

LIFE OF THE LAND

*Hawai'i's own local environmental and community action group
Protecting our fragile natural and cultural resources through
Research, Education, Advocacy & Litigation*

PUBLIC UTILITIES
COMMISSION

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BELT COLLINS HAWAII LTD.

Aloha,

Mahalo for this opportunity to review and comment on HECO's East O`ahu Transmission Project - 46 kV Phased Project Draft Environmental Assessment.

The mission of Life of the Land is to preserve and protect the life of the land through sustainable land use and energy policies and to promote open government through research, education, advocacy, and litigation. Life of the Land has been advocating for the people and the `aina since 1970. In that time we have reviewed hundreds of environmental documents and, sadly, this is one of the worst we have ever seen. The purpose of environmental review documents are to disclose the impacts of any proposed project.

Life of the Land wants to state for the record, that several community groups were contacted by Belt Collins asking for individual meetings. Being acutely aware of HECO's 100+ year 'Divide and Conquer' strategy, all groups refused individual meetings, but asked for a public scoping meeting instead. Life of the Land was one of those groups contacted. We asked that before this document was written, a public scoping meeting - to take place in the affected community - be held so that the community could define the issues that they wanted this document to adequately analyze. Belt Collins, we assume on behalf of HECO, refused to consider this option. This, unfortunately, only adds to the community's suspicion about this proposal. Wouldn't any good developer want to know the community concerns up front so that they could focus on those issue areas of concern to the community? Gathering community up front generally makes for a better project and a more cooperative effort.

The following thumbnail sketch of HECO's interaction with the community on this project will reveal that HECO's only concern is their bottom line.

- 1971: HECO proposes Halawa-Kamoku 138,000 volt transmission line
- 1973: HECO announced plans for a 138,000 volt power line to Pukele
- 1975: Under pressure by Rep. Ted Morioka (D-Palolo) HECO withdraws project
- 1977: HECO proposes project again
- 1979: Palolo community sues to stop the project
- 1980: * Palolo wins out of court settlement;
* HECO agrees that the line is not needed
* Palolo is declared an "Overhead Exclusion Zone"
- 1992: HECO resurrects project as Phase III of Archer-Pukele 138,000 volt line
- 1994: HECO withdraws project
- 1995: Environmental Impact Statement Preparation Notice (EISPN) is published for Kamoku-Pukele 138,000 volt transmission line
- 1997: * Act 95, widely supported by the community, is signed into law requiring HECO to consider "breadth and depth" of community sentiment in planning 138,000 volt lines
* Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board passes resolution against the project
* HECO goes to Waimanalo Neighborhood Board seeking support telling community that if they don't support the line, it may go through their neighborhood!
* HECO goes to Kaimuki Neighborhood Board seeking support for the need for the project
* Palolo Neighborhood Board passes resolution opposing the project on "no need" basis
* Kalihi Valley Neighborhood Board passes resolution opposing project
* HECO sends threatening letter to Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board warning that their resolution "violated HECO's contracts."
* HECO sends letter to Neighborhood Commission challenging the legality of Diamond Head/Kapahulu/St. Louis Heights and Kalihi Valley Neighborhood Boards' resolutions against the project
* HECO sends another letter to Neighborhood Commission protesting Palolo and Manoa Neighborhood Board's resolutions against the project
* Neighborhood Commission responds that no law had been violated by the Boards
* Life of the Land sends letter to T. Michael May asking that the 45-day EIS public comment period be extended to 6 months to review such a complex document
* HECO sends letter to Neighborhood Commission stating that the Manoa Neighborhood Board's Resolution violated the Sunshine Law because it was written through group effort

