



February 28, 2023

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

Dear Commissioners:

Subject: Docket No. 2022-0212 – Instituting a Proceeding Relating to an Innovative Pilot Process for the Hawaiian Electric Companies  
Hawaiian Electric Companies' Annual Pilot Update Report

In accordance with Decision and Order No. 37507 (“D&O 37507”), issued on December 23, 2020 in Docket No. 2018-0088, the Hawaiian Electric Companies<sup>1</sup> respectfully submit their Annual Pilot Update Report.<sup>2,3</sup> This Annual Pilot Update Report covers the following pilot projects for which the Companies filed applications in separate dockets:

- eBus Make-Ready Infrastructure Pilot (“eBus Pilot”), Docket No. 2020-0098
- Commercial Make-Ready Infrastructure Pilot, Docket No. 2020-0202
- EV Tariff Pilot, Docket No. 2020-0152
- Data Analytics Clearinghouse Pilot, Docket No. 2022-0212

Due to external factors, including delays and challenges experienced by eBus Pilot applicants, the eBus Pilot timelines are not progressing as originally scheduled, and in accordance with D&O 37507,<sup>4</sup> the Companies, within this Pilot Update, notify the Commission of a proposed change to the eBus Pilot schedule. Attachment 1, Figure 2, “Adjusted Implementation Schedule”

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<sup>1</sup> The “Hawaiian Electric Companies” or “Companies” collectively refers to Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawai'i Electric Light Company, Inc.

<sup>2</sup> See D&O 37507 at 175-176, 218, and 222. In D&O 37507, the Commission stated: “At this time, the Commission is considering opening a docket to serve as a repository for Pilot Process-related filings, such as the Workplan, Notices, and Pilot Updates, as well as to address Pilot Process-related disputes, similar in operation to Docket No. 2017-0352.” D&O 37507 at 175, n.186 (emphasis added). In Order No. 38092, issued on November 30, 2021, in Docket No. 2018-0088, at 4, the Commission stated that: “Following approval of the Pilot Workplan, the Commission will open a new docket to serve as a repository for pilot process-related filings.” (Emphasis added.) On October 20, 2022, the Commission issued Order No. 38663, opening the repository Docket No. 2022-0212. Accordingly, the Companies are filing the Annual Pilot Update in this docket.

<sup>3</sup> The Companies are submitting this Pilot Update report in advance of the March 31 deadline in order to allow the Commission and the Consumer Advocate additional time to review prior to the filing of the Companies' Spring Revenue Report.

<sup>4</sup> D&O 37507 at 174 states: Any discontinuance of a pilot or material changes to the pricing, terms, or conditions of the pilot will be filed with the Commission forty-five (45) days in advance for Commission review, with written notice of the proposed changes also sent to pilot participants. The Commission may approve, modify, or deny the proposed changes. If the Commission does not take affirmative action during the 45-day window, the changes are considered approved. Following issuance of the Commission's order addressing the pilot changes, the Companies shall provide pilot participants with notice of the Commission's ruling and any changes to the pilot program.

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of this report provides the Companies' proposed revision to the schedule, which extends the timelines for specific implementation activities and the end date of the eBus Pilot from May 7, 2024 to December 31, 2025. As the Companies' proposed extension is a material change to the original implementation schedule, in accordance with D&O 37507, the Companies will implement the schedule modifications after the 45-day review window, unless the Commission orders otherwise.

Very truly yours,

/s/ Dean K. Matsuura

Dean K. Matsuura  
Director, Regulatory Rate Proceedings

Enclosures

## Hawaiian Electric Companies’ Annual Pilot Update

### I. Introduction

In accordance with Decision and Order No. 37507 (“D&O 37507”),<sup>1</sup> the Hawaiian Electric Companies<sup>2</sup> respectfully submit this annual Pilot Update covering active pilot projects in calendar year 2022.

This Pilot Update also complies with the following decisions and orders:

D&O # or Order #	Description	Date Issued	Docket No.
D&O 37769	Approving eBus Make-Ready Infrastructure Pilot Project (referred to as “Charge Up eBus Pilot” or eBus Pilot”) Application <sup>4</sup>	5/7/2021	2020-0098
Order 37865	Approving the Hawaiian Electric Companies’ Pilot Process <sup>5</sup>	7/9/2021	2018-0088
D&O 38157	Approving Schedule EV-J and Schedule EV-P Tariffs on a Pilot Basis (“EV Tariff Pilot”) <sup>6</sup>	12/30/2021	2020-0152
D&O 38194	Approving Charge Ready Pilot Project (referred to as “Charge Up Commercial Pilot”) Application <sup>7</sup>	1/24/2022	2020-0202
D&O 38753	Approving Data Analytics Clearinghouse Pilot (“Clearinghouse Pilot”) <sup>8</sup>	12/8/2022	2022-0212

The Companies are submitting this Pilot Update Report in advance of the March 31 deadline to allow additional time for the Commission and the Consumer Advocate to review the report prior to the filing of the Companies’ 2023 Spring Revenue Report.

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<sup>1</sup> See D&O 37507 at 175-176, 218, 222.

<sup>2</sup> The “Hawaiian Electric Companies” or “Companies” refers collectively to Hawaiian Electric Company, Inc. (“Hawaiian Electric”), Maui Electric Company, Limited (“Maui Electric”), and Hawai’i Electric Light Company, Inc. (“Hawai’i Electric Light”).

<sup>4</sup> See D&O 37769 at 38 and 40-41.

<sup>5</sup> See also Hawaiian Electric Companies’ Pilot Process, filed on July 28, 2021, in Docket No. 2018-0088, at 5.

<sup>6</sup> See D&O 38157 at 41 and 45, n.99.

<sup>7</sup> See D&O 38194 at 50-51, n.186.

<sup>8</sup> See D&O 38753, Condition No. 1 at 19.

## II. In-Flight Pilot Status

In total, there were four active pilots in calendar year 2022. A detailed report for each of the four pilots is attached hereto as follows:

Att. #	Pilot Description
1	eBus Make-Ready Infrastructure Pilot (referred to as “Charge Up eBus Pilot” or “eBus Pilot”)
2	Charge Ready Pilot (referred to as “Charge Up Commercial Pilot”)
3	Schedule EV-J and EV-P Tariff Pilot (“EV Tariff Pilot”)
4	Data Analytics Clearinghouse Pilot (“Clearinghouse Pilot”)

The following highlights key items from Attachments 1-4.

### Charge Up eBus Pilot

During 2022, the eBus Pilot ramp-up phase concluded after the Commission and Consumer Advocate’s 30-day review period ended on February 6, 2022, and the Companies commenced Stage 1 (Application and Funding Reservation) of the customer journey. The Companies originally expected to complete Stage 1 over a 6-month period from February 2022 to July 2022. However, due to external factors, including delays and challenges experienced by eBus Pilot applicants, the Companies anticipate Stage 1 extending into the first quarter of 2023. Factors including the availability and timing of funding, economic impact of the COVID-19 pandemic, and uncertainty of future plans contributed to fewer applicants. In addition, applicants encountered delays in procurement timelines and complex/lengthy landowner approval processes. The extended period for Stage 1 will impact the start of the Stage 2 (Pre-construction, Design and Build, and Charger Installation) phase, which may also be impacted by permit approval timelines. In addition, due to increased demand for electric buses nationwide and supply chain constraints, bus operators estimate new electric buses arriving in 2025, more than 18 months after placing an order. As a result, the start of Stage 3 (Verification and Data

Collection) is expected to shift from June 2023 to January 2025, after the end of the original 36-month Pilot period.

Due to these external factors described in more detail in Attachment 1, the eBus Pilot timelines are not progressing as originally scheduled, and in accordance with D&O 37507,<sup>9</sup> the Companies hereby notify the Commission of a proposed change to the eBus Pilot schedule. The Companies' proposed revision to the schedule is provided in Attachment 1, Figure 2, "Adjusted Implementation Schedule," which extends the timelines for specific implementation activities as well as the end date of the eBus Pilot from May 7, 2024 to December 31, 2025.<sup>10</sup> These adjustments will help alleviate the impact of the delays applicants are experiencing in procuring buses, as well as the time needed to collect charging data once vehicles are in operation. Providing an extension may also encourage new applicants that were not ready to apply previously.

In accordance with D&O 37507, as the Companies' proposed extension is a material change to the original implementation schedule, the Companies will implement the schedule modifications after the 45-day review window, unless the Commission orders otherwise.<sup>11</sup> The proposed change to the eBus Implementation Schedule will not affect the total amount the Companies are seeking to recover for the Pilot through their revenue report filings.

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<sup>9</sup> D&O 37507 at 174 states: Any discontinuance of a pilot or material changes to the pricing, terms, or conditions of the pilot will be filed with the Commission forty-five (45) days in advance for Commission review, with written notice of the proposed changes also sent to pilot participants. The Commission may approve, modify, or deny the proposed changes. If the Commission does not take affirmative action during the 45-day window, the changes are considered approved. Following issuance of the Commission's order addressing the pilot changes, the Companies shall provide pilot participants with notice of the Commission's ruling and any changes to the pilot program.

<sup>10</sup> The Companies also intend to submit an extension request for the eBus tariffs in 2023 to align with the adjusted eBus Pilot Implementation Schedule.

<sup>11</sup> See Order 37865 at 7 (finding the process for addressing discontinuance or material change outlined in the Pilot Process to be consistent with D&O 37507).

The challenges faced by eBus Pilot applicants described above and in Attachment 1, customer feedback, and the Companies' observations, also prompted the Companies to take a number of steps to help address eBus Pilot concerns, including steps to provide more flexibility and expand eligibility. For example, relaxing the two-port limit, adding rate options, and increasing eligibility to include customers on Moloka'i and Lāna'i are expected to encourage more bus operators to apply. See Attachment 1, Lessons Learned.

#### Charge Up Commercial Pilot

Following the approval of the Charge Up Commercial Pilot in January 2022, the Companies commenced the ramp-up phase and initiated outreach and education efforts. During the ramp-up phase, the Companies defined processes and policies for implementation, which are reflected in the Final Program Design Report filed on September 23, 2022, in Docket No. 2020-0202, in compliance with D&O 38194. In 2023, outreach will continue to build awareness and interest, focusing on direct engagement throughout the customer journey. After the Commission's and the Consumer Advocate's 30-day review ended on October 24, 2022, the Companies launched the implementation phase, which encompasses the Stage 1 (Application and Funding Reservation) and Stage 2 (Pre-construction, Design and Build, and Charger Installation) phases. See Attachment 2, Charge Up Commercial Implementation Schedule.

As of January 31, 2023, the Charge Up Commercial Pilot received 49 complete applications. The Companies are currently reviewing these applications and will select participants based on several factors, including but not limited to: (1) basic eligibility requirements; (2) overall complexity and cost of the project; (3) challenges and opportunities associated with each site; and (4) level of remaining Pilot funds. The Companies intend to

conduct additional outreach to geographic areas and organization types with low participation. See Attachment 2, Participants and Metrics.

Prior to the launch of Stage 1 outreach and application review, the Companies gained valuable insight from the Companies' Charge Up eBus Pilot. Feedback from customers in the eBus Pilot, research into prominent make-ready programs, and the Companies' observations, led the Companies to adjust the data collection reporting requirement from 10 to 5 years. The Companies also learned from the ramp-up phase that outreach needs to include targeted efforts to geographic areas and partner initiatives with community-based organizations to attract customers where trust may be low. See Attachment 2, Lessons Learned.

