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May 6, 2010

PUBLIC UTILITIES  
COMMISSION

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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: Docket No. 2007-0008  
Renewable Portfolio Standards Law Examination

In accordance with Decision and Order No. 23912 and the Framework for Renewable Portfolio Standards, issued December 20, 2007, attached is the Renewable Portfolio Standard Status Report for the year ended December 31, 2009 for Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited.

Sincerely,

Attachment

cc: Division of Consumer Advocacy  
R. J. Hee/T. Blume  
H. Curtis  
W. S. Bollmeier II

# 2009 Renewable Portfolio Standard Status Report

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

**For the Year Ended December 31, 2009**

This report was prepared pursuant to the Framework for Renewable Portfolio Standards issued by the Hawaii Public Utilities Commission on December 19, 2008 (Order Relating to RPS Penalties, Docket No. 2007-0008).

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 19.0 percent in 2009. This is an increase from the 18.0 percent achieved in 2008 and is primarily the result of the additional energy efficiency demand-side management (DSM) implemented in 2009 and increased installations of solar water heating and photovoltaic systems. In 2009 renewable energy generation totals were hampered by lower generation output available from geothermal and biomass resources.

This report shows that new DSM program participants in 2009 contributed approximately 57,429 megawatt hours of additional electrical energy savings.<sup>1</sup> Still, the majority of the energy savings in 2009 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 DSM to achieve significant energy conservation benefits.

Barring unforeseen decreases in existing renewable energy projects or DSM implementation, or increases in electricity sales, the HECO utilities expect to be able to meet the 2010 RPS percentage of 10% required by Hawaii law. However, achieving higher RPS percentages beyond 2010 will have its challenges, even with aggressive DSM programs. The current RPS law which became effective on July 1, 2009, will not allow the electrical energy savings to count towards the RPS from January 1, 2015; the 2020 RPS target is 25%; and the 2030 RPS target is 40%. Excluding electrical energy savings, the 2009 RPS for the HECO utilities is 9.2% compared to the 19.0% stated above. In 2009, the HECO utilities submitted for PUC approval a power purchase agreement (PPA) for the Kahuku Power 30 MW wind farm project and in early 2010 submitted the 6 MW PPA for the Honua project. The Kahuku Power project is anticipated to begin commercial operation at the end of 2010 and the Honua project is anticipated to begin commercial operation in 2013.

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<sup>1</sup> On February 13, 2007, the Commission issued Decision and Order No. 23258 in the Energy Efficiency proceeding (Docket No. 05-0069). The Commission ordered that the administration of the energy efficiency programs transition to a non-utility administrator, funded through a public benefits fund surcharge, to become effective around January 2009. Effective July 1, 2009, the administration of the HECO utility's energy efficiency DSM programs was transitioned to the Public Benefits Fee Administrator, Hawaii Energy. Therefore, energy efficiency program impacts claimed in 2009 are based on the combination of HECO utility records for customers who participated in the HECO utility's programs prior to July 1, 2009 and impact estimates provided by Hawaii Energy following the transition.



Integrating additional amounts of intermittent renewable generation while preserving stable electric grids and converting existing fossil fuel generating units to biofuels will be critical in meeting the 2015 RPS requirement. Siting renewable facilities continues to be a challenge in many communities and federal and state tax credits and incentives remain important in the development of renewable projects. Approvals and implementation of power purchase agreements and other procurement mechanisms for renewable energy projects will also play a key role. It will take a concerted effort by all stakeholders to meet the State's RPS requirements and achieve a clean energy future. The HECO utilities look forward to working together to help Hawaii achieve these *important objectives*.



## 2009 Renewable Portfolio Standard Status Report

Hawaiian Electric Company, Inc. ("HECO")  
 Hawaii Electric Light Company, Inc. ("HELCO")  
 Maui Electric Company, Ltd. ("MECO")

For the Year Ended December 31, 2009  
*(In Net Megawatt Hours)*

2009 RPS Status Report (Net Megawatt Hours)

	HECO	HELCO	MECO	TOTAL
<b>Electrical Energy Generated Using Renewable Energy Sources</b>				
Biomass (including waste-to-energy)	360,323		38,432	398,755
Geothermal		167,591		167,591
Photovoltaic <sup>1</sup>			1,390	1,390
Hydro		59,889	10,009	69,898
Wind		140,687	109,668	250,355
Biofuels	3,307		1,570	4,877
<b>Subtotal</b>	<b>363,630</b>	<b>368,167</b>	<b>161,069</b>	<b>892,866</b>
<b>Electrical Energy Savings Using Renewable Displacement Technologies</b>				
Photovoltaic Systems <sup>2</sup>	15,668	9,563	4,766	29,997
Solar Water Heating <sup>3</sup>	86,967	14,501	28,492	129,960
<b>Subtotal</b>	<b>102,635</b>	<b>24,064</b>	<b>33,258</b>	<b>159,957</b>
<b>Electrical Energy Savings Using Energy Efficiency Technologies<sup>3</sup></b>				
Pre-2009 Participants	604,348	46,479	81,375	732,202
2009 Participants	46,930	3,281	7,218	57,429
<b>Subtotal</b>	<b>651,278</b>	<b>49,760</b>	<b>88,593</b>	<b>789,631</b>
<b>TOTAL</b>	<b>1,117,543</b>	<b>441,991</b>	<b>282,920</b>	<b>1,842,454</b>
<b>TOTAL SALES</b>	<b>7,377,537</b>	<b>1,119,881</b>	<b>1,192,243</b>	<b>9,689,661</b>
<b>RPS PERCENTAGE</b>	<b>15.1%</b>	<b>39.5%</b>	<b>23.7%</b>	<b>19.0%</b>

<sup>1</sup> Renewable electrical energy generated by photovoltaic systems is based on recorded data of Independent Power Producers with PPAs.

<sup>2</sup> Savings from photovoltaic systems are based on known system installations as of the end of 2009 including Net Energy Metering ("NEM") installations, non-NEM systems, and Sun Power for Schools installations. Recorded generation data was used when available. For systems where recorded data was not available, estimates were made based on reasonable performance assumptions for typical photovoltaic systems.

<sup>3</sup> Savings from solar water heating systems were based upon the number of rebates paid through the program and an estimated savings per system based on the periodic evaluation of the program.



<sup>4</sup> Savings from the energy efficiency technologies are based upon the annualized system energy savings for all participants in the utility's demand-side management ("DSM") programs excluding solar water heating, which is listed under the Renewable Displacement Technologies. The energy savings from the utility DSM programs are reported to the Public Utilities Commission ("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.