- 1997 cont'd.:
- * HECO (Kerstan Wong) replies to Life of the Land letter to Michael may saying that only DLNR could extend the comment period
 - * Neighborhood Commission Board meets to discuss HECO letter and sends formal letter to Corporation Counsel requesting clarification of the Board's role in responding to HECO
 - * The Environmental Council of OEQC passes Cultural Impact Guidelines to clarify how Environmental Impact Statements should assess cultural impacts
 - * Life of the Land sends letter to OEQC requesting clarification on extending comment periods for a Draft EIS
 - * HECO (Kerstan Wong) sends letter to Life of the Land apologizing for the error and saying they cannot extend time limit
 - * HECO writes letter to Rep. Scott Saiki stating that if HECO extended the comment period, then "a separate entity may subsequently challenge the 138 kV project by arguing that HECO violated the statutory process."
 - * OEQC responds that HECO and DLNR could jointly extend the comment period
 - * Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board passes a resolution asking for a six month extension on the public comment period for the DEIS
 - * Sens. Fukunaga, Ihara, Matsunaga and Taniguchi, along with Reps. Case and Saiki send letter to the Attorney General requesting clarification of HRS §343-5(c) in regard to voluntary expansion of the EIS comment period
 - * OEQC publishes a request by HECO to extend the comment period for the Malae Communications Tower (hours after agreeing to this extension, HECO challenges Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board's resolution for six-month extension on the public comment period for the DEIS
- 1998:
- * HECO issues copyrighted Draft Environmental Impact Statement
 - * Office of Environmental Quality Control (OEQC) rejects DEIS since Attorney General rules that public documents cannot be copyrighted
 - * HECO re-publishes DEIS without copyright
 - * Over 3,000 comments are submitted on DEIS
 - * HECO publishes Final Environmental Impact Statement (FEIS)
- 1999:
- DLNR rejects FEIS on substantive (rare species) and procedural (improper responses to reviewers' postcard comments) issues
 - * HECO publishes *Revised* DEIS
 - * 3,900 people respond to the RDEIS

- 2000
- * HECO publishes RFEIS
 - * DLNR accepts RFEIS with 27 page letter outlining their many concerns with this project
- 2001:
- * 'Ilio'ulaokalani Coalition, Life of the Land, The Outdoor Circle, and Karla Kral, a resident of Palolo file suit in Circuit Court challenging the adequacy of the EIS
 - * BLNR holds public hearing on HECO's CDUA in State Capitol Auditorium; community turns out hundreds - testimony runs from 6 PM - 2 AM; four groups ask for Contested Case Hearing - 'Ilio'ulaokalani Coalition, Life of the Land, Malama o Manoa, and The Outdoor Circle
 - * 3 parties file papers for Contested Case Hearing - Life of the Land, Malama o Manoa, and The Outdoor Circle
 - * Contested Case Hearing takes place over 7 days in November
- 2002:
- * February - Judge McConnell recommends that BLNR deny HECO's permit
 - * June - BLNR denies HECO's Conservation District Use Permit (CDUP)
- 2003:
- * HECO proposes 17th name for this project - East O'ahu Transmission Project (EOTP) and writes to parties in Contested Case Hearing and the press to say they heard the community
 - * HECO stages 5 community meetings in Waipahu, Kane'ohe, Honolulu, Kaimuki
 - * HECO hand picks Community Advisory Committee (CAC) and holds 2 meetings
 - * Seven groups and individuals file motions to intervene in the EOTP PUC docket
- 2004:
- * The PUC accepts Life of the Land and Elected Officials as intervenors, allows Malama o Manoa, Palolo Community Council, Ho'olaulima o Palolo, and Kapahulu Neighbors to 'participate' in the docket, and denies entrance to two individuals
 - * HECO hires Belt Collins to write their 'voluntary' Environmental Assessment
 - * Belt Collins then tries to set up private and individual meetings with each party that filed motions to intervene in Docket # 03-0417. All parties refuse individual meetings and propose a public scoping meeting, common when controversial projects are proposed. HECO refuses.

