



William A. Bonnet
Vice President
Government & Community Affairs

December 19, 2007

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
465 South King Street
Kekuanaoa Building, 1st Floor
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: HECO, HELCO, MECO
Renewable Portfolio Standard Status Report

Attached for your information is the Renewable Portfolio Standard Status Report for the year ended December 31, 2006 for Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited.

If you have any questions or would like to discuss this further, please call Dean Matsuura at 543-4622.

Sincerely,

Attachment

cc: Division of Consumer Advocacy

QFile
C:cc
UC
LHK
SI
BC
SKD
LYK

PUBLIC UTILITIES
COMMISSION

2007 DEC 19 P 1:43

FILED

2006 Renewable Portfolio Standard Status Report

**Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Limited**

For the Year Ended December 31, 2006

Hawaiian Electric Company and its subsidiaries, Hawaii Electric Light Company and Maui Electric Company ("the HECO utilities"), are pleased to have achieved a consolidated Renewable Portfolio Standard (RPS) of 13.8 percent in 2006. This is an increase from the 11.7 percent achieved in 2005 and is primarily the result of two new wind farms (Hawi Renewable Development and Kaheawa Wind Power) and additional demand-side management (DSM) implemented in 2006. This RPS status report shows that "traditional" renewable energy generation (as compared to electrical energy savings from renewable displacement or energy efficiency technologies) comprises the majority of the utilities' RPS addition in 2006, as well as a majority of the total RPS percentage for 2006.

This report also shows that new DSM program participants in 2006 contributed approximately 58 gigawatt hours of additional electrical energy savings. Still, the majority of the energy savings in 2006 came from participants in the utility's DSM programs from previous years that continue to save electricity. This highlights the importance of long-term support for utility DSM to achieve significant energy conservation benefits and increase the RPS percentage.

Major accomplishments in 2006 reduced Hawaii's use of fossil fuel. Further, concerted efforts to increase renewable energy generation and energy conservation are continuing. The HECO utilities furthered their commitment to these actions when their board of directors, with the support of management, adopted a strong global warming policy in January 2007. The policy declares the company's commitment to take direct action to mitigate the contributions to global warming from electricity production.

However, achieving higher RPS percentages in the future will have its challenges, even with aggressive utility DSM programs. This is because the use of electricity in the future is forecast to increase as Hawaii's economy continues to grow. Also, there are still many objections when it comes to siting renewable facilities. And the need for federal and state tax credits and incentives continues to play a major role in the development of renewable projects. It will take a concerted effort by all stakeholders to meet the State's RPS requirement of 20 percent by 2020. We look forward to working together to help Hawaii achieve these important objectives.



2006 Renewable Portfolio Standard Status Report

Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Limited

For the Year Ended December 31, 2006

(In Gigawatt Hours)

	HECO	HELCO	MECO	TOTAL	Percent
Electrical Energy Generated Using Renewable Energy Sources					
H-POWER	339			339	
Municipal Solid Waste - AES ¹	56			56	
PGV		212		212	
Hydro-Wailuku		31		31	
Hydro-HELCO owned		24		24	
HRD		23		23	
Wind - Lalamilo Wells		1		1	
Small Hydro		1		1	
Other Wind including Kamaea		1		1	
Biomass & Hydro-HC&S ²			79	79	
KWP			57	57	
Biodiesel			0.2	0.2	
Photovoltaic Systems	0.5	2.2	0.7	3.4	
Subtotal	395.5	295.2	136.9	827.6	59.2%

Electrical Energy Savings Using Renewable Displacement Technologies

Solar Water Heating ³	58	11	26	95	
Subtotal	58	11	26	95	6.8%

Electrical Energy Savings Using Energy Efficiency Technologies

Pre-2006 Participants	292	49	77	418	
2006 Participants	48	5	5	58	
Subtotal	340	54	82	476	34.0%
TOTAL	794	360	245	1399	100.0%

TOTAL SALES (GWh)

