

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

----In the Matter of----)
)
PUBLIC UTILITIES COMMISSION) DOCKET NO. 2013-0169
)
Opening a Proceeding to)
Investigate Whether an Oahu-Maui)
Interisland Transmission System)
May Be in the Public Interest.)

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ORDER NO. 31356
INITIATING PROCEEDING

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Investigate Whether an Oahu-Maui)
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INITIATING PROCEEDING

By this Order, the commission initiates an investigatory proceeding to solicit information and establish whether an interisland transmission system interconnecting the Oahu and Maui Island electric grids ("Oahu-Maui Island grid interconnection") may be in the public interest.

I.

Discussion

A.

Purpose for Initiating this Proceeding

HAWAIIAN ELECTRIC COMPANY, INC. ("HECO"),¹ through its draft RFP created as part of its competitive bidding process

¹HECO is the franchised public utility responsible for the production, purchase, transmission, distribution, and sale of electricity on the island of Oahu. HECO has two subsidiaries:

to acquire approximately 200 megawatts ("MW") or more of new, renewable energy to be delivered to or on the island of Oahu, Docket No. 2011-0225 ("Oahu 200 MW RFP"), included solicitations for an undersea transmission cable to accommodate generation proposals from islands neighboring Oahu. As the commission determined in its Order issued in Docket No. 2011-0225 concurrently with this Order, multiple changing conditions require the commission to separate the Oahu 200 MW RFP from an investigatory proceeding examining a potential interisland cable system.

The commission opens this proceeding to solicit information and evaluate whether an Oahu-Maui Island grid interconnection may be in the public interest. As will be described in greater detail in Section I.D., this proceeding will complete the following steps and will address a number of issues that remain highly uncertain at this time:

- Seek input from potential cable developers, renewable energy project developers, HECO Companies, and other stakeholders on potential costs and benefits of an Oahu-Maui Island grid interconnection to

(1) MAUI ELECTRIC COMPANY, LIMITED ("MECO"), the franchised public utility responsible for the production, purchase, transmission, distribution, and sale of electricity on the islands of Maui, Molokai, and Lanai; and (2) HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO"), the franchised public utility responsible for production, purchase, transmission, distribution, and sale of electricity on the island of Hawaii. HECO, MECO, and HELCO are collectively referred to as the "HECO Companies."

determine under what circumstances and conditions such a potential system would be in the public interest;

- Seek input on appropriate regulatory policies and practices governing development and on-going regulation of a certified cable company in Hawaii;
- Seek input from potential cable companies, HECO, and other stakeholders on the best way to proceed with developing a high-voltage electric transmission cable system interconnecting Oahu and Maui Island if the commission were to determine such a system is in the public interest; and
- Facilitate public input and dissemination of information on an Oahu-Maui Island grid interconnection.

Through its Order Providing Guidance for Development the Draft Final Oahu 200 MW Renewable Energy RFP, the commission made the following findings and conclusions before determining that the instant proceeding should be opened:

First, the technical information and analysis required to determine if an Oahu-Maui Island grid interconnection is in the public interest is incomplete and characterized by significant uncertainty. HECO has worked with many stakeholders to prepare "Stage 1" interisland transmission studies, but "Stage 2" studies (evaluating grid-tie options between Oahu and Maui County) were only recently completed in May 2013.²

The purpose of the Oahu-Maui Island grid interconnection investigation is to solicit

²Castle & Cooke's Lanai Wind Farm provided the impetus driving the initial studies done for wind integration, routing, cost, and feasibility. As a result, the initial studies have a somewhat limited focus - on Lanai and / or Molokai and upon use of a transmission cable as a generation tie between the islands, instead of also using an electrical grid-to-grid approach.

comprehensive information pertaining to the economic benefits and costs as well as potential technical issues associated with an Oahu-Maui grid-tie transmission system from prospective cable developers, renewable energy project developers, HECO Companies, and other stakeholders. The determination of how Maui Island should be interconnected with Oahu, including high-voltage electric transmission cable configurations, route(s), and capacities, has not been fully investigated and is not well vetted at this time. Permitting and infrastructure requirements for an Oahu-Maui Island grid interconnection, including on-island transmission upgrades and converter station locations, are not well developed. Routing, infrastructure, and other requirements for an Oahu-Maui island grid interconnection should also be informed by the responses to the Oahu 200 MW RFP competitive bidding process. Therefore, innovative and thoughtful responses from these prospective cable and renewable energy developers, HECO Companies, and other stakeholders should provide the commission with a sound evidentiary basis from which to determine how and whether an Oahu-Maui Island grid interconnection could deliver cost-competitive renewable energy resources from Maui to Oahu, offer lower-cost fossil energy supply to Oahu and Maui ratepayers, and provide an option for subsequent potential interconnection of the Hawaii Island and Oahu electric grids.³

