



March 31, 2021

The Honorable Chair and Members of the  
Hawai'i Public Utilities Commission  
Kekuanaoa Building, First Floor  
465 South King Street  
Honolulu, Hawai'i 96813

Dear Commissioners:

Subject: Docket No. 2018-0422 Maui Electric Company, Limited  
Schedule EV-MAUI Tariff Annual Report

Maui Electric files this EV-MAUI Tariff Annual Report, consistent with the Company's representations in Docket No. 2018-0422, *Maui Electric's Revised Schedule EV-Maui Tariff*, Exhibit 2, page 5 of 15, footnote 13, filed on August 30, 2019.<sup>1</sup>

Sincerely,

/s/ Kevin M. Katsura

Kevin M. Katsura  
Director  
Regulatory Non-Rate Proceedings

Attachment

cc: Consumer Advocate (w/attachment)

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<sup>1</sup> In accordance with Order No. 37043 *Setting Forth Public Utilities Commission Emergency Filing and Service Procedures related to COVID-19* (non-docketed), issued by the Commission on March 13, 2020, the Company is serving this filing on the Consumer Advocate via email.

# Hawaiian Electric's Electric Vehicle EV-MAUI Rates Report

## Annual Report on the Progress and Status of the Electric Vehicle Charging Service EV-MAUI Rate

March 31, 2021

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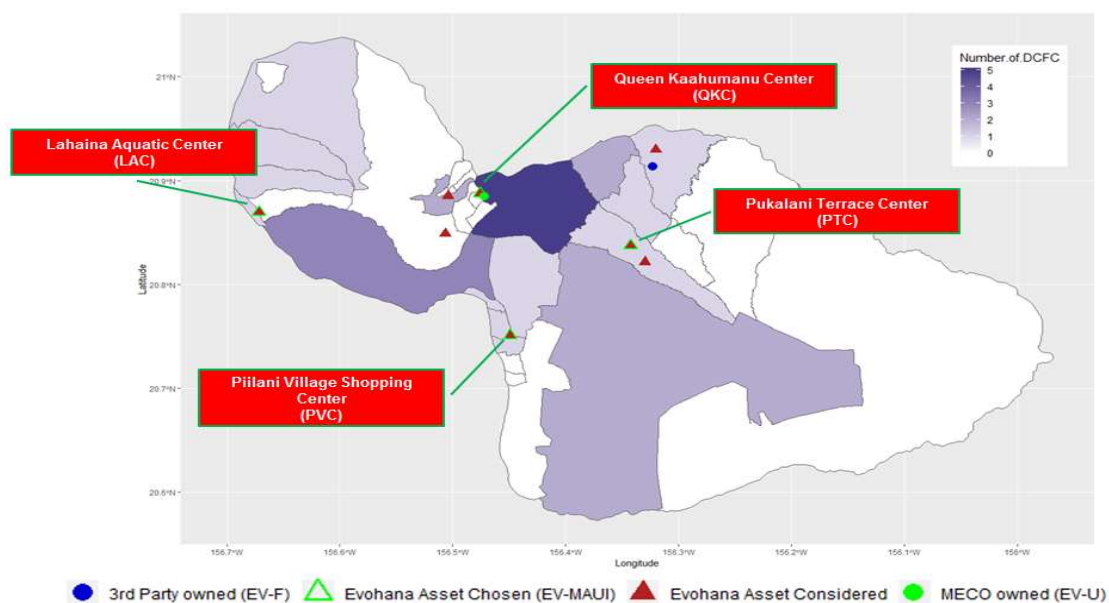
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## Executive Summary

Maui Electric Company, Limited (“Maui Electric” or the “Company”) files this *Annual Report on the Progress and Status of the Electrical Vehicle Charging Service EV-MAUI Rate* (“Annual Report”).<sup>1</sup>

The EV-MAUI program launched in 2020, with the first charger installed and made available to electric vehicle (“EV”) owners on August 18, 2020 at the Pukalani Terrace Shopping Center, and three additional chargers installed in December 2020, at the Lahaina Aquatic Center, Piilani Village Shopping Center, and Queen Kaahumanu Center (see Figure 1). These four stations were selected based on residential customer feedback, market pricing information, historic data, and forecasted charging network information.

**Four sites selected for EV-MAUI Tariff, providing an expanded Company owned network of DCFC assets on Maui**



**Figure 1 - Census tract map of Maui DCFC locations**

Due to the COVID-19 pandemic, some site agreements were delayed as site hosts temporarily closed or reduced operations between the months of March through July of 2020. Additionally, the County of Maui Lahaina Aquatic Center required a County Council approved concession agreement. This additional process required a request by the county Mayor, a scheduled hearing and testimony to the County Council, and final county Mayor signature on the concession agreement. With the support and partnership from MEDB, the County of Maui, Ulupono

<sup>1</sup> The Annual Report is filed consistent with the Company’s representations in Docket No. 2018-0422, *Maui Electric’s Revised Schedule EV-Maui Tariff* (“Revised Schedule EV-Maui Tariff”), Exhibit 2, page 5 of 15, footnote 13, filed on August 30, 2019.

Initiative and Blue Planet Foundation, the four Hawaiian Electric operated EV-MAUI sites have been installed and are operational, serving EV owners with direct current fast charging (“DCFC”) stations in Central, South, West and Upcountry Maui areas.

## Background

Maui Electric submitted its Revised Schedule EV-MAUI Tariff on August 30, 2019 and proposed four direct current fast charger (“DCFC”) sites from the EVohana network that was previously owned and operated by the Maui Economic Development Board (“MEDB”).<sup>2</sup>

The revised Schedule EV-MAUI rates were 35-42% less than the corresponding rates that had previously been proposed for all time periods (i.e., Mid-Day, On-Peak, and Off-Peak), with the greatest percent reduction in rates for the Mid-Day period. The revised rate design incentivized charging during hours of solar generation, sent appropriate pricing signals to current and potential electric vehicle (“EV”) drivers, and was tailored for Maui’s specific grid needs.<sup>3</sup>

The Commission approved Maui Electric’s revised Schedule EV-MAUI and accompanying proposal to own and operate four EV DCFC stations<sup>4</sup> and reiterated its approval of MECO’s request for deferred accounting treatment in light of MECO’s adoption of the shared savings mechanism set forth in D&O 36229.

