) The height of the crossing lines in Seaview Estates is ~9 m agl, or also quite a bit lower than the powerlines where Newell's Shearwaters were killed on Kauai. In addition, the powerline in Kehena will be shielded by high vegetation, so it should not be dangerous to these birds. These much lower overall line heights will result in much lower mortality rates of tubenoses than both we (Cooper and Day

1994) and Ainley et al. (1995) saw on Kauai and, in my opinion, will approach the very low mortality rates that we saw for the lowest lines (~8 m) on Kauai (essentially zero birds/year).

- (4) The HELCO powerline is primarily in a horizontal configuration on a crossbar, which should drive mortality rates even lower than what we and Ainley saw on Kauai. The higher mortality rates on Kauai were seen at powerlines that were in a vertical configuration (i.e., with no crossbars) and that essentially "fished" the vertical airspace (Ainley et al. 1995, Table 9).
- (5) The fact that no one (particularly the community residents who have brought these legal suits) has recorded a dead tubenose of either species so far at any of these powerlines suggests that the collision of these birds is not a noticeable problem and reinforces our belief that mortality rates are so low that they will approach zero birds/year. This conclusion is reinforced by the facts that (1) these lines have been in place since January 1995 (nearly 1.75 years), yet no dead tubenoses have been found; and (2) no dead tubenoses have been found at the crossing powerlines and telephone lines that are located in the open space in Seaview Estates, which is mostly unvegetated and, hence, easy to spot downed birds in. Along these lines, Mr. David has interviewed some people from the Seaview Estates subdivision who claimed to have seen Newell's Shearwaters flying over this subdivision. After interviewing them and hearing their descriptions of birds, he concluded that their descriptions were those of Black Noddy terns, which commonly nest nearby in the sea cliffs.
- (6) There are so few birds in this area that the number of birds crossing this powerline each night probably is very, very low. It may take many years for even one collision to occur at the HELCO powerline in contention, given the facts that (a) on Kauai, we estimated that the average collision rate was 5,556 crossovers/collision (Cooper and Day 1994); (b) this estimate probably is an underestimate of the actual number of crossovers/collision, because we did not have collisions at most sites (i.e., if we had sampled at each site until one bird collided with a wire, we would have had many more crossovers/collision at many sites and, hence, a higher average); and (c) this collision rate occurred at both much higher powerlines than seen in the HELCO powerlines in question and at powerlines with a vertical (not horizontal) configuration.
- (7) We found the highest mortality of Newell's Shearwaters on Kauai to occur at powerlines ≤ 100 m from the coastline (Cooper and Day 1994:80-83). At the powerline in contention, however, only a short stretch (~0.9 mi) lies ≤ 100 m from the coastline (and some of that is hidden by tall vegetation), so little of this powerline is of the type where most Newell's Shearwaters are killed.
- (8) We believe that most of these tubenoses on Hawaii are nesting in the Kohala Mountains of NW Hawaii, not in the vicinity of this HELCO powerline. At the mouth of the Waipi'o Valley, movement rates in 1994 were ~140-150 targets/hour on radar (Day and Cooper, personal observation), or comparable to rates at sites on eastern Kauai (Day and Cooper 1995). Hence, few of the island's total tubenose

populations are flying in the vicinity of this powerline, so few stand a chance of colliding with its wires.

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AN ARCHAEOLOGICAL ASSESSMENT FOR THE PROPOSED
HAWAII ELECTRIC LIGHT COMPANY, INC.
(HELCO) ELECTRIC DISTRIBUTION SYSTEM IN THE
DISTRICT OF PUNA, HAWAII ISLAND
(TMK 1-2-08: Port. 3, 1-2-30; 1-2-31)

DRAFT

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Prepared for
R.M. Towill, Corp.

Cultural Surveys Hawaii, Inc.
1995

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INTRODUCTION

Cultural Surveys Hawaii, Inc. was contracted by R.M. Towill Corp. to provide an archaeological assessment for the proposed Hawaii Electric Light Company, Inc. (HELCO) overhead electrical distribution system for three subdivisions in the District of Puna (Figs. 1-3). The three subdivisions include Kalapana Seaview, Puna Beach Palisades, and the Kehena Beach Estates (Figs. 3 & 4). Portions of four (4) separate *ahupua'a*, Kamalii, Keekee, Kehena and Keauohana are within the assessment area. The distribution system includes a 8710 linear feet by 50 feet wide easement from Highway 130 to the *mauka* (north) edge of Kalapana Seaview Subdivision. Thus, the overall project area is inclusive of the easement, the three subdivisions, and pole locations on route 137 (Kapoho - Kalapana Highway) from Kalapana Seaview to Kehena Beach Estates (Figs. 3 & 4).

The scope of work for the archaeological assessment includes:

- 1) Historic background research to identify sensitive areas and previously identified archaeological sites as well as historic context and previous land use. This work will include discussion of the age of the lava flows and the implications for archeological sensitivity.
- 2) Fieldwork involving assessment level survey of the powerline route and the three subdivisions with special emphasis on the *makai* 5 acres.
- 3) Preparation of a report to include the results of the historic background research as well as fieldwork results.

