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Vice President  
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April 24, 2013

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2013 APR 24 P 3 57  
PUBLIC UTILITIES  
COMMISSION

The Honorable Chair 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, 2012 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

# 2012 Renewable Portfolio Standard Status Report

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

For the Year Ended December 31, 2012

This report was prepared pursuant to the Framework for Renewable Portfolio Standards, which was adopted by the Hawaii Public Utilities Commission ("Commission") in Docket No. 2007-0008.<sup>1</sup>

Hawaiian Electric Company and its subsidiaries, Hawaii Electric Light Company and Maui Electric Company (collectively, the "Hawaiian Electric Companies"), have achieved a consolidated Renewable Portfolio Standard ("RPS") of 28.7% in 2012, including the electrical energy savings from energy efficiency and solar water heating technologies. This is an increase from the 24.5% achieved in 2011 and is primarily the result of the increased energy from renewable energy sources (biomass, geothermal, photovoltaic, hydro, wind, and biofuels), additional energy from customer-sited grid-connected technologies (primarily photovoltaic systems), additional energy efficiency demand-side management ("DSM") implemented in 2012, and increased installations of solar water heating systems.

New DSM program participants in 2012 contributed approximately 175,950 megawatt-hours of additional electrical energy savings.<sup>2</sup> Also, approximately 1,009,310 megawatt-hours of electrical energy savings in 2012 came from participants in the Hawaiian Electric Companies' and Public Benefits Fee Administrator's ("PBFA's") energy efficiency DSM programs from previous years that continue to save electricity. DSM continues to achieve significant energy conservation benefits.

The current RPS law, which became effective on July 1, 2009, will not allow the electrical energy savings from energy efficiency and solar water heating technologies to count towards the RPS from January 1, 2015 (the 2015 RPS target is 15%, the 2020 RPS target is 25% and the 2030 RPS target is 40%). Excluding electrical energy savings from energy efficiency and solar water heating technologies, the 2012 renewable generation percentage for the Hawaiian Electric Companies is 13.9%. This renewable generation figure approximates how the RPS will be calculated in 2015 when the RPS calculation will be based only on renewable energy generation and customer-sited, grid-connected renewable energy.<sup>3</sup>

<sup>1</sup> The Framework for Renewable Portfolio Standards was adopted by Decision and Order No. 23912, issued December 20, 2007, and revised by the Commission on December 19, 2008 (Order Relating to RPS Penalties).

<sup>2</sup> Energy efficiency program impacts claimed in 2012 are based on the combination of the Hawaiian Electric Companies' records for customers who participated in the Hawaiian Electric Companies' programs prior to July 1, 2009 and impact estimates provided by Hawaii Energy (R. W. Beck / SAIC) following the transition. Hawaii Energy provided data for customer level energy efficiency impacts by program category reported during calendar year 2012 on March 6, 2013. This data was used to calculate electrical energy savings for new 2012 PBFA participants.

<sup>3</sup> On April 25, 2011, Act 010 (S.B. No. 1346 SD2) Relating to Renewable Portfolio Standards was signed into law. Act 010 amends the definition of "renewable electrical energy" to include, beginning January 1, 2015, customer-sited, grid-connected renewable energy generation (currently represented on the attached 2012 RPS Summary Report as "Customer-Sited, Grid-Connected" under Renewable Displacement Technologies). The RPS value of 13.9% represents the electrical energy generated from Renewable Energy Sources and Customer-Sited, Grid-Connected renewable energy as a percentage of Total Sales.



In 2012, the Hawaiian Electric Companies continued to position themselves to increase their renewable energy portfolio. New Net Energy Metering installations for the Hawaiian Electric Companies totaled 73.4 MW in calendar year 2012 (more than double the 29.7 MW added in 2011). The Hawaiian Electric Companies' feed-in tariffs for Tier 1 and Tier 2 ("Schedule FIT Tier 1 and 2") became effective October 22, 2010, and their feed-in tariffs for Tier 3 ("Schedule FIT Tier 3") became effective November 22, 2011, which will help to encourage the addition of more renewable energy projects in Hawaii. On Oahu, a new 5 MW PV plant and 69 MW wind project began commercial operation in late 2012. On Maui, two new wind projects (both 21 MW) also began commercial operation in 2012. On the Big Island of Hawaii, an 8 MW geothermal expansion plant began commercial operation in 2012. In addition to these new resources being placed in service, two 5 MW PV plants received Commission approval in 2012 for the Oahu system.