The EV-MAUI sites contribute to Initiative #7 of the Company’s Electrification of Transportation (“EoT”) Strategic Roadmap (“Roadmap”)<sup>5</sup>, which is intended to expand the availability of reliable public charging by leveraging the utility’s existing distribution network to create maximum customer value at the lowest cost. The expansion of reliable public charging was supported as a top priority by stakeholders<sup>6</sup> as it promotes EV adoption by reducing range anxiety, creates an alternative to home charging, and provides a primary source of charging for rental cars and Transportation Network Companies (TNCs)/taxis. The EV-MAUI program also increased access to public charging beyond the previous CHAdeMO-only charging ports under the EVohana program to be able to charge nearly 100% of full battery EVs (i.e., Teslas with adapters).

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<sup>2</sup> Pursuant to Decision and Order No. 36229 (“D&O 36229”) issued on March 22, 2019 in Docket No. 2018-0422.

<sup>3</sup> See D&O 36229 at 35-36.

<sup>4</sup> See Decision and Order No. 36943 (“D&O 36943”) issued on January 10, 2020 in Docket No. 2018-0422. .

<sup>5</sup> The Companies’ Electrification of Transportation Roadmap was originally filed on March 29, 2018 in Docket No. 2016-0168 and was re-filed on June 18, 2018 in Docket No. 2018-0135, with subsequent addendum filed on November 29, 2018.

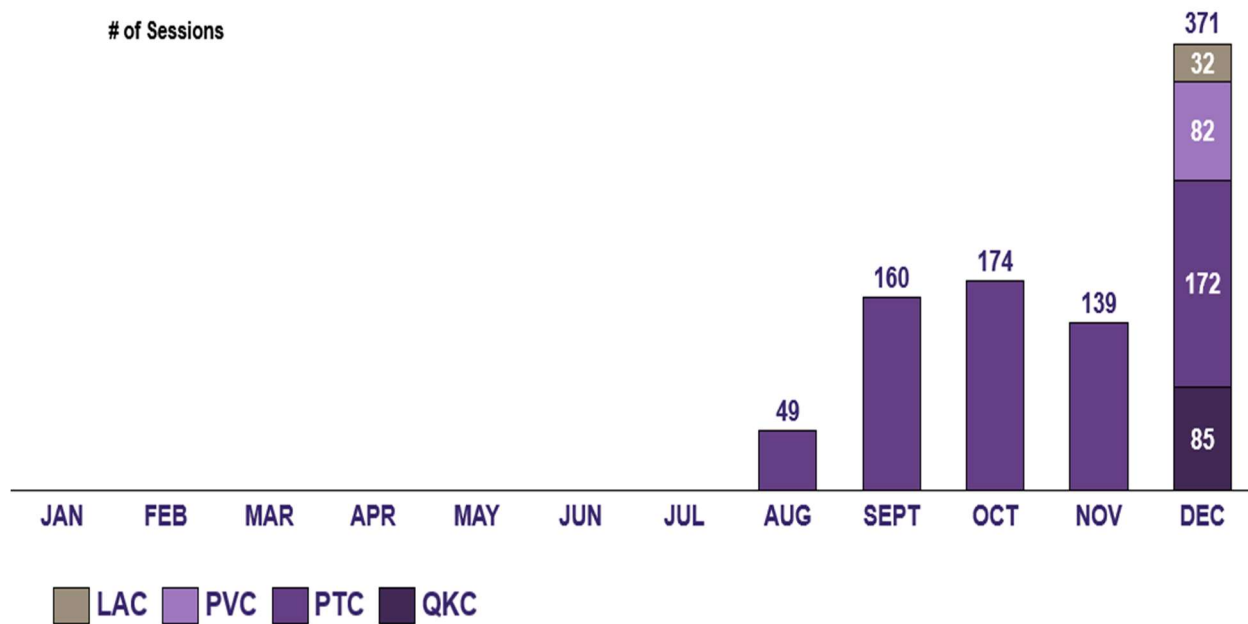
<sup>6</sup> Docket No. 2018-0135, Public Comments submitted between July 3 and July 19, 2018.

## EV-MAUI DCFC Utilization

In 2020, the Company saw relatively few charging sessions on the four EV-MAUI chargers since most of the installations were completed in the later part of the year. As such, the following results are based on limited data and should be considered accordingly.

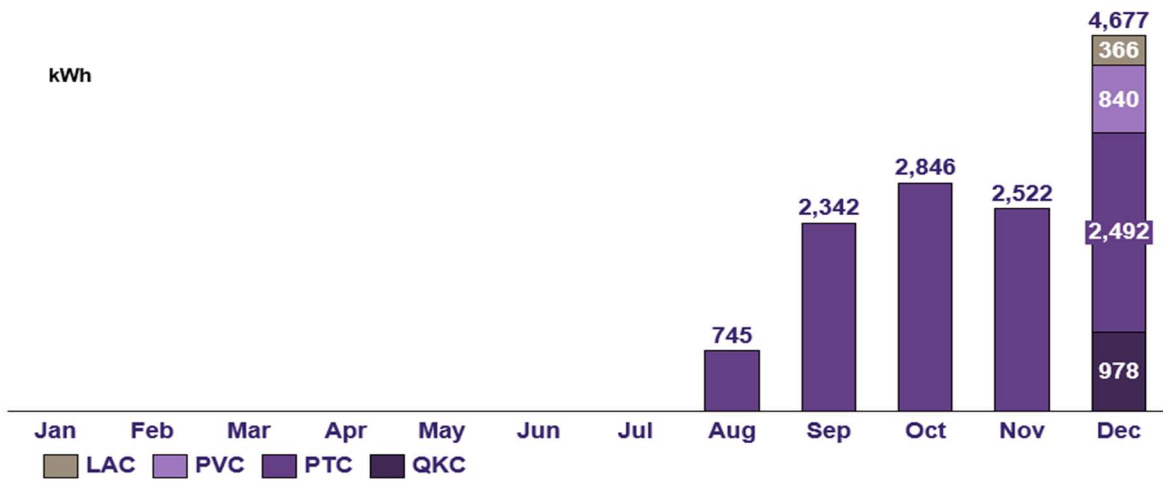
Given that the previous EVohana chargers owned and operated by MEDB were decommissioned on July 31, 2020, only two DCFC remained available to the public. One charger included in the EV-U pilot is located at the Hawaiian Electric Maui Office, and one is located at the Haiku Marketplace operated by a third-party charging provider.