This sad history illustrates how HECO uses their power over the community. They use their political connections, as evidenced by their re-definition of renewable energy in the newly enacted Act 95, to push their fossil fuel agenda. They use these connections and their deep pockets (ours) to cajole, threaten, intimidate, and bully communities who oppose their plans.

So after in four decades, numerous Environmental Impact Statements, court cases, resolutions against the project passed by a plethora of Neighborhood Boards, comes EOTP - the 17th name for this proposal!

Section 1.3 - PURPOSE OF THIS DOCUMENT arrogantly states: *"HECO's decision to voluntarily prepare this EA was in response to requests made at the McCully/Mo`ili`ili neighborhood board meeting, continued public interest in HECO's Proposed Action, and the history of events leading up to this proposal, as discussed in Section 1.2."*

Life of the Land has never heard of a 'voluntary' EA. What section of law does this refer to? Below we have included the sections of law dealing with EAs and EISs.

§343-1 Findings and purpose. *The legislature finds that the quality of humanity's environment is critical to humanity's well being, that humanity's activities have broad and profound effects upon the interrelations of all components of the environment, and that an environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties and alert decision makers to significant environmental effects which may result from the implementation of certain actions. The legislature further finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole.*

It is the purpose of this chapter to establish a system of environmental review which will ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations.

Two relevant definitions are included for your edification:

§343-2 Definitions. As used in this chapter unless the context otherwise requires:

"Council" means the environmental council.

"Environmental assessment" means a written evaluation to determine whether an action may have a significant effect.

Life of the Land find no definition of a 'voluntary' EA anywhere in the Hawai'i Revised Statutes, and would appreciate your providing the guidance that lead to this determination.

If, however, there is no legal standing, why would an environmental consultant with the experience of Belt Collins issue a document that has no legal standing? Since when did complying with the law become 'voluntary'?

Chapter 343 HRS clearly states:

§343-5 Applicability and requirements. (a) *Except as otherwise provided, an environmental assessment shall be required for actions which:*
(1) **Propose the use of state or county lands or the use of state or county funds...**
(5) **Propose any use within the Waikiki area of Oahu, the boundaries of which are delineated in the land use ordinance as amended, establishing the "Waikiki Special District"**

Both §343-5 (1) and (5) are triggered by this proposal!

Another issue for Life of the Land is that an EA is presented when the applicant has a reasonable expectation of receiving a FONSI (finding of no significant impact). Does HECO actually believe that this cobbled together approach will have no impact? Ask the Board of Water Supply! They found plenty of iwi kupuna along their Kalakaua Avenue project. So did Wal-Mart, and the state even admitted that the burials were not confined solely to the inland Wal-Mart site and that some might even be found in roadways. The October 7, 2004 Honolulu Advertiser had a story in the Hawai'i Section, page B1 entitled, "Remains found at Waikiki Site," another inland site. Why does HECO believe that their project will have no cultural impacts in light of these recent discoveries? The cultural analysis in this flawed document is completely inadequate and Life of the Land believes that an Environmental Impact Statement must be prepared that adequately analyzes the cultural impacts of this proposal.

After speaking with many residents along the proposed route, Life of the Land asserts that the health impacts of this project have been understated and inadequately assessed. The affected community has many retired and elderly residents who were told that the proposed line would go down the middle of the street, away from their homes. They were then subsequently told that the line would be on the sidewalk, a mere 17 feet from some residences. This is a cause of great worry and concern to the area residents and Life of the Land does not believe that their concerns have been sincerely analyzed. The residents have told us that they are worried about the ingress and egress of emergency vehicles should the project move forward since several of their neighbors had medical emergencies in the last several months. How will HECO deal with emergency vehicles and personal vehicles needed to address medical emergencies? What liability will HECO bear if an ambulance or other medical personnel cannot get through during construction and a person dies? We understand that the loss of life can never be mitigated, but how will HECO compensate the family directly affected?

