



February 17, 2023

The Honorable Chair and Members of the  
Hawai'i Public Utilities Commission  
465 South King Street  
Kekuanao'a Building, First Floor  
Honolulu, Hawai'i 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, 2022 for Hawaiian Electric.<sup>1</sup>

Sincerely,

/s/ Kevin M. Katsura

Kevin M. Katsura  
Director, Regulatory Non-Rate Proceedings

c: Division of Consumer Advocacy  
R.J Hee/T. Blume  
H. Curtis

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<sup>1</sup> "Hawaiian Electric" or "Company" refers to Hawaiian Electric Company, Inc., Hawai'i Electric Light Company, Inc., and Maui Electric Company, Limited. On December 20, 2019, the State of Hawai'i Department of Commerce and Consumer Affairs ("DCCA") approved Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited's application to do business under the trade name "Hawaiian Electric" for the period from December 20, 2019 to December 19, 2024. See Certificate of Registration No. 4235929, filed December 20, 2019 in the Business Registration Division of the DCCA.

# 2022 Renewable Portfolio Standard Status Report

## Hawaiian Electric For the Year Ended December 31, 2022

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

Pursuant to Hawai'i Revised Statutes § 269-92, the Renewable Portfolio Standard ("RPS") requirement for year 2020 is 30%, 2030 is 40%, 2040 is 70%, and 2045 is 100%. In July 2022, Governor Ige signed Act 240 (H.B. 2089) that amended the RPS calculation from renewable energy as a percentage of sales to renewable energy as a percentage of total system generation. The new calculation of RPS includes total generation, including generation from private rooftop solar, in the denominator, and total renewable generation, including generation from private rooftop solar, in the numerator. The previous calculation included electric sales in the denominator, which did not include renewable generation from private rooftop solar. The change in definition causes a lower RPS under the amended definition. The 2022 RPS under the amended and previous definition is provided in Figure 1.

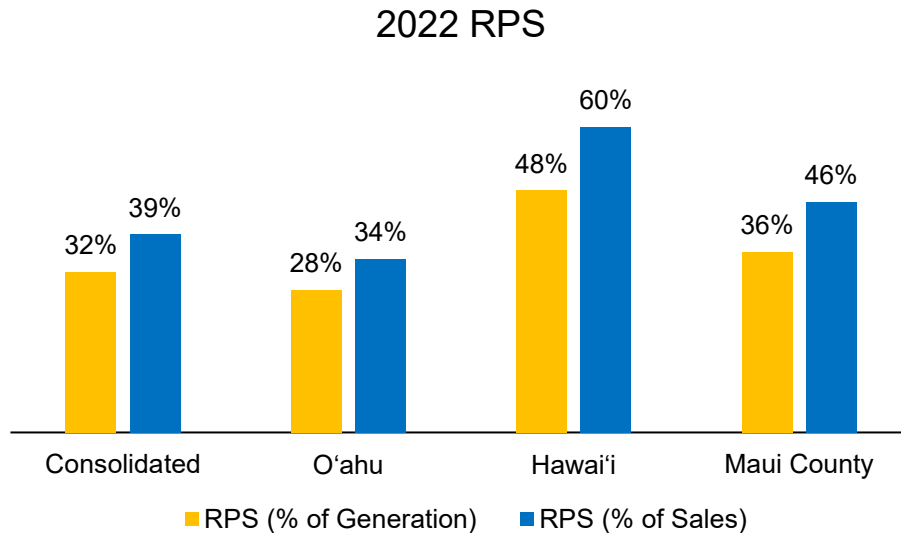


Figure 1: RPS by service territory, amended versus previous RPS definition

Because private rooftop solar represents a significant portion of the renewable generation portfolio, the RPS under the new definition is lower compared to the RPS

<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).

reported in previous years. However, the Company continues to comply with the RPS requirement.

Figure 2, below, shows Hawaiian Electric’s historical RPS progress under the new definition.

