

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of )  
)  
PUBLIC UTILITIES COMMISSION )  
)  
Instituting a Proceeding to Investigate )  
Distributed Generation in Hawaii. )  
\_\_\_\_\_ )

Docket No. 03-0371

PUBLIC UTILITIES  
COMMISSION

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FILED

KAUAI ISLAND UTILITY COOPERATIVE'S RESPONSES TO THE  
COUNTY OF KAUAI'S INFORMATION REQUESTS ISSUED JULY 28, 2004

AND

CERTIFICATE OF SERVICE

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COOPERATIVE

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COMES NOW, KAUAI ISLAND UTILITY COOPERATIVE, by and through its  
attorneys, Oshima Chun Fong & Chung, hereby submits its Responses to the County of  
Kauai's Information Requests issued July 28, 2004.

DATED: Honolulu, Hawai'i, August 18, 2004.



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Attorneys for KAUAI ISLAND UTILITY  
COOPERATIVE

**KAUAI ISLAND UTILITY COOPERATIVE'S RESPONSES TO THE  
COUNTY OF KAUAI'S INFORMATION REQUESTS  
DOCKET NO. 03-0371**

**COK-KIUC(T-2)-IR-1**      Reference: Exhibit no. KIUC-T-2, page 2, lines 8-11. "If DG is built by KIUC's customers on Kauai, this customer owned and interconnected DG will likely have a significant impact on operations and system stability due to lightly loaded feeders."

- a.      Does the entire KIUC system consist of "lightly loaded feeders"?

**Response:**

Generally speaking, most of KIUC feeders are lightly loaded when compared to the feeder loads experienced by many utilities on the mainland, which is largely due to the infrastructure build out that occurred after Hurricane Iniki in 1992.

- b.      If DG is built by KIUC's customers on highly loaded electric feeders, wouldn't the DG system be beneficial to the KIUC system? State the reasons for your answer.

**Response:**

Generally speaking, there may be benefits to a DG system installed on a heavily loaded feeder when the DG is running. However, engineering analysis would have to be done to determine the impact to the feeder when the DG unit is down for scheduled or unscheduled maintenance and whether any necessary upgrades would be required to the feeder to maintain voltage stability. Additionally, the installation of DG to a KIUC feeder, especially one that is heavily loaded, may require a reconfiguration or modification of KIUC protection and coordination requirements and operating practices, potentially increasing costs.

**Sponsor:**

Mike Yamane  
N. Richard Friedman

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**COK-KIUC(T-2)-IR-2**      Reference: Exhibit no. KIUC-T-2, page 2, lines 11-15. The immediate concern for KIUC as it relates to customer owned DG seems to be lost revenues as it relates to possible increased rates or a decrease in patronage refunds/credits.

a.      What is KIUC's projected load growth over the next 5 years?

**Response:**

KIUC anticipates an average annual growth rate of 1.7%.

b.      State the reasons lost revenues are a concern if in the context of moderate load growth, DG defers very expensive, future generation and system upgrades to accommodate this growth.

**Response:**

KIUC is uncertain what is meant by "moderate load growth." KIUC favors the lowest cost approach to meeting its member-customers needs. Accordingly, to the extent that the inclusion of DG in KIUC's capacity expansion and system upgrade plans offers the lowest cost, KIUC would favor such an approach.

**Sponsor:**

Mike Yamane  
N. Richard Friedman

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**COK-KIUC(T-2)-IR-3**      Reference: Exhibit no. KIUC-T-2, page 3, lines 2-4. RE: Utility ownership of DG projects...“In this case, KIUC and its members and customers could also benefit from the strategic deployment of DG around the island to optimize the design and operation of the T&D system.”

Does this KIUC reference to DG refer only to firm power or also intermittent power DG such as from renewables?

**Response:**                      This refers only to DG considered firm power. In order for DG to be strategically deployed and to optimize the system performance and operation of KIUC's system, the DG would have to be firm and dispatchable.

**Sponsor:**                      Mike Yamane  
N. Richard Friedman







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**COK-KIUC(T-2)-IR-7** Reference: Exhibit no. KIUC-T-2, page 23, lines 13-14. "In light of the above discussion, utility ownership of DG projects should be allowed and even encouraged on Kauai."

