

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of)
)
PUBLIC UTILITIES COMMISSION) DOCKET NO. 03-0371
)
Instituting a Proceeding to Investigate)
Distributed Generation in Hawaii)

DIVISION OF CONSUMER ADVOCACY'S
POST-HEARING REPLY BRIEF;
CERTIFICATE OF SERVICE

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POST-HEARING REPLY BRIEF

I. INTRODUCTION.

In accordance with the deadlines established by the Public Utilities Commission (“Commission”) in its Prehearing Order No. 20922, filed April 23, 2004, this Post-Hearing Reply Brief (“Brief”) is respectfully submitted on behalf of the Division of Consumer Advocacy, (“Consumer Advocate”), Department of Commerce and Consumer Affairs.

This Brief seeks to address positions and comments provided within the Post-Hearing Opening Briefs filed by respective parties, listed immediately below, in the Commission’s Docket No. 03-0371, Instituting a Proceeding to Investigate Distributed Generation (“DG”) in Hawaii.

The Hawaiian Electric Company, Inc., Maui Electric Company, Ltd., Hawaii Electric Light Company, Inc. (therein collectively referred to as “HECO”), Kauai Island Utility Cooperative (“KIUC”), Life of the Land (“LOL”), Hawaii Renewable Energy Alliance (“HREA”), the County of Maui (“COM”), Hess Microgen (“HESS”) and the

County of Kauai (“COK”) appeared at the December 8-10 panel hearing as remaining parties to Docket No. 03-0371.

The Consumer Advocate would continue to urge, as presented in its Opening Brief, filed March 7, 2005, that this Commission consider such policies, guiding the development of DG in Hawaii, that would incorporate the effective utilization of each utilities' Integrated Resource Plan (“IRP”) to evaluate the benefit or impact of DG against the lowest reasonable cost option that meets the needs of customers in a manner that is consistent with State, energy and environmental policies.

II. PURPOSE OF THIS DOCKET WAS TO DEFINE POLICY.

The Commission’s order set forth that this docket was to be a policy setting proceeding to establish a framework for the effective implementation of DG in Hawaii and that this docket should assist the Commission in providing guidelines to facilitate the deployment of DG. The Consumer Advocate offered, through its prior testimony, that the policies and guidelines need to be designed in a manner to allow the determination of objectives or key implementation issues and specifics on a case by case basis. In this docket, implementation of DG in Hawaii was the objective, the direction, action, end result or purpose to be achieved. Thus, this docket was to determine a policy or a definite course or method of action or procedure to accomplish the objective. (CA-RT-1, page 8, lines 14-17)

The Consumer Advocate notes that a review of the respective Opening Briefs reflected that some parties focused on specific recommendations as opposed to general policy guidelines for an effective DG framework. Discussion focused upon specific rates

and rate structures, deployment of specific types of DG (i.e., virtual power plant, renewables, CHP, etc.). These discussions promoted the parties' self-interest as opposed to focusing on developing a policy or process by which such determination should be made.

It was difficult to decipher what, if any, policy guideline recommendations were buried or hidden in the specific proposals proffered. It appeared that these efforts added confusion, burdened the voluminous record, and detracted from the purpose and objective of this proceeding.

Through the development of the "Matrix" (Exhibit CA-RT-100), the CA, HECO and KIUC attempted to address definitions and parameters to DG so that the policy guidelines established from this proceeding can be applied consistently and effectively.

One example is where the Commission's Order No. 20582, issued October 21, 2003, specifically limited this proceeding to small scale electric generating facilities located at or near the load; and specifically excluded DSM measures.

Thus, the Consumer Advocate's understanding of the issue for policy purposes is defining what is meant by the term "small" as the assessment of this variable determines viability and feasibility issues and could affect conclusions to be reached on issues 4 through 8 of Commission's Order No. 20582. Establishing a definition allows policy decision-making efforts to focus on DG projects within a framework that would not be applicable in all customer-sited generation, but only those models that fit the policy definition of DG. This prevents policies from this proceeding being applied to unexpected or unintended situations and circumstances.

Additionally, a case by case analysis, could involve generating facilities defined to fall outside of “small-scale” and therefore outside the DG framework if policies determined within this proceeding also provide the framework and guidelines to form the basis of determination of issues and specifics for these generating facilities on such a case by case basis.