The monthly overall utilization for the EV-MAUI DCFC sites is shown in Figure 2 below:



**Figure 2 - Monthly utilization for all EV-MAUI DCFC sites.**

The overall amount of energy consumed (measured in kilowatt-hours (“kWh”)) is reflected in Figure 3 below:



**Figure 3 Summary of all four EV-MAUI chargers by energy consumed (kWh) for 2020.**

Market research from two surveys, analysis of historic utilization data, geographic diversity, and the Hawaiian Electric Companies’<sup>7</sup> critical backbone study were some of the criteria used in the selection of sites.<sup>8</sup> As shown in the usage summaries for each site, most of the charging is in the Mid-Day period. This may be mostly attributed to the large price difference with the least costs in the Mid-Day period. The TOU pricing per kWh for the EV-MAUI tariff is as shown below:

On-Peak (5:00 p.m. – 10:00 p.m., Daily) Energy Charge - per kWh	40.3412¢
Mid-Day (9:00 a.m. - 5:00 p.m., Daily) Energy Charge - per kWh	28.3412¢
Off-Peak (10:00 p.m. - 9:00 a.m., Daily) Energy Charge - per kWh	38.3412¢

The start time of the charging session determines the applicable time-of-use period.

<sup>7</sup> The “Hawaiian Electric Companies” refers to Maui Electric, Hawaiian Electric Company, Inc., and Hawai‘i Electric Light Company, Inc.

<sup>8</sup> Revised Schedule EV-Maui Tariff, Exhibit 2 at 14, footnote 37.

Below is a summary for each DCFC site with additional details provided in .

### Lahaina Aquatic Center (“LAC”)

The LAC charger was installed in December 2020 and commissioned (available to the public) on December 17, 2020. This DCFC provides critical access to fast charging to the West Maui community as well as drivers traveling in this area. There are several times a year when the two-lane highway (“Pali”) is shut down for hours due to reasons including vehicular accidents and brush fires, limiting access to other chargers. For EV drivers in West Maui this site is their only public DCFC option within 20 miles. Furthermore, during the pandemic, other EV Level II charging options were not available due to site and facility closures. The LAC DCFC serves the areas of Lahaina, Kahana, Napili and Kapalua and is open from 8 am to 8 pm daily.

Usage period analysis shows that most of the charge sessions at this location continue to be during the Mid-Day period. Mid-Day sessions comprised 84 percent of all sessions. This result may be partially attributed to LAC’s business hours of 8:00 a.m. to 8:00 p.m.

Figure 4 below summarizes the key statistics collected for LAC in 2020:

LAC		2020
<b>% utilization</b>		
	Off-Peak	3%
	Mid-Day	84%
	On-Peak	13%
<b>Energy (kWh) per session</b>		
	Off-Peak	7
	Mid-Day	12
	On-Peak	9
<b>Gross Revenue (\$) per session</b>		
	Off-Peak	2.47
	Mid-Day	3.37
	On-Peak	3.47
<b>Minutes (min) per session</b>		
	Off-Peak	31
	Mid-Day	27
	On-Peak	20

Figure 4 - Lahaina Aquatic Center (LAC) site statistics for 2020.



## Pi ilani Village Shopping Center (“PVC”)

The PVC charger was installed in December 2020 and commissioned on December 17, 2020. PVC is the only DCFC site open to the public in South Maui and serves the areas of Kihei and Wailea and is accessible 24 hours per day, seven days per week.

Usage period analysis shows that most of the charge sessions at this location continue to be during the Mid-Day period. Mid-Day sessions comprised 73 percent of all sessions.

Figure 5 - below summarizes the key statistics as averages for the data collected for the PVC site in 2020:

PVC		2020
<b>% utilization</b>		
	<b>Off-Peak</b>	16%
	<b>Mid-Day</b>	73%
	<b>On-Peak</b>	11%
<b>Energy (kWh) per session</b>		
	<b>Off-Peak</b>	9
	<b>Mid-Day</b>	11
	<b>On-Peak</b>	9
<b>Gross Revenue (\$) per session</b>		
	<b>Off-Peak</b>	3.44
	<b>Mid-Day</b>	3.00
	<b>On-Peak</b>	3.55
<b>Minutes (min) per session</b>		
	<b>Off-Peak</b>	20
	<b>Mid-Day</b>	23
	<b>On-Peak</b>	21

**Figure 5 - Pi ilani Village Shopping Center (PVC) site statistics for 2020.**

## Pukalani Terrace Shopping Center (“PTC”)

The PTC charger was the first of the EV-MAUI chargers to be installed. It was installed in August 2020 and commissioned on August 18, 2020. PTC is in Upcountry Maui and serves the areas of Pukalani, Makawao and Kula and is accessible 24 hours per day, seven days per week.

As this location was the only EV-MAUI charger available in the program prior to December, usage aligned with the lowest cost during the Mid-Day period with 72 percent of all sessions and the highest distribution of kWh. This high utilization may also be due to the price per kWh being \$0.12 cheaper than the On-Peak period and \$0.10 cheaper than the Off-Peak period. Also, most of the PTC located businesses hours align with the Mid-Day period.

Figure 6 below summarizes the key statistics as averages for the data collected for the PTC site in 2020:

PTC		2020
<b>% utilization</b>		
	<b>Off-Peak</b>	20%
	<b>Mid-Day</b>	72%
	<b>On-Peak</b>	8%
<b>Energy (kWh) per session</b>		
	<b>Off-Peak</b>	22
	<b>Mid-Day</b>	14
	<b>On-Peak</b>	14
<b>Gross Revenue (\$) per session</b>		
	<b>Off-Peak</b>	8.19
	<b>Mid-Day</b>	4.02
	<b>On-Peak</b>	5.65
<b>Minutes (min) per session</b>		
	<b>Off-Peak</b>	37
	<b>Mid-Day</b>	31
	<b>On-Peak</b>	33

**Figure 6 - Pukalani Terrace Shopping Center (PTC) site statistics for 2020.**

### Queen Ka`ahumanu Center (“QKC”)

The QKC charger was also installed in December 2020 and commissioned on December 9, 2020. QKC is in Central Maui and serves the Kahului area and is accessible 24 hours per day, seven days per week. Under the previous EVohana program, the QKC location was the most utilized site in the entire EVohana network. Provided that business returns to pre-pandemic levels at this shopping center, the QKC DCFC may be the highest utilized location in the EV-MAUI program due to its central location and shopping amenities.

Usage period analysis shows that most of the charge sessions at this location continue to be during the Mid-Day period. Mid-Day sessions comprised 76 percent of all sessions.