Some of these residents care for their grandchildren and are very concerned about the potential health impacts of a line close to their home where their young grandchildren sleep. What epidemiological studies will HECO conduct before, during and after construction? The residents have been told that the EMF exposure will be similar

to that of a household appliance, but they know that the line will be constantly energized, so that is not the same as the intermittent use of a household appliance. Does HECO have a doctor on staff to handle these concerns? If so, who is it? Please provide the name and contact information for this doctor. If HECO does not have a doctor on staff to handle these concerns, why not? This inadequate analysis of the community's health concerns lead Life of the Land to assert that an Environmental Impact Statement must be prepared to adequately address these serious concerns.

The intent of Chapter 343's 'Alternatives' means exactly that...what *alternatives* to building a power line are available, i.e. technology (renewable energy), conservation, energy efficiency, etc. Routing is NOT an alternative. Under the 'Alternatives' section of the law is the 'No Build' alternative, which must be fully explored. Life of the Land is insulted by the inadequate "Alternatives" section of this flawed document. The law required an honest review of all feasible alternatives, including the 'No Build' alternative. In HECO's PUC filing asking for the right to provide CHP, they admit that CHP is more reliable. Why then do they waste ratepayer money with more dinosaur projects? Life of the Land believes that a full Environmental Impact Statement must be done because of this inadequate analysis.

When they staged their dog and pony shows last summer, they led off with a meeting in Waipahu! A location in the communities directly affected by this proposal was not even considered by HECO. The area legislators had to push HECO to hold a meeting in Kaimuki. Is this their 'good neighbor' policy?

At these community meetings, there was overwhelming opposition to this proposal. Their only real ally was at the Kane`ohe meeting, by one of their retirees who has been their most loyal cheerleader. Even their hand-picked Community Advisory Committee did not support the option they are putting forth now. The business members of the CAC, including the Chamber of Commerce, the Hawai'i Hotel Association, the Waikiki Improvement Association, and the National Association of Industrial Owners of Property, all said that if the project was determined to be needed, they supported the cheapest option. That is not the option HECO chose. This confirms that HECO had already decided what they were going to do and the public meetings were just window dressing.

HECO's justification for this project has been a shell game....'it's about reliability', 'no, this line wouldn't make our system more reliable', 'yes it is about reliability.' Their reasons for doing this have constantly changed. Why?

At the Kaimuki public meeting, their justification was finally revealed. This project is needed so they can recover the \$17 million lost from their Wa`ahila Ridge debacle. They admitted that these costs were embedded in the planning and permitting costs for this proposal. Why should ratepayers bear the costs for their bad business decisions? This is immoral. This cost should be borne by HECO's shareholders.

With the price of oil hovering at approximately \$50 a barrel and HECO's infrastructure aging, Hawai'i is perfectly poised to transition to *real* renewable energy, thus diversifying our portfolio of alternatives. Life of the Land implores the PUC to look at this project in the context of Hawai'i today. Of course, to HECO, oil still costs on \$20-\$25 a barrel since they pass all costs over that onto the backs of their ratepayers in the Energy Cost Adjustment Clause. This is also why they have no incentive to get off oil -- they don't feel our pain...they just reap the benefits.

This ill-conceived project has been 'alive' in the HECO boardroom since the 60's, when it was first discussed. As a regulated monopoly (established to eliminate any competition from entering 'their' marketplace), HECO can recover their expenditures for projects they build if the PUC agrees now that it is 'reasonable' and 'in the public interest,' and then in the next rate case if its 'used and useful'. In this economy, that is an enviably good deal - the more they spend, the more they make. What this policy promotes is more building projects, which has resulted in HECO not being pro-active in their maintenance program. Why should they, maintenance costs them money they can't make a profit on! This is dangerous public policy and continues to work against the public interest.

The already over-burdened ratepayers of O'ahu have consistently asked HECO to maintain their infrastructure, while exploring innovative ways to provide electricity that will have fewer impacts.