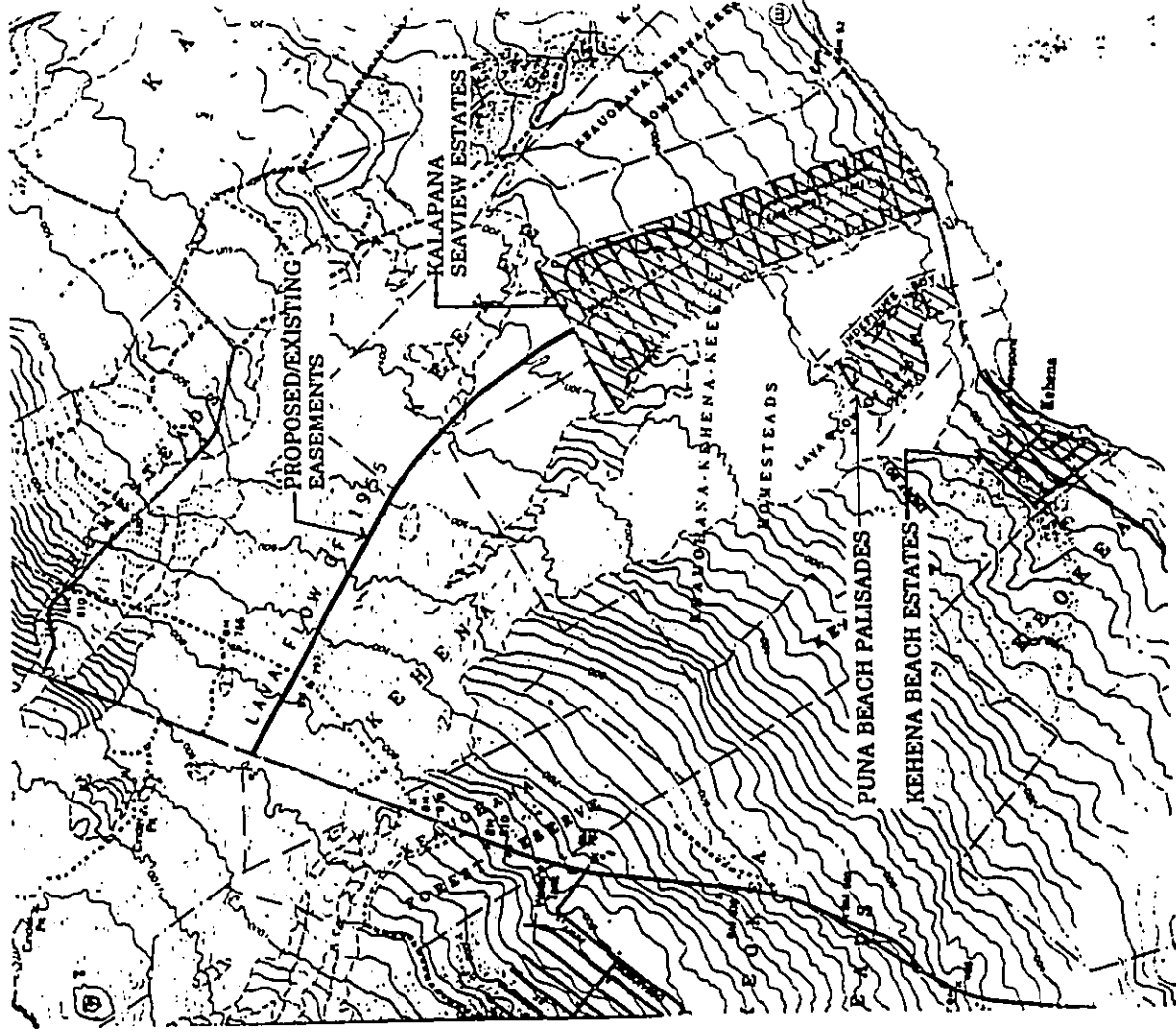


Figure 3 Portion of USGS, S. Pahoa Quad Showing Project Area

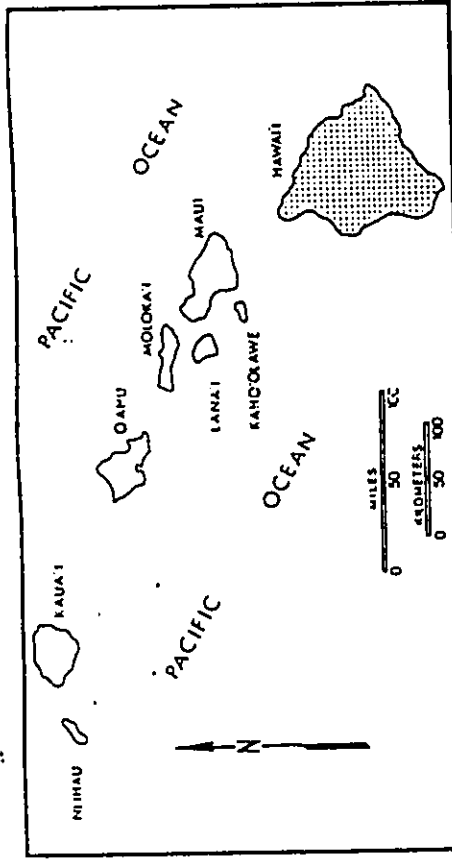


Fig. 1 State of Hawaii

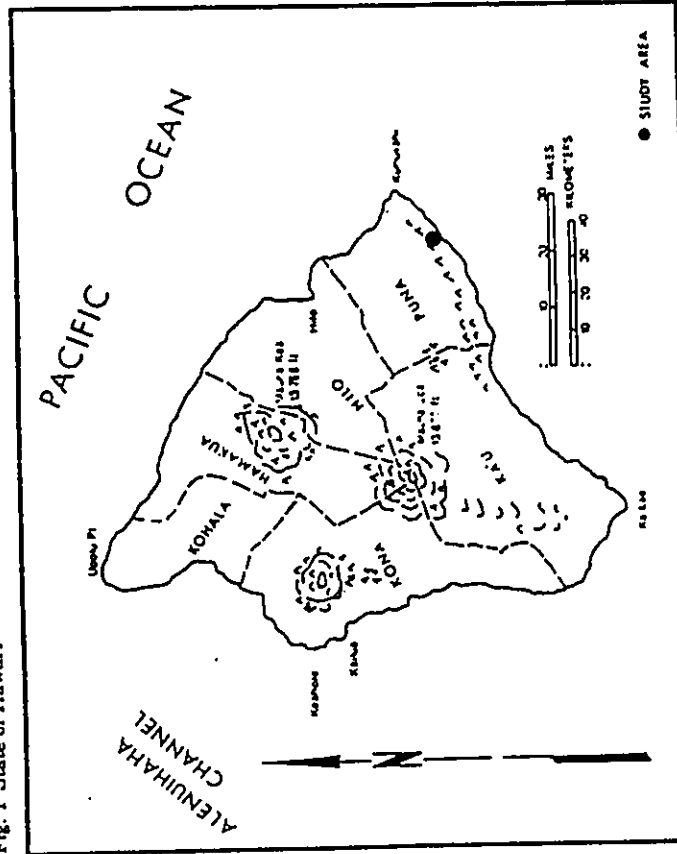


Fig. 2 General Location Map, Hawaii Island

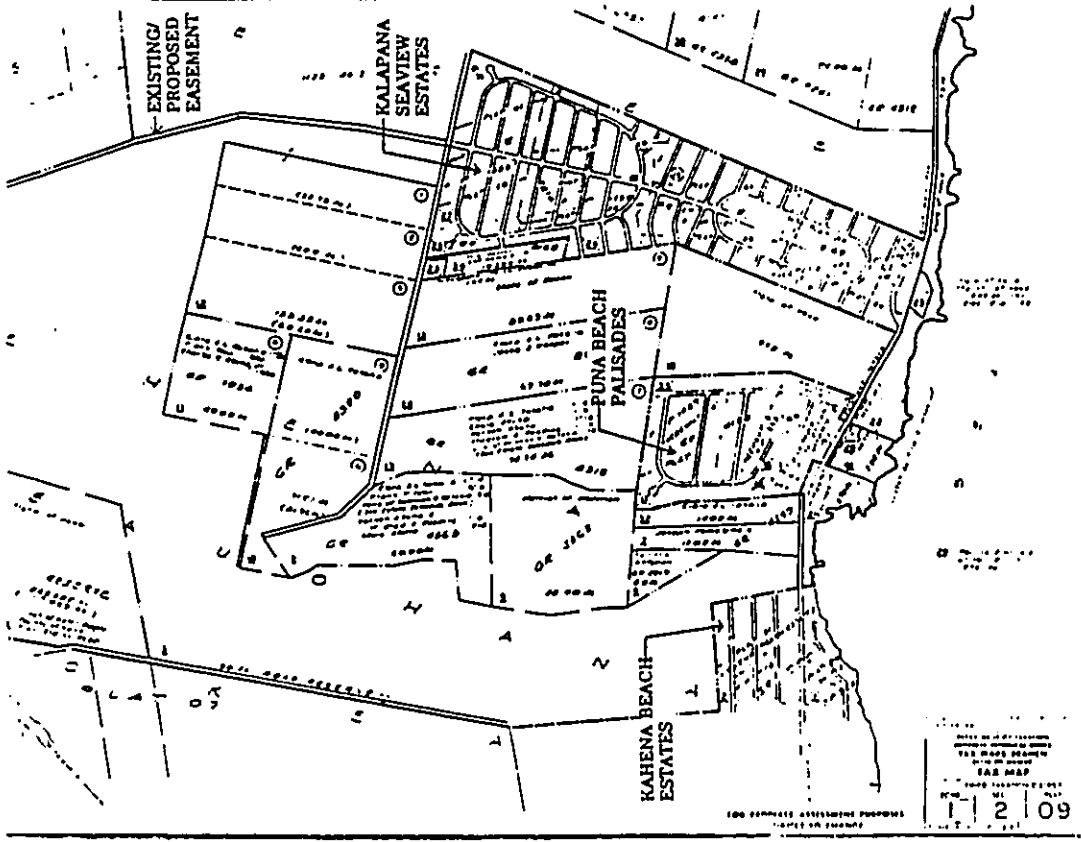


Figure 4 Tax Map Key 1-2-09, Showing Project Area

Environmental Setting

The majority of the project area is dominated by a 1955 lava flow. The easement extending from Highway 130 to Kalapana Seaview Estates is essentially entirely on the 1955 flow with only few hundred feet within an older vegetated *kipuka*. Kalapana Seaview Estates and Puna Beach Palisades subdivisions are also on the 1955 flow, except for the extreme eastern edge of Kalapana Seaview which is on older (ca. A.D. 1840-1950; Burtchard 1994) vegetated lava. Kehena Beach Estates is entirely within older (ca. A.D. 1250-1600; Burtchard 1994) vegetated lava.

The vegetation on the 1955 flow is sparse, consisting of lichen covering most of the surface with dispersed young 'Ohi'a trees. Vegetation within *kipuka*(s) and within Kehena Beach Estates is fairly dense with a wide variety of indigenous and introduced species.

PREVIOUS ARCHAEOLOGICAL RESEARCH

There have been general studies of the Puna area starting in the early 1900s with John F.G. Stokes surveys of major *heiau*; followed by an early 1930s survey of Eastern Hawaii Island by Alfred Hudson. In the 1960s Violet Hansen conducted surveys throughout Puna and in 1970 Virginia H. Loo and William J. Bonk compiled a list of the major significant sites in Puna. Since the early 1980s there has been a significant amount of research related to the Kilauea East Rift Zone's geothermal potential. These studies have been both specific project area surveys and general predictive model type research.

The archaeological background research(s) has identified a general zonal pattern for the Puna District. Recent research by International Archaeological Research Institute, Inc. (Burtchard 1994) has attempted to summarize archaeological and historic literature to better define the zonal pattern. The zonal pattern of land use and settlement that

would be representative of the project area *ahupua'a* includes: (1) coastal settlement zone, characterized by "highest density, variety and complexity of prehistoric surface features. Primary aggregations of residential, ceremonial, garden and associated features at sheltered embayments with adjacent inland agricultural soils" (Burchard 1994); (2) coastal margin agricultural zone characterized by "moderate to high density and variety of surface features spatially linked to coastal settlement and agriculturally productive sediments" (*ibid.*); (3) inland agricultural zone characterized by "moderate to low density of surface features linked to agricultural land use, possibly in isolated pockets of suitable agricultural sediments. Trails link agricultural areas with coastal settlements" (*ibid.*); (4) upland forest exploitation zone characterized by a "very low feature density consisting of isolated agricultural and short-term surface and lava tube residences" (*ibid.*).