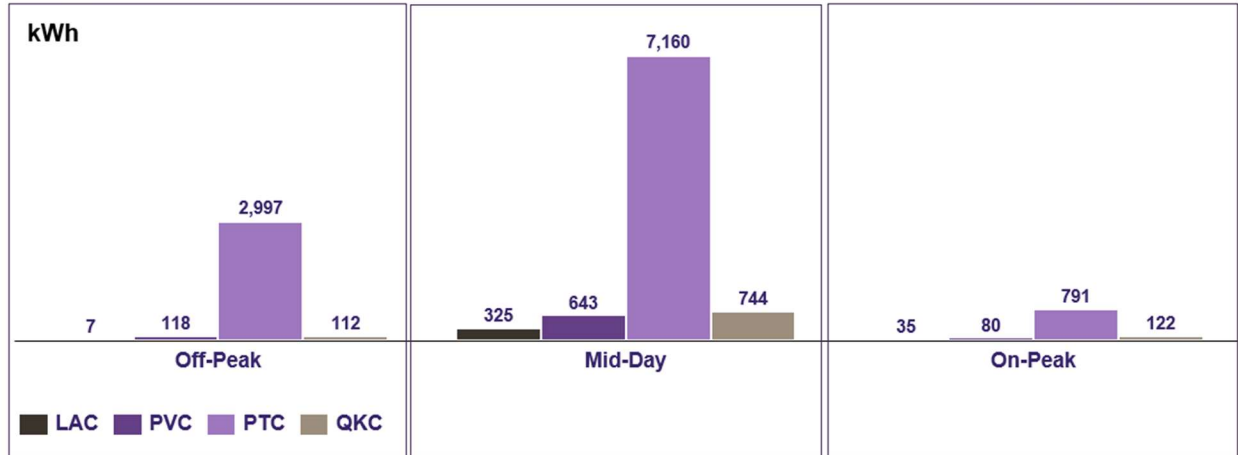
Figure 7 below summarizes the key statistics as averages for the data collected for the QKC site in 2020:

QKC		2020
<b>% utilization</b>		
	Off-Peak	7%
	Mid-Day	77%
	On-Peak	16%
<b>Energy (kWh) per session</b>		
	Off-Peak	19
	Mid-Day	11
	On-Peak	9
<b>Gross Revenue (\$) per session</b>		
	Off-Peak	7.11
	Mid-Day	3.20
	On-Peak	3.49
<b>Minutes (min) per session</b>		
	Off-Peak	38
	Mid-Day	35
	On-Peak	29

Figure 7 - Queen Ka`ahumanu Center (QKC) site statistics for 2020.

## Analysis of EV-MAUI Rate

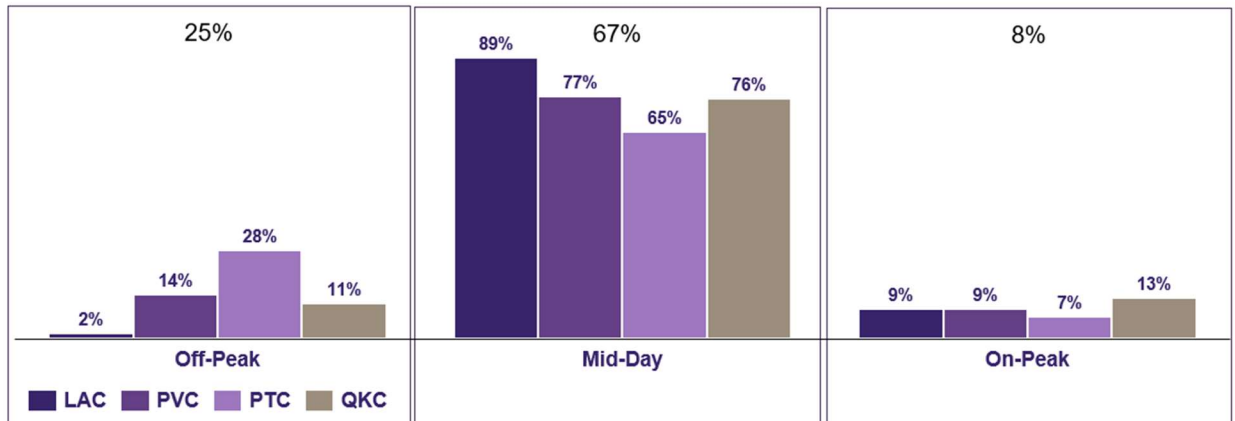
Figure 8 below provides aggregate energy consumption by site and TOU period:



**Figure 8 - The aggregate energy consumption by site and TOU period 2020.**

The percent of energy consumption for site by time of use period for 2020 is shown in Figure 9 below. The Mid-Day time period is the most utilized by each utility and on aggregate is 67% of all energy consumed in 2020 under Schedule EV-MAUI.

% of total energy (kWh) by time of day



**Figure 9 - The percent of energy consumed by site in all time periods for 2020.**

## Summary of the Shared Savings Mechanism (“SSM”)

In D&O 36229, the Commission conditioned its approval of Maui Electric's request for deferred accounting treatment upon implementation of a shared savings mechanism.

In D&O 36943, the Commission approved Maui Electric’s proposed Revised Schedule EV-MAUI tariff as just, reasonable, and in the public interest provided implementation of the SSM.

The SSM is as follows:

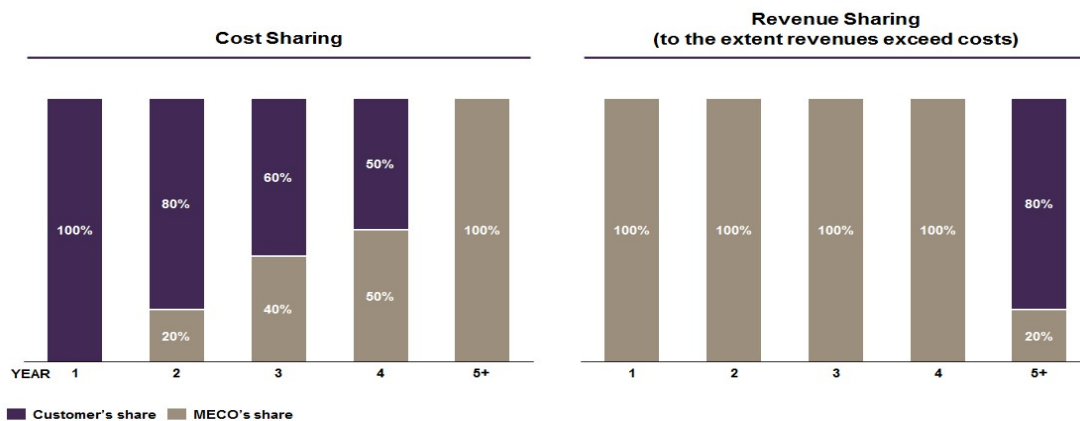
For years 1 through 5, customers and MECO shall share in the net costs (i.e., the total expenses minus revenues) related to MECO's ownership and operation of the chargers on stepped-down basis as follows:

- Year 1: 100% customers - 0% MECO
- Year 2: 80% customers - 20% MECO
- Year 3: 60% customers - 40% MECO
- Year 4: 50% customers - 50% MECO
- Year 5: 0% customers - 100% MECO

To the extent revenues exceed costs in the first four years, Maui Electric may retain the entirety of any net revenues (i.e., the profit). However, in consideration of the significant potential customer contribution to net costs in years one through four, beginning in year five, if revenues generated by the stations exceed the total expenses, thereby resulting in profit, such net revenues shall be shared between customers and Maui Electric as follows:

- Year 5: 80% customers 20% MECO<sup>9</sup>

Figure 10 below shows graphically the SSM and the allocation of costs and revenues between Maui Electric and customers for the EV-MAUI program:



**Figure 10 - Shared Savings Mechanism**

<sup>9</sup> D&O 36229 at 31.