#### EV Tariff Pilot

Following the issuance of D&O 38157 on December 30, 2021, the Schedule EV-J and EV-P rates were opened on March 18, 2022 for enrollment by eligible customers on O'ahu, Maui, and Hawai'i Islands. On June 30, 2022, in Transmittal No. 22-02, Maui Electric requested the Commission's approval to establish Schedule EV-J and EV-P rates for Moloka'i and Lāna'i on a Pilot Basis, and these rates opened for enrollment on August 1, 2022. See Attachment 3, Schedule EV-J and EV-P Pilot Implementation.

Following the launch of Schedules EV-J and EV-P, a concerted outreach and education effort was made to ensure that stakeholders – both internal and external – were aware of the new rates, and aware of how to enroll in them. For example, Hawaiian Electric Companies' team of Commercial Account Managers and Customer Care Representatives were trained on the details of Schedules EV-J and EV-P in March 2022, equipping them to support commercial customers interested in commercial EV charging rates. In addition, the Companies presented the details of Schedules EV-J and EV-P at multiple industry events, including the Hawai'i Lodging and

Tourism Association's September 2022 Engineers Advisory Council Meeting, and the Building Owners and Managers Association's October 2022 Member Meeting. Attachment 3, Outreach and Education, describes these outreach efforts in detail.

Eligible Schedule EV-J and EV-P customers include separately-metered commercial accounts serving EV charging stations with no greater than 5 kW of ancillary load in support of the EV charging infrastructure, and certain requirements described in Attachment 3, Enrollees, Adoption, and Metrics.

As of the end of 2022, there were no customers enrolled under Schedules EV-J and EV-P. Enrollment in Schedules EV-J and EV-P will be largely a function of: (1) continued development of qualifying electric vehicle charging infrastructure within the Companies' service territory, including Electric Vehicle Service Providers ("EVSPs") that have expressed interest in enrolling forthcoming DC fast-charging hubs currently under construction, and fleet operators and government agencies who are actively exploring large-scale EV charging projects, (2) participants in the Charge Up Commercial Pilot and the Charge Up eBus Pilot, and (3) the Companies' continued outreach and education efforts. It is anticipated that EVSPs may enroll up to seven (7) customer accounts in Schedule EV-P during the 2023 reporting period once these facilities are placed into active service, and that Schedule EV-J enrollment will increase by approximately 20-30 customer accounts during the 2023 or 2024 reporting periods, once commercial installations under Docket No. 2020-0202 are placed into service. See Attachment 3, Enrollees, Adoption, and Metrics.

The Companies will continue concerted outreach and education efforts and will report on lessons learned in future annual reports.



## Clearinghouse Pilot

Preliminary work on the Clearinghouse Pilot commenced in January 2023 to finalize the Statement of Work (“SOW”) with the primary vendor and to draft the scope for the first Minimum Viable Product (“MVP”)<sup>12</sup> Release #1. The vendor SOW was finalized on February 6, 2023, and the formal internal project kickoff and beginning of the first Program Increment commenced on February 27, 2023. The Hawaiian Electric Companies are currently planning the expected deliverables with the vendor for MVP Release #1, which is expected to complete on August 30, 2023. An external stakeholder kickoff is expected to be scheduled in late April or early May 2023 to review the proposed MVP Release #1 scope and related use cases. See Attachment 4.

### III. Costs and Revenues

D&O 37507 requires the Companies to “submit the annual costs and revenues (if any) associated with any implemented pilot project as part of the Pilot Update, which will be reviewed in the spring of each year as part of the Commission’s review of the Companies’ Spring Revenue Report.”<sup>13</sup>

Below is the breakdown of the annual recorded Pilot Project costs net of revenues as of December 31, 2022 for the four active pilot projects in 2022 included in this annual Pilot Update report.

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<sup>12</sup> MVPs are products (e.g., a software application, website, etc.) with sufficient functionality to test and validate a product idea during a product development cycle.

<sup>13</sup> D&O 37507 at 219.

<b>2022 Pilot Project Costs Net of Revenue</b>	Hawaiian Electric	Hawai'i Electric Light	Maui Electric	Total Companies
Charge Up eBus Pilot	\$86,848	\$55,296	\$40,868	\$183,012
Charge Up Commercial Pilot	80,748	39,485	38,813	159,046
EV Tariff Pilot – Schedules EV-J and EV-P	-	-	-	-
Clearinghouse Pilot	-	-	-	-
Pilot Process Cost Recovery – Annual Net Costs	\$167,596	\$94,782	\$79,681	\$342,059
<b>Pilot Process Cost Recovery – Annual Net Costs Including Revenue Taxes</b>	<b>\$183,939</b>	<b>\$104,024</b>	<b>\$87,451</b>	<b>\$375,414</b>

Amounts may not add exactly due to rounding.

The 2022 Charge Up eBus Pilot costs consist of (1) \$52,922 of outside service expense primarily to complete the electrical design template for make-ready infrastructure and for documentation of ramp-up phase work products including Request for Proposal templates and cost estimation worksheet, and (2) \$130,090 for incremental internal labor to support budgeting, reporting, customer engagement, implementing modifications, evaluating applications, and guiding applicants through each step of the customer journey. In 2022, no make-ready infrastructure or charging equipment was installed, and no revenue from charging sessions was collected. See Attachment 1 for further detail, including the allocation of the costs by company.

The 2022 Charge Up Commercial Pilot costs consist of (1) approximately \$12,000 for outside consulting services to support the development of the Final Program Design Report, filed on September 24, 2022, in Docket No. 2020 0202, (2) approximately \$21,000 of outside service expenses to develop the online application portal, website, and Pilot education and outreach materials, and (3) \$125,827 for incremental internal labor to design, project manage and oversee the Charge Up Commercial Pilot, create enrollment processes, support budgeting, develop reports, provide customer engagement, implement modifications, evaluate applications, and guide applicants through each step of the customer journey. No customers were enrolled, and no

revenues were recognized during 2022. See Attachment 2 for further detail, including the allocation of the costs by company.

For the EV Tariff Pilot and Clearinghouse Pilot, no costs were incurred nor revenues recognized in 2022. See Attachments 3 and 4, Cost & Revenues.

The 2022 pilot project costs, net of revenues, will be submitted for Commission review and approval in the 2023 Spring Revenue Report.<sup>14</sup>

#### IV. Annual Cap

D&O 37507 established an annual cost recovery cap of \$10 million, and each of the pilots count toward the cap under the Pilot Process.<sup>15</sup> Order 37865, in approving the Pilot Process, clarified that the reference to the “deferral of all pilot project costs” should refer to the “total annual expenditures,” i.e., the pilot project’s cost for that year, rather than the total cost for the entire project.<sup>16</sup> In accordance with Order 37865, the “2022 Pilot Project Costs Net of Revenue” shown in the Section III table above, reflect 2022 calendar year costs, net of revenues. The Companies will continue to track all pilot project costs and related revenues (if any) and report the total annual net expenditures for the portfolio of pilots in each pilot update.

#### V. Conclusion

The Companies continue to develop pilot projects in accordance with the Innovation Pilot Framework (“IPF”) Workplan,<sup>17</sup> for subsequent submittals as Notices of Intent for the Commission’s review and approval. The Companies are committed to working with

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<sup>14</sup> Transmittal No. 23-01 (Spring Revenue Report), RBA Rate Adjustment Tariff Filing, to be filed by March 31, 2023, at Schedule G.

<sup>15</sup> The Companies may seek to extend or expand a pilot’s scope (including potential modifications) by submitting a request to the Commission no later than one year prior to the scheduled termination of the pilot. Requests to proceed with a pilot or annual portfolio of pilots in excess of the \$10 million cap must be expressly approved by the Commission. See D&O 37507 at 170 and 180.

<sup>16</sup> Order 37865 at 10 (emphasis original).

<sup>17</sup> See Order No. 38654, *Approving Hawaiian Electric’s Pilot Framework Workplan*, issued on October 19, 2022, in Docket No. 2018-0088.

stakeholders throughout the IPF Implementation Phase and continue to discuss specific pilot concepts with stakeholders. The Companies will continue to report on all active pilots in the annual pilot updates in accordance with D&O 37507.<sup>18</sup>

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<sup>18</sup> See D&O 37507 at 175.

## Charge Up eBus Annual Pilot Update

### Introduction

The Hawaiian Electric Companies’<sup>1</sup> Annual Charge Up eBus Pilot Update report (“eBus Update”) is submitted in compliance with: 1) Decision and Order No. 37507 (“D&O 37507”) issued on December 23, 2020 in Docket No. 2018-0088, and 2) Decision and Order No. 37769 (“D&O 37769”) issued on May 7, 2021 in Docket No. 2020-0098, which approved the eBus Make-Ready Infrastructure Pilot (“Pilot”), subject to certain conditions.<sup>2</sup>

D&Os 37507 and 37769 require the Companies to report on:

- Implementation schedules and progress relative to the pilot’s objective and key performance metrics;
- Pilot impacts on underserved communities;
- Pilot costs and revenues (if applicable), including cost analysis per participant, quantitative and qualitative benefits (for both pilot participants and non-participants), and an NPV analysis;
- Qualitative description of the pilot and customer benefits; and
- Any proposed changes to material aspects of the pilot, such as program pricing, terms or conditions, eligibility requirements, changes to the implementation schedule, or program cancellations (including reason for the cancelation).<sup>3</sup>

D&O 37769 additionally requires the Companies to report on:

1. any costs incurred as a result of the Pilot to upgrade distribution network capacity (as indicated in CA-SIR-1.a); data regarding grid services, to the extent available (response to CA-SIR-2.a ); and participant service areas, type of service provided, and intensity and range of eBus use (in number of days per week a participating eBus was used), as provided by Pilot participants;
2. Greenhouse gas (“GHG”) emissions specific to the Pilot in the annual report required by Decision and Order No. 36220 in Transmittal No. 18-06, in

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<sup>1</sup> The “Hawaiian Electric Companies” or “Companies” refers collectively to Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawai’i Electric Light Company, Inc.

<sup>2</sup> See D&O 37507 at 175-176, 218, 222 and D&O 37769 at 38, 40-41. Although D&O 37507 requires that the annual Pilot Update be filed by March 31 of each year, the Companies are submitting this report in February 2023 to facilitate the Consumer Advocate’s and the Commission’s review.

<sup>3</sup> See D&O 37507 at 175-176 and D&O 37769 at 40-41.

accordance with the annual reporting requirements established for the E-Bus-J and E-Bus-P tariffs.<sup>4</sup>

This report is also filed in accordance with the Pilot Process approved in Order No. 37865 (“Order 37865”), issued on July 9, 2021, in Docket No. 2018-0088. The Pilot Process includes reporting on:

- Challenges and lessons learned, process improvements, a listing of performance relative to all key metrics, and any future permanent implementation plans based on an evaluation against the metrics established; and
- Updates to estimated costs and schedule (e.g., if there were significant delays in receiving signed agreements from government agencies).<sup>5</sup>

The Companies address each of the requirements above, as applicable.<sup>6</sup> This report reflects the work completed in 2022, which includes the launch of the enrollment period in February 2022. As a result of delays in securing approvals to execute agreements and customer procurement timelines, certain implementation metrics are not available at this time.

### Pilot Objectives

The Companies’ application filed on July 10, 2020 in Docket No. 2020-0098 (“Application”) outlined a clear purpose and objectives, summarized here:

1. Develop ways for the Companies to support make-ready infrastructure by learning how to streamline workflows, understand resource needs for charging, and track the costs of infrastructure to develop sound cost estimates for future deployment;
2. Enable and accelerate the electrification of bus fleets in the Companies’ service territories by understanding customer behaviors and enable customers to transition faster; and

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<sup>4</sup> See D&O 37769 at 41.