Three of these zones, coastal settlement, coastal margin agricultural and inland agricultural would be represented within the overall project, if not for the 1955 lava flow and the subdivision and highway construction. The proposed easement extending *maka* from roughly the 900 ft. elevation would have, based on the above zonal pattern, traversed through the inland agricultural zone to the coastal margin agricultural zone. The three subdivisions are in what would have been the coastal settlement and coastal margin agricultural zones.

There are three archaeological studies that are of particular relevance to the present assessment which include: 1) Archaeological Reconnaissance of Proposed Kapōhō-Kalapana Highway (Bevacqua and Dye 1972); 2) Archaeological Reconnaissance Keauohana Ahupua'a, Puna, Hawaii (Cordy 1987); 3) Keauohana, Puna, Hawaii Island: Archaeological Reconnaissance of TMK 1-2-09:6 & 8 (Barrera 1993), all of which were taken into the field to be utilized during this assessment.

The reconnaissance survey data indicated that significant historic sites were present next to the Kapōhō - Kalapana Highway (#137) and just to the east and north of Keahena Beach Estates. The site adjacent to Highway #137 is a section of the "Keahena Beach Trail" (State site #50-10-55-2540) discussed in Violet Hansen's field notes, then subsequently described and given the State site number by Bevacqua and Dye (1972:22). The trail (which in our project area was overrun by the 1955 lava flow) section observed adjoining Highway 137 is located some 500-700 feet to the east of Kalapana Seaview Estates and is thus outside the project area.

The sites east and north of Keahena Beach Paliades subdivision were first described and given State site numbers (50-10-55-10,922 to -10,936) by Dr. Ross Cordy (1987). The sites included cemeteries, agricultural complexes and trails. However, none of these sites are within the subdivision and are thus outside of the present project area.

The review of previous studies indicated that no known sites were within the project area and that the archaeology within Puna and especially within the vicinity of the project area is dependent on two main factors: human induced disturbance and recent lava activity. Thus, only a very low site density was expected because the majority of the project area is recent (1955) lava and the remainder is within existing bulldozed areas of the three subdivisions or within the Highway #137 right-of-way.

SURVEY METHODS AND FINDINGS

The field survey was initiated at the *mauka* (northern) end of the proposed easement where it intersects Highway 130. The proposed easement, as mentioned previously, is actually an existing telephone line easement with a bulldozed road and existing poles (Figs. 5 & 6).

