

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
January 31, 2012, 8:15 A.M.
Room 325
(Testimony is 4 pages long)

TESTIMONY SUPPORTING INTENT OF HB 2041, SUGGESTED AMENDMENTS

Chair Coffman and members of the Committee:

The Blue Planet Foundation supports the intent of HB 2041, a measure which seeks to encourage greater amounts of renewable energy use by reducing the curtailment of renewable energy power sold to public utilities and enable independent power producers to sell electricity to other customers. We support these concepts but we also understand the current challenges to operating the electricity grid with multiple independent power producers. Blue Planet offers some suggested amendments to the proposed language for your consideration.

CURTAILMENT

Curtailment of renewable energy resources is a significant barrier to Hawaii's clean energy future. Hawaii's largest electric utility company is essentially allowed to curtail renewable energy facilities without limit and without compensation. This not only directly limits the amount of renewable energy on the grid, it has a chilling effect on the ability to finance clean energy projects in Hawaii. With the threat of uncertain amounts of curtailment, developers are unable to properly evaluate financial risk. Absent reasonable certainty concerning financial risk, projects are unable to go forward. While it is difficult to eliminate all curtailment (such as curtailment necessary for reliability or technical issues), curtailment for economic reasons should be prohibited and other curtailment should be minimized.

This measure should be amended to establish reasonably certain parameters (such as maximum hours of curtailment limits and payment amounts) in power purchase agreements that allow developers and investors to properly evaluate risk and potentially move forward with financing and developing projects.

These proposed amendments are consistent with recent applications before the Public Utilities Commission (PUC) involving power purchase agreements for solar PV facilities. For example, in

Jeff Mikulina, executive director • jeff@blueplanetfoundation.org
55 Merchant Street 17th Floor • Honolulu, Hawai'I 96813 • 808-954-6142 • blueplanetfoundation.org

Docket No. 2010-0307, the application includes language establishing limits and requiring the utility to provide appropriate compensation for curtailed energy[1]. Pursuant to this language, the utility agrees that it shall not be entitled to curtail the solar PV facility for more than a maximum of ninety hours per calendar year. If the utility curtails the facility in excess of the maximum amount, the facility shall be entitled to receive payment for 1.25 MWhs of curtailed energy for each hour curtailed from 8:00 AM to 7:00 PM[2]. These types of "floor" provisions on curtailment should be included in all future power purchase agreements. Amendments to HB 2041 to require this are proposed below.

With the requirement to pay for curtailed energy, system operators will likely curtail facilities more judiciously. The payment requirement will also incent utilities to further embrace curtailment mitigation measures.

SUGGESTED AMENDMENTS REGARDING CURTAILMENT

Page 3, line 17 through page 4, line 6:

> (c) Any agreement for the purchase of electricity generated from geothermal energy by an electric utility company from a producer of geothermal electricity shall contain provisions that state that the utility shall not be entitled to curtail or interrupt a producer of geothermal electricity for more than a maximum of number of hours per calendar year, as agreed upon by the producer of geothermal electricity and the electric utility company, and that in the event the utility curtails or interrupts the producer of geothermal electricity in excess of such maximum amount, then the producer of geothermal electricity shall be entitled to receive payment for a prescribed percentage of the design capacity multiplied by the number of hours of curtailment or interruption from a prescribed time period each day, in excess of the prescribed number of hours per calendar year, multiplied by the applicable energy payment rate, except in an emergency situation that imminently

[1] See Application (Docket No. 2010-0307) filed Nov. 8, 2010 ("Application") at Exhibit 1, pp. 11-12.
[2] Actual language from the power purchase agreement: "The Parties agree that, regardless of the basis, the Cooperative shall not be entitled to curtail the Seller's Facility for more than a maximum 90 hours per calendar year. If and to the extent the cooperative curtails the Seller's Facility in excess of the maximum amount set forth above or otherwise in violation of this Section 15(c), then the then the Seller shall be entitled to receive payment for 1.25 MWhs of curtailed energy for each hour (or a pro-rated amount based on 60 minutes per hour if less than an hour) curtailed from 8am - 7pm (reduced by one-half of one percent (0.5%) per year to account for annual degradation from Sellers Facility) and the Cooperative shall pay Seller for the curtailed energy in accordance with Appendix B subject to the Dispute Resolution procedures of Appendix E. For the avoidance of doubt, the Parties agree that, in practice, the actual curtailments by the Cooperative could be substantially less than the maximum 90 hours per calendar year."

threatens the electrical grid or due to a natural or manmade disaster.