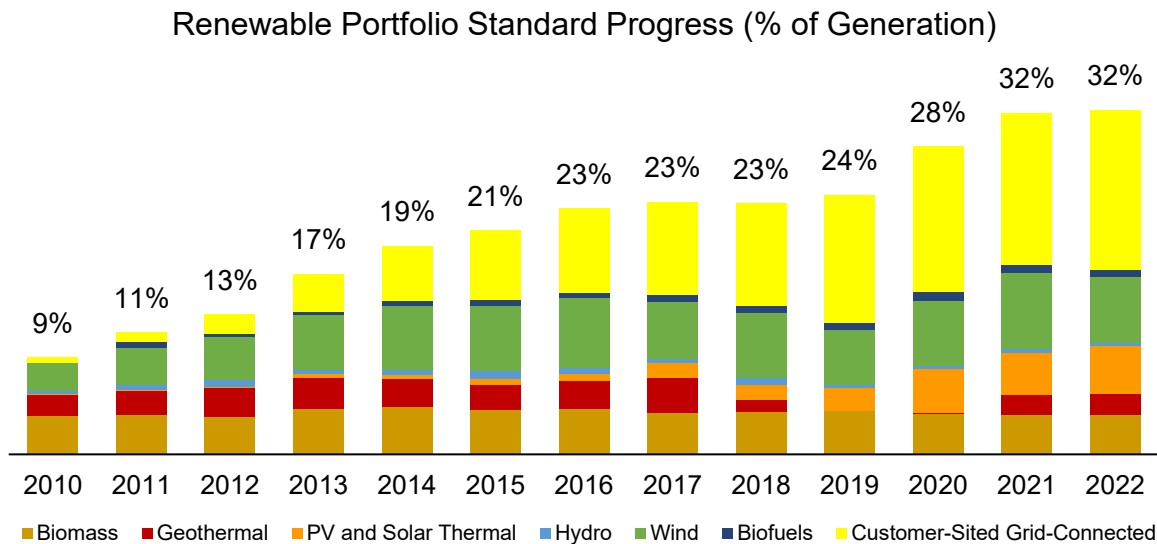


Figure 2: Renewable Portfolio Standards Under Amended Definition

In 2022, Hawaiian Electric achieved a consolidated RPS of 31.8%. In accordance with present RPS guidelines, this RPS does not include the electrical energy savings from energy efficiency and solar water heating technologies and is calculated as a percentage of total system generation.<sup>2, 3</sup> The 31.8% RPS was achieved through use of diverse renewable energy resources (biomass, geothermal, photovoltaic, hydro, wind, and biofuels) and customer-sited, grid-connected technologies (primarily private rooftop solar systems).

The O’ahu, Hawai’i Island, and Maui County systems achieved 28%, 48%, and 36% RPS, respectively.

<sup>2</sup> On April 25, 2011, Act 010 Relating to Renewable Portfolio Standards was signed into law. Act 010 provided that, as of January 1, 2015, electrical energy savings from energy efficiency and solar water heating technologies do not count towards calculating RPS. It also amended the definition of “renewable electrical energy” to include, beginning January 1, 2015, customer-sited, grid-connected renewable energy generation.

<sup>3</sup> On July 5, 2022, Act 240 Relating to Renewable Portfolio Standards was signed into law. Act 240 provided that “renewable portfolio standard” means the percentage of electrical energy generation that is represented by renewable electrical energy, excluding customer-sited, grid connected generation that does not produce renewable energy.

Hawaiian Electric continued to increase its renewable energy portfolio in 2022.

- Generation from grid-scale solar increased by 15% due to the 39 MW Mililani I Solar project achieving commercial operations in July 2022 and 36 MW Waiawa Solar project undergoing testing and commissioning in Q4 2022, achieving commercial operations in January 2023.
- New customer-sited energy resources (private rooftop solar), Community-Based Renewable Energy, and Feed-In Tariff installations totaled 40 MW. Generation from customer-sited, grid-connected resources increased by 7%.
- Geothermal production increased slightly this year as the Puna Geothermal Venture plant continues to return to full service.
- Wind production was down 11% compared to 2021; however, the 2022 wind production was within the range of historical wind production over the past decade.

In total, the electrical energy generated using renewable energy resources, including customer-sited, grid-connected technologies, resulted in a 3% increase compared to the previous year, which was partially offset by an approximate 2% increase in total generation (1% increase in electric sales) compared to 2021. Despite these offsetting changes to RPS, renewable generation continued to increase by 94,567 MWh in 2022, driven by the addition of new customer-sited and grid-scale resources.

In 2023, Hawaiian Electric expects to further increase the renewable energy provided to the system with commercial operations of additional grid-scale solar and battery energy storage projects, a full year production of the Waiawa Solar and Mililani Solar I projects, private rooftop solar additions, and continued progress on a return to full service of Puna Geothermal Venture.

# 2022 Renewable Portfolio Standard Status Report

## Hawaiian Electric For the Year Ended December 31, 2022 (In Net Megawatt Hours)

	2022				2021
	O'ahu	Hawai'i	Maui County	TOTAL	TOTAL
<b>Electrical Energy Generated Using Renewable Energy Sources</b>					
Biomass (including municipal solid waste) <sup>1</sup>	370,668			370,668	366,365
Geothermal <sup>1</sup>		208,346		208,346	183,391
Photovoltaic and Solar Thermal <sup>1</sup>	433,875	4,050	12,844	450,769	390,353
Hydro <sup>1</sup>		27,409		27,409	43,050
Wind <sup>1</sup>	249,766	141,301	234,849	625,916	701,124
Biofuels	16,256	46,292	566	63,114	71,780
Customer-Sited, Grid-Connected <sup>2</sup>	1,064,021	209,629	248,794	1,522,444	1,418,036
<b>TOTAL</b>	<b>2,134,587</b>	<b>637,027</b>	<b>497,052</b>	<b>3,268,667</b>	<b>3,174,100</b>
<b>TOTAL GENERATION</b>	<b>7,559,608</b>	<b>1,330,718</b>	<b>1,394,862</b>	<b>10,285,189</b>	<b>10,072,948</b>
<b>RPS PERCENTAGE (% of Generation)</b>	<b>28.2%</b>	<b>47.9%</b>	<b>35.6%</b>	<b>31.8%</b>	<b>31.5%</b>
<b>TOTAL SALES</b>	<b>6,210,797</b>	<b>1,053,833</b>	<b>1,089,324</b>	<b>8,353,955</b>	<b>8,261,103</b>
<b>RPS PERCENTAGE (% of Sales)</b>	<b>34.4%</b>	<b>60.4%</b>	<b>45.6%</b>	<b>39.1%</b>	<b>38.4%</b>

<sup>1</sup> Renewable electrical energy generation is based on recorded data from Feed-In Tariff contracts, Independent Power Producers that have Power Purchase Agreements with Hawaiian Electric, and Hawaiian Electric-owned grid-scale projects such as West Loch PV.

<sup>2</sup> Renewable electrical energy generation from customer-sited, grid-connected technologies is based on known system installations for 2022 including Net Energy Metering ("NEM") installations and non-NEM systems. 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 systems.



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