Second, additional information relating to ratemaking policies and practices for a certified cable company need to be further developed. At this time, many regulatory questions are unresolved, including, for example, the

³The amount of potential renewable energy projects located on Oahu as compared to Maui County, and whether the total supply of Oahu renewable projects are, in fact, cost-competitive, need additional investigation. The Oahu 200 MW RFP will provide this information and will contribute to the determination of whether renewable energy resources in Maui County would be required in order for the HECO Companies to meet RPS targets in a cost-effective manner or otherwise be in the public interest.

appropriate ratemaking formula and process to be used. Specifically, the commission will need to determine appropriate return on common equity levels that should be utilized for such companies. Input from potential cable companies on these and other ratemaking policies, such as obligations to serve or provision of non-discriminatory or preferential transmission access, should be solicited and considered as part of determining if an Oahu-Maui Island grid interconnection is in the public interest. Increasing certainty of the regulatory and ratemaking policies should help to minimize risk resulting in lower overall development costs and future transmission utility rate levels.

Third, the commission requires additional information regarding the optimal path forward for solicitation, procurement, and development of an Oahu-Maui Island grid interconnection, should such a system be found to be in the public interest. Consistent with HRS § 269-132 (a), an undersea transmission cable should be developed, owned, and operated by a regulated cable company operating under authority provided by the commission. However, a number of questions remain unsettled on the procurement and development process. The Order opening the investigation on the Oahu-Maui Island grid interconnection provides additional detail on input the commission seeks at this time.

Fourth, the public and community stakeholders have had limited information and few opportunities to provide input on the broad spectrum of issues related to an Oahu-Maui Island grid interconnection. The investigative docket on this issue will provide a forum to better facilitate public input and disseminate information.

Finally, as a matter of policy, potential undersea transmission infrastructure should be developed using a "no regrets" strategy that minimizes risk and maximizes use of the transmission infrastructure while preserving future options as the needs of Hawaii's

electrical systems evolve. If after reviewing the information presented in the investigative docket the commission determines that an Oahu-Maui Island grid interconnection is in the public interest, then a request for proposals will be issued to expeditiously develop this interisland transmission system.

The commission clarifies that at present its position on an Oahu-Maui Island grid interconnection is neutral. The commission's instructions to HECO to separate the transmission cable RFP from the 200 MW renewable energy RFP should not be read to imply that the commission has a preference for or against an Oahu-Maui Island grid interconnection. The decision to separate the transmission cable RFP from the 200 MW renewable energy RFP was done, among other reasons, to allow generation bids to proceed more expeditiously and to be used to inform transmission infrastructure planning efforts and other related actions. The commission's intention in opening this investigative docket is to obtain input from knowledgeable stakeholders on the selection process, policy issues, and overall objectives with respect to how, where, and at what cost a cable may be developed. Through these actions, the commission seeks potential solutions to develop an interisland transmission infrastructure that can minimize risk, maximize utilization of existing and new infrastructure, and achieve greater efficiencies and cost effectiveness to augment and complement

the Hawaii electric system, and ultimately, serve the public interest.

B.

Commission Authority

HRS § 269-7 states, in relevant part:

- (a) The public utilities commission and each commissioner shall have the power to examine the condition of each public utility, the manner in which it is operated with reference to the safety or accommodation of the public, the safety, working hours, and wages of its employees, the fares and rates charged by it, the value of its physical property, the issuance by it of stocks and bonds, and the disposition of the proceeds thereof, the amount and disposition of its income, and all its financial transactions, its business relations with other persons, companies, or corporations, its compliance with all applicable state and federal laws and with the provisions of its franchise, charter, and articles of association, if any, its classifications, rules, regulations, practices, and service, and all matters of every nature affecting the relations and transactions between it and the public or persons or corporations.

. . . .

- (c) Any investigation may be made by the commission on its own motion, and shall be made when requested by the public utility to be investigated, or by any person upon a sworn written complaint to the commission, setting forth any prima

facie cause of complaint. A majority of the commission shall constitute a quorum.

HRS § 269-7(a) and (c) (emphasis added). Similarly, in HRS § 269-6, the commission is vested with "general supervision . . . over all public utilities."⁴

C.

Named Parties

Since there is the potential for an Oahu-Maui Island grid interconnection to impact both HECO and MECO, the commission concludes that it is necessary for HECO and MECO to be named as parties to this proceeding.⁵ The DIVISION OF CONSUMER ADVOCACY OF THE DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS ("Consumer Advocate")⁶ is, ex officio, a party to this proceeding pursuant to the commission's laws and rules, and is named as a party to this proceeding. The State's Energy Resources

⁴Commission investigatory authority is also set forth in HRS § 269-15 and Hawaii Administrative Rules ("HAR") § 6-61-71.

⁵Moreover, HRS § 269-132 (b) requires "the electric utility company and the energy resources coordinator, or the energy resources coordinator's designee, shall develop the request for proposals. . . ." Accordingly, participation by the HECO Companies in this proceeding is necessary.

⁶The Consumer Advocate is statutorily mandated to represent, protect, and advance the interests of all consumers of utility service and is, ex officio, a party to any proceeding before the commission. See HRS § 269-51; HAR § 6-61-62.

Coordinator, required by law to assist in developing an RFP and evaluating proposals,⁷ will also be named as a party to this proceeding. The involvement and participation by the HECO Companies, the Consumer Advocate, and the State's Energy Resources Coordinator in this proceeding will assist the commission in developing a sound record for its investigation.

D.

Procedural Matters

1.

Intervention

Any interested individual, entity, agency, or community or business organization may file a motion to intervene or participate without intervention in this docket. A motion

⁷HRS § 269-162 (b) provides:

The electric utility company and the energy resources coordinator, or the energy resources coordinator's designee, shall develop the request for proposals, and the energy resources coordinator or the energy resources coordinator's designee shall be a member of the selection committee that will review and evaluate the proposals. The electric utility company shall suspend or terminate the request for proposals at the discretion of the commission.

HRS § 269-162 (b) (Emphasis added.) Pursuant to HRS § 196-3, the director of business, economic development, and tourism "serves as energy resources coordinator."

to intervene or participate without intervention must be filed not later than twenty days from the date of this Order, pursuant to HAR § 6-61-57(3)(B). Motions to intervene or participate without intervention must comply with HAR Chapter 6-61, Rules of Practice and Procedure Before the Public Utilities Commission. Any intervenor or participant will not be allowed to broaden the issues or unduly delay the proceeding.

2.

Docket Issues

Among other issues that the commission may determine at a later time, the instant proceeding shall invite comment and evaluate the following issues to establish whether an Oahu-Maui Island grid interconnection may be in the public interest:

1. Whether and to what extent the benefits to Hawaii ratepayers of an undersea Oahu-Maui grid interconnection would exceed its costs.
 - a. Costs are highly dependent on clear understanding of the parameters chosen for critical aspects of a potential transmission system, including electrical capacity, technical configuration, length of cable(s), associated route(s), and location of

onshore facilities. Potential costs are unknown at this time, but are expected to include costs for the undersea transmission cable(s) itself, costs for on-island transmission and interconnection infrastructure, and environmental and social impacts that may or may not be easily quantifiable, but nevertheless are not zero and must be considered in this evaluation. Other costs may be identified as well.

b. Benefits are also unknown at this time, but could include the potential for a combined system to:

- i. Enable lower cost generation resources to serve additional load, thereby lowering total costs to ratepayers;
- ii. Increase the ability to add lower cost renewable resources to the Maui Island electric system that will help meet the RPS or reduce fossil fuel costs;
- iii. Result in reductions in curtailment of current or future renewable energy resources;

- iv. Enable efficiencies from coordinated operation of the two islands' power systems including potentially lower reserve margins and ancillary services requirements or improved reliability;
 - v. Reduce price volatility, minimize and manage risks borne by ratepayers, and create real options or other assets that increase the value of the future electric system, and;
 - vi. Other benefits for ratepayers in Hawaii as may be identified.
2. Potential exists for project-on-project risks if the undersea transmission cable is used primarily to transmit large quantities of low-cost renewable energy exported from Maui to Oahu and the development of necessary renewable projects on Maui are uncertain. Alternatively, if the undersea transmission cable is used predominately to transmit less expensive fossil fuel energy between islands, then there may potentially be little or no project-on-project risks. What project-on-project risks exist in

light of a grid-tie undersea cable system, and if present, how should it be mitigated?

3. Information is sought to address several major operational or implementation issues. These include: should a grid-tie cable developer be responsible to design and construct on-island AC transmission infrastructure as contemplated in HECO's draft 200 MW RFP, and if so, should ownership be transferred to HECO Companies upon commercial operation or retained by regulated transmission cable utility? Also, identify any potential major technical challenges, and potential solutions, that may be encountered when interconnecting separate island grids and operating them in a joint, coordinated manner for the first time.
4. The appropriate regulatory and ratemaking policies to adopt for a potential undersea transmission system, including:
 - a. A range of fair and reasonable allowed rate of return on equity levels for transmission cable utilities certified pursuant to HRS § 269-7.5;

- b. Whether transmission cable utilities should have obligations to serve or expand utility service, provisions for non-discriminatory or non-preferential access to transmission cable, or other requirements related to use or operation of a transmission cable;
 - c. Whether the transmission cable rates should be based on cost of service or traditional revenue requirements, and if so, what components should be included in the determination;
 - d. What type of regulatory process should be used to adjust transmission cable rates - periodic rate cases or formulaic rates, and;
 - e. Other on-going regulatory and ratemaking policies or processes appropriate for a transmission cable utility in Hawaii.
5. The optimal path forward for swift and cost-effective solicitation, procurement, and development of an Oahu-Maui Island grid interconnection, should such a system be determined to be in the public interest. This path could involve a Request for Proposals or

other alternative process to appropriately designate a transmission cable utility pursuant to HRS §§ 269-7.5 and -131, et seq. Also, what studies, analyses or other possible actions could be undertaken in the near-term to reduce potential project development costs and uncertainties?

3.

Procedural Schedule

The commission intends to evaluate these issues expeditiously, in order to ensure that if such a project is determined to be in the public interest, it is completed in the most efficient and cost-effective manner possible. Accordingly, several intensive steps will comprise this investigation.

First, within 60 days of the filing of this Order, persons wishing to provide input on the issues under consideration in this docket shall file initial comments addressing the issues and questions established in Section I.D.2., above ("Initial Public Comments"). Initial Public Comments will be taken from all persons without regard to his or her status as an intervenor or participant, and shall be weighed by the commission, based upon the quality of the Initial Public Comments, the expertise asserted by the commenter,

and the status of the commenter in this proceeding. Commenters shall include curricula vitae to demonstrate their expertise with respect to the issues discussed.

Second, 30 days after the filing of Initial Public Comments to the issues presented in Section I.D.2. (or 90 days from the filing of this Order), persons wishing to provide comments in response ("Reply Comments") to the Initial Public Comments previously filed by other respondents may be provided, without regard to his or her status as an intervenor or participant, and shall be weighed by the commission, based upon the quality of the comments and the expertise asserted by the commenter, and the status of the commenter in this proceeding. Commenters shall include curricula vitae to demonstrate their expertise with respect to the issues discussed with their Reply Comments, if no Initial Public Comments were provided.⁸

Finally, after taking the Initial Public Comments and Reply Comments, the commission intends to schedule public meetings for Maui and Oahu to gather more input from the public about whether a potential Oahu-Maui Island grid interconnection

⁸A person may choose to provide Reply Comments to rebut a position offered by a commenter in an Initial Public Comments filing. If the person offering only Reply Comments has not previously submitted a curriculum vitae, such curriculum vitae must accompany his or her Reply Comments. If a person has already submitted a curriculum vitae in support of his or her Initial Public Comments, and he or she wishes to file Reply Comments, he or she need not file a second copy of the submitted curriculum vitae.

is in the public interest. The commission emphasizes the importance of providing clear information to the public and community stakeholders on all issues examined in this docket, as well as the opportunity to provide meaningful contributions for the commission's consideration. This commission is committed to providing a forum for public input into the decision-making process.

II.

Orders

THE COMMISSION ORDERS:

1. An investigative proceeding to solicit information and evaluate whether an Oahu-Maui Island grid interconnection may be the public interest.
2. The HECO, MECO, the Consumer Advocate, and the Energy Resources Coordinator are parties to this investigative docket.
3. A motion to intervene or participate without intervention must be filed not later than twenty days from the date of this Order, pursuant to HAR § 6-61-57(3)(B). Motions to intervene or participate without intervention must comply with HAR Chapter 6-61, Rules of Practice and Procedure Before the Public Utilities Commission.

4. Within 60 days from the filing of this Order, persons, including the parties to this docket, wishing to provide input on a potential Oahu-Maui Island grid interconnection shall file Initial Public Comments addressing the issues and questions established in Section I.D.2., above. Initial Public Comments will be taken from all persons without regard to his or her status as an intervenor or participant, and shall be weighed by the commission, based upon the quality of the Initial Public Comments, the expertise asserted by the commenter, and the status of the commenter in this proceeding. Commenters shall include curricula vitae to demonstrate their expertise with respect to the issues discussed.

5. 30 days after the filing of Initial Public Comments to the issues presented in Section I.D.2. (or 90 days from the filing of this Order), persons wishing to provide Reply Comments to the Initial Public Comments previously filed by other responders may be filed, without regard to his or her status as an intervenor or participant, and shall be weighed by the commission, based upon the quality of the comments, the expertise asserted by the commenter, and the status of the commenter in this proceeding. Commenters shall include curricula vitae to demonstrate their expertise with respect to the issues discussed with their Reply Comments, if no Initial Public Comments were provided.

DONE at Honolulu, Hawaii JUL 11 2013.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By *Hermina Morita*
Hermina Morita, Chair

By *Michael E. Champley*
Michael E. Champley, Commissioner

By *Lorraine H. Akiba*
Lorraine H. Akiba, Commissioner

APPROVED AS TO FORM:

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2013-0169.sr

CERTIFICATE OF SERVICE

The foregoing order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

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