As provided in the DG matrix and Consumer Advocate testimony, for policy setting purposes, the definition of “small scale” should not be a specific numerical limit; rather “small” should be defined in terms relative to each island system because of their diverse nature, the customer load and location on that utility’s grid. Particular thresholds for establishing what constitutes small may change from system to system, time to time, location to location, but the underlying policy guideline for the effective deployment of DG and the framework applicable thereto should not change.

Likewise, the Consumer Advocate would support policies and guidelines related to the ownership and operation of DG facilities by utilities, customers and third-party vendors. These policies must take into account such specific concerns including but not limited to system cost, reliability, efficiency, public safety, resource utilization, environmental responsibility and regulatory control.

III. COUNTY OF MAUI’S FOCUS IS DSM.

The County of Maui, asserts that DG is a demand side resource; and therefore, demand sided management (“DSM”) should be addressed in this proceeding notwithstanding the Commission’s clear directions to the contrary pursuant to Commission’s Order No. 20582.

It appears that the COM's attempts to frame the purpose for this docket is misplaced. COM provided as follows: "the primary issue in this proceeding is whether the Commission should regulate the price of privately used, demand-side distributed generation services." (COM Opening Brief, page 2). Therefore, regardless of COM's assumptions, the Commission already established that this generic docket is limited to DG that represents "small scale electric generating technologies" and DSM is not a matter for this proceeding. (Commission Order No. 20582, page 1).

IV. CONSUMER ADVOCATE TESTIMONY CLARIFICATION.

The Consumer Advocate seeks to clarify or correct a statement provided in HESS MICROGEN's and the County of Maui's Opening Briefs.

In HESS MICROGEN's Opening Brief, the Consumer Advocate is quoted as providing objections to HECO's Big Island rate design during the Consumer Advocate's panel hearing testimony. (HESS Opening Brief, pg. 6, Hearing Transcripts at page 250, lines 14-21).

The hearing transcript reflected that the Consumer Advocate witness Joe Herz, referred to standby rates and stated that "the company's Big Island rate design does exactly that. It unfairly discourages the installation of efficient combined heat and power systems and reduce oil consumption -...."

The Consumer Advocate maintains that the hearing transcript is either erroneous or inaccurate because, in contrast to that statement, the Consumer Advocate supported HELCO's rate design. The Consumer Advocate and its witness Joe Herz, do not recall making that particular statement and suggest that the particular discussion was a

continuation of a conversation between panel hearing moderator Scott Hempling and COM witness Jim Lazar. As support for this suggestion, the Consumer Advocate offers COM's response to HESS-DT-IR-1 which provided as follows:

COM's Response: "We believe that the proposed standby rates will facilitate DG by providing reasonable cost standby service to customers using DG. This is in contrast to standby rates such as those at HELCO, which fail to recognize the diversity of demand between standby customers, and the reliability benefits of small incremental capacity additions on a system." (Emphasis added.)

It appears clear from COM's prior Response, above, that the comment alleged to be recited by the Consumer Advocate's witness, Joe Herz, during the panel hearing, is more consistent with the COM's position rather than any position previously offered by Consumer Advocate.

In the COM's Opening Brief, COM asserts that the Consumer Advocate agrees with HECO or is "confused" with definition of the term "supply-side resource" by citing to the panel hearing transcripts from December 8, 2004, first day of the hearing. (COM Opening Brief, page 13-14). Upon cross-examination by Mr. Kal Kobayashi about the perceived impact of this Commission excluding discussion on "demand-side aspects of distributed generation," the Consumer Advocate's witness, Joe Herz, confirmed the Consumer Advocate's opinion that the Commission intended that this docket be limited to a discussion of supply-side resources. ¹

¹ Transcript, Volume I, pg. 59, lines 18-25, pg. 60, 1-14

On day three of the hearings, Mr. Kobayashi returned to a similar line of questioning by introducing the term “demand-side generation.”² After initial confusion on the introduction of Mr. Kobayashi’s term of art, by Moderator Hempling, much discussion was spent clarifying the definition and use of such a term in this proceeding. There is no evidence on the record, demonstrating the Consumer Advocate’s participation in that discussion nor does the record reflect the Consumer Advocate providing an opinion on HECO’s interpretation of “supply-side resources.”

The Consumer Advocate offers that any confusion related to a discussion on “supply-side resources” lies solely with COM.

V. WHEELING POWER MAY HAVE NEGATIVE IMPACTS.

County of Kauai’s representation that the ability to wheel power can significantly reduce energy costs to the County and thereby benefit residents and businesses on Kauai does not recognize the impacts of the proposal.