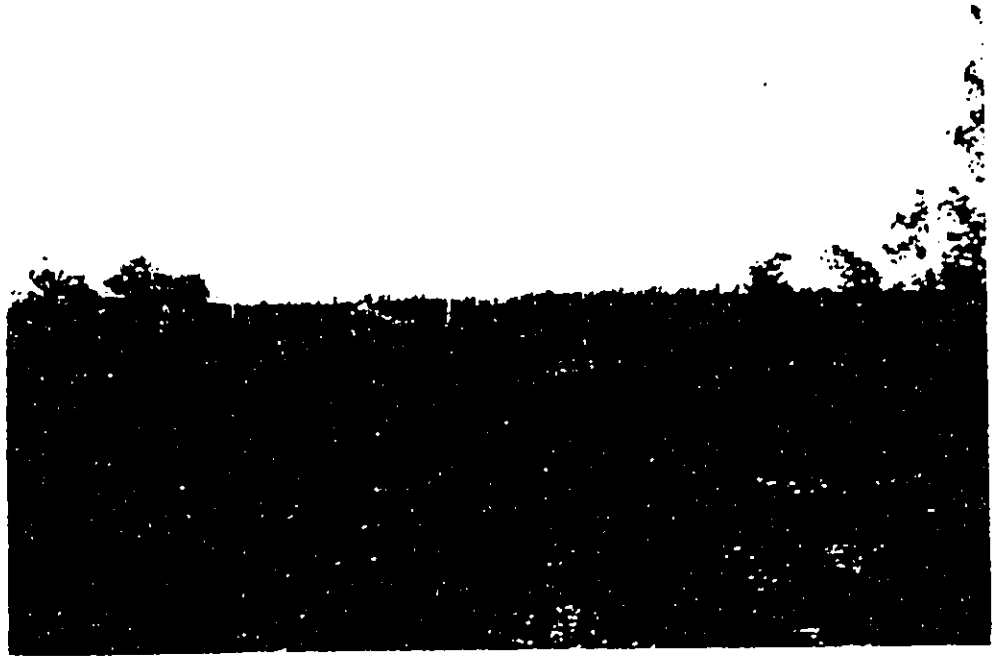


Figure 5 Proposed Easement Corridor, View *Makai*

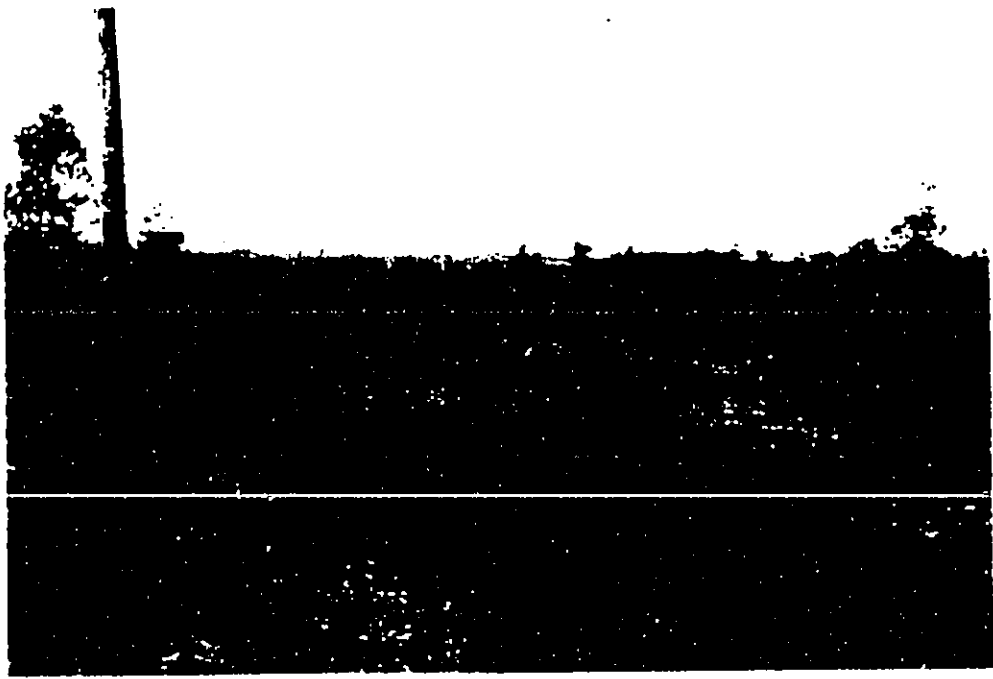


Figure 6 Proposed Easement Corridor, View *Makai*

Additionally, virtually the entire length of the easement is on the 1955 lava flow, except for a small *kipuka* near the *makai* end, some 2,000 feet *mauka* of Kalapana Seaview subdivision. Survey of the easement consisted of a combination of walking and driving. The *kipuka* area (Figs 7 and 8), near the *makai* end of the easement was specifically checked for historic remains. No historic sites of any kind were observed within the proposed/existing easement.

The next portion of the survey focused on Kalapana Seaview Estates. This subdivision has been entirely bulldozed with all main roads being paved. The proposed electric distribution poles are in place along the sides of the asphalt roadway system within the subdivision (Figs. 9 & 10). Survey of the subdivision consisted of driving along the existing roadways and checking on pole placements. Special attention was placed on the eastern portion of the subdivision because it consists of older (ca. 1840-1950; Burtchard 1994) more vegetated lava. No historic sites of any kind were observed within this subdivision which has been entirely altered for roadway and housing construction.

An area fronting the Kalapana Seaview Estates was walked to check for sites and possibly a remnant of the Kehena Beach Trail (-2540). The area, like the subdivision has been entirely bulldozed and is presently a maintained lawn (Figs. 11 & 12) with no historic sites.

Pole placements along the Kapōho - Kalapana Highway (#137) between Kalapana Seaview and Puna Beach Palisades subdivisions were inspected. The poles are all within the existing bulldozed right-of-way with no historic sites affected (Figs 13 & 14).