<sup>5</sup> See Hawaiian Electric Companies’ Pilot Process, filed on July 28, 2021, in Docket No. 2018-0088, at 5.

<sup>6</sup> As of 2022, reporting requirements that are not yet applicable include: net present value, costs to upgrade distribution network capacity, data regarding grid services, participant service areas, type of service provided, intensity and range of eBus use, and GHG emissions specific to the Pilot.

3. Improve renewable energy integration through bus charging on the E-Bus tariff.<sup>7</sup>

### Pilot Implementation Schedule

The Pilot includes three phases: 1) Ramp up, during which the Companies will develop documentation for implementation and solicit customer interest, 2) Implementation, during which the Companies will confirm customer eligibility, as well as design, construct, and install make-ready infrastructure, and 3) Data collection to support the final report. Implementation and data collection are reflected as three stages in the customer journey shown in Figure 1.

**Figure 1. Customer Journey**



Due to external factors, the customer journey required a longer implementation schedule than initially anticipated. This learning process is in alignment with the Pilot objective to enable and accelerate the electrification of bus fleets in the Companies’ service territories by understanding customer behaviors as it illuminates a greater understanding of implementation risks. These include:

- Funding and procurement timelines that do not align with the Pilot schedule
- Complex/lengthy landowner approval requirements & processes
- Complex/lengthy permit process
- Supply chain constraints

<sup>7</sup> See Application at 21-22.

**Stage 1: Application and Funding Reservation:**

The ramp-up phase concluded after the Commission and Consumer Advocate's 30-day review ended on February 6, 2022. However, the Companies anticipate Stage 1 extending into the first quarter of 2023, due to unforeseen challenges and delays experienced by applicants.

Drivers for this extension included:

- Review of Participation Agreement and Landowner Approval: Some bus operators do not own their land and therefore need approval from internal stakeholders as well as their landowner to execute Participation Agreements.
- Procurement Delay: Applicants that are government entities must follow government administered procurement processes for bus and charging equipment. Although funding was secured, applicants experienced unanticipated delays in procurement timelines.
- Bus and Charging Equipment Verification: Due to delays in procurement processes, the Companies could not initially validate whether the electric buses and charging equipment met the Pilot requirements. In lieu of vehicle and charging equipment model specifications, the Companies were amenable to referencing the Request for Proposal requirements, which were released in December 2022. Applicants may also need additional time to submit their proof of purchase and charging specifications to inform the design.

**Stage 2: Preconstruction, Design & Construction, Charger Installation**

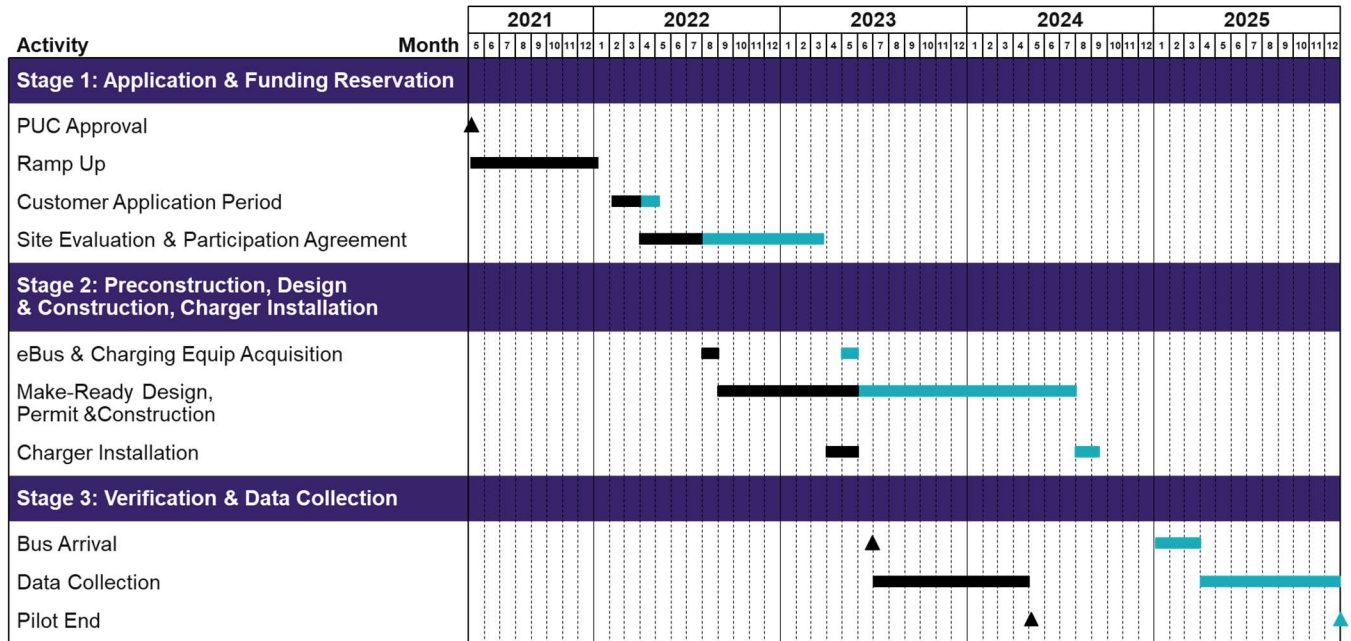
The extended period for Stage 1 impacts the start of the Stage 2 preconstruction, design and construction of the make-ready infrastructure. These delays may be further exacerbated by permit review delays.



### Stage 3: Verification & Data Collection

Verification and data collection will begin as soon as the eBuses begin operation. Due to increased demand for electric buses nationwide, applicants currently estimate buses arriving in 2025, more than 18 months after placing an order. As a result, the start of Stage 3 (Verification and Data Collection) is expected to shift from June 2023 to January 2025, after the end of the original 36-month Pilot implementation schedule. The light blue in Figure 2 reflects the revised schedule.

**Figure 2. Implementation Schedule**



- Original Implementation Schedule
- Adjusted Implementation Schedule

The Companies discuss their proposed adjustments to the Implementation Schedule in the “Proposed Changes” section of this report.<sup>8</sup>

<sup>8</sup> See also Section II, In-Flight Pilot Status, of the annual Pilot Update.

## Participants & Metrics

Eligible participants for the Charge Up eBus Pilot include bus operators with plans to purchase at least one Class 5-8 bus on O‘ahu, Maui, and Hawai‘i Island. Of the three applications received, one withdrew citing uncertainty of permitting timelines and availability of the eBus rates, which are set to expire at the end of 2023.<sup>9</sup>

Figure 3 summarizes applicant metrics.

**Figure 3. Applicant Metrics**

	#
Applications Received	3
Site Evaluations Completed	3
Applications Withdrawn/Denied	1
Current Applicants	2
O‘ahu	0
Hawai‘i Island	1
Maui	1
Anticipated Number of Charging Ports Served by Make-Ready Infrastructure	6
Anticipated Number of Electric Buses Served by Make-Ready Infrastructure	8
Participation Agreements Executed	0
Make-Ready Designs Finalized	0
Make-Ready Sites Under Construction	0
Make-Ready Sites Complete	0
<b>Total Participants Enrolled</b>	<b>0</b>

<sup>9</sup> The Companies intend to submit an extension request for the eBus tariffs in 2023.

## Costs & Revenues

In accordance with the Pilot Process approved by the Commission in Order 37865, innovation pilot project costs are treated as deferred costs and recovered the following year, subsequent to the Commission’s annual spring review.<sup>10</sup> During calendar year 2022, the Companies incurred actual Pilot expenses totaling \$183,012, which were low relative to the Pilot’s total estimated cost of \$4,232,157 due to the schedule delays described above.

Construction and material costs, which are expected to be the largest cost drivers, have not yet been incurred. Figure 4 reflects the allocation of annual expenses by island.

**Figure 4. Annual Costs by Island (\$)**

	<b>O’ahu</b>	<b>Hawai’i Island</b>	<b>Maui County</b>	<b>Total</b>
2021	\$43,339	\$26,003	\$17,336	\$86,678
2022	\$86,848	\$55,296	\$40,868	\$183,012

In 2022, the Companies expended \$52,922 in outside services primarily to complete the electrical design template for make-ready infrastructure and for documentation of ramp-up phase work products including Request for Proposal templates and cost estimation worksheet. The design template provides consistency to streamline the design and review processes. Consistent with the budget proposed in Docket No. 2020-0098, these expenses were split 50% O’ahu, 30% Hawai’i Island, and 20% Maui based on estimated Pilot participation.

In addition, \$130,090 was expended for internal labor to support budgeting, reporting, customer engagement, implementing modifications, evaluating applications, and guiding applicants through each step of the customer journey. Due to fewer than expected applicants, the hours the Product Manager expended to Charge Up eBus was less than a full-time employee.

<sup>10</sup> See Order 37865 at 8-11.

This provided flexibility to leverage this resource to support other eBus-related work not associated with this Pilot, and the Charge Up Commercial Pilot while staff was on leave.

All internal labor resources included in the Pilot expenses directly support the implementation of the Pilot and are incremental expenses not recovered through a prior rate case. This includes internal resources that typically charge to capital projects as well as new positions specific to the implementation of the Pilot. For example, in 2022, new Charge Up eBus Product Manager and Contract Manager positions were filled to support the overall implementation of the of the Pilot. These positions were not included in a prior rate case and the prior positions were backfilled. Other internal labor resources included labor hours from an engineer to support the evaluation of applicants, and the labor expenses only include hours that the internal engineer specifically worked on the Pilot. The Pilot labor expenses only include direct labor and direct overheads (i.e., payroll taxes, employee benefits and non-productive wages) supporting implementation of the Pilot.

In 2022, no make-ready infrastructure or charging equipment was installed. In absence of electric buses and charging equipment, no revenue from charging sessions was collected in 2022. Revenues will be reported once the charging equipment is energized and charging equipment is in use.

### Benefits & Impact to Underserved Communities

This Pilot provides an important piece in accelerating the electrification of the bus sector and will result in broader ongoing benefits to all customers. eBus charging during the day facilitates greater use of renewable energy and reduces the use of diesel overall, helping the State achieve carbon emission reduction goals. Furthermore, the reduction in tailpipe emissions benefits riders, drivers, and communities that the buses operate in. Transit and school bus

services in particular serve a wide range of communities, bringing clean transportation options to those that may otherwise be impacted by poor air quality conditions due to their proximity to high-traffic roadways or industrial zones.

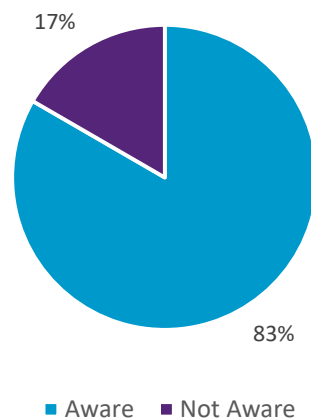
GHG emission analyses continue to be included in the annual report required by Decision and Order No. 36220 (“D&O 36220”) in Transmittal No. 18-06, in accordance with the annual reporting requirements established for the E-Bus-J and E-Bus-P tariffs.<sup>11</sup> The annual report filed in Transmittal No. 18-06 includes existing customers on the E-Bus-J rate, which was available prior to the approval of the Charge Up eBus Pilot.