Since the County of Kauai is a large customer of KIUC, the loss of revenues resulting from customer-sited DG on County premises in addition to wheeling of power to other County agencies will reduce KIUC’s ability to meet its debt coverage obligations. This could have a negative impact on residents and businesses on Kauai who may have to pay higher rates for their electricity to make up for the loss of revenues resulting from the County’s wheeling. Also, the impact of reducing the County’s electricity bills will effectively reduce the County’s patronage capital refunds, which effectively reduces the overall electricity costs of a KIUC member. Consequently, if the loss of revenues

² Transcripts, Volume III, pg. 156, lines 5-25

from the County is significant enough to cause KIUC to lose its tax exempt status, the County's decision to wheel power and reduce its energy costs will ultimately cause rates to increase since KIUC customers will then have to pay rates to recover the cost of income taxes, currently non-existent.

In addition, the County of Kauai's argument that incentives or disincentives for a utilities' planning prowess would appear to be counter-productive where KIUC's ratepayers and owners are one and the same.

VI. RECOMMENDATIONS.

With specific regards to utility participation in customer-sited DG projects, the Consumer Advocate recommends a policy guideline providing that utility participation should be permitted provided the utility's participation is in a manner that is not unduly or unreasonably preferential, discriminatory or anti-competitive. (see CA-RT-100, page 2, item 2). Also, this policy should apply whether utility DG is offered as a regulated or un-regulated service, although the Consumer Advocate prefers that the utility offer DG as a regulated service.

As a regulated utility service, the utility's involvement can be directed to a public interest purpose including consideration of cost-effectiveness, reliability, and energy policy goals, which are consistent with central utility planning, i.e., the IRP process.

As an unregulated service, the utility's involvement would be based upon cost and profit determinations of the DG project. Furthermore, as a non-utility service, the DG installations and customer contracts will not require Commission approval. The utility's presence in the DG market, without Commission oversight, may not support

public interest, fair rates and encourage other market power discriminatory, preferential treatment control over other third party DG providers.

The implementation of this policy should include a requirement for those utilities that intend to provide customer-sited DG services, to establish accounting mechanisms that will properly identify the costs and revenues of providing DG services. This would entail the establishment of separate activity codes to account for the utility's cost of installing customer-sited DG projects and the operating costs and revenues associated with such installations.

In addition, internal company cost allocation procedures should be established to allow for an independent review of the allocation of common costs to DG projects in order to ensure that cross-subsidization of the DG service is not occurring. These cost allocation manuals should be subject to the review and approval of the Commission.

The aforementioned items and the companies' financial records should be available for review and subject to verification by the regulatory agencies so as to ensure that revenue from electric customers do not subsidize the DG services.

In addition, the Commission should require utilities to treat customers with utility-owned DG equally as customers with non-utility owned DG in terms of rates, charges and utility services.

The Consumer Advocate and the utilities agree that policy should encourage rates apply to DG facilities that recover the cost of services provided to DG customers and that deployment of utility-owned DG should not have an adverse impact on non-DG customer rates. (see example: Item 3)(B)(1) of the DG matrix).

Thus, the recommended policy would require the Commission to direct the utilities to develop and have cost of service information and apply appropriate tariff that result in a DG customer being served at a cost that is not subsidized by non-DG customers.

In addition, the process of demonstrating ratepayer benefits should be standardized for each utility, taking into consideration, among other things, the following:

- Ownership structure of the utility (cooperative vs. investor-owned).
- The viability and feasibility of available or planned DG technologies, analyzed in context of each utility's IRP, to the extent practicable. (see DG Matrix, 1.B.3)
- The utilities plan and facilitation for deployment of DG.
- Or through the IRP process by evaluating the cost-effectiveness of DG resources for inclusion in the utilities' resource plan (see DG Matrix, Item 3A).
- Differences in operational features between DG technologies (i.e., firm versus as-available) and whether the DG is operated or controlled by the utility, need to be taken into account (see DG Matrix, Items 5B and C).
- In addition the number and diversity of installations, their reliability, ability of non-utility owned/operated to coordinate operation and maintenance with the utility, and their sustainability needs to be taken into account (see DG Matrix, Item 6.B.2).
- Externalities costs and benefits should be considered as an integral part of the analysis conducted of DG.

- DG should be subjected to the same scrutiny, analysis and quantification as would any other supply-side resource or DSM measure (these last 2 points are addressed in DG Matrix, Item 7.C).