They have spent over \$17 million just in the last 10 years to ram this project through communities that have united and resisted. WE ARE STILL UNITED. WE ARE STILL RESISTING. AND WE WILL CONTINUE TO DO SO.

After their embarrassing defeat in the Wa'ahila Ridge Contested Case Hearing they said they 'heard the community' and then went on to ask which route would you like? They heard us? Then which part of 'NO' didn't they understand. NO NEED. That was the mantra of the communities working to stop this incredible waste of Hawai'i's resources - economic, cultural, environmental, social, etc. They come back with a routing alternative?

At the PUC hearing for this project an engineer testified that HECO could replace their current wiring with copper wiring that would be more efficient and forestall the need to build anything more. The community has asked time and time again for HECO to maintain their lines, rather than to continue expanding with old technology. Why has HECO not considered these upgrades? What upgrade in technology was considered to meet this perceived need? Is this project a test to see if HECO can continue connecting all these manini segments to ensure a continuous revenue stream? Who recommended this project now and who rejected this option in the Kamoku-Pukele EIS?

"Kamoku-Pukele 46-kV Network Alternative. This alternative requires the configuration of the existing 46-kV subtransmission system to provide a transmission path between the Kamoku and Pukele Substations. ... a technical analysis of this alternative suggests that its implementation would greatly destabilize the power quality within the area and increase the number of transformer short circuits, voltage drops, and transmission line losses." **Hawaiian Electric Company: Final Revised EIS. See: East Oahu Transmission Project Exhibit 4 (2004)**

1. Does HECO believe that a 46-kV Network would destabilize (a) the power quality; (b) increase the number of transformer short circuits; (c) increase the number of voltage drops; and/or (d) increase the amount of transmission line losses within East O`ahu? If the above answers are generally in the affirmative, why is HECO pursuing this option? If the above answers are generally not in the affirmative then is HECO continuing to rely on the documents that said they are? If HECO changed their opinion, what new documents led HECO to change its mind? Please elaborate and give a full answer to these questions.

2. "This cultural impact analysis has relied on archival sources made up primarily of native and foreign testimonies that were recorded in the **mid-1800s.**" (Appendix C-2: Cultural Impact Statement. Section 5, page 33, line 1) Why did HECO rely on testimonies primarily from the pre-electrical era?

3. Did HECO consult with any Native Hawaiian Civic Clubs regarding cultural impacts? If so, which group and when?

CONCURRENT ACTION: Federal Register: June 14, 2004: The U.S. Army Corps of Engineers and the State of Hawaii Department of Land and Natural Resources will prepare an Environmental Impact Statement (EIS) for the alternatives and potential impacts associated with the Ala Wai Canal Project Feasibility Study. This effort could result in a multi-purpose project being proposed under Section 209 of the Flood Control Act of 1962 (Pub. L. 87-874) and will incorporate both flood hazard reduction and ecosystem restoration components into a single, comprehensive strategy.

The federal Ala Wai Canal EIS will be completed in 2005 (EOTP EA pages 5-6 through 5-7) HECO will complete Phase 1 of the EOTP in 2007 (including constructing Subtransmission Lines between the Kamoku Substation and the Pukele Subtransmission Line #4), (EOTP Draft EA ES-1; Figure 2-2, page 2-3) remove and relocate part or all of Pukele Subtransmission Line #4 between the Kamoku Connection and the Waikiki Substation in 2007 (EOTP EA pages 5-6 through 5-7), and complete Phase 2 in 2009 (EOTP Draft EA ES-1). The Draft EA notes that the Pukele Subtransmission Line will be relocated fronting Kai`olu Street. The map, located in another section of the Draft EA, has mislabeled the relevant streets.