### Customer Experience

The Companies issued a survey to bus operators to gain insights on the eBus Pilot, electric rates, and future plans. The survey was sent to 10 bus operators and the Companies received six responses.

- **Are you aware of the Charge Up eBus Pilot?**

**Figure 5. Pilot Program Awareness**

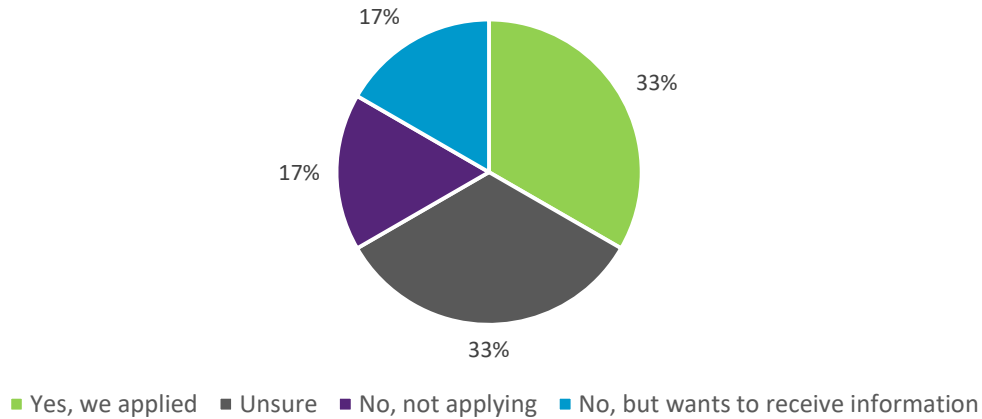


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<sup>11</sup> See D&O 36220, Ordering Paragraph 3.D(11), at 42.

- **Is your organization planning to apply for the Charge Up eBus Pilot?**

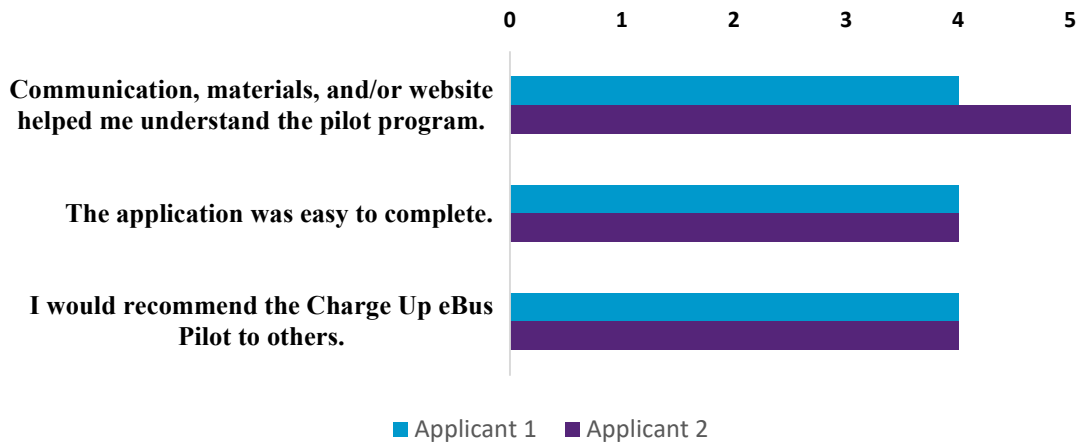
**Figure 6. Plans to Apply for Charge Up eBus**



Reasons for not applying or feeling unsure about applying included lack of funding, uncertainty of if or when eligible vehicles would be procured, and uncertainty of future infrastructure installations.

Current Charge Up eBus applicants also provided feedback on their customer experience to date. Responses are based on a 1-5 scale, with 5 indicating strong agreement with the statements listed on the left in Figure 7.

**Figure 7. Customer Experience**



## Lessons Learned

On April 4, 2022 and August 1, 2022, the Companies held meetings with the Consumer Advocate to better understand their comments filed on January 31, 2022 in Docket No. 2020-0098,<sup>12</sup> as well as to share observations, applicant feedback, and opportunities to improve the Pilot. In addition, the opportunity to interact with bus operators during the application period provided insights supporting the second objective of the Pilot, helping the Companies better understand customer behaviors and accelerate the electrification of bus fleets in the future.

Key observations included:<sup>13</sup>

- **Fewer than expected applicants:** While bus operators have expressed interest in the Pilot program during the ramp-up period, few operators applied. This may be attributed to a number of factors including availability and timing of funding, economic impact of the COVID-19 pandemic, evolving technologies, and uncertainty of future plans. Fleet conversion appears to lag overall electric vehicle adoption as the Companies have also observed very few commercial fleet applicants in the Charge Up Commercial Pilot.
- **More ports needed:** The Pilot launched with a two-port limit. This reflected an even distribution of ports based on the assumption that the Pilot could accommodate no more than 10 sites and a total of 20 ports. Applicants' plans include purchasing more than two buses and installing more than two ports, which exceeded the number of ports per site initially covered by the Pilot.

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<sup>12</sup> Order No. 38213, *Accepting Hawaiian Electric's Final Program Design Report*, issued on February 4, 2022, in Docket No. 2020-0098, directed the Companies to continue to work with the Consumer Advocate to address the concerns identified in the Consumer Advocate's comments filed on January 31, 2022.

<sup>13</sup> The Companies describe adjustments to the Pilot in response to applicant feedback and to improve the customer experience below.

- **Need for additional rate options:** While the eBus Pilot rates (i.e., E-Bus-J and E-Bus-P) will provide significant cost benefits to bus operators, the need for a qualified host meter (Schedule J or P) could limit sites that are eligible to participate in the Pilot. The eBus Pilot rates are only approved through December 31, 2023, creating uncertainty on realizing cost savings.<sup>14</sup> In addition, eBus rates are not established for Moloka‘i and Lāna‘i. Customers on those islands could not apply in absence of an eligible rate.
- **Implementation schedule delays:** The challenges described in the Pilot Implementation Schedule section above, provided invaluable insight to the complexity and time customers may need to seek the appropriate landowner and internal approvals for the Participation Agreement, and to complete the procurement processes for buses and charging equipment. These challenges also illuminated timing constraints related to the fulfillment of electric bus orders.

After discussing these issues with the Consumer Advocate during the April and August meetings, the Companies filed a letter on September 15, 2022 to inform the Commission of adjustments to the Pilot in response to applicant feedback and to improve the customer experience.<sup>15</sup>

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<sup>14</sup> The Companies intend to submit an extension request for the eBus tariffs in 2023 to align with the adjusted eBus Pilot Implementation Schedule.

<sup>15</sup> See *Charge Up eBus Pilot Program Implementation Update*, filed on September 15, 2022, in Docket No. 2020-0098 (noting that the revisions do not present material changes to the overall Pilot pricing, terms, or conditions as the revisions would not materially impact the implementation schedule or budget, and will help facilitate Pilot interest and adoption).



- **Internal Labor:** Use of internal labor for project and contract management to build internal expertise and create a more seamless workflow. This modification is not expected to result in increased costs.
- **Charging Port Limit:** The Pilot received a smaller applicant pool than anticipated, and current applicants' reported plans to purchase more than two buses and install more than two charging ports per site. Relaxing the limit of two charging ports per customer site, and allowing two additional ports on a case-by-case basis provides flexibility to respond to customer needs without adversely impacting the total Pilot cap and current applicant pool.
- **Additional Rate Options and Inclusion of Moloka'i and Lāna'i:** Schedules EV-J and EV-P were established for Moloka'i and Lāna'i in August 2022,<sup>16</sup> and subsequent to the September 15, 2022 letter, Schedules EV-J and EV-P were included as alternatives to the eBus tariff to expand options for applicants that may not have a qualified host meter (Schedule J or P).
- **Data Requirement:** In response to feedback from applicants, reducing the 10-year data collection and reporting requirements to five years to alleviate participant administrative and financial concerns (e.g., providing charging session data requires bus operators to pay for networking services for which they may not otherwise have a need.)

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<sup>16</sup> See Transmittal No. 22-02, filed on June 30, 2022 (Effective August 1, 2022 through March 17, 2027).

## Proposed Changes

The Companies have learned that external factors such as landowner approvals and customer procurement timelines require longer Stage 1 timelines to complete key funding reservation milestones and minimize the risk for cascading impacts to the overall Pilot implementation schedule. The Companies propose extending the end date of the Pilot from May 7, 2024 to December 31, 2025 with a Final Report in the first quarter of 2026. The Companies also intend to submit an extension request for the eBus tariffs in 2023 to align with the adjusted Pilot implementation schedule. These adjustments will help alleviate the impact of the delays applicants are experiencing in procuring buses and charging equipment, as well as the time needed to collect charging data once vehicles are in operation. The adjusted implementation timeline is reflected in blue in Figure 2 above. Providing an extension may also encourage new applicants that were not ready to apply previously and is not expected to increase the total approved budget. Because the proposed extension is a material change to the original implementation schedule, the Companies will implement the schedule modifications after the 45-day review window, unless the Commission orders otherwise.<sup>17</sup>

The Companies remain committed to transparency and will continue to discuss the status of the Pilot and lessons learned, and update stakeholders accordingly in the quarterly Innovation Pilot Framework update meetings, annual Pilot Update, and additional Pilot filings.

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<sup>17</sup> See D&O 37507 at 174 (Any material changes to the pricing, terms, or conditions of the pilot will be filed with the Commission forty-five (45) days in advance for Commission review and the Commission may approve, modify, or deny the proposed changes. If the Commission does not take affirmative action during the 45-day window, the changes are considered approved.).

## Charge Up Commercial Annual Pilot Update

### Introduction

The Hawaiian Electric Companies<sup>1</sup> hereby submit their annual Charge Up Commercial Pilot Update Report in compliance with: 1) Decision and Order No. 37507 (“D&O 37507”) issued on December 23, 2020, in Docket No. 2018-0088; and 2) Decision and Order No. 38194 (“D&O 38194”) issued on January 24, 2022, which approved the Commercial Make-Ready Infrastructure Pilot (“Charge Up Commercial Pilot” or “Pilot”), subject to certain conditions.<sup>2</sup>

D&Os 37507 and 38194 require the Companies to report on:

- Implementation schedules and progress relative to the pilot’s objective and key performance metrics;
- Pilot impacts on underserved communities;
- Pilot costs and revenues (if applicable), including cost analysis per participant, quantitative and qualitative benefits (for both pilot participants and non-participants), and an NPV analysis;
- Qualitative description of the pilot and customer benefits; and
- Any proposed changes to material aspects of the pilot, such as program pricing, terms or conditions, eligibility requirements, changes to the implementation schedule, or program cancellations (including reason for the cancelation).

D&O 38194 additionally requires the Companies to report on:

- Actual costs of the pilot, to include any costs that were previously unidentified, but were found to be necessary for pilot Implementation, with an explanation as to whether those costs were likely anomalies or would be expected to be necessary in future iterations of the program;
- Lessons learned from project deployment, including ways to improve Pilot economics and efficiencies and reduce costs, as part of a potential program expansion;

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<sup>1</sup> The “Hawaiian Electric Companies” or “Companies” refers collectively to Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawai‘i Electric Light Company, Inc.

<sup>2</sup> See D&O 37507 at 175-176, 218, 222 and D&O 38194 at 46-47. Although D&O 37507 requires that the annual Pilot Update be filed by March 31 of each year, the Companies are submitting this report in February 2023 to allow additional time for the Commission’s and the Consumer Advocate’s review in advance of the Spring Revenue Report.