Appendix B to this Annual Report is an excerpt from the Revised Schedule EV-Maui Tariff<sup>10</sup> that contains the details of the financial model for the four sites, including the consolidated revenue sharing mechanism, bill impact and assumptions used for each site selected. Appendix C to this report includes the actual 2021 Shared Savings/Cost Mechanism Accounting Sheets for each of the four EV-MAUI sites.

Since PTC showed revenues that exceeded expenses in the first year due to installation in the 3<sup>rd</sup> Quarter, and the Company is allowed to retain 100% of the profits in Year 1, there is no sharing of these profits with the customer.

For the other three sites (LAC, PVC and QKC), as of 12/31/20 year end, project amounts had to be finalized to factor in stragglings costs; as such the allowed return calculation is based on preliminary project amounts and the allowed return preliminary calculation resulted in net cost with no offsetting revenues. The plant add date was completed late in December and no revenue/expense accrual was completed as there was no reasonable basis available to determine the accrual. While costs greater than profit in Year 1 (2020) can be 100% allocated to rate payers, the amounts were deemed immaterial and the Company will forego booking a regulatory asset for the customer's share of costs for Year 1 (2020).

#### *Deferred Operating and Maintenance (“O&M”) Expenses*

In Maui Electric’s Application for Approval to Establish Schedule EV-MAUI Electric Vehicle Fast Charging Service and Related Accounting Treatment filed on December 21, 2018 and resulting information request (“IR”) response PUC-MECO-IR-103 in Docket No. 2018-0422, the following operations & maintenance (“O&M”) items were requested for deferral:

1. Fixed annual O&M for year:
  - a. Networking Plan;
  - b. Extended Warranty;
  - c. Routine Maintenance;
  - d. Unplanned Repair;
  - e. Tax rate of 4.712%
  
2. Variable annual O&M:
  - a. Transaction Fees

In D&O 36229, the Commission conditioned approval of Maui Electric’s request for deferred accounting treatment upon implementation of a SSM, and noted its expectation that this SSM

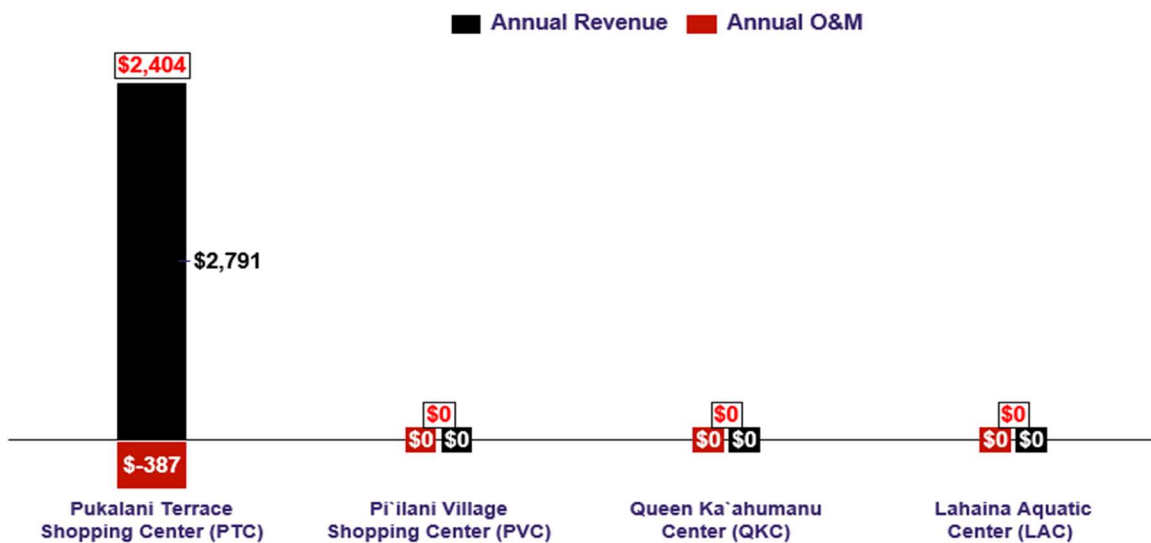
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<sup>10</sup> See Revised Schedule EV-Maui Tariff, Attachment C at 1.

will incentivize Maui Electric to control costs and maximize revenues for the benefit of Maui Electric and its customers.<sup>11</sup>

As noted in D&O 36229, the Commission anticipates that implementation of the SSM will require corresponding adjustments to existing cost recovery mechanisms to reconcile total expenses, revenues, and net costs.<sup>12</sup> The Commission approved Maui Electric’s request for deferred accounting treatment for the actual O&M expenses incurred before Maui Electric’s next interim or final decision and order in Maui Electric’s next rate case with a cap of \$180,000.<sup>13</sup>

Figure 11 illustrates the net values (revenue less expenses)<sup>14</sup> for 2020 for PTC:



**Figure 11 - 2020 annual revenue, O&M and net values**

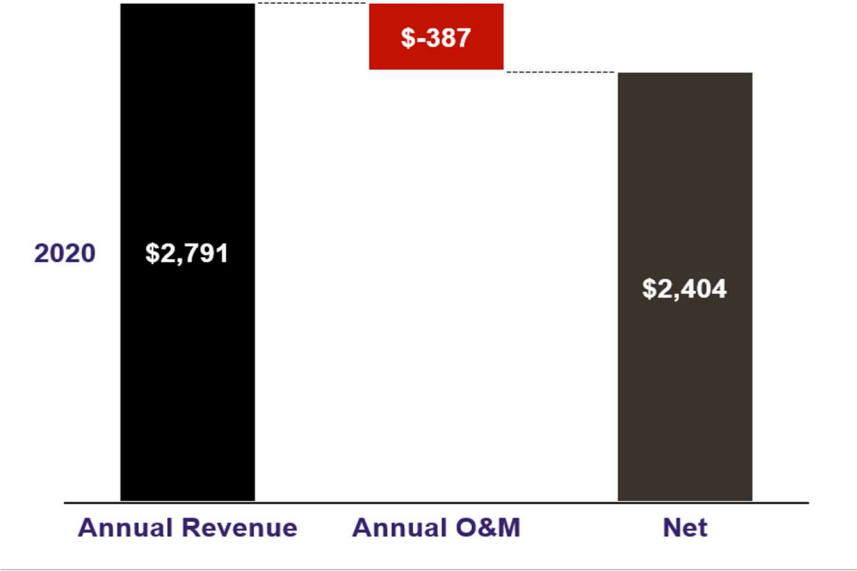
<sup>11</sup> See D&O 36229 at 30 (“The commission expects that implementation of the shared savings mechanism will provide incentives for [Maui Electric] to control costs and maximize revenues, for the benefit of [Maui Electric] and [Maui Electric]’s customers.”).