	7,701	1,149	1,266	10,116	
--	-------	-------	-------	--------	--

RPS PERCENTAGE⁴

	10.3%	31.3%	19.3%	13.8%	
--	-------	-------	-------	-------	--



2006 Renewable Portfolio Standard Status Report

**Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Limited**

For the Year Ended December 31, 2006

Hawaii's Renewable Portfolio Standard legislation (codified as Sections 269-91 to 269-95 of the Hawaii Revised Statutes (HRS)) establishes requirements for electric utilities to incorporate renewable resources into their resource portfolios and to reduce the use of imported oil. The Hawaii RPS legislation defines renewable portfolio standard as the percentage of electricity sales that is represented by renewable energy. It further specifies that the renewable portfolio standard shall be 10 percent by December 31, 2010, 15 percent by December 31, 2015, and 20 percent by December 31, 2020. An electric utility and its electric utility affiliates may aggregate their renewable portfolios in order to achieve the renewable portfolio standard.

Footnotes:

1. AES Municipal Solid Waste energy reflects the amount of energy derived from shredded tires, waste oil, and used activated carbon.
2. HC&S utilizes bagasse (i.e., sugar cane residue) and hydropower, which are sources of renewable energy, in addition to coal and oil to generate the electricity it sells to MECO. Renewable energy is estimated to provide 81.0 percent of the electricity sold to MECO based upon actual fuel consumption information for 2006 provided by HC&S.
3. HRS Section 269-91 specifies that renewable energy includes the electrical energy savings brought about by the use of solar water heating. The gigawatt hours (GWh) for solar water heating are based upon the annualized system level energy savings for all solar water heating participants in the utilities' demand-side management (DSM) programs. The energy savings from utility DSM programs are reported to the PUC and the Consumer Advocate and are verified by an independent consultant whose evaluation reports are also filed with the PUC and the Consumer Advocate.
4. HRS Section 269-91 specifies that renewable energy includes the electrical energy savings brought about by the use of renewable displacement and energy efficiency technologies. The gigawatt hours (GWh) for renewable displacement and energy efficiency technologies are based upon the annualized system level energy savings for all participants in the utility's demand-side management (DSM) programs excluding solar water heating, which is listed separately. The energy savings from utility DSM programs are reported to the Public Utilities Commission and the Consumer Advocate and are verified by an independent consultant whose evaluation reports are also filed with the PUC and the Consumer Advocate.
5. Renewable energy is defined in HRS Section 269-91 to include the electrical energy savings brought about by energy efficiency technologies. Since energy efficiency technologies are included with renewable energy and also reduce the amount of electricity sales, the renewable portfolio standard percentage might be viewed as double counting the benefits of energy efficiency technologies. If the energy savings of 476 GWh were added back into the electricity sales, then the renewable portfolio standard percentage would be 13.2 percent.



SPECIFIC PROJECTS

The following information summarizes the status of existing and proposed renewable energy projects which could have an impact on future RPS percentages.

Big Island:

Puna Geothermal Venture (PGV)

In July 2006 PGV experienced trouble with its production well and was derated to between 16 and 24 MW. PGV cleaned out two production wells, converted an injection well to a production well, and worked on sealing an existing injection well. As a result, PGV output steadily increased to an average 25 MW by December 2006. With the completion of the injection well repairs and permanent piping for the converted well, PGV was restored to its full 30 MW capacity level in February 2007 when all ten Ormat Energy Converters (OEC) were in service. PGV has indicated its intent to pursue improvements to the plant to increase its capacity by 8 MW, and to pursue negotiations with HELCO for a new or amended Power Purchase Agreement (PPA) reflecting that capacity increase. In November 2006, HELCO discussed with PGV the desired characteristics of an expanded PGV facility, which would enable the facility to contribute to system stability and responsiveness similar to HELCO's other must-run units.