- Discussion of the interrelations of the progression of any decisions made in response to the Companies' application to commit funds in excess of \$2,500,000 for the Public Electric Vehicle Charger Expansion Project, for example, the recovery of capital and operations and maintenance expense costs through the exceptional project recovery mechanism, filed in Docket No. 2021-0173;
- An analysis of charger utilization and the feasibility of developing a minimum usage and or managed charging condition in the Pilot's final report; and<sup>3</sup>
- A completed plan that details how the Companies will make the 10 years of post-Pilot data collection from Pilot participants' chargers readily available to the interested public.<sup>4</sup>

The Companies address each of these requirements in turn, as applicable.<sup>5</sup> This report reflects on the work completed in 2022, which includes the launch of the enrollment period in October 2022.

### Charge Up Commercial Objectives

The Companies' application filed on July 10, 2020, in Docket No. 2020-0202 ("Application") included the following proposed objectives:

1. Develop ways for the Companies to support make-ready infrastructure by learning how to streamline workflows, understand resource (grid) needs for charging, and track costs of infrastructure to develop sound cost estimates for future deployment;
2. Enable and accelerate the electrification of vehicles in the Companies' service territories by understanding customer behaviors and enabling customers to transition faster; and
3. Improve renewable energy integration through vehicle charging on the Commercial Facility tariff Schedule EV-J and Schedule EV-P.

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<sup>3</sup> This reporting requirements is listed in D&O 38194 and will be met once the final report is made.

<sup>4</sup> This reporting requirements is listed in D&O 38194 and will be met once the final report is made.

<sup>5</sup> As of 2022, reporting requirements that are not yet applicable include: Pilot expenses for utility-side infrastructure upgrades, participation metrics, schedule information, data collection metrics, charger utilization, customer feedback, and greenhouse gas ("GHG") emissions specific to the Pilot.

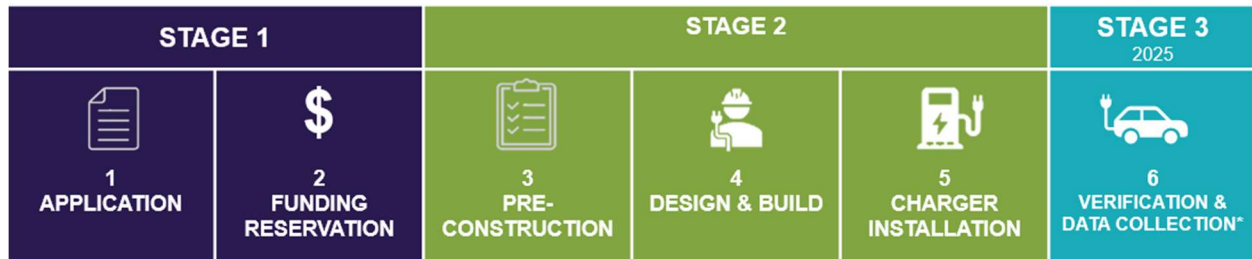
## Charge Up Commercial Implementation Schedule

The Charge Up Commercial Pilot includes three phases:

- 1) Ramp-up, during which the Companies will develop documentation for implementation and solicit customer interest;
- 2) Implementation, during which the Companies will confirm customer eligibility and design, construct, and install make-ready infrastructure; and
- 3) Data collection to support the final report.

Following the approval of the Charge Up Commercial Pilot in January 2022, the Hawaiian Electric Companies commenced the ramp-up phase and initiated outreach and education efforts, including press announcements, social media posts, print media, media interviews, webpage launch, and direct stakeholder engagement through meetings (4) and webinars (2). In 2023, outreach will continue to build awareness and interest, focusing on direct engagement throughout the customer journey. During the ramp-up phase, the Companies also defined processes and policies for implementation, which are reflected in the Final Program Design Report filed on September 23, 2022, in Docket No. 2020-0202, in compliance with D&O 38194. After the Commission's and the Consumer Advocate's 30-day review ended on October 24, 2022, the Companies launched the implementation phase, which encompasses Stage 1 and Stage 2, as illustrated in Figure 1.

**Figure 1. Pilot Process**



### Participants & Metrics

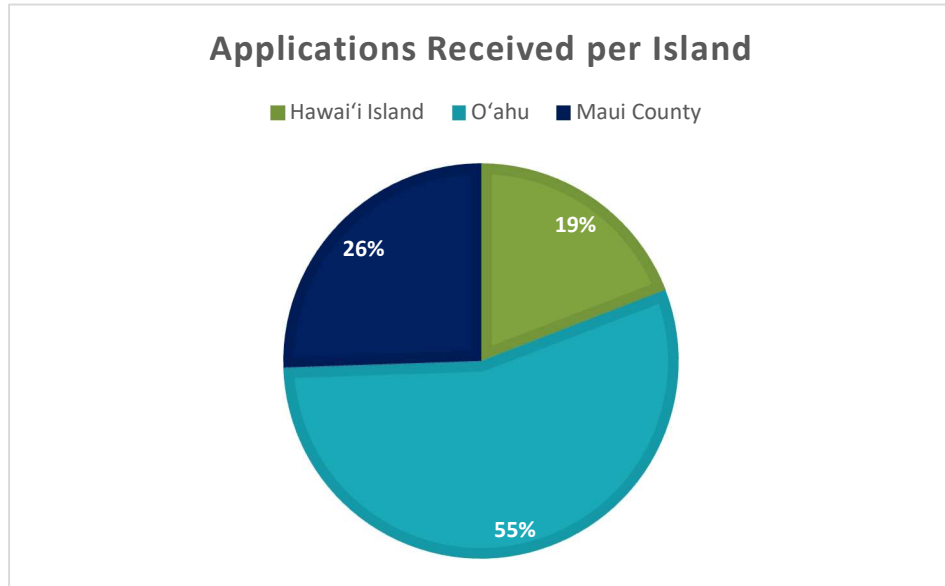
Eligible applicants are non-residential customers that own or lease the participating site (with at least 10 (ten) years remaining on their lease) and must be the customer of record for the site meter where the charging equipment for Charge Up Commercial will be installed. The Hawaiian Electric Companies have engaged with potential participants and stakeholders in designing the Charge Up Commercial Pilot and the application process in a way that will generate interest and build a meaningful pipeline for participation. As of January 31, 2023, the Pilot received 49 complete applications. The Companies are currently reviewing these applications and will select participants based on several factors, including but not limited to the following:

- ◆ Basic eligibility requirements;
- ◆ Overall complexity and cost of the project;
- ◆ Challenges and opportunities associated with each site; and
- ◆ Level of remaining Pilot funds.

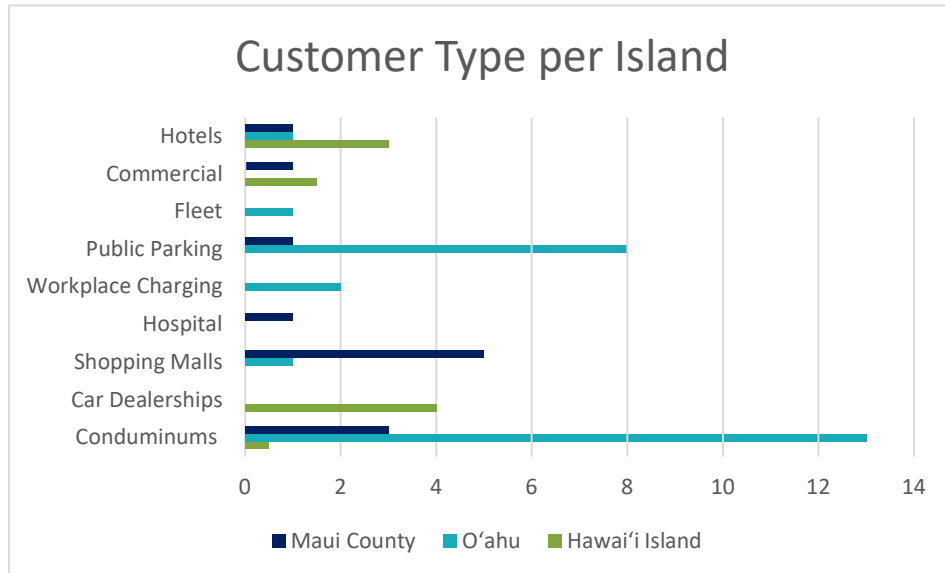
Figure 2 displays the percentage distribution of applications received per island and Figure 3 displays the customer type per island. The Companies intend to conduct additional outreach to geographic areas and organization types with low participation, e.g., Wai‘anae and

non-profit organizations. Future Pilot updates will include metrics such as the total number of applications, enrollment, type, and utilization.

**Figure 2. Applications Received per Island**



**Figure 3. Customer Type per Island**



## Costs & Revenues

In accordance with the Pilot Process approved by the Commission in Order No. 37865, Innovation Pilot project costs are treated as deferred costs and recovered the following year, subsequent to the Commission's annual spring review.<sup>6</sup> During calendar year 2022, the Companies incurred Pilot expenses totaling \$159,046, which were relatively low compared to the Pilot's total estimated cost of \$4,983,988. This is due, in part, to the use of internal labor to develop processes, customer materials, and agreements for the Charge Up Commercial Pilot. The Companies expended approximately \$12,000 for outside consulting services in 2022 to support the development of the Final Program Design Report (filed on September 23, 2022, in Docket No. 2020-0202). This included developing cost estimates and scorecards and reviewing certain documents, including the site evaluation checklist and the handbook. In addition, outside services of approximately \$21,000 were for developing the online application portal, website, and Pilot education and outreach materials.

The Companies also expended \$125,827 for internal labor to design, project manage and oversee the Pilot, create enrollment processes, support budgeting, develop reports, provide customer engagement, implement modifications, evaluate applications, and guide applicants through each step of the customer journey. All internal labor resources included in the Pilot expenses directly support the implementation of the Pilot. The internal labor expenses reported includes direct labor and direct overheads (i.e., payroll taxes, employee benefits and non-productive wages), and are incremental expenses not recovered through a prior rate case. This includes internal resources that are typically charged to capital projects as well as new

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<sup>6</sup> See Order No. 37865, issued on July 9, 2021, in Docket No. 2018-0088, at 8-11.



positions specific to the implementation of the Pilot. For example, in 2022, the Companies created and filled two new positions, Product Manager, Charge Up Commercial and Contract Manager. The Product Manager’s role is intended to manage and oversee the overall implementation of the of the Pilot, while the Contract Manager will be responsible for the procurement and management of design and construction contractors to develop all make-ready infrastructure for this Pilot. The Product Manager position was filled by an individual outside of the Companies and the Contract Manger position was internally recruited (this individual’s prior position was backfilled). These positions were not included in a prior rate case.

Figure 4, Cost per Island, shows the breakdown of recorded 2022 expenses totaling \$159,046. Consistent with the budget proposed in Docket No. 2020-0202, ramp-up expenses are split between the three companies as 50% Hawaiian Electric, 25% Hawai’i Electric Light, and 25% Maui Electric based on estimated Charge Up Commercial Pilot participation. During the implementation phase, the Companies will allocate site-specific expenses based on Pilot uptake across the islands while remaining within the approved cap. No customers were enrolled, and no revenues were recognized during 2022.