<sup>12</sup> D&O 36229 at 39, footnote 117.

<sup>13</sup> See D&O 36229 at 33 (“For the purposes of the shared savings mechanism, annual O&M expenses shall be based on actual annual O&M expenses, capped at [Maui Electric]’s estimate of \$180,000.”). \$180,000/8 sites = \$22,500 O&M expense cap per site.

<sup>14</sup> A net positive effect occurs when revenues exceed O&M. A net negative effect occurs when revenues are less than O&M.

Figure 12 summarizes the net values (revenue less expenses) in aggregate in 2020 for the four EV-MAUI sites. Due to the installation dates of late December 2020 for LAC, PVC and QKC, however, no revenues or O&M expenses were booked in 2020 for these three sites. As it was installed in mid-August, PTC revenues and expenses reflect only the last four months (September through December) of the year and do not reflect a net result for the full year.

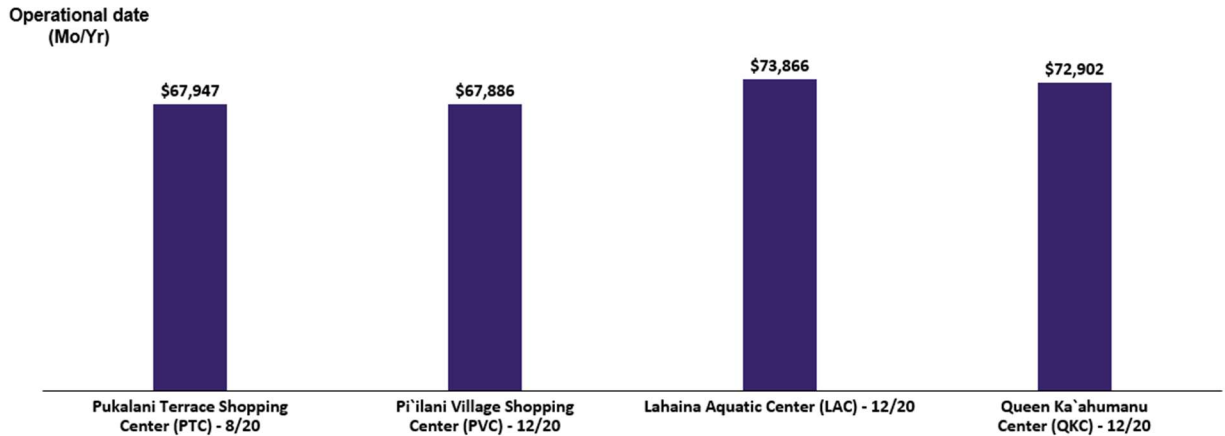


**Figure 12 EV-MAUI aggregate annual results for 2020. Capital Costs**

Figure 13 provides the capital costs of each EV-MAUI DCFC station installation. Utilization of the previous EVohana sites greatly reduced installation time and electrical infrastructure costs. Each site took approximately three days to remove the previous EVohana chargers, install the new charger, and commission the new charger for public use. Average capital cost for the Company was \$70,650 per site. This is less than the average capital cost for EV-U of approximately \$167,377 per site, because the EV-MAUI chargers did not require engineering and infrastructure development to the same extent as a “green” site where no existing DCFC-compatible service exists. The EV-MAUI program was able to utilize already existing DCFC electrical service and sites to greatly reduce installation costs and construction time.

All four EV-MAUI sites utilized existing EVohana’s electrical infrastructure and equipment to minimize the overall installation cost while still complying with electrical codes. The construction time was substantially reduced because limited demolition/removal work and new electrical rough-in was kept to a minimum. Once site agreements were in place, all four EV-MAUI sites were able to be put in service quickly thereby creating benefits and convenience for the Maui EV drivers.





**Figure 13 - Capital cost associated with each DCFC in chronological order of operational date.**

### **Customer engagement and outreach (Roadmap Initiative #1) and Attachment E (Go to Market Plan)**

As part of the Company’s Roadmap, Initiative #1, customer engagement and outreach, is foundational and paramount to the success of the electrification of transportation in Hawai‘i. The Company discovered that there is limited awareness, understanding, and enthusiasm for EVs among fleet operators, auto dealerships, and the public.<sup>15</sup> By working with partners<sup>16</sup> who share clean transportation objectives and who are willing to contribute their knowledge and expertise, the Company has leveraged the unique abilities of each partner and is hopeful that partners will continue to contribute financial and/or in-kind resources to this effort.

Additionally, as part of the refiling of the EV-MAUI tariff, a Go to Market Plan was included.<sup>17</sup> This plan included the following components:

1. Objectives to create awareness and increase use of the charge station;
2. Audience identification to target communications;
3. Product value to meet customer charging need;
4. Channels for media and publicity; and
5. Promotional opportunities

<sup>15</sup> Docket No. 2018-0135, Electrification of Transportation Strategic Roadmap filed March 29, 2018 at 69.

<sup>16</sup> Potential partners identified in the Roadmap: Drive Electric Hawai‘i, Hawai‘i Energy, NGOs, Automakers, Electrify America, and Dealerships and Hawai‘i Automotive Dealer Association.

<sup>17</sup> See Attachment E to the Revised Schedule EV-MAUI Tariff, filed separately on September 16, 2019.

In 2020, the Company met Roadmap Initiative #1 and EV-MAUI Go to Market Plan objectives in the following ways:

- Installed all four EV-MAUI DCFC stations in prominent selected and approved locations;
- Maintained the Company website as a go-to resource for customers seeking information about the DCFC EV-MAUI charger stations, including location, operation status (i.e., in-service or out-of-service), and applicable rates;
- Utilized social media (LinkedIn and Facebook) to provide the community with charger installation updates;
- Issued press announcements/articles and social media alerts announcing the commissioning of the new DCFC EV-MAUI charger stations;
- Updated charger locations and availability on Greenlots smartphone app and PlugShare website and app;
- Informed community partners (Ulupono Initiative, County of Maui, Maui Economic Development Board) of the charger installation and availability to post on their additional media channels; and
- Continued to offer new registered EV users with promotional card for use on Company-owned DCFC.