Pakini Nui Wind Farm

HELCO and Apollo Energy Corporation (Apollo) reached agreement on a restated and amended PPA on October 13, 2004 which enabled Apollo to repower its previously existing 7 MW wind farm (Kamoa Wind Farm) located at South Point, Hawaii, and install an additional 13.5 MW of wind for a total wind farm capability of 20.5 MW. The PUC approved the restated and amended PPA (RAC) on March 10, 2005. Apollo assigned the RAC to its wholly owned subsidiary Tawhiri Power LLC, in December 2005, and named its new wind farm Pakini Nui. Construction and testing activities of the wind farm are complete, and the Pakini Nui wind farm became operational in April 2007.

Tradewinds Biomass

HELCO and Tradewinds Forest Product, LLC (Tradewinds) reached agreement on a PPA on July 26, 2007 whereby HELCO will purchase renewable energy produced by a biomass-powered generation facility under development by Tradewinds. Scrap wood from a veneer operation will be used to power Tradewinds' cogeneration facility that is to be built in O'okala. HELCO will purchase between 2 MW and 3.6 MW of electricity from Tradewinds on a scheduled basis. The project will also generate additional electricity to power the veneer operation and the additional electricity could be made available to HELCO if needed to cover a generation shortfall.

Maui:

HC&S

MECO and Hawaiian Commercial and Sugar Company (HC&S) agreed on July 2, 2007 that their existing PPA, which continues from year-to-year unless terminated, will continue through at least December 31, 2014, thus continuing the export of bagasse-generated and hydroelectric energy to Maui's grid.



Wind Farm

Kaheawa Wind Power (KWP) submitted a proposal in June 2006 reflecting its intent to pursue expansion of the existing 30 MW wind farm by 27 MW. In late June 2006, Shell WindEnergy Inc. and Ulupalakua Ranch Inc. announced an agreement under which Shell WindEnergy intends to construct a 42 MW wind farm and later, potentially a complementary pumped storage hydro facility on ranch land in East Maui. MECO has been in discussion with both parties regarding their respective proposals and will proceed forward with the project that can be best integrated into the Maui system.

Makila Hydro

MECO entered into a PPA with Makila Hydro, LLC (Makila) for the purchase of as-available energy from a refurbished 500 kW hydro electric plant above Lahaina previously interconnected to Pioneer Mill. Makila Hydro's in-service date was September 2006; however, it has not been providing power as its generator was damaged during the October 15, 2006 earthquake and is undergoing repairs.

Biofuels

In February 2007, BlueEarth Biofuels LLC (BlueEarth) announced plans for a biodiesel transesterification plant on the island of Maui to be operational by 2009. The biodiesel plant will be owned by BlueEarth Maui Biofuels LLC (BlueEarth Maui), a planned new venture between BlueEarth and Uluwehiokama Biofuels Corp. (UBC), a non-regulated subsidiary of HECO. UBC's net profits from the project will be directed to a biofuels public trust created for the purpose of funding biofuels development in Hawaii. MECO intends to lease to UBC a portion of the land owned by MECO for its future Waena generating station as the site for the biodiesel plant, with lease proceeds to be credited to MECO ratepayers. In addition, MECO plans to negotiate a fuel purchase contract with BlueEarth Maui for biodiesel to be used in existing diesel-fired units at MECO's Maalaea plant. Any feedstock imported for biofuel production will be required to comply with strict environmental procurement policy that ensures sustainable and locally-grown feedstock will be used for biodiesel in company plants.

Oahu:

H-POWER

In January 2007, the City and County of Honolulu issued a request for competitive sealed proposals to construct and operate an alternative energy facility and/or to improve and continue to operate the H-POWER facility. The City expects to award a contract by January 30, 2008.