Integrating additional amounts of renewable generation, while preserving stable electric grids and converting existing fossil fuel generating units to biofuels, are essential elements of the Hawaiian Electric Companies' plans to meet future RPS requirements. Siting renewable energy 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. Timely approvals and implementation of renewable energy requests for proposals, power purchase agreements, biofuel contracts, and other mechanisms for renewable energy projects such as a renewable energy surcharge will also play key roles. It will take a concerted effort by all stakeholders to meet the State's RPS requirements and achieve a clean energy future. The Hawaiian Electric Companies look forward to working together to help Hawaii achieve these important objectives.



## 2012 Renewable Portfolio Standard Status Report

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

For the Year Ended December 31, 2012  
 (In Net Megawatt Hours)

2012 RPS Status Report (Net Megawatt Hours)

	2012				2011
	Hawaiian Electric	HELCO	MECO	TOTAL	TOTAL
<b>Electrical Energy Generated Using Renewable Energy Sources</b>					
Biomass (including municipal solid waste)	302,398		39,392	341,790	365,266
Geothermal		266,234		266,234	232,906
Photovoltaic <sup>1</sup>	5,904	245	3,494	9,643	2,169
Hydro <sup>1</sup>		57,613	7,453	65,066	51,506
Wind <sup>1</sup>	75,410	154,688	158,158	388,256	344,376
Biofuels	21,259		1,348	22,607	59,254
<b>Subtotal</b>	<b>404,971</b>	<b>478,780</b>	<b>209,845</b>	<b>1,093,596</b>	<b>1,055,477</b>
<b>Electrical Energy Savings Using Renewable Displacement Technologies</b>					
Customer-Sited, Grid-Connected <sup>2</sup>	125,882	28,282	28,474	182,638	84,968
Solar Water Heating <sup>3</sup>					
Utility	113,541	17,919	28,341	159,801	161,824
PBFA <sup>4</sup>	18,471	3,934	2,505	24,910	18,349
<b>Subtotal</b>	<b>257,894</b>	<b>50,135</b>	<b>59,320</b>	<b>367,349</b>	<b>265,141</b>
<b>Electrical Energy Savings Using Energy Efficiency Technologies<sup>5</sup></b>					
Pre-2012 Participants					
Utility	641,869	48,948	86,823	777,640	777,483
PBFA	179,267	27,920	24,483	231,670	118,661
2012 Participants (PBFA)	137,019	20,897	18,034	175,950	112,920
<b>Subtotal</b>	<b>958,155</b>	<b>97,765</b>	<b>129,340</b>	<b>1,185,260</b>	<b>1,009,064</b>
<b>TOTAL</b>	<b>1,621,020</b>	<b>626,680</b>	<b>398,505</b>	<b>2,646,205</b>	<b>2,329,682</b>
<b>TOTAL SALES</b>	<b>6,975,996</b>	<b>1,085,171</b>	<b>1,144,832</b>	<b>9,205,998</b>	<b>9,526,908</b>
<b>RPS PERCENTAGE</b>	<b>23.2%</b>	<b>57.7%</b>	<b>34.8%</b>	<b>28.7%</b>	<b>24.5%</b>
<b>RENEWABLE GENERATION</b>					
<b>(RPS Not Counting Energy Efficiency and Solar Water Heating)<sup>6</sup></b>					
Energy	530,853	507,062	238,319	1,276,234	1,140,445
Percentage	7.6%	46.7%	20.8%	13.9%	12.0%



<sup>1</sup> Renewable electrical energy generated is based on recorded data from FIT contracts and Independent Power Producers with PPAs.

<sup>2</sup> Savings from photovoltaic, wind, and hydro systems are based on known system installations for 2012 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. Utility Data is through June 2009, and PBFA Data is from July 2009 through 2012.

<sup>4</sup> Public Benefits Fee Administrator ("PBFA") in 2009 through 2012 is Hawaii Energy (SAIC).

<sup>5</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. Utility Data is through June 2009, and PBFA Data is from July 2009 through 2012. The energy savings from the utility DSM programs were reported to the Public Utilities Commission ("Commission") and the Consumer Advocate and were verified by an independent consultant whose evaluation reports are also filed with the Commission and the Consumer Advocate. The energy savings from the PBFA (Public Benefits Fee Administrator) was based on data provided by Hawaii Energy (SAIC).

<sup>6</sup> Beginning January 1, 2015, electrical energy savings from Energy Efficiency and Solar Water Heating technologies shall not count toward RPS standards.