The Palisades subdivision was surveyed by the same walk/drive methodology as the electric distribution poles were already in place. Similar to Kalapana Seaview, this subdivision has been entirely bulldozed with poles placed along the edges of the paved



Figure 7 *Kipuka Within the Proposed Easement Corridor*



Figure 8 *Kipuka Within the Proposed Easement Corridor*

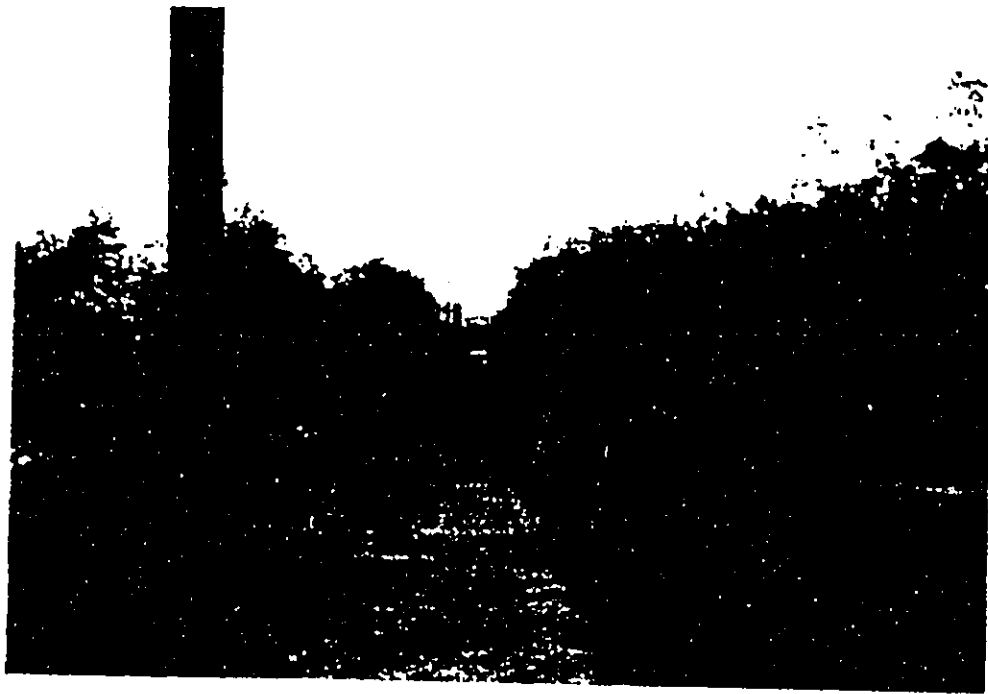


Figure 9 Kalapana Seaview Estates Roadway and Pole Placements

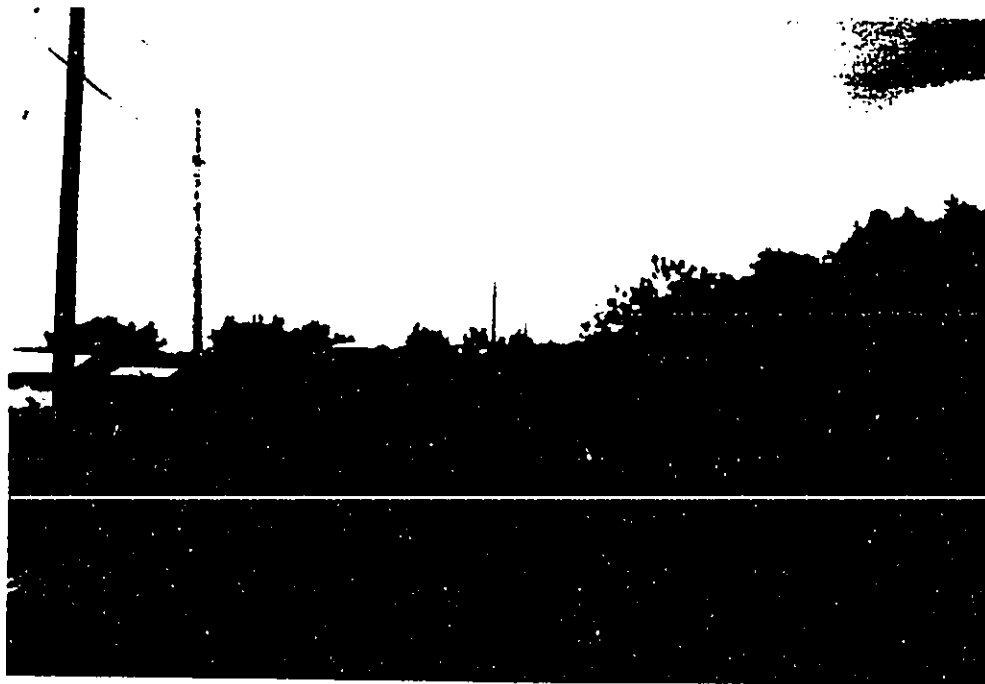


Figure 10 Kalapana Seaview Estates Roadway and Pole Placements



Figure 11 Area Fronting Kalapana Seaview Estates



Figure 12 Area Fronting Kalapana Seaview Estates



Figure 13 Pole Placements Within Highway #137 Right-of-Way



Figure 14 Pole Placements Within Highway #137 Right-of-Way

roadway system (Figs 15 & 16). No historic sites of any kind were observed.

Pole locations along Highway #137 between Puna Beach Palisades and the third subdivision - Kehena Beach Estates, were inspected. No historic sites were observed.

The survey within the Kehena Beach Estates followed the same procedures as the previous two subdivisions, except that a field check of previously identified sites (Cordy 1987) to the east of the subdivision was undertaken. The field check confirmed site locations and that apparently there has been major changes at least at the sites we observed. Sites visited included -10922, 10925 and 10926, a trail, agricultural complex, and cemetery respectively. We are assuming by the construction style, orientation and previous research that Trail Site 10922 is another section of trail Site 2540 (Bevacqua and Dye 1972). The trail is an impressive, well-constructed stepping stone trail oriented roughly parallel to the coastline. The trail is bulldozed out at the extreme eastern edge of the subdivision and thus pole placement has no adverse affect as they are on the edge of the existing paved roads.

No historic sites were observed within the Kehena Beach Estates subdivision which straddles (*mauka* and *makai*) a portion of Highway #137 (Figs. 17 & 18).

CONCLUSION

The archaeological assessment for the proposed distribution system included a review of pertinent literature. The literature indicated that no known sites were within the proposed easement, the three subdivisions, or along the coastal highway (#137) immediately fronting the subdivisions because of recent volcanism (1955) and subdivision and highway construction. Known sites were mainly to be found in Keauohana (Cordy 1987; Barrera 1993), except for a remnant trail section on the *makai* side of Highway