4. The electrical route from the Kamoku Substation to the Waikiki Substation consists of two segments, both of which HECO plans to install in 2007. How come one is analyzed in this EA, while the other is not even included in the EOTP DEA secondary or cumulative impacts section?
5. What different voltages did HECO consider in relocating the Pukele Subtransmission Line #4?
6. What different technologies did HECO consider in relocating the Pukele Subtransmission Line #4?
7. What would be the benefits and costs associated with simultaneously replacing the Pukele Subtransmission Line #4 with two or more subtransmission lines?
8. What would be the benefits and costs associated with simultaneously replacing the Pukele Subtransmission Line #4 with one transmission line?
9. What would be the benefits and costs associated with simultaneously replacing the Pukele Subtransmission Line #4 with one subtransmission line and one transmission line?
10. Does HECO or its contractors ever trim trees on the ground above underground lines? Does HECO or its contractors ever use herbicides on the ground above underground lines? What aboveground maintenance is performed for underground lines which lie below unpaved surfaces?

The document lists a number of separate projects which are somehow linked together into one EOTP project. But there is no information on why (from a reliability, load, critical load, etc. perspective) that each one is included as a piece of something bigger.

11. For each of the following: (1) Downtown Transmission Service Area Load; (2) Koolau/Pukele Transmission Service Area Load; (3) Central O`ahu Transmission Service Area Load; (4) West O`ahu Transmission Service Area Load; (5) Pukele Transmission Service Area Load; and (6) The Total Island Load, please answer the following questions

- (a) What is the minimum night-time load?
- (b) What is the average night-time load?
- (c) What is the maximum night-time load?
- (d) What is the minimum day-time load?
- (e) What is the average day-time load?
- (f) What is the maximum day-time load?
- (g) What is the minimum evening load?
- (h) What is the average evening load?
- (i) What is the maximum evening-time load?

12. Costs: engineering costs, accounting costs, regulatory costs, etc. (a) Do the costs associated with different option include just engineering costs or all costs? (b) If all costs are included, what percentage is used by the Company for (1) the interest rate; (2) the discount rate? (3) carrying charge? (c) Do the costs differentiate between utility installation and third party installation? If so, please elaborate. (d) Are the costs calculated for (1) construction? (2) operation? (3) maintenance? (4) removal? (e) Are the costs calculate from a given number of years, or the average costs over the lifetime of the option? (f) Is the cost of fuel for different options considered?

13. Does HECO consider that most solar-thermal, solar-electric, combined heat and power systems, and wind energy systems use land as part of a multi-use, that is, they do not require vacant land?

14. (a) What percentage of the load could be reduced through cost-effective energy efficiency measures? (b) What percentage of the load could be reduced through load shifting measures?

15. Are most outages in Waikiki caused by problems with transmission, subtransmission or distribution circuits?

16. What time of day do blackouts usually happen at?

17. Are blackouts more common at night, during the morning, during the day or during the evening peak?

18. HECO listed several substations that will be upgraded as a result on this project. They include: the Kamoku, Kapahulu, Kuhio, Waikiki, `Ena, Kewalo, Makaloa, and McCully Substations. HECO states that these substations need upgrading. With regard to each of these substations, please explain the following:

(a) Will upgrades at one of these substations have a greater impact on load, reliability, critical load, etc. than improvements at another substation?

(b) What are the relative cost benefits for each substations improvements?

(c) How does the Substation improvements fit into the project?

(d) What is the total cost and benefit for each Substation segment?

(e) What technologies were considered for this project?

(f) When did HECO first consider implementing this improvement? Please provide a list of all HECO documents that make reference to this substation.

(g) Would there be any kind of benefit to installing a 138-kV Line to this substation? If so, please elaborate?

(h) Would strengthening (increasing the number of, increasing the capacity of, increasing the voltage of) the subtransmission and/or distribution lines from this station improving reliability concerns?

(i) Would strengthening (increasing the number of, increasing the capacity of, increasing the voltage of) the subtransmission and/or distribution lines from this

station improving overloading concerns?

(j) What are the reliability metrics for this substation?