Page 7, line 13 through page 8, line 3:

(e) Any agreement for the purchase of electricity generated from nonfossil fuel sources by an electric utility company from a producer of electricity from nonfossil fuel sources shall contain provisions that state that the utility shall not be entitled to curtail or interrupt a producer of electricity from nonfossil fuel sources for more than a maximum of number of hours per calendar year, as agreed upon by the producer of electricity from nonfossil fuel sources and the electric utility company, and that in the event the utility curtails or interrupts the producer of electricity from nonfossil fuel sources in excess of such maximum amount, then the producer of electricity from nonfossil fuel sources shall be entitled to receive payment for a prescribed percentage of the nonfossil fuel source electricity generating facility design capacity multiplied by the number of hours of curtailment or interruption from a prescribed time period each day, in excess of the prescribed number of hours per calendar year, multiplied by the applicable energy payment rate, except in an emergency situation that imminently threatens the electrical grid or due to a natural or manmade disaster.

WHEELING

House Bill 2041 contemplates allowing the wheeling of electricity generated from nonfossil fuel sources to customers other than the electric utility company. Blue Planet Foundation generally supports this concept as a means to facilitate competition and innovation in the electricity market and hasten the transition to energy independence. We proposed specific language to direct the Public Utilities Commission to develop the necessary procedures and policies to enable the retail wheeling of electricity.

Blue Planet believes that the role of electric utilities in Hawai‘i will shift from a centralized producer-distributor model to a mostly decentralized, distribution manager model—the utility will control and manage the wires of the new smart grid but most of the power will come from independent, clean energy sources. Retail wheeling is a step toward that new model for the utility, where independent power producers can enter into agreements with end users and effectively “rent” the transmission and distribution capability from the utility. Such an arrangement would open the doors to innovation and encourage more to invest in clean energy development.

For example, the Kaheawa wind farm on Maui currently does not sell its power at night because the Maui electricity grid can't handle the excess and Maui Electric keeps baseload fossil-based generators running. If retail wheeling were allowed, the windfarm could find a potential customer for their wind energy at night—likely at a much discounted rate. Perhaps a large resort might be interested in purchasing lower cost electricity at night so they could do ice storage—making ice at night and using it for air conditioning during the day. This would have multiple benefits for the grid, clean energy power producers, and customers.

We note that electricity wheeling—in a more limited form—has been under consideration by the PUC. On June 29, 2007, the PUC initiated an investigation to examine the feasibility of implementing intra-governmental wheeling of electricity in Hawai'i. This was partially the result of Senate Concurrent Resolution 180 adopted on April 30, 2004. This docket was suspended by the PUC until December 2010 to allow for the other regulatory dockets (such as feed-in tariffs and decoupling) to be resolved. While we understand the need to proceed in an orderly way with these significant changes to the utilities' regulatory landscape, Blue Planet believes that further direction to the PUC to examine retail wheeling in a broad sense in warranted.

SUGGESTED AMENDMENTS REGARDING CURTAILMENT

Add new section to HB 2041 to replace the language on Page 4, lines 1 – 3 and Page 7, lines 20 – 22:

> Chapter 269, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:
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> "269- Retail wheeling; rules and procedures. No later than July 1, 2013, the public utilities commission shall establish necessary policies, and rules pursuant to chapter 91, for the deployment of retail wheeling to enable independent power producers to sell electricity directly to customers. For purposes of this section. "retail wheeling" means the distribution, over a public utility's transmission and distribution system, of power that is generated by an independent power producer and sold by the independent power producer directly to customers."

Thank you for the opportunity to testify.