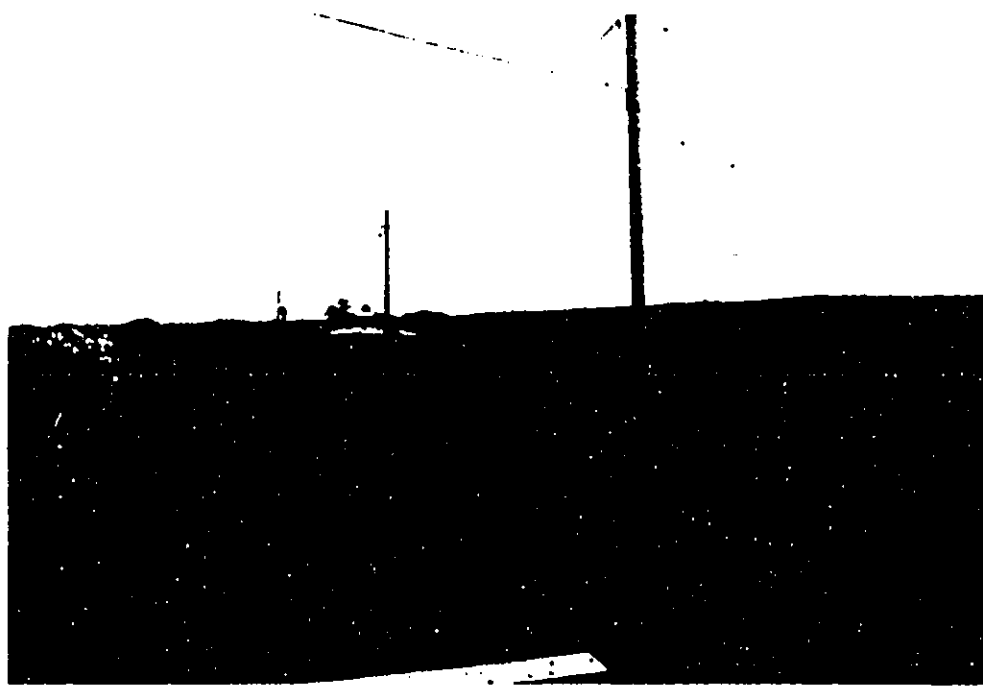


Figure 15 Puna Beach Palisades Subdivision - Typical Roadway and Pole Placements

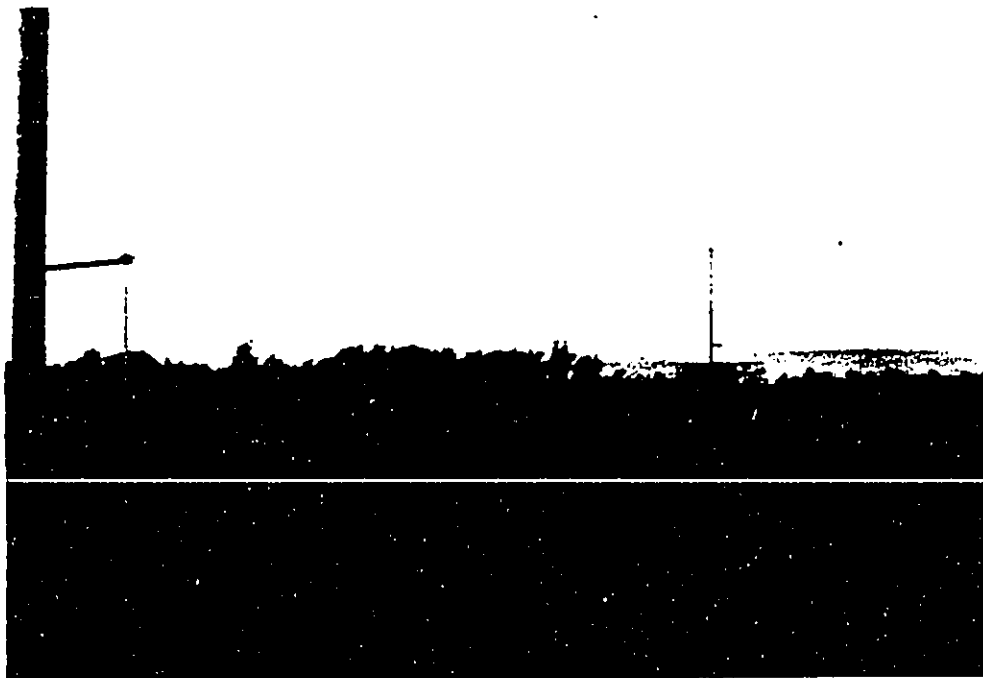


Figure 16 Puna Beach Palisades Subdivision - Typical Roadway and Pole Placements



Figure 17 Kehena Beach Estates, Sample of Pole Placements



Figure 18 Kehena Beach Estates, Sample of Pole Placements

#137 in Keekee Ahupua'a (Site -2540, Bevacqua and Dye 1972).

The field survey confirmed the absence of historic sites within the easement, three subdivisions and within Highway #137 right-of-way. During the survey actual pole placements were able to be inspected within the subdivisions and along Highway #137. Though no poles have yet been placed within the easement from Highway #130 to Kalapana Seaview Estates, virtually the entire length is on the 1955 lava flow and with no sites observed, no further archaeological is deemed necessary.

There is an absence of historic sites within our specific project area(s) and thus Cultural Surveys Hawaii, Inc. is recommending that no further archaeological work in necessary for the proposed HELCO Puna distribution system.

REFERENCES CITED

- Barrera, Jr., William M.
1993 *Keauohana, Puna, Hawaii Island: Archaeological Reconnaissance of TMK: 1-2-09: 6 & 8, Chiniago Inc., Kamuela, HI.*
- Bevacqua, Robert F. and Thomas Dye
1972 *Archaeological Reconnaissance of Proposed Kapoho-Kalapana Highway, District of Puna, Island of Hawai'i, Report 1972-3, Department of Anthropology, Bishop Museum, Honolulu.*
- Burtchard, Greg C.
1994 *Land-Use and Archaeology in Kilauea's East Rift Zone, Puna District, Hawai'i Island, International Archaeological Research Institute, Inc.*
- Cordy, Ross
1987 *Archaeological Reconnaissance Keauohana Ahupua'a, Puna, Hawai'i Island, Department of Land and Natural Resources, State Historic Preservation Division, Honolulu, HI.*

APPENDIX D

*JP 15683 AND
AGENCY CORRESPONDENCES*

April 8, 1993

Helco

Dave Murakami
Alvin Urabe
Charlene Hatada

Htco

Gordon Yadao
Norris Kami

Kehena Beach

Daniel Bona, President
Maya Dornes, Director

Subject: JP 15683 - SSPP Unit 71 - James Rauenhorst

Per conversations with Mr. Bona and Ms. Dornes, representatives from the Kehena Beach Association and SSPP Unit 71, it is understood that they, Unit 71, are requesting that all of the existing Hawaiian Telephone Company's poles be replaced and removed after Helco completes the installation of the proposed SSPP pole line project to serve the Kehena Beach Subdivision, Puna Palisades and Kalapana Seaview Subdivisions.

In order to accommodate this request, the telephone company stated that the costs to transfer their equipment and remove their poles must be paid by someone other than their company.