(k) What would be the cost & benefit of the EOTP if all components of the EOTP were built except for this Substation improvement?

(l) Would the Pukele Substation Reliability Concern be impacted? If so, how? Would the Downtown Substation Reliability Concern be impacted? If so, how?

(m) Would the Koolau/Pukele Overload Situation be impacted? If so, how? Would the Downtown Overload Concern be impacted? If so, how?

(n) What segment of the population would remain vulnerable to overload and/or reliability issues if this one segment were not built but everything else was built? Why?

(o) Using Generally Acceptable Accounting Procedures, what is the total cost of this segment (including the interest payments)?

(p) What is the interest rate and discount rate used by the utility in pricing out alternatives? Does HECO consider only the cost of the infrastructure (lines, on-site generation)?

(q) How does the utility account for differences in the price of fuels (oil, sunlight)?

(r) When did this proposed segment first appear in any engineering study? Please provide a copy of that document.

(s) When did this proposed segment first appear in HECO's Capital Expenditure Budgets filed yearly with the PUC? Please provide a copy of that document.

(t) When did this segment first get discussed in the Integrated Resource Planning process? Please provide a copy of that document.

(u) How many customers receiving power from this substation have been talking to the utility about ways of decreasing their need for grid-based electricity through on-site generation, efficiency devices and conservation measures? (measured in number of customers, or percent of customers, or load, or percentage of load)

(v) What is the size (in acres) of the substation? What are the restrictions as to the acreage that buildings/ infrastructure could be built at the substation? What are the restrictions as to the height that buildings/ infrastructure could be built at the substation?

(w) How much could the substation be expanded (acres, height, number of distribution lines, number of transmission lines, number of subtransmission lines, transformers? Could photovoltaic be installed at the site?

(x) The Gas Company has an urban underground gas pipeline in the area -- how close is the nearest gas line? Could on-site generation be built at the site? Please elaborate and include discussion on size (MW), acreage, reliability, load impacts of on-site generation?

(y) Has HECO considered expanding capacity between this substation and other substations in Waikiki? If not, why not?

(z) Has HECO considered expanding capacity between this substation and other substations in Waikiki? If not, why not?

19. For the Winam Subtransmission Line ((brown line, EOTP DEA Figure 3-2); the Subtransmission Line along Pumehana et al (yellow line, EOTP DEA Figure 3-2); and the Kamoku Subtransmission Lines (green lines, EOTP DEA Figure 3-2), please explain the following:

- (a) How does the segment fit into the project?
- (b) What is the total cost and benefit for just the segment?
- (c) What other routes were considered for this project?
- (d) What other technologies were considered for this project?
- (e) When did HECO first consider implementing this segment?
- (f) Please provide a list of all HECO documents that make reference to this segment.
- (g) What would be the cost & benefit of the EOTP if all components of the EOTP were built except for this segment? (1) Would reliability increase for anyone? If so, for whom? (2) Would the Pukele Substation Reliability Concern be impacted? If so, how? (3) Would the Koolau/Pukele Overload Situation be impacted? If so, how? (4) Would the Downtown Substation Reliability Concern be impacted? If so, how? (5) Would the Downtown Overload Concern be impacted? If so, how? What segment of the population would remain vulnerable? Why?
- (h) Using Generally Acceptable Accounting Procedures, what is the total cost of this segment (including the interest payments)?
- (i) What is the interest rate and discount rate used by the utility in pricing out alternatives?
- (j) Does HECO consider only the cost of the infrastructure (lines, on-site generation)? How does the utility account for differences in the price of fuels (oil, sunlight)?
- (k) When did this proposed segment first appear in any engineering study? Please provide a copy of that document.
- (l) When did this proposed segment first appear in HECO's Capital Expenditure Budgets filed yearly with the PUC? Please provide a copy of that document.
- (m) When did this segment first get discussed in the Integrated Resource Planning process? Please provide a copy of that document.