Factors that should be considered in making the determination to allow a distributed generating facility to interconnect with the electric utility's include the following:

- Party that will own the facility.
- Party that will operate the facility.
- Current industry DG design, installation and operation practices, and whether the facility will meet or exceed those practices.
- Utility interconnection and operational requirements and whether the facility will meet or exceed those requirements.
- Applicable National Electric Code (NEC), Institute of Electrical and Electronic Engineers (IEEE) standards, and American National Standards Institute (ANSI) standards, and whether the facility will meet those standards.
- Approval of applicable certification entities, such as the Underwriters Laboratory (UL), for the facility and its subsystems and components.
- Compliance with State and site-specific siting approvals and building and fire safety codes.
- The ownership structure of the utility (cooperative versus investor-owned) must be taken into account (these points are addressed in the DG Matrix, item 9).
- Implementation issues.

- It is recommended that the Commission require each Utility to develop cost of service information and apply tariffs that result in DG customers being served at a cost that is not subsidized by non-DG customers. (see Item 3)(B)(1). of the DG Matrix).
- It will be necessary to identify the differences in the bundled services provided to non-DG customers versus the unbundled services provided to and received, if related to a net-metered customer, from DG customers. Once unbundled services have been identified, the cost of service for each of the unbundled services should be quantified in a cost of service study for each Utility.
- The level of effort and detail for the cost of service study, however, should be balanced with the information available, the cost of developing additional data and the magnitude of the DG market and its impact on the Utilities' revenue recovery and revenue stability. These last two points are included in the DG Matrix (see Item 10) (A)).
- Fuel cost recovery methodologies, including the Energy Cost Adjustment Charge ("ECAC"), should be revised to accommodate DG.
- The Commission should require each utility to consider DG in the utility's IRP cycle and implementation plans and require each utility to consider a competitive procurement process for utility-owned DG (see DG Matrix, 3.B).
- No changes to the IRP Framework are required for the consideration of DG although the execution on the Framework's requirements and the focus on timeliness in which the IRP process should be completed has been lacking and needs to improve in order to be meaningful and effective.

- An aggregate forecast of DG resources must be considered if an individual DG project is generally too small to impact the timing of central station units or transmission line.

In order to complete a fair evaluation of the types of DG to be included in the IRP five-year action plan, the types of DG should be those that are commercially viable at the time that the plan is developed and considered to be suitable for use in Hawaii. New DG technologies can be incorporated in the development of the utility's next IRP so as not to interrupt the implementation of the five-year plan in the Commission approved IRP. (addressed in DG Matrix, Item 11).

In order to avoid any substantive adverse impact on power quality, the DG must be interconnected to the grid in accordance with utility-approved standardized interconnection requirements. These requirements should be updated to meet applicable current IEEE standards and be certified by the UL or other certification entities, to the extent practicable (see DG Matrix, Item 5.A.). Each utility should have Commission approved interconnection standards and agreements to allow qualified or approved DG facilities to interconnect with the utility's grid (see DG Matrix, Item 9.B.).

In order for other parties to participate in customer-sited DG, the review and approval processes will need to be streamlined and understandable to the extent possible (see DG Matrix, Item 12.C.).

VII. CONCLUSION.

The public interest, perceived to be at stake, resulting from the policy guidelines and DG framework to be established by the Commission in this proceeding ultimately narrows down to a few considerations.

DG provides the ability, if successfully implemented, to lower electric costs and improve reliability that otherwise would not have occurred absent DG. If DG is not effectively deployed, however, electric costs will be higher and reliability could suffer.

In order to effectively deploy DG and all supply-side resources, there must be full utilization of and the timely completion of the process established by the IRP framework. The consideration of externalities is crucial for the effective deployment DG and all supply-side resources and the cost of service provided to DG participants should be identified and quantified for each utility.

The Consumer Advocate's objective is to insure that the policies and framework established in this proceeding promote the deployment of DG projects as part of the implementation of the lowest reasonable cost plan to meeting Hawaii's energy needs and energy policies, while insuring the provision of reliable service to electric utility customers.

DATED: Honolulu, Hawaii, March 28, 2005.

Respectfully submitted,

By _____
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **DIVISION OF CONSUMER ADVOCACY'S POST-HEARING REPLY BRIEF** was duly served upon the following parties, by personal service, hand delivery, and/or U.S. mail, postage prepaid, and properly addressed pursuant to HAR § 6-61-21(d).

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