Based on discussions, the following have been agreed:

1. The Kehena Beach Association and SSPP Unit 71 representatives will submit a letter to Helco stating that the SSPP unit will pay for the telephone company's non-refundable joint pole shares and transfer and removal costs of their existing facilities.
2. Helco will resubmit JP 15683 to all joint pole parties.
3. The telephone company will accept resubmitted JP 15683 and provide Helco with their transfer and removal costs of their existing facilities.
4. Helco will mail revised cost proposal letters to all lot owners involved in this SSPP unit. This revised proposal shall include the telephone company's non-refundable joint pole shares and transfer and removal costs.
5. The telephone company shall transfer and remove their existing facilities within four to six months after Helco has completed its installation.
6. The SSPP Unit 71 shall pay only for the telephone company's non-refundable joint pole shares required for the transfer and removal of all telephone company's existing facilities and the transfer and

and removal costs.

7. The telephone company is required to apply and pay for joint pole shares when extending their facilities.
8. This agreement shall apply to this JP 15683 ONLY.

DOCUMENT CAPTURED AS RECEIVED

HAWAII ELECTRIC LIGHT COMPANY, INC.

Superseding Revised Sheet No. 32a
Effective July 1, 1991

REVISED SHEET NO. 32a
Effective January 1, 1992

RULE 13-S

LINE EXTENSION
SPECIAL SUBDIVISION PROJECT PROVISIONS
Existing Subdivision Lots

A. Applicability

1. Applicable to construction of overhead distribution lines to serve lots within qualifying units which shall include subdivisions recognized and approved by the County of Hawaii and developed prior to the enactment of the Hawaii County Ordinance No. 62 in 1967, or lots within such subdivisions which are without electric service.
2. This Rule 13-S shall be applicable to SSPP units to which SSPP Line Extension Agreements are mailed or delivered on or after January 1, 1992, or the effective date of the revisions proposed on October 21, 1991, as modified on December 2, 1991, whichever occur later.

B. General

1. The Company will construct, own, operate and maintain electric lines only along, upon and over public streets, roads and highways when it has the legal right to do so, and on public lands and private property across which it has otherwise obtained rights of way or other necessary rights satisfactory to the Company.
2. The Company may not expend more than \$3 million in any calendar year for line extension projects pursuant to this rule exclusive of system improvement costs without prior PUC approval.

C. Qualifying Units

1. The total unserved lots within a pre-1967 subdivision or qualifying unit shall be treated and referred to as an SSPP unit.
2. An SSPP unit shall have a representative, if practical, for the purpose of implementing the unit's line extension agreement with the Company. The unit's representative may be an organization or an individual who requested the line extension for the unit.

Docket No. 6884
Transmittal Letter dated December 2, 1991

HAWAII ELECTRIC LIGHT COMPANY, INC.

Superseding Sheet No. 32c
Effective September 20, 1987

REVISED SHEET NO. 32c
Effective January 1, 1992

3. The total cost of line extension shall include the SSPP unit's proportionate share of the previous Main Line Extension that will be used to serve such unit and which was paid for by previous SSPP unit(s). The Main Line Extension shall mean any primary distribution voltage lines and poles required to serve an SSPP unit from HELCO's electrical distribution system.
4. Where Hawaiian Telephone Company has installed a telephone-only line extension, the Company will normally build a separate electric line for its service. If the subscribers in an SSPP unit along a pre-existing telephone line extension request a joint pole installation, or if a joint pole installation is required by the Company for engineering or operating reasons, the additional cost for each joint pole installation plus any charges by Hawaiian Telephone shall be included in the total cost of the line extension project.
5. Subscribers within an SSPP Unit who sign an SSPP Line Extension Agreement with the Company before the unit's line extension is energized, may pay the full amount of the required Customer Advance or finance 90% of the Customer Advance (and the Additional Customer Advance) through the Company by executing a Promissory Note with the Company, provided that the Customer Advance to be financed shall be at least \$2,000 and shall not include the cost of Special Facilities. The Company may provide incentives in the form of cash payments or reductions in the Customer Advance to encourage existing and future SSPP subscribers to pay the SSPP Customer Advance in full, rather than finance the cost through the Company.
If a subscriber elects to finance 90% of the Customer Advance (and the Additional Customer Advance) through the Company:
 - a. The subscriber shall make an initial payment of 10% of the required Customer Advance.
 - b. The subscriber shall pay the remaining balance of the required Customer Advance by making a monthly payment to the Company for up to 30 years at 9% annual interest rate. If the amount financed is less than \$34 per month, the Company may modify the payment terms to provide for quarterly payments.
 - c. Payments received by the Company in excess of the subscriber's monthly payment as specified in the Promissory Note shall be applied to the principal balance.

Docket No. 6884
Transmittal Letter dated December 2, 1991

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HAWAII ELECTRIC LIGHT COMPANY, INC.

Superseding Sheet No. 32e
Effective September 20, 1987

REVISED SHEET NO. 32e
Effective January 1, 1992

- 2) A monthly payment for the remaining balance of the Customer Advance and Additional Customer Advance at an interest rate of 9% per year to be amortized over the remaining life of the original SSPP unit's loan period.

E. Additional Customer Advance

1. Any line extension within a subscriber's lot in an SSPP unit shall be provided by the Company when the subscriber makes an Additional Customer Advance to the Company for the full cost of the line extension within the subscriber's lot in excess of the standard service drop of 150 feet. This Additional Customer Advance shall be in addition to the Customer Advance required under Sec. D of this rule. The Additional Customer Advance may be financed by the Company under the same terms and conditions as are included in Paragraph D.5, above.
2. Subscribers connecting to a line extension within another subscriber's lot shall pay the proportionate share of the additional customer advance.

F. Refunds

1. If the sum of the Customer Advances, exclusive of interest from loans, received by the Company from all the subscribers within an SSPP unit including the proportionate shares of other SSPP units as well as the advance received from non-qualifying subscribers as defined in Section H of this rule connecting to the unit's line extension, exceeds the Company's total cost of the line extension, the Company shall refund the excess amount to the subscribers within the unit.
2. The proportionate shares of the Additional Customer Advance received from subscribers connecting to a line extension within another subscriber's lot as specified under Sec. E of this rule shall be refunded to the subscriber who made the Additional Customer Advance for such line extension.
3. Refunds, if any, shall be made annually in the first quarter of each applicable year to those subscribers on record as of December 31 of the previous year for a period of fifteen years following the year when the line extension is first energized.

Docket No. 6884
Transmittal Letter dated December 2, 1991

From: PLANNING DEPT.

