



February 21, 2024

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 on December 20, 2007, attached is the Renewable Portfolio Standard Status Report for the year ended December 31, 2023 for Hawaiian Electric.¹

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

¹ "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.

2023 Renewable Portfolio Standard Status Report

Hawaiian Electric For the Year Ended December 31, 2023

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. 2007-0008.¹

In 2023, Hawaiian Electric achieved a consolidated Renewable Portfolio Standard ("RPS") of 33.3%. 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.^{2, 3} The 33.3% RPS was achieved through the 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 30%, 52%, and 35% RPS, respectively. Figure 1 shows the RPS contribution by energy resource.

¹ 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).

² 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 toward calculating RPS. It also amended the definition of "renewable electrical energy" to include, beginning January 1, 2015, customer-sited, grid-connected renewable energy generation.

³ 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.

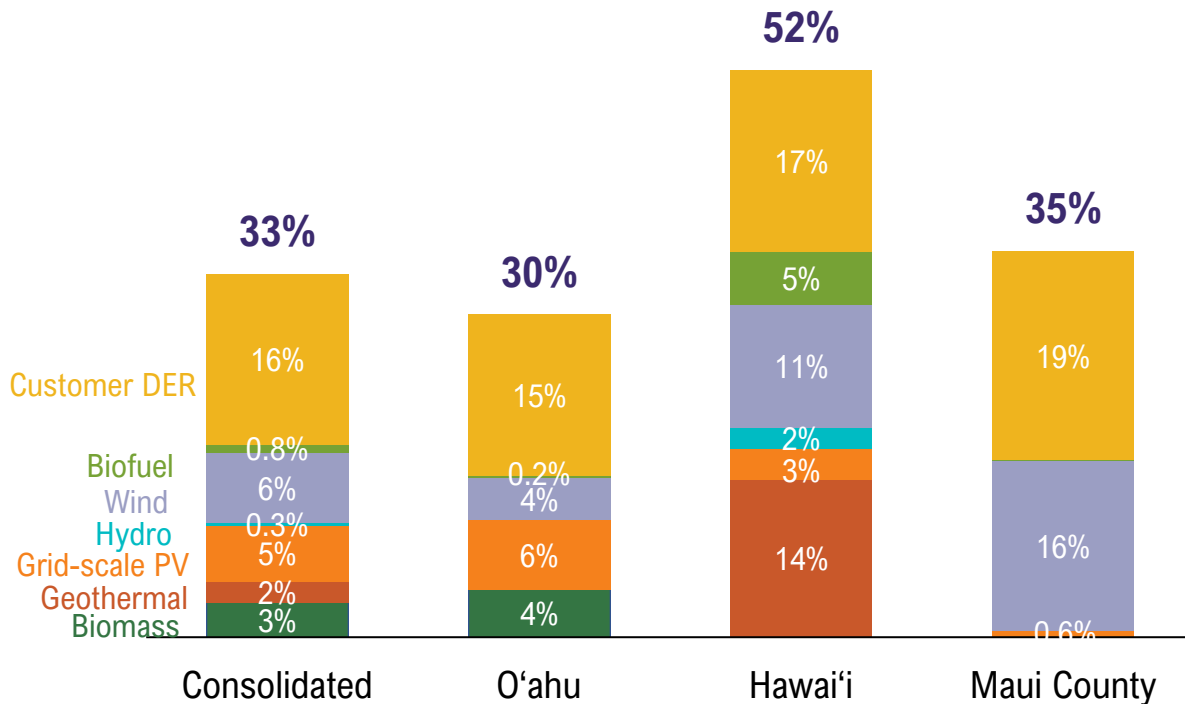


Figure 1: Renewable Portfolio Standards by Energy Source⁴

Hawaiian Electric continued to increase its renewable energy portfolio in 2023.

- Waiawa Solar (36 MW) achieved commercial operations in January 2023. Waikoloa Solar (30 MW) achieved commercial operations in April 2023. West O'ahu Solar (12.5 MW) was undergoing testing and commissioning in Q4 2023, and is expected to achieve commercial operations in 2024.
- Kapolei Energy Storage achieved commercial operations in December 2023. The standalone battery energy storage project is expected to help displace fossil fuel generation and increase renewable energy utilization to improve RPS.
- New customer-sited energy resources (private rooftop solar) installations totaled 65 MW.
- The Maui wildfires in August 2023 damaged an estimated 6 MW of customer-sited private rooftop solar, representing an estimated loss of 4,600 MWh. In addition to the private rooftop solar loss, two Feed-In Tariff⁵ projects were

⁴ Percentages by resource type may not sum to each island's RPS total due to rounding.

⁵ Estimated generation loss from the combined Feed-In Tariff facilities (38 kW capacity) is 6.7 MWh per month.

destroyed, and Ku'ia Solar⁶ is off-line due to previous fire damage and damaged interconnection to the system.

Renewable energy resources continued to increase, driven by the addition of new customer-sited and grid-scale resources. The electrical energy generated using renewable energy resources increased by 123,362 MWh, a 3.8% increase compared to the previous year.

In 2024, 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 (West O'ahu Solar, Kūpono Solar, Mountain View Solar, Ho'ohana Solar, Hale Kuawehi Solar, and Kuihelani), private rooftop solar additions, and continued progress on a return to full service of Puna Geothermal Venture.

⁶ Estimated generation loss from Ku'ia Solar (2.87 MW capacity) being off-line is 315 MWh per month.

2023 Renewable Portfolio Standard Status Report

Hawaiian Electric For the Year Ended December 31, 2023 (In Net Megawatt Hours)

	2023				2022
	O'ahu	Hawai'i	Maui County	TOTAL	TOTAL
Electrical Energy Generated Using Renewable Energy Sources					
Biomass (including municipal solid waste) ¹	327,545			327,545	370,668
Geothermal ¹		192,587		192,587	208,346
Photovoltaic and Solar Thermal ¹	483,379	37,229	7,841	528,449	450,769
Hydro ¹		26,557		26,557	27,409
Wind ¹	286,649	149,653	212,200	648,502	625,916
Biofuels	17,448	64,910	485	82,844	63,114
Customer-Sited, Grid-Connected ²	1,104,988	221,480	259,078	1,585,545	1,522,444
TOTAL	2,220,009	692,416	479,604	3,392,029	3,268,667
TOTAL GENERATION	7,503,616	1,330,128	1,355,411	10,189,155	10,285,189
RPS PERCENTAGE (% of Generation)	29.6%	52.1%	35.4%	33.3%	31.8%
TOTAL SALES	6,138,100	1,043,556	1,044,982	8,226,638	8,353,955
RPS PERCENTAGE (% of Sales)	36.2%	66.4%	45.9%	41.2%	39.1%

¹ 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.

² Renewable electrical energy generation from customer-sited, grid-connected technologies is based on known system installations for 2023 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.

Chu, Michael

From: noreply@salesforce.com on behalf of PUC CDMS <hpuc@notify.hawaii.gov>
Sent: Wednesday, February 21, 2024 10:25 AM
To: Chu, Michael
Subject: Hawaii PUC CDMS eSERVICES - E-Filing F-301284 FILED Confirmation

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E-Filing Filed Confirmation

Aloha Michael Chu,

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Account: Hawaiian Electric Company, Inc.
Date and Time Submitted: 2/21/2024, 10:24 AM
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