## **Appendix A**

### **Details for Schedule EV-Maui for 2020**

**2020 Actuals:**

<b>Revenue</b>	<b>\$</b>	<b>(2,791)</b>
<b>Expenses</b>		
<b>Energy charge</b>	<b>\$</b>	<b>183</b>
<b>Reverse energy charge</b>	<b>\$</b>	<b>(183)</b>
<b>O&amp;M</b>		
<b>Labor</b>	<b>\$</b>	<b>-</b>
<b>Non-labor</b>	<b>\$</b>	<b>387</b>
<b>Total Expenses</b>	<b>\$</b>	<b>387</b>
<b>Capital costs, net of CIAC</b>	<b>\$</b>	<b>282,601</b>

**2020 PTD:**

<b>Revenue</b>	<b>\$</b>	<b>(2,791)</b>
<b>Expenses</b>		
<b>Energy charge</b>	<b>\$</b>	<b>183</b>
<b>Reverse energy charge</b>	<b>\$</b>	<b>(183)</b>
<b>O&amp;M</b>		
<b>Labor</b>	<b>\$</b>	<b>-</b>
<b>Non-labor</b>	<b>\$</b>	<b>387</b>
<b>Total Expenses</b>	<b>\$</b>	<b>387</b>
<b>Capital costs, net of CIAC</b>	<b>\$</b>	<b>282,601</b>

## **Appendix B**

### **Revised Schedule EV-MAUI Tariff Attachment C**

**EV-AIAUI**  
**Consolidated - Queen Kaahumanu Center (QKC), Pilihi Village Shopping Center (PVC), Pukalani Terrace Center (PTC) and Lahaina Aquatic Center (LAC)**  
**Shared Savings Mechanism**

	Year 1 2020	Year 2 2021	Year 3 2022	Year 4 2023	Year 5 2024	Year 6 2025	Year 7 2026	Year 8 2027	Year 9 2028	Year 10 2029	Year 11 2030	Year 12 2031	Year 13 2032	Year 14 2033	Year 15 2034
<b>Expenses</b>															
1	-	10,122	20,649	21,062	21,483	21,913	22,351	22,798	23,254	23,719	24,193	24,677	25,171	25,674	26,188
2	-	4,168	8,336	8,336	4,168	-	-	-	-	-	-	-	-	-	-
3	-	17,507	17,507	17,507	17,507	17,507	17,507	17,507	17,507	17,507	17,507	17,507	17,507	17,507	17,507
4	8,504	16,732	15,320	13,085	11,205	9,719	8,389	7,162	6,145	5,233	4,321	3,382	2,416	1,449	483
5	1,671	3,293	3,011	2,572	2,202	1,910	1,649	1,408	1,208	1,029	849	665	475	285	95
6	509	23	(63)	(197)	(309)	(398)	(478)	(551)	(612)	(667)	(722)	(777)	(832)	(887)	(942)
7	10,685	51,865	64,760	62,364	56,257	50,651	49,417	48,324	47,502	46,821	46,149	45,477	44,805	44,133	43,461
8	1,042	5,038	6,315	6,081	5,486	4,939	4,819	4,712	4,632	4,566	4,500	4,434	4,368	4,302	4,236
9	11,727	56,922	71,075	68,446	61,742	55,591	54,256	53,036	52,134	51,387	50,650	50,962	50,171	49,391	48,622
<b>Total Expenses</b>															
	10,685	51,865	64,760	62,364	56,257	50,651	49,417	48,324	47,502	46,821	46,149	45,477	44,805	44,133	43,461
<b>Revenues</b>															
10	8,008	10,891	11,109	11,331	11,557	11,788	12,024	12,265	12,510	12,760	13,015	13,276	13,541	13,812	14,088
11	8,008	10,891	11,109	11,331	11,557	11,788	12,024	12,265	12,510	12,760	13,015	13,276	13,541	13,812	14,088
<b>NET COST/(PROFIT)</b>															
	3,719	46,032	59,966	57,115	50,185	43,802	42,212	40,771	39,624	38,627	37,634	37,686	36,630	35,579	34,534
<b>O&amp;M Adjustment</b>															
13	-	45,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>NET COST/(PROFIT)</b>															
	3,719	46,032	59,966	57,115	50,185	43,802	42,212	40,771	39,624	38,627	37,634	37,686	36,630	35,579	34,534
<b>Shared Savings Mechanism</b>															
18	100%	80%	60%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
19	0%	0%	0%	0%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
20	3,719	36,825	35,980	28,558	-	-	-	-	-	-	-	-	-	-	-
21	-	9,206	23,987	28,558	50,185	43,802	42,212	40,771	39,624	38,627	37,634	37,686	36,630	35,579	34,534

Notes  
\* Includes 4 charging stations - Queen Kaahumanu Center (QKC), Pilihi Village Shopping Center (PVC), Pukalani Terrace Center (PTC) and Lahaina Aquatic Center (LAC)

Line  
1 2% escalation applied to O&M.  
4 Allowed return based on 9.50% ROE from MECO TV2018 Rate Case Dkt 2017-0150 Interim D&O No. 35631 (Exhibit A, dated 8/9/18).  
5/6 Federal and State Income Taxes were included in the calculation of Net Cost/(Profit) in order to capture all costs of project expenditures.  
12 Total expenses minus revenues results in "net costs," which may be a loss or a profit depending on whether total expenses exceed revenues.  
13 Per D&O 36229 "For the purposes of the shared savings mechanism, annual O&M expenses shall be based on actual annual O&M expenses, capped at MECO's estimate of \$180,000." \$180,000/8 sites = \$22,500 O&M expense cap per site.  
16 Per D&O 36229 "To the extent that annual O&M expenses exceed the cap of \$180,000, MECO may not recover such excess costs from customers."  
18/19 Per D&O 36229 "For years 1 through 5, customers and MECO shall share in the net costs (i.e., the total expenses minus revenues) related to MECO's ownership and operation of the charges on a stepped-down basis. To the extent revenues exceed costs in the first four years, MECO may retain the entirety of any net revenues." However, beginning in year 5, if revenues generated by the stations exceed the total expenses, thereby resulting in a profit, such net revenues shall be shared between customers and MECO 80%/ customers/20% MECO.  
21 MECO's share of Net Cost/(Profit) includes non-recoverable O&M.