**Figure 4. Cost per Island (\$)**

	<b>O’ahu</b>	<b>Hawai’i Island</b>	<b>Maui County</b>	<b>Total</b>
2022	\$80,748	\$39,485	\$38,813	\$159,046

### Benefits & Impact to Underserved Communities

Charge Up Commercial will play a crucial role in accelerating the electrification of transportation and is expected to provide broad, ongoing benefits to all customers. Vehicle charging during the day facilitates greater use of renewable energy and reduces fossil fuel use overall, helping the State achieve carbon emission reduction goals. The Pilot supports the

buildout of charging infrastructure in rural and underserved communities. Equitable access to charging infrastructure will encourage the adoption and use of electric vehicles in underserved communities and is expected to result in lower GHG emissions in these communities. The Pilot is using metrics as defined in the Final Program Design Report filed on September 23, 2022, in Docket No. 2020-0202, to track customer applications from underserved communities and will report on findings from this specific customer segment.

Once the data becomes available, future annual reports will include GHG emission analyses as required by Decision and Order No. 36220 (“D&O 36220”) in Transmittal No. 18-06, in accordance with the annual reporting requirements established for the EV-J and EV-P tariffs.<sup>7</sup>

### Lessons Learned

The Pilot launched late in October 2022, when the Companies began outreach and application review (Stage 1 described in Charge Up Commercial Implementation Schedule on page 3). Prior to the launch, the Companies gained valuable insight from the Charge Up eBus Pilot. The feedback from customers in the eBus Pilot, in addition to the Companies’ research into prominent make-ready programs, led to the Charge Up Commercial Pilot changing the data collection reporting requirement from 10 to 5 years.<sup>8</sup>

Lessons learned in 2022 include:

- **Concentrated applicant pool:** The Pilot received 38% of the applications from central Honolulu and the majority of applications received are from condominiums.

In order to reach Pilot objectives and learn as much as possible, it is advantageous to

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<sup>7</sup> See D&O 36220, Ordering Paragraph 3.D(11), at 42.

<sup>8</sup> See Hawaiian Electric’s Commercial Make-Ready Infrastructure Pilot Final Program Design report, at 2.

- include participants from all parts of the Companies' territories and from different types of commercial properties.
- **Need for targeted outreach:** The Pilot conducted a wide array of outreach including press announcements, social media posts, print media, media interviews, webpage launch, and direct stakeholder engagement prior to and during the launch of the Pilot. One of the lessons learned from the ramp-up phase was that outreach also needs to include targeted efforts to geographic areas and partner initiatives with community-based organizations to attract customers where trust may be low.

### Proposed Changes

There are no proposed changes to material aspects of the Charge Up Commercial Pilot, including program pricing, terms or conditions, eligibility requirements, changes to the implementation schedule, or Pilot cancellations at this time.

The Companies are working with the departments of planning and permitting in the Companies' service territories to seek ways to minimize the risk associated with building permit review and processing delays. In the Pilot Implementation Schedule, 4 to 6 months are allocated for permitting, processing, and handling per participant. Delays to this schedule will increase the risk for cascading impacts to the overall Pilot Implementation Schedule.

## Schedule EV-J and EV-P Annual Pilot Update

### Introduction

The Hawaiian Electric Companies’<sup>1</sup> annual Schedule EV-J and EV-P Pilot Update Report (“EV-J & EV-P Pilot Update”) is submitted in compliance with: 1) Decision and Order No. 37507 (“D&O 37507”) issued on December 23, 2020 in Docket No. 2018-0088, and 2) Decision and Order No. 38157 (“D&O 38157”) issued on December 30, 2021 in Docket No. 2020-0152, which approved Electric Vehicle Tariffs for Schedule EV-J – Electric Vehicle Charging Service – Demand and Schedule EV-P – Electric Vehicle Charging Service – Large Demand, on a Pilot Basis (referred to as the “Schedule EV-J and EV-P Pilot” or “Pilot”), subject to certain conditions.<sup>2</sup>

D&O Nos. 37507 and 38157 require the Companies to report on:

- Implementation schedules and progress relative to the pilot’s objective and key performance metrics;
- Pilot impacts on underserved communities;
- Pilot costs and revenues (if applicable), including cost analysis per participant, quantitative and qualitative benefits (for both pilot participants and non-participants), and an NPV analysis;
- Qualitative description of the pilot and customer benefits; and
- Any proposed changes to material aspects of the pilot, such as program pricing, terms or conditions, eligibility requirements, changes to the implementation schedule, or program cancellations (including reason for the cancelation).<sup>3</sup>

D&O 38157 additionally requires the Companies to report on:

- Status update and adoption of the proposed Pilot rates (including the total number of customers enrolled under each Schedule on a monthly and annual basis in aggregate for each service territory and by each user/customer type (multi-unit dwellings, fleets, shopping centers, etc.);
- The number of charging stations and number of ports acquired per customer account enrolled in the Pilot at time of enrollment;
- The kWh consumption by time-of-use (“TOU”) period on monthly and annual basis;
- Summary of costs (if any) and revenues for each Schedule (in total and by TOU period on a monthly and annual basis, in aggregate for each service territory and by each user/customer type) and projected impact on utility rates;

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<sup>1</sup> The “Hawaiian Electric Companies” or “Companies” refers collectively to Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawai‘i Electric Light Company, Inc.

<sup>2</sup> See D&O 37507 at 175-176, 218, and 222 and D&O 38157 at 19, 29-33, 36, 38, 40-44, 45, and 47. Although D&O 37507 requires that the annual Pilot Update be filed by March 31 of each year, the Companies are submitting this report in February 2023 to allow additional time for the Commission’s and the Consumer Advocate’s review in advance of the Spring Revenue Report.

<sup>3</sup> See D&O 37507 at 175-176 and D&O 38157 at 45.

- The estimated reduction in greenhouse gas (“GHG”) emissions associated with the Pilot, including a description of the methodology used in calculating the emissions and supporting data;
- GHG emissions associated with the incremental load under the proposed Pilot rates (by each TOU period and in total);
- End-use pricing structures assessed by each commercial site host customer, to the extent available, any changes made to the pricing structures over time, and reasons for the end-use pricing structures selected;
- Detailed documentation of past, ongoing and future outreach and education efforts;
- Participants’ feedback regarding the overall experience with, and effectiveness of the Pilot, based on the participants’ responses to an annual survey;
- Lessons learned based on the results of an annual survey to gather feedback on the Pilot rates (survey instrument and aggregate results to be included as part of the annual report);
- Discussion of alignment of both the Pilot design and Pilot results with any decisions of Advanced Rate Design (“ARD”) and Integrated Grid Planning (“IGP”) modeling results, as well as how pilot data will inform future IGP cycles, including an analysis of docket interrelations; and
- An extrapolation that depicts the likely impact on rates if the Pilot rates were more widely adopted.<sup>4</sup>

This report is also filed in accordance with the Pilot Process approved in Order No. 37865, issued on July 9, 2021, in Docket 2018-0088. The Pilot Process includes reporting on:

- Challenges and lessons learned, process improvements, a listing of performance relative to all key metrics, and any future permanent implementation plans based on an evaluation against the metrics established; and
- Updates to estimated costs and schedule (e.g., if there were significant delays in receiving signed agreements from government agencies).<sup>5</sup>

The Companies address each of these requirements in turn, as applicable. This report reflects the period starting at the time that the rates opened for enrollment, which commenced on March 18, 2022 (on August 1, 2022 for Lāna‘i and Moloka‘i), and ended on December 31, 2022.

### Schedule EV-J and EV-P Pilot Objectives & Benefits

The Companies’ application filed on September 30, 2020 in Docket No. 2020-0152 (“Application”) included the following proposed objective: to ensure that charging options for electric vehicles (“EV”) remain competitive with fuel for internal combustion engines (“ICEs”) and thereby accelerate the transition to clean transportation, while also encouraging charging behavior that supports the grid.<sup>6</sup>

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<sup>4</sup> See D&O 38157 at 19, 29-33, 36, 38, 40-44, 45, and 47.

<sup>5</sup> See Hawaiian Electric Companies’ Pilot Process, filed on July 28, 2021, in Docket No. 2018-0088, at 5.

<sup>6</sup> See Application at 13.

The approved EV-J and EV-P tariffs offer electricity per-kilowatt-hour (“kWh”) rates for non-residential EV charging that are lower than the respective comparable commercial rates during the Mid-Day period from 9:00 a.m. to 5:00 p.m., daily.<sup>7</sup> The tariffs also provide significantly lower demand charges than the corresponding commercial rate schedules, Schedule J and Schedule P.<sup>8</sup> This encourages the charging of EVs during hours that coincide with the greatest amount of renewable energy penetration on the grid, and assists in offering charging options for EVs that remain competitive with fuel for ICEs. These fuel cost savings can help encourage greater EV adoption as they further improve the economics of owning an EV.

### Schedule EV-J and EV-P Pilot Implementation

In addition to the Commission’s regulatory approval process, implementation of the Schedule EV-J and EV-P Pilot involved a multi-step process internal to the Companies. This process included analysis to determine rate structure, development of detailed tariffs, integration with billing infrastructure, and education of internal stakeholders. Once the Commission approved the rates and they were opened for enrollment to eligible customers, the Companies launched a concerted outreach effort to ensure that industry stakeholders and potential customers understood the rates.

On March 18, 2022, following D&O 38157, the rates were opened for enrollment to eligible customers on O’ahu, Maui, and Hawai‘i Islands. On June 30, 2022, in Transmittal No. 22-02, Maui Electric Company, Limited requested the Commission’s approval to establish Electric Vehicle Tariffs for Schedule EV-J – Electric Vehicle Charging Service – Demand and Schedule EV-P – Electric Vehicle Charging Service – Large Demand for Moloka‘i and Lāna‘i on a Pilot Basis. These rates opened for enrollment on August 1, 2022 for qualifying customers on the islands of Moloka‘i and Lāna‘i. The Companies launched a concerted outreach effort following the opening of the rates. Details of this outreach effort are contained within this report under the heading “Outreach and Education.”

### Enrollees, Adoption, and Metrics

Eligible customers include separately-metered commercial accounts serving EV charging stations, and no greater than 5kW of ancillary load in support of the EV charging infrastructure. Furthermore, customers must meet the following requirements:<sup>9</sup>

- Customer must provide Company with a closed building permit for the EV charging station, and the ID numbers of the charging equipment;
- Customer must meet the demand thresholds detailed in the Schedule EV-J and Schedule EV-P Tariffs; and

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<sup>7</sup> During the On-Peak hours, 5:00 p.m. to 10:00 p.m., daily, per kWh rates for electric vehicle charging are higher than the respective comparable commercial rates.

<sup>8</sup> Demand charges are \$2/kW for Schedule EV-J (all islands) & Schedule EV-P (Maui & Hawaii Island), and \$4/kW for Schedule EV-P on O’ahu. Demand charges for Schedule J and Schedule P can be found at: <https://www.hawaiianelectric.com/billing-and-payment/rates-and-regulations/effective-rate-summary>.

<sup>9</sup> The Schedule EV-J and Schedule EV-P Tariffs were submitted to the Commission on February 1, 2022 under Docket No. 2020-0152 and approved in Order No. 38423, issued on March 1, 2022.

- Customer is required to complete an annual survey, and the Company may install a data recording device to profile the load.

As of the end of the 2022 annual reporting period, zero (0) revenue-generating customers are enrolled under Schedules EV-J and Schedule EV-P.

Given that zero (0) revenue-generating customers are enrolled under Schedules EV-J and EV-P, the collection of end-use pricing structures assessed by each commercial site host customer is not applicable.