808 961 8742

To:

10/24/96 13:36 P. 002

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J. JAMIN J. CAYETANO
GOVERNOR OF HAWAII



MICHAEL D. WILSON
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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DEPUTY
GILBERT S. COLOMA-AGARAN

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P.O. BOX 821
HONOLULU, HAWAII 96809

PLANNING DEPT.
COURT OF HAWAII

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

AUG 28 1996

Ref: IM-EL

The Honorable Virginia Goldstein, Director
County of Hawaii Planning Department
25 Aupuni Street, Room 109
Hilo, Hawaii 96720-4252

Dear Ms. Goldstein:

Subject: SSPP Unit-71 12.47/7.2 kV Overhead Distribution
System - Tax Map Key: 3rd/1-2-09: Portion of 3 and
1-2-30 to 1-2-41

We understand that the Hawaii Electric Light Company, Inc. (HELCO) is preparing an Environmental Impact Statement (EIS) for the subject transmission line easement project. Although the majority of the project area is through residential subdivisions under the jurisdiction of the County of Hawaii, a small portion of the project area is also located on land under the jurisdiction of the State of Hawaii, over an already existing State easement, which is identified as Tax Map Key: 3rd/1-2-09: Portion of 3.

Upon consultation with the Office of Environmental Quality Control (OEQC) and pursuant to Section 343-5(d), Hawaii Revised Statutes, we are requesting that the County of Hawaii Planning Department act as the approving agency and accept the responsibility of review and evaluation of impacts as they pertain to this affected land area under State jurisdiction. If you agree with this request, please indicate so by signing in the space provided and return this letter to our office.

Thank you for your attention to this matter. Should you or your staff have any questions, please call Eric Leong of our Land Division staff in Honolulu at (808) 587-0423.

Aloha,

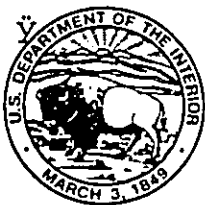
MICHAEL D. WILSON

cc: Hawaii Land Board Member
Hawaii District Land Office

WE CONCUR / DO NOT CONCUR

Virginia Goldstein
VIRGINIA GOLDSTEIN, Director
County of Hawaii Planning Department

9/5/96, 1996
Date



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Ecoregion
300 Ala Moana Blvd, Room 6307
P.O. Box 50167
Honolulu, Hawaii 96850

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FEB 17 1995

In Reply Refer To: DLB

Ms. Colette Sakoda
Project Manager
R. M. Towill Corporation
420 Waiakamilo Road, #411
Honolulu, Hawaii 96817-4941

Dear Ms. Sakoda:

The U.S. Fish and Wildlife Service (Service) has received your February 7, 1995, letter requesting information on the presence of federally listed, proposed, and candidate endangered and threatened species within the subdivisions of Kalapana Seaview, Puna Beach Palisade, and Kahena Beach Estates in Puna on the island of Hawaii. The proposed project will entail the installation of six 35-foot poles, 235 40-foot poles, 103 45-foot poles, one 55-foot pole, 155 anchors, and a 12.47/7.2 kilovolt overhead electric distribution line along an 8,710 foot long segment. The Service offers the following comments for your consideration.

The Service has reviewed the maps provided with your request and pertinent information in our files, including maps prepared by the Hawaii Heritage Program of the Nature Conservancy. To the best of our knowledge, the following federal trust species may occur within the vicinity of the proposed project: the federally endangered Hawaiian hoary bat or ope'ape'a (*Lasiurus cinereus semotus*) and the federally threatened Newell's shearwaters (*Puffinus auricularis newelli*).

Marine birds, and particularly their fledglings during the initial flights from higher elevations to the sea, can be affected by the construction of tall structures or the installation of bright lighting. Bright lights pose a potentially significant threat to these birds by causing them to become disoriented and colliding with objects such as poles, buildings, vehicles, etc. This must be taken into consideration during the project planning. A report concerning the effects of powerlines on seabirds suggests that, in order to avoid collisions of seabirds with powerlines, "orange marker balls" be used on the powerlines. We recommend you investigate the potential use of these "orange marker balls."

We appreciate your concern for endangered species and we look forward to reviewing any environmental documents generated for the proposed project. If you have any questions, please contact our Branch Chief for Interagency Cooperation, Ms. Margo Stahl, or Fish and Wildlife Biologist Diane Bowen at 808/541-2749.

Sincerely,

Margo Stahl
Acting
Brooks Harper
Field Supervisor
Ecological Services



United States Department of the Interior
NATIONAL BIOLOGICAL SERVICE

Hawaii Field Station
P.O. Box 44
Hawaii National Park, HI 96718
Phone: (808) 967-7396 FAX: (808) 967-8568

January 24, 1995

Colette Sahoda
420 Waikamilo Road
Suite 411
Honolulu, HI 96817

Dear Colette,

I reviewed the vicinity map for project unit 71 Rauenhorst EA. For your information, in 1993 and 1994 we did detect A'o or Newell's shearwater (a threatened species) in the vicinity of the proposed project. The data from our 1993 surveys will be available through the U.S. Department of Energy at Oakridge (Biological Surveys of the Geothermal Project Zone) in late February. The 1994 data is currently unpublished. You may want to contact the U.S. Fish and Wildlife Service at (808) 541-2749 and consider surveys specific to your project's needs. Our studies did not address utility structures specifically. Thank-you for your request for information on the A'o.

Sincerely,

Michelle Reynolds
Wildlife Biologist

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

RECEIVED
DIVISION OF
LAND MANAGEMENT
FEB 19 24 AM '83



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF STATE PARKS
P. O. BOX 621
HONOLULU, HAWAII 96809

SUSUMU ONG, CHAIRMAN
BOARD OF LAND & NATURAL RESOURCES

EDGAR A. HAMASU
DEPUTY TO THE CHAIRMAN

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LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

January 27, 1983

MEMORANDUM

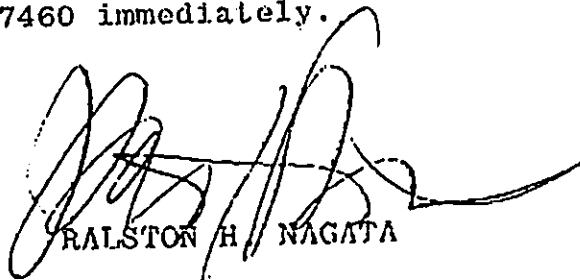
TO: Mr. Glenn Y. Taguchi, Hawaii District Land Agent
Division of Land Management

FROM: Ralston H. Nagata, State Parks Assistant
Administrator

SUBJECT: State Land Disposition
Pole Line Easement, Hawaiian Telephone
Keekee, Puna, Hawaii, TMK 1-2-09: por. 3

Our records do not indicate the presence of historical, cultural, architectural and/or archaeological resources on this property which are listed on the Hawaii Register and/or the National Register of Historic Places, or that have been determined eligible for inclusion on the National Register of Historic Places.

In the event that any unanticipated sites or remains such as artifacts, shell, bone or charcoal deposits; human burials; rock or coral alignments, pavings, or walls are encountered during construction, please inform the applicant to stop work and contact this office at 548-7460 immediately.


RALSTON H. NAGATA



Xc
2-2-83