## **Appendix C**

### **Actual Shared Savings/Costs Mechanism Accounting Sheets**

EV-Maui  
Shared Savings/Costs Mechanism  
2020 Year 1

Lahaina Aquatic Center

Plant add per PowerPlan 12/17/20. Project #MZ.005053.02

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	2020 Total
<b>Expenses</b>													
1	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	267.97	267.97
5	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	267.97	267.97
8	-	-	-	-	-	-	-	-	-	-	-	26.13	26.13
9	-	-	-	-	-	-	-	-	-	-	-	294.10	294.10
Total Expenses													
10	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenues Total													
12	-	-	-	-	-	-	-	-	-	-	-	294.10	294.10
<b>NET COST/(PROFIT)</b>													
O&M Adjustment	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	22,500.00
13 O&M Cap	-	-	-	-	-	-	-	-	-	-	-	-	-
14 O&M above cap not recovered	-	-	-	-	-	-	-	-	-	-	-	-	-
15 Revenue Taxes on the above cap O&M	-	-	-	-	-	-	-	-	-	-	-	-	-
16 Total non-recoverable O&M	-	-	-	-	-	-	-	-	-	-	-	-	-
17 <b>NET COST/(PROFIT) ADJUSTED FOR O&amp;M CAP</b>	-	-	-	-	-	-	-	-	-	-	-	294.10	294.10
<b>Shared Savings Mechanism</b>													
18 Customer Share Allocation of Cost	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
19 Customer Share Allocation of Profit	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20 <b>Customers' share of Cost/(Profit)</b>	-	-	-	-	-	-	-	-	-	-	-	294.10	294.10
21 <b>MECO's share of Cost/(Profit)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-



EV-Maui  
Shared Savings/Costs Mechanism  
2020 Year 1

Pilani Shopping Center  
Plant add per PowerPlan 12/23/20, Project #MZ.005053.03

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	2020 Total
<b>Expenses</b>													
1	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	249.66	249.66
5	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	249.66	249.66
8	-	-	-	-	-	-	-	-	-	-	-	24.35	24.35
9	-	-	-	-	-	-	-	-	-	-	-	274.01	274.01
<b>Total Expenses</b>													
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Revenues</b>													
10	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Revenues Total</b>													
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	274.01	274.01
<b>NET COST/(PROFIT)</b>													
	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	18,750.00
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>NET COST/(PROFIT) ADJUSTED FOR O&amp;M CAP</b>													
	-	-	-	-	-	-	-	-	-	-	-	274.01	274.01
<b>Shared Savings Mechanism</b>													
18	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
19	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	274.01	274.01
	-	-	-	-	-	-	-	-	-	-	-	-	-

EV-Maui  
Shared Savings/Costs Mechanism  
2020 Year 1

Pukalani Terrace Center (PTC)  
Plant add per PowerPlan 10/7/20. Project #MZ.005053.04

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	2020 Total
<b>Expenses</b>													
1 Incremental O&M expense	-	-	-	-	-	-	-	-	-	-	-	-	-
2 Amortization expense (Deferred O&M)	-	-	-	-	-	-	-	-	-	-	-	-	-
3 Depreciation expense (Capital)	-	-	-	-	-	-	-	-	-	-	-	-	-
4 Allowed return on chargers (Capital and Deferred O&M)	-	-	-	-	-	-	-	-	-	257.37	512.47	509.73	1,279.57
5 Federal Income Tax	-	-	-	-	-	-	-	-	-	-	-	-	-
6 State Income Tax	-	-	-	-	-	-	-	-	-	-	-	-	-
7 Revenue Taxes	-	-	-	-	-	-	-	-	-	257.37	512.47	509.73	1,279.57
8 Total Expenses including Revenue Taxes	-	-	-	-	-	-	-	-	-	25.10	49.97	49.71	124.78
9	-	-	-	-	-	-	-	-	-	282.47	562.44	559.44	1,404.35
<b>Revenues</b>													
10 Charging Station Revenues	-	-	-	-	-	-	-	-	224.98	729.64	918.32	918.32	2,791.26
11	-	-	-	-	-	-	-	-	224.98	729.64	918.32	918.32	2,791.26
12 <b>NET COST/(PROFIT)</b>	-	-	-	-	-	-	-	-	<b>(224.98)</b>	<b>(447.17)</b>	<b>(355.88)</b>	<b>(358.88)</b>	<b>(1,386.91)</b>
O&M Adjustment	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	22,500.00
13 O&M Cap	-	-	-	-	-	-	-	-	-	-	-	-	-
14 O&M above cap not recovered	-	-	-	-	-	-	-	-	-	-	-	-	-
15 Revenue Taxes on the above cap O&M	-	-	-	-	-	-	-	-	-	-	-	-	-
16 Total non-recoverable O&M	-	-	-	-	-	-	-	-	-	-	-	-	-
17 <b>NET COST/(PROFIT) ADJUSTED FOR O&amp;M CAP</b>	-	-	-	-	-	-	-	-	<b>(224.98)</b>	<b>(447.17)</b>	<b>(355.88)</b>	<b>(358.88)</b>	<b>(1,386.91)</b>
<b>Shared Savings Mechanism</b>													
18 Customer Share Allocation of Cost	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
19 Customer Share Allocation of Profit	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20 <b>Customers' share of Cost/(Profit)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
21 <b>MECO's share of Cost/(Profit)</b>	-	-	-	-	-	-	-	-	<b>(224.98)</b>	<b>(447.17)</b>	<b>(355.88)</b>	<b>(358.88)</b>	<b>(1,386.91)</b>

EV-Maui  
Shared Savings/Costs Mechanism  
2020 Year 1

Queen Kaahumanu  
Plant Add date per PowerPlan 12/17/20. Project #MZ.005053.01

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	2020 Total
<b>Expenses</b>													
1	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	269.69	269.69
5	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	269.69	269.69
8	-	-	-	-	-	-	-	-	-	-	-	26.30	26.30
9	-	-	-	-	-	-	-	-	-	-	-	295.99	295.99
Total Expenses including Revenue Taxes													
<b>Revenues</b>													
10	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenues Total													
12	-	-	-	-	-	-	-	-	-	-	-	295.99	295.99
<b>NET COST/(PROFIT)</b>													
<b>O&amp;M Adjustment</b>													
13	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	22,500.00
14	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-recoverable O&M													
17	-	-	-	-	-	-	-	-	-	-	-	295.99	295.99
<b>NET COST/(PROFIT) ADJUSTED FOR O&amp;M CAP</b>													
<b>Shared Savings Mechanism</b>													
18	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
19	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20	-	-	-	-	-	-	-	-	-	-	-	295.99	295.99
21	-	-	-	-	-	-	-	-	-	-	-	-	-