Despite the increase in EV adoption in Hawai'i, the development of EV charging infrastructure has lagged. As of December 31, 2022, only three (3) operators of public DC Fast Charging infrastructure have installations in the Hawaiian Electric Companies' service territory:

- Hawaiian Electric Companies (31 ports) – enrolled in Schedule EV-U
- Shell Recharge (3 ports) – currently enrolled in Schedule EV-F; an outreach effort is underway to convert these ports to Schedule EV-J<sup>10</sup>
- Tesla (6 ports – limited to Tesla vehicles) – currently enrolled in Schedule P; the process is underway to enroll these ports to Schedule EV-P, but is not yet complete

According to PlugShare's online database of EV charging stations, there are 250 Level 2 charging stations located within the Hawaiian Electric Companies' service territory as of February 20, 2023.<sup>11</sup> Most of these stations are owned and operated by the station's commercial host facility for the use of their patrons or guests, and not by for-profit Electric Vehicle Service Providers ("EVSPs"), like most DC Fast Chargers. Because they are owned by the host customer and draw lower loads that often may be supported by existing electrical service infrastructure, these Level 2 charging stations are typically served through the facility's existing electrical service – not via a separately-metered electrical service, as is required for enrollment in Schedules EV-J or EV-P. To increase enrollment of Level 2 charging stations in Schedules EV-J and EV-P, the Companies are actively monitoring all EV service requests and are contacting applicants that are requesting separately-metered services to encourage enrollment in Schedule EV-J or EV-P, as appropriate.

In addition, several EVSPs have expressed interest in enrolling forthcoming DC fast charging hubs on Schedules EV-J and EV-P. These hubs are currently under construction, and the Companies expect that up to seven (7) of such charging hubs will enroll in EV-P during the 2023 reporting period once these facilities are placed into active service. Beyond these seven (7) charging hubs, the Companies have spoken with fleet operators and government agencies who are actively exploring large-scale EV charging projects, which is anticipated to further increase enrollment in Schedules EV-J and EV-P.

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<sup>10</sup> Schedule EV-F terminates June 30, 2023, with customers transitioning to otherwise applicable rates.

<sup>11</sup> See <https://www.plugshare.com/>.

Further, it is anticipated that Schedule EV-J enrollment will increase by approximately 20-30 additional Level 2 customer accounts during the 2023 or 2024 reporting periods once commercial installations under Docket No. 2020-0202 (Charge Ready Hawai'i) are placed into active service. The Companies expect customer types within these 20-30 accounts to include multiple-unit dwellings, retail, workplace charging, and fleet.

Qualifying installations under Docket No. 2020-0098 (Charge Up eBus Pilot) are also eligible to enroll in Schedules EV-J and EV-P. As such, participation in the Charge Up eBus Pilot may also lead to increased enrollment in Schedules EV-J and EV-P.

The 2023 and 2024 annual reports will document forthcoming enrollments.

### Outreach and Education

Following the launch of Schedule EV-J and Schedule EV-P, the Companies launched a concerted outreach and education effort to ensure that stakeholders – both internal and external – were aware of the new rates, and aware of how to enroll in them.

The following is a list of specific endeavors taken to this end:

- Created and launched an informational webpage (<https://www.hawaiianelectric.com/products-and-services/electric-vehicles/electric-vehicle-rates-and-enrollment/commercial-facility>) in March 2022, explaining the details of Schedule EV-J and Schedule EV-P. The website includes links to the applicable EV-J and EV-P tariff sheets and a graphical depiction of a time-of-use rate structure. To facilitate customer comprehension of the time-of-use structure, the website also includes tables comparing the effective rates (per kWh) and demand charges (per kW) for Schedules J & P (all-periods) and Schedules EV-J & EV-P (for each time-of-use period). These tables are updated monthly to reflect the actual effective rates. Following the launch of Schedules EV-J and EV-P, there were 611 visits to the webpage in March 2022, with an average of 116 monthly visits thereafter.<sup>12</sup> Figure 1, provided as an example from the webpage, illustrates the comparison of Schedules J and EV-J. An equivalent table comparing Schedules P and EV-P is also found on the same webpage.

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<sup>12</sup> Companies' monthly internal review of website traffic.



**Figure 1: Rate Comparison Table from Hawaiian Electric Companies' Commercial EV Rate Webpage**

Island	Demand Threshold	Schedule J		Schedule EV-J		
	J & EV-J	Demand Charge (\$/kW) All Day	Effective* Rate (\$/kWh) All Day	Demand Charge (\$/kW) All Day	Mid-Day Effective* Rate (\$/kWh) 9am - 5pm	On-Peak & Off-Peak Effective* Rate (\$/kWh) 5pm - 10pm & 10pm - 9am
Oahu	<300 kW	\$13.00	\$0.354262	\$2.00	\$0.339545	\$0.426215
Maui	<200 kW	\$13.00	\$0.364506	\$2.00	\$0.337240	\$0.447130
Lanai	<200 kW	\$13.00	\$0.520434	\$2.00	\$0.486449	\$0.621417
Molokai	<100 kW	\$13.00	\$0.467794	\$2.00	\$0.443118	\$0.551006
Hawaii	<200 kW	\$14.00	\$0.384297	\$2.00	\$0.360193	\$0.472877

\* February 2023 Rates with applicable surcharges. Price per kWh updated by calendar month

- Published information about Schedule EV-J and Schedule EV-P in the March 2022 release of the Companies' eMobility Newsletter. This quarterly newsletter reaches a mailing list of over 300 e-mobility stakeholders located statewide and nationally. For reference, a copy of this newsletter is included in Attachment 3A.
- Issued an external press release on February 3, 2022 to local news outlets, leading to a wide distribution across the Companies' service territory. For reference, a copy of this press release is included in Attachment 3B.
- The Hawaiian Electric Companies' team of Commercial Account Managers was informed of Schedule EV-J and Schedule EV-P at a regularly-scheduled meeting with the Companies' Electrification of Transportation department on March 16, 2022, and again on November 15, 2022. Commercial Account Managers support the Companies' top 400 revenue-generating customers, and their responsibilities include providing advice to these customers about money-saving programs, and new initiatives such as Schedule EV-J and Schedule EV-P, as applicable to customers' needs.
- Trained Hawaiian Electric Companies' Customer Care Representatives on the details of Schedule EV-J and Schedule EV-P in March 2022. Customer Care Representatives are the front-line personnel that respond to customer inquiries received via phone, email, and web-form, and offer support for all concerns, including rate schedule selection.
- As part of their regular outreach activities, the Companies often present at industry events, sharing information about the Companies' efforts to support electric transportation initiatives – including the Schedules EV-J and EV-P. These presentations include:
  - Hawai'i Lodging and Tourism Association Engineers Advisory Council Meeting on September 22, 2022
  - Building Owners and Managers Association October 2022 Member Meeting on October 5, 2022.

- Lightning Day – Electric Bus Showcase on November 16, 2022
- In October and November 2022, the Companies initiated a concerted effort to increase enrollment in Schedules EV-J and EV-P. This effort involves actively tracking all service requests serving EV charging infrastructure to identify those satisfying enrollment criteria for Schedule EV-J or Schedule EV-P, followed by direct outreach to these customers to propose enrollment in Schedules EV-J or EV-P. Thus far, the Companies have identified seven (7) in-process service requests as candidates for Schedules EV-J or EV-P as result of this outreach effort, and they are expected to be enrolled in Schedule EV-J or EV-P upon activation of their electrical service. Furthermore, conversations about conversion to Schedule EV-J are ongoing with the accountholder of three (3) additional EV charging accounts currently enrolled in Schedule EV-F.
- To further educate stakeholders within the Companies, the Electrification of Transportation department is developing an informational document detailing the enrollment requirements, suitable installations, and enrollment procedures for Schedules EV-J and EV-P. This document is anticipated to be distributed to all Commercial Account Managers, Clerks, Customer Planners, and Customer Engineers within the Companies, further equipping them with the knowledge to propose enrollment in Schedules EV-J and EV-P for any of the customers or service requests under their purview. This document is expected to be released in the first quarter of 2023.

### Customer Experience & Data Collection

Data collection is a key element to ensure the success of this Pilot. To this end, the Companies anticipate issuing a survey on an annual basis to customers enrolled in either Schedule EV-J or Schedule EV-P to collect participant feedback regarding the overall customer and end-user experience, as well as the effectiveness of the Pilot. Survey results are expected to quantitatively inform an assessment of lessons learned, areas for potential improvement, and points of success.

As of the end of the 2022 annual reporting period, zero (0) customers are currently enrolled under Schedules EV-J, and Schedule EV-P. Thus, an annual survey was not issued, and no lessons-learned, nor participant feedback regarding the overall customer and end-user experience, and effectiveness of the Pilot rates is available to report.

The annual survey, survey dissemination, and completed survey collection process will be developed in 2023, and will be issued to all accounts enrolled in Schedules EV-J and EV-P. Results will be included in the next annual report. The Companies expect that the survey should address key elements of the pilot, such as:

- Impacts of the Pilot's requirement for a separately-metered electrical service
- Ease and experience of enrollment in Schedule EV-J or EV-P
- Primary sources of awareness and information about Schedule EV-J or EV-P
- Ease of understanding the time-of-use rate structure
- Qualitative assessment of benefits from Schedules EV-J and EV-P

- Assessment of Pilot’s impact on customer’s adoption/purchase of EVs
- Future plans for expansion of EV charging infrastructure
- End-user pricing structure for charging, reason for end-user pricing structure selection, and any changes made to pricing structure over time

The Companies look forward to documenting challenges, lessons learned, performance, and opportunities for process improvement once a representative sample size of enrollees is available to draw relevant conclusions.

### GHG Emissions & Impacts on Underserved Communities

Given that zero (0) customers enrolled under Schedules EV-J and EV-P during the 2022 annual reporting period, there are currently no Pilot impacts on underserved communities to report. As noted in the “Enrollees, Adoption, and Metrics” section of this report, all participants in the Commercial Make-Ready Pilot Program, approved under Docket No. 2020-0202 (Charge Ready Hawai‘i) will be enrolled in Schedule EV-J or EV-P. Within Docket No. 2020-0202, the Companies were tasked with defining “underserved communities” and a concerted effort is being made to solicit applicants from communities meeting the criteria defined in the Commercial Make-Ready Infrastructure Final Program Design Report.<sup>13</sup>

Given that zero (0) customers enrolled under Schedules EV-J and EV-P during the 2022 annual reporting period, there is no kWh consumption by TOU period to report under Schedules EV-J and EV-P. There is no kWh consumed under Schedules EV-J and EV-P in the 2022 annual reporting period on which to make an extrapolation on the likely impact on rates if the pilot rates were more broadly adopted. There is no reduction in GHG emissions to report resulting from enrollment in Schedules EV-J and EV-P, and no GHG emissions associated with the incremental load under the proposed Pilot rates.

### Costs & Revenues

The Companies’ implementation costs for the Schedule EV-J and EV-P Tariff Pilot are expected to be relatively minimal, since the Pilot is primarily administrative in nature, and does not involve the installation of any physical infrastructure or capital equipment.

During the 2022 annual reporting period, implementation of the Pilot has not incurred any direct costs. Given that zero (0) customers enrolled under Schedules EV-J and EV-P during the 2022 annual reporting period, there is no revenue to report, nor projected impact on utility rates from the sale of electricity under Schedules EV-J and EV-P. Further, a net present value (NPV) analysis of costs and revenues is not relevant at this time.

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<sup>13</sup> See Hawaiian Electric’s Commercial Make-Ready Infrastructure Pilot Final Program Design Report, filed on September 23, 2022, in Docket No. 2020-0202, at 14-16.