Non-Firm Renewable RFP

On September 24, 2007, HECO submitted a request for approval to proceed with a competitive bidding process to acquire up to approximately 100 MW of non-firm renewable energy for the Island of Oahu, as identified in HECO's IRP-3 2007 Evaluation Report filed on May 31, 2007 in Docket No. 03-0253. HECO also issued a Solicitation of Interest on September 28, 2007 to preliminarily determine the interest of suppliers in responding to the planned Request for Proposals ("RFP"), and to obtain background information from potential suppliers. By Order No. 23699, issued October 9, 2007, the PUC noted that its approval to proceed was not required at this juncture, and opened Docket No. 2007-0331 to receive filings, review approval



requests, and serve as a forum to resolve disputes, if necessary, related to the proposed competitive bidding process. The planned draft RFP is targeted for submittal to the PUC for consideration on or about year-end 2007, with a desired service date for the renewable energy resources in the 2010 to 2012 timeframe.

Biofuels

On May 23, 2007, HECO received PUC approval to build a new 110 MW simple cycle combustion turbine (CT) generating unit at Campbell Industrial Park. Plans are for the biofueled combustion turbine to be run primarily as a "peaking" unit beginning in 2009. In August 2007 HECO entered into a supply contract with Imperium Renewables Hawaii for biodiesel to fuel the new CT. The contract was submitted to the Commission for approval in October, 2007. Imperium intends to build a transesterification plant in 2009 adjacent to Kalaeloa Harbor and produce biodiesel from sustainable imported and locally grown feedstock.

Photovoltaic Systems

HECO is pursuing a photovoltaic system as part of the 150 kW photovoltaic resource for 2008 identified in HECO's IRP-3 Evaluation Report filed with the PUC on May 31, 2007. On March 22, 2007, HECO issued a request for proposals to non-utility PV developers, seeking development of a photovoltaic system on the rooftop of Archer Substation, located at HECO's Ward Avenue facility. After reviewing and evaluating bids, HECO awarded the project to Hoku Solar on May 25, 2007. On November 16, 2007, HECO and Hoku Solar executed a Solar Energy Purchase Agreement ("SEPA") governing Hoku Solar's development of a 168 kW PV system and HECO's purchase of energy from the system. HECO is preparing an application for PUC approval of the SEPA. HECO anticipates the Ward PV system will be placed in service in late 2008.

Other PPA Proposals:

HECO, HELCO and MECO are in discussions with developers of a number of proposed renewable energy projects, which were submitted to the utilities prior to the adoption of the Framework for Competitive Bidding in Docket No. 03-0372, in addition to those identified above. Unless announced publicly by the project developer, details of these proposals generally are treated as confidential information. The companies provided some details of the proposals submitted prior to October 2007 to the PUC and the Consumer Advocate under protective order in the competitive bidding proceeding, Docket No. 03-0372. Additional projects for which proposals have been submitted to the companies include wind farm projects on Oahu and the Big Island, an ocean thermal energy conversion project on Oahu, a small waste-fired facility on Oahu, two biomass projects on the Big Island, small hydroelectric and solar power projects on the Big Island, a biomass project on Maui, and wind farm projects on Molokai and Lanai. HELCO also has received a proposal for a waste-to-energy facility on the Big Island, which may qualify for a waiver from the Framework for Competitive Bidding. Any resulting PPA would be subject to PUC approval.



Renewable Hawaii, Inc.:

HECO's non-regulated subsidiary, Renewable Hawaii, Inc. (RHI), has promoted large-scale renewable energy projects for the islands of Oahu, Maui, Molokai, Lanai, and the Big Island of Hawaii since 2003. RHI conducted periodic solicitations for new project proposals, offering limited passive investment, if needed, in qualified commercially viable and technically feasible projects upon attainment of all project development milestones. Technologies requiring research and design, prototype development, or demonstration were not considered.

RHI's initial solicitations have had the positive impact of attracting over thirty proposals for potential renewable projects in Hawaii. Whether or not these projects are implemented will depend on numerous factors, including cost projections, continued availability of tax credits, technical feasibility, and developers' abilities to obtain sites, permits, project financing and/or community support, and successful negotiation and approval of a power purchase agreement pursuant to the competitive bidding framework for new generation.

