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


Sincerely,

Attachment

c: Division of Consumer Advocacy
   R.J Hee/T. Blume
   H. Curtis
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. 2007-0008.¹

Hawaiian Electric Company and its subsidiaries, Hawai'i Electric Light Company and Maui Electric Company (collectively, the "Hawaiian Electric Companies"), have achieved a consolidated Renewable Portfolio Standard ("RPS") of 26.7% in 2018. In accordance with present RPS guidelines, this RPS does not include the electrical energy savings from energy efficiency and solar water heating technologies.² The 26.7% RPS was achieved in 2018 through the use of diverse renewable energy resources (biomass, geothermal, photovoltaic, hydro, wind, and biofuels) and customer-sited, grid-connected technologies (primarily photovoltaic systems).

On June 8, 2015, Act 097 Relating to Renewable Standards was signed into law. Act 097 increased the 2020 RPS to 30%, maintained the 2030 RPS at 40%, added a 2040 RPS of 70%, and added a 2045 RPS of 100%.

The Hawaiian Electric Companies continued to increase their renewable energy portfolio. In calendar year 2018, new Net Energy Metering installations totaled 6.4 MW, new Standard Interconnection Agreement installations totaled 10.1 MW, new Customer Grid Supply installations totaled 18.0 MW, new Customer Self Supply installations totaled 5.6 MW, and new Feed-In Tariff installations totaled 3.3 MW. On Maui, two grid-scale PV projects, the 2.9 MW South Maui Renewable Resources and 2.9 MW Kuia Solar, began their first year of operation. On Oahu, the 50 MW Schofield Generating Station, a flexible and efficient power generation facility capable of running on a combination of biofuels and conventional fuels, was also brought online. On Hawai'i Island, the Puna Geothermal Venture plant was shut down and remains offline due to lava flow in the Leilani Estates area.

Electrical energy generated using renewable energy resources, including customer-sited, grid-connected technologies, decreased by 4,177 megawatt hours in 2018, a

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 (Session Laws of Hawaii' 2011) 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.
0.18% decrease compared to the previous year. Had the extraordinary lava eruption event not occurred on Hawai‘i Island and Puna Geothermal Venture produced at the same level as 2017, the RPS would have been 29.2% for the consolidated Hawaiian Electric Companies and 63.6% for Hawai‘i Electric Light.

With a renewed focus on comprehensive energy planning, the Hawaiian Electric Companies proposed an Integrated Grid Planning process ("IGP") in a detailed work plan filed on December 14, 2018. We believe the IGP will benefit customers by identifying the best options for resources, grid services, and non-wires alternatives to affordably move Hawaii toward a reliable, resilient clean energy future that achieves Hawai‘i’s 100 percent RPS goal with minimal risk. The Hawaiian Electric Companies look forward to working together with all stakeholders to help Hawai‘i achieve this important objective.
## 2018 Renewable Portfolio Standard Status Report

Hawaiian Electric Company, Inc. (“Hawaiian Electric”)  
Hawaiʻi Electric Light Company, Inc. (“Hawaiʻi Electric Light”)  
Maui Electric Company, Limited (“Maui Electric”)

For the Year Ended December 31, 2018  
(In Net Megawatt Hours)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass (including municipal solid waste)</td>
<td>389,730</td>
<td>389,730</td>
<td></td>
<td></td>
<td>381,138</td>
</tr>
<tr>
<td>Geothermal 1</td>
<td>110,089</td>
<td>110,089</td>
<td></td>
<td></td>
<td>322,609</td>
</tr>
<tr>
<td>Photovoltaic and Solar Thermal 1</td>
<td>132,366</td>
<td>3,924</td>
<td>12,859</td>
<td>149,148</td>
<td>142,868</td>
</tr>
<tr>
<td>Hydro 1</td>
<td>62,387</td>
<td>347</td>
<td>62,734</td>
<td></td>
<td>30,284</td>
</tr>
<tr>
<td>Wind 1</td>
<td>200,644</td>
<td>146,666</td>
<td>254,698</td>
<td>602,007</td>
<td>532,875</td>
</tr>
<tr>
<td>Biofuels</td>
<td>61,082</td>
<td>952</td>
<td></td>
<td></td>
<td>55,982</td>
</tr>
<tr>
<td>Customer-Sited, Grid-Connected 2</td>
<td>660,211</td>
<td>141,058</td>
<td>147,205</td>
<td>948,474</td>
<td>862,638</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,444,032</td>
<td>464,125</td>
<td>416,060</td>
<td>2,324,217</td>
<td>2,328,394</td>
</tr>
</tbody>
</table>

| TOTAL SALES                            | 6,525,670              | 1,064,082                   | 1,099,020          | 8,688,772  | 8,690,433  |

**RPS PERCENTAGE**  
(Not Counting Energy Efficiency and Solar Water Heating)  

<table>
<thead>
<tr>
<th>Hawaiian Electric</th>
<th>Hawaiʻi Electric Light</th>
<th>Maui Electric</th>
<th>Total</th>
<th>2017</th>
<th>2018</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.1%</td>
<td>43.6%</td>
<td>37.9%</td>
<td>26.7%</td>
<td>26.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Renewable electrical energy generation is based on recorded data from Feed-In Tariff contracts and Independent Power Producers with Power Purchase Agreements with the Hawaiian Electric Companies.

2 Renewable electrical energy generated by customer-sited, grid-connected technologies is based on known system installations for 2018 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.