Note that revenues from Schedules EV-J and EV-P will be characterized as electric sales revenue, based on the Companies' response to CA-SIR-13, under Docket No. 2020-0152.<sup>14</sup>

### Proposed Changes

There are no proposed changes to material aspects of the Schedule EV-J and EV-P Tariff Pilot, including program pricing, costs, terms or conditions, eligibility requirements, changes to the implementation schedule, or program cancellations at this time. The Companies are currently investigating a potential change to the Schedule EV-J and EV-P Tariffs, but have not yet determined whether a tariff change would be appropriate or necessary.

### Pilot Alignment with Advanced Rate Design (ARD) and Integrated Grid Planning (IGP)

Decision and Order No. 38680<sup>15</sup> provided guidance for advanced rate designs applicable to residential, small commercial, and medium commercial customers, and their implementation to a subset of customers in an opt-out TOU study period commencing July 2023 through June 2024, before a broader rollout is initiated. The TOU periods in ARD are slightly different than the Schedule EV--J and EV-P TOU periods, with a 9a-5p Daytime period,<sup>16</sup> a 9p-9a Overnight period, and a 5p-9p Evening Peak period.<sup>17</sup> The ARD rates have different Customer Charges, a Grid Access Charge instead of a Demand Charge, and different TOU Energy Charges. A baseline level of surcharges is included in the TOU Energy Charges, and TOU Energy Charges are set on a 1:2:3 ratio between the Daytime period, Overnight period, and Evening Peak periods.

There are currently no changes contemplated for Schedules EV-J and EV-P at this time as a result of ARD. The Companies note that there is no ARD equivalent for Schedule P customers expected during the TOU Study period. Schedules EV-J and EV-P were designed relative to Schedules J and P, and as those schedules remain available and are not contemplated to be modified during the ARD TOU Study period, Schedules EV-J and EV-P do not need to be modified at this time.

Data collected on charging patterns, such as the time of day, location, and magnitude including peak loading may serve as useful inputs developed through the EV Tariff Pilot to inform future forecasts in the IGP process.

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<sup>14</sup> See Hawaiian Electric Responses to Consumer Advocate's Supplemental IRs, filed on January 19, 2021, in Docket No. 2020-0152.

<sup>15</sup> Docket No. 2019-0323, issued on October 31, 2022.

<sup>16</sup> The ARD Daytime TOU period is equal to the Schedule EV-J and EV-P Mid-Day TOU period.

<sup>17</sup> The ARD Evening Peak TOU Period is one hour shorter than the EV-J and EV-P On-Peak TOU period.

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Hawaiian  
Electric



## 2022 Q1 Stakeholder Newsletter

### A ♥ of Electric Vehicles

**Pop quiz:** What do Hawaiian Electric, Biden Administration, the Super Bowl, and [robopuppies](#) have in common: a love of electric vehicles.

The Biden Administration recently announced that it [will grant Hawaii \\$17 million](#) to support electric vehicle infrastructure along [alternative fuel corridors](#). Meanwhile, auto and tech giants like [Honda and Sony](#) are planning to collaborate on a brand new EV joint venture. The eMob has also gone through an evolution, welcoming eight new all-star team members and launching two new commercial EV rates and a new pilot product: EV-J and EV-P rates and Charge Up eBus.

Last but not least, I've been incubating my own startup over the last nine months: a baby boy. It's encouraging to know that when he is 18, at least every other car and probably every bus on the road will be electric and fueled by almost 100% clean energy.

As I enter this new chapter, the team will be under the great leadership of Michael Colon, who will serve as Acting Director. I look forward to connecting with everyone later this summer!

A hui hou!

Aki & the eMob Team

### Exciting New Programs!

#### Charge Up eBus Pilot – ACCEPTING APPLICATIONS



Hawaiian Electric's [Charge Up eBus Pilot](#) is designed to help bus operators reduce the upfront cost of installing charging equipment for electric buses on Oahu, Maui and Hawaii Island. As part of the Pilot, Hawaiian Electric pays for, constructs, owns and maintains all the electrical infrastructure up to the charging equipment. Bus operators purchase, install and maintain their charging equipment.

[Resources and application forms](#) can be submitted to [chargeup@hawaiianelectric.com](mailto:chargeup@hawaiianelectric.com).

#### EV-J and EV-P Commercial Charging Rates – OPEN FOR ENROLLMENT

[New EV charging rates](#) are available to commercial customers on Oahu, Maui, and Hawaii Island as part of Hawaiian Electric's continuing effort to boost EV use and reduce greenhouse gas emissions from ground transportation. The five-year pilot program offers a lower-cost midday period designed to produce fuel savings for EV drivers compared with fuel costs for gas-powered cars, as well as compared with Hawaiian Electric's existing rate options.

- The new EV-J rate is available to 1,000 medium-sized commercial customers and intended for Level 2 and small-scale DC fast charging.
- The new EV-P rate is available to 500 large commercial customers and aimed at larger DC fast charging operations.
- The pilot rates are for EV charging only and requires site hosts to install a separate dedicated meter.

Interested commercial customers can contact us at [GoEV@hawaiianelectric.com](mailto:GoEV@hawaiianelectric.com).

### Growing eMob Team

We are thrilled to be working with two new members of the eMob team.

**Kiani Jones**



**What do you do?** I'm responsible for overseeing the end-to-end deployment and on-going operation of Hawaiian Electric public EV charging, working cross functionally with a variety of internal and external stakeholders to improve operational efficiency and ultimately the customer experience.

**Favorite EV:** Upcoming Rivian R1T

**Years at Hawaiian Electric:** 3 months

**Zodiac:** Virgo / Rabbit

**Fun Fact:** While in high school on Maui, I was on a team that built an electric vehicle and competed in Hawaiian Electric's annual Electron Marathon to see who could complete the most laps with their self-built EVs. The experience was a large reason I went on to study electrical engineering. So, I guess you could say joining Hawaiian Electric's eMob team is something of a full circle moment.

**Brent Uechi**



**What do you do?** Contract Manager on DC fast charging public charging projects

**Favorite EV:** Tesla Model S Plaid Spec

**Years at Hawaiian Electric:** 2 years with Power Supply and 3 months with EoT

**Zodiac:** Libra / Ox

**Fun Fact:** In my past life, I lived on a Greek Island.

### Update on Filings

We started the year with exceptional news from the Hawaii Public Utilities Commission, approving the EV-J and EV-P commercial pilot rates and the Charge Ready Hawaii commercial make ready pilot. Thank you for your feedback on program designs and letters of support for our most recent EoT filings. We couldn't have done it without you!

**\*APPROVED\* Charge Ready Hawaii ([Docket No. 2020-0202](#))**

The proposed Charge Ready Hawaii pilot aims to test a program that helps reduce the development costs associated with constructing EV charging stations, called "make-ready." Specifically, the Pilot is intended to support the development of 180 charging ports that serve 30 sites across the City and County of Honolulu, County of Maui, and County of Hawai'i.

**\*UNDER REVIEW\* Public EV Charger Expansion ([Docket No. 2021-0173](#))**

Filed in October 2021, the filed application seeks to expand and make permanent Hawaiian Electric's public EV charger program. Building from the EV-U Pilot, the proposed program aims to install, operate and maintain 150 single port DC Fast Charging Stations and 150 dual port Level 2 charging stations for public use at 75 sites across the service territories.

### Annual Report

The 2021 Annual Report is available online, providing information and data on the progress and status of our [public EV charging programs](#). Check it out [here](#).







## NEWS RELEASE

**CONTACT:** Alan Yonan, 808.265.7720  
[alan.yonan@hawaiianelectric.com](mailto:alan.yonan@hawaiianelectric.com)

FOR IMMEDIATE RELEASE

### **New pilot program to offer lower rate as incentive for businesses, building owners to host EV chargers**

*Plan will cut electricity costs, demand charges for commercial customers*

**HONOLULU, Feb. 3, 2022** – A new Hawaiian Electric pilot program aimed at encouraging greater electric vehicle adoption will reduce the cost for commercial customers to provide EV charging at locations such as office buildings, fleet facilities, shopping malls and condominiums.

The new commercial EV rates, approved by the Public Utilities Commission, will be available beginning in mid-March on O‘ahu, Maui and Hawai‘i Island as part of Hawaiian Electric’s continuing effort to boost EV use and reduce greenhouse gas emissions from ground transportation.

The five-year pilot program will employ a time-of-use rate structure that incentivizes charging during midday hours when there is abundant solar energy flowing into the grid. The lower-cost midday period is designed to produce fuel savings for EV drivers compared with fuel costs for gas-powered cars, as well as compared with Hawaiian Electric’s existing rate options.

The new rates will benefit medium-sized commercial customers under Schedule EV-J and large commercial customers under Schedule EV-P. Here is the breakdown:

- EV-J rate - Available to the first 1,000 customers and intended for Level 2 and small-scale DC fast charging
- EV-P rate - Available to the first 500 customers and aimed at larger DC fast charging operations

Depending on site-specific factors, Hawaiian Electric projects that the new rates will provide savings ranging from 7% to 58% compared to existing rates for J and P customers. The new rates will be published on the company’s website when the program becomes available in March. Interested customers may send an email to [GoEV@hawaiianelectric.com](mailto:GoEV@hawaiianelectric.com) with the subject “EV-J/EV-P”, and include their name, company and contact information.

The new rate applies to the amount Hawaiian Electric bills to the operator of the charging station – a business or building owner, for example – and not to the drivers who use it. Hawaiian Electric does not control what site hosts charge for EV charging, if anything.

“We know there is growing demand for electric vehicle charging in all market segments across Hawai‘i, including with our commercial customers,” said Aki Marceau, Hawaiian Electric’s

- more -



director of electrification of transportation. “We can support this demand by providing well-designed rates that leverage the clean energy produced in the middle of the day and make it easier for all our customers to participate in the transition to electrified transportation.”

The new EV-J and EV-P rates also offer demand charges that are much lower than the existing rates for those customer groups. Because managing demand charges can be an issue for site hosts, keeping the charges low will help mitigate those concerns and encourage the installation of charging stations at public and workplace locations. Hawaiian Electric’s application to the PUC received widespread support from commercial customers, including public transit providers, fleet operators and electric bus manufacturers.

The pilot rates are for electric vehicle charging only, and therefore requires site hosts to install a separate dedicated meter. Separate metering will also facilitate data collection from the charging sessions that will provide useful information to the site host and Hawaiian Electric.

The new rates complement another program recently approved by the Public Utilities Commission aimed at reducing the upfront costs to businesses seeking to install EV charging equipment. Under the Charge Ready Hawai’i Pilot Project Hawaiian Electric will cover the cost of installing “make-ready” infrastructure to support the deployment of up to 180 Level 2 charging ports at 30 commercial sites over three years, including 14 sites on O’ahu and eight each on Hawai’i Island and Maui.

###

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## Data Analytics Clearinghouse Annual Pilot Update

### I. Summary of Data Analytics Clearinghouse Status

On December 8, 2022, the Commission issued Decision and Order No. 38753 (“D&O 38753”) in Docket No. 2022-0212, approving the Hawaiian Electric Companies’<sup>1</sup> proposed Data Analytics Clearinghouse Pilot (“Clearinghouse Pilot” or “Pilot”), subject to certain conditions.<sup>2</sup> On December 12, 2022, the Hawaiian Electric Companies notified the Commission that they accept the conditions set forth in D&O 38753, and will commence the Clearinghