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PUBLIC UTILITIES COMMISSION

CONSUMER ADVOCATE'S RESPONSES TO LOL'S INFORMATION REQUESTS ON THE CONSUMER ADVOCATE'S WRITTEN DIRECT TESTIMONY

The responses to the following information requests were prepared by Mr. Herz, who is the sponsor of the responses.

LOL-WDT-IR-21

Ref: "Wind facilities require a large footprint of vacant land located away from the general population" (CA WDT page 17, lines 14-16)

Comments: Windmills co-exist on active agricultural lands and in some urban centers: Maui Community College is putting up a 250 foot windmill on their campus. Urban windmills exist in * Toronto en.wikipedia.org/wiki/Wind_power. * The Lakota Nation * The Netherlands, Germany, Finland, Denmark www.gasandoil.com/goc/news/nte30826.htm. * Macalester College in St. Paul, MN http://news.minnesota.publicradio.org/features/2003/04/23_losurem_turbine/

Question: Do you agree that newer wind farms can coincide with other land uses, including, under some specified conditions, urban facilities?

RESPONSE: The potential to develop such applications involving urban facilities are not as likely as wind facilities on vacant land located away from population.

LOL-WDT-IR-22

Ref: WHAT MUST BE DONE TO IMPLEMENT DG IN AN ORDERLY MANNER? "Next the cost effectiveness of DG technologies for Hawaii's energy market must be analyzed in the context of each electric utility's IRP. Finally, a competitive bid process should be developed for the procurement of additional resources." (CA WDT page 57, lines 19-21)

Question: (1) Wouldn't it make more sense to allow various companies to make bids without first having the utility decide which technologies are cost-effective?

RESPONSE:

No. The implementation of DG in an orderly manner is not simply a competitive bidding process to determine which technologies represent the lowest cost option. Rather, the orderly implementation of DG is a process through which one determines and identifies commercially-available DG technologies that can appropriately fit into the utility's IRP plan in order to identify the lowest reasonable cost option for the utility to serve the electric service needs of its customers. The competitive bidding process is then used to acquire the DG resources identified in the utility's IRP plan. Each utility's IRP process should be used to identify the size, type, timing and locational value of the commercially-available DG technologies that can meet specific needs for each island electric utility system. The utility's IRP plan provides the process for implementing DG in an orderly manner and to achieve lowest, reasonable cost. The IRP process, however, should be on-going such that technologies that become commercially available subsequent to the development of one IRP plan can

be immediately considered in the development of the next IRP plan.

(2) Should the competitive bid process allow for bids that would increase supply, decrease load via on-site generation, and/or decrease load via on-site negawatts?

RESPONSE: With respect to the first portion of the question regarding bids that would increase supply, the answer is yes if the utility's IRP process is used to determine the DG that would increase supply. The IRP and competitive bid process would be used for DG projects whose output is used by the utility, with the utility's other resources, to serve the needs of all customers.

Decreased load via on-site generation or decreased load via on-site negawatts seems to indicate customer-sited DG whose output is used by a specific customer to serve, or manage, a portion or all of that customer's load. Customer-sited DG, whose output is used by a specific customer, and not used for the benefit of all customers, would not be included in the utility's IRP competitive bidding process. Customers that choose customer-sited DG and utilize the DG output for their own load would pay the utility's unbundled rates for the services that continue to be provided by the utility. Customers who choose customer-sited DG, and whose DG output is sold to the

utility and used by the utility to serve the needs of all customers, would be compensated at the utility's avoided costs.

LOL-WDT-IR-23

Ref: WHAT CHANGES TO THE IRP PROCESS ARE NEEDED? "In summary, a DG project should be subject to the same scrutiny, analysis and quantification of externality costs and benefits as would any other resource or DSM measure considered in developing an IRP. Therefore, the DG project should be evaluated in the IRP similarly to other resource alternatives." (CA WDT page 68, lines 1-5)
Question: Should economic externalities be analyzed within the IRP process?

RESPONSE:

Yes, however, the ability to reach consensus on the values to be placed on each externality is the challenge which must be overcome to effectively reach consensus on whether the utility's IRP does in fact reflect the lowest reasonable cost action plan.

LOL-WDT-IR-24

Ref: WHAT ARE THOSE RISKS? "For instance, the purpose of the electric utility owner/operator is to generate energy for sale to its retail customers." (CA WDT page 69, lines 18-19)

Question: Isn't the purpose of a utility to make a return for their stock[hold]ers?

RESPONSE:

Assuming that "utility" in this question is intended to mean the investor-owned utilities (i.e., HECO, HELCO and MECO) and not the cooperative utility (i.e., KIUC), it may be more accurate to state that the utility has a two-fold purpose that is inter-related, i.e., each is dependent on the other. First, the utility is essentially obligated to provide electric service to meet the needs of its customers with a reasonable level of service quality and reliability. The utility is compensated for the services provided to its customers at reasonable, non-discriminatory rates established by the Commission.

Second, the utilities' rates are established by the Commission to allow the utility to recover its costs and have an opportunity to earn a reasonable return on the investment made to provide service to its customers. In other words, in order to be able to raise the capital needed to fund the infrastructure to meet its service obligations at reasonable rates, the utility needs to have the opportunity to provide a reasonable return to shareholders for their investments in the utility.

Although a cooperative-owned utility as KIUC is owned by its member ratepayers, it too must earn a "margin" to meet

certain financial ratios, loan covenants and provide patronage capital refunds to its member owners (see for example the Direct Testimony of Alton Miyamoto, pp 3-9).

Isn't this done by building infrastructure, and then recovery the costs plus profits through the rate structure?

RESPONSE: In order to meet its obligations to provide service of reasonable quality and reliability to its customers, the utility must obtain funding for, and then construct and operate, the electric system infrastructure. This infrastructure includes generating resources and T&D facilities necessary to meet the electric needs of its customers. As indicated above, the Commission sets a utility's rates. These rates provide the utility with the opportunity to earn a reasonable return, or margin, to obtain the funding for the infrastructure needed to meet its service obligations to its customers.

The IRP process is utilized for decisions regarding the additions to the utility's infrastructure that result in the lowest reasonable cost of meeting the utility's service obligations. See also the response to LOL-WDT-IR-24 above.

LOL-WDT-IR-25

Ref: WHAT ARE THOSE RISKS? "The risk associated with ownership and operation of generating facilities is related to the vested interest of the owner and/or operator of the generating facility. For instance, the purpose of the electric utility owner/operator is to generate energy for sale to its retail customers. ... On the other hand, a DG that is installed for the primary purpose of serving a customer's energy needs first, and then selling the remainder (or excess) of the energy to the electric utility cannot be considered a reliable energy source for the electric utility, although the facility may serve as a reliable energy source for the customer." (page 69, line 16 through page 70, line 8)

Question: (1) In certain cases, can substation-sited DG provide increased reliability for utility customers?

RESPONSE: Yes, especially if the substation-sited DG is a firm resource technology and the DG is under the operational control and dispatch of the utility.

(2) Should substation-sited DG be put out for competitive bid?

RESPONSE: Yes, assuming that the need for, size, type and location of the substation-sited DG is established through the utility's IRP process.

(3) Can government-owned DG (county, state, federal, military) be 'considered a reliable energy source for the electric utility'?

RESPONSE: Yes, if the government-owned DG is a firm resource technology and the DG is under the control and dispatch of the utility pursuant to an agreement that provides the obligations and incentives for the government-owned DG to perform as a reliable energy source.