- a. What is KIUC's position regarding regulated utilities being in direct competition with private sector vendors installing and maintaining customer DG units?

**Response:**

KIUC's primary concern pertains to ownership and operation of a DG project. Regarding private sector vendors installing and maintaining DG projects, KIUC anticipates evaluating its in-house costs and resources to perform these functions relative to outsourcing these functions. KIUC would outsource these functions if, based on the above analysis, that would best satisfy the needs and interests of KIUC and its customer/members in that situation. While KIUC is regulated, it is not investor-owned. Because KIUC does not have a "profit" incentive but has obligations to its lenders and members, it may be able to provide lower cost financing for facilities than for-profit entities.

- b. Do you believe that changes to the current situation (of bundled rates and utility-owned proprietary information on system loads and customer usage) are necessary in order to level the playing field if regulated utilities and private sector vendors compete in the same market? Explain the reason(s) for your response.

**Response:**

KIUC does not believe that changes are needed to the current rate structure or availability of data. As previously mentioned, customer usage data is available to private sector vendors from either the customer, or from KIUC, upon direction from the customer. We note again that KIUC is a member-owned cooperative and may thus have different incentives than private, for-profit, companies for providing facilities and equipment.

- c. The Division of Consumer Advocacy's (CA) consultant states that DG can be fairly and competitively implemented in Hawaii by electric utilities, vendors (third parties) and customers alike if unbundled rates, sufficient rules and information that is known only by it to (such as electric feeders that would benefit from DG, the amount of annual benefit that would be paid to the DG owner for the savings in costs to the electric utility and customer electric usage) are implemented and provided to other parties. See CA-T-1 page 73, lines 5-16. State whether

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**COK-KIUC(T-2)-IR-7**

you agree or disagree with this statement, and the reasons for  
your agreement or disagreement.

**Response:** See response to part (b) above.

**Sponsor:** Joe M<sup>c</sup>Cawley  
N. Richard Friedman





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**COK-KIUC(T-2)-IR-10** Reference: Exhibit no. KIUC-T-2, page 30, lines 10-15. "Looking forward, a survey of, or information collection about existing backup generation on the island (not interconnected) would prove useful. Such data may assist in any discussions of homeland security issues as well as planning for use of these generators as part of a KIUC dispatchable virtual power plant. Thus, KIUC is in the process of considering whether its next IRP study should include such a survey."

There are two surveys, the Survey of Emergency Generators at Emergency and Essential Service Locations, State of Hawaii that was prepared for the State Dept. of Business, Economic Development and Tourism by Hawaiian Electric Company and Xenergy Inc. dated February 9, 2001 and an ongoing U.S. Army Corps of Engineers, Pacific Ocean Division Statewide Emergency & Essential Services Facilities Emergency Generator Database to GIS Project. How would the survey under consideration by KIUC for its next IRP study differ from these surveys?

**Response:** KIUC is in the process of researching the above-referenced surveys; once this research is complete, KIUC will be able to determine if these surveys are comprehensive and current enough to meet its needs.

**Sponsor:** Joe M<sup>c</sup>Cawley

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**COK-KIUC(T-2)-IR-11** Reference: Exhibit no. KIUC-T-2, page 31, lines 12-19. "Air permitting procedures for DG sites have evolved over recent years. As more DG units are installed and operated, state and local officials are increasingly implementing new regulations and procedures specifically designed to address the needs and requirements of DG units. For example, some states have recently enacted revised Best Available Control Technology standards for DG generators. Emission limits constrain the deployment of some types of DG technologies in some regions, possibly limiting the choice of DG technology available to a utility or end-user."

Please provide citations for your references to existing State (Hawai'i) or local (Kaua'i) regulations or procedures that specify the requirements of DG units on Kaua'i and in Hawai'i.

**Response:** KIUC is aware of air emission regulations as provided on Energy and Environmental Analysis, Inc.'s (EEA) website link to Regulatory Requirements Database for Small Electric Generators, State of Hawaii. <http://www.eea-inc.com/rrdb/DGRegProject/index.html>, and from the Hawaii State Department of Health's web site: <http://www.hawaii.gov/health>.

**Sponsor:** Joe M<sup>c</sup>Cawley

CERTIFICATE OF SERVICE

I (we) hereby certify that copies of the foregoing document were duly served on the following parties, by having said copies delivered as set forth below:

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