20. Power Factor (Average Usage): What is the power factor (or average use or average percent of capacity used) on the Downtown transmission and subtransmission grids? What is the power factor in the Kamoku transmission service area?

21. In the downtown area, can future overload issues be deferred through locating power conditioning systems (such as ElectroFlow, www.electroflow.com/) at Transmission Substations, Distribution Substations and/or for major loads?

22. In the downtown area, can HECO increase reliability and/or defer new load requirements through the addition of harmonic filtering, surge suppression, transient suppression, etc at Transmission Substations, Distribution Substations and/or for major loads?

23. In the Kamoku transmission service area, can future overload issues be deferred through locating power conditioning systems (such as ElectroFlow, www.electroflow.com/) at Transmission Substations, Distribution Substations and/or for major loads?

24. In the Kamoku transmission service area, can HECO increase reliability and/or defer new load requirements through the addition of harmonic filtering, surge suppression, transient suppression, etc at Transmission Substations, Distribution Substations and/or for major loads?

25. In the downtown service area, are some transmission components less effective due to excessive heat?, and in turn, is this affecting power quality in the area?

26. What are the benefits of increasing the power factor in a transmission service area?

27. Can power needs be reduced through the installation of capacitors at strategic points on the distribution system?

28. Would the additional of capacitors at transmission/distribution substations improve power quality and reliability?

29. Can T&D efficiencies be improved so as to decrease the need for new load (capacity)?

30. Has HECO analyzed power factors on its transmission system?

31. Has HECO investigated the potential for increasing the use of capacitors and/or capacitor banks on its transmission system?

32. What is the relationship between power factor and capacity?

33. Regarding the March 3, 2004 outage: (a) What steps have been taken, but have not been finished, that need to be completed to prevent the recurrence of such an outage? (b) What steps have not been taken, but need to be completed to prevent the recurrence of such an outage?

34. HECO (2004): "Pukele Substation serves about one-sixth of Oahu's power demand" (a) Does this statement mean that the Pukele service area accounts for one-sixth of HECO's total electricity produced in a typical year? (b) Does this statement mean that the Pukele service area accounts for one-sixth of HECO's total electricity produced in the one hour period when the island system is peaking? (c) Does this statement mean that the Pukele service area accounts for one-sixth of HECO's total electricity produced in the one hour period when the Pukele service area is peaking?

35. HECO (2004): "For noise, contractors will be required to abide by Department of Health noise permits and variances" What are the typical variances that HECO requests for this type of construction?

36. HECO (2004): "HECO has also met and continues to work closely with the descendents of the Hawaiian families who are associated with the ahupuaa in which this project lies to gain their insights and hear their concerns." (a) Which ahupuaa are you referencing? (b) Which Hawaiian families are you consulting with?

HECO (2004): "With respect to the facilities of other utilities, HECO would coordinate scheduling with those agencies to minimize construction in the same area at the same time." (a) Doesn't it make more sense the coordinate construction with other agencies to maximize construction in the same area at the same time? (b) If more than one agency performs simultaneous construction, wouldn't (1) the total construction time go down?; and (2) the total cost of construction go down?

Mahalo for this opportunity to submit our comments. We look forward to your complete responses to our concerns.

Sincerely,

Dated October 8, 2004



Henry Q Curtis
VICE PRESIDENT FOR CONSUMER ISSUES
LIFE OF THE LAND

Certificate of Service

I hereby certify that I have this date delivered a copy of the foregoing Life of the Land's Questions re HECO's Draft Environmental Assessment, Docket Number 03-0417, upon the following parties. I hand delivered the original and 8 copies to the PUC, two copies to the Consumer Advocate, one copy to each of the following: the Office of Environmental Quality Control, Belt Collins Hawaii, Hawaiian Electric Company and Goodsill Anderson Quinn & Stifel.

I have also emailed a copy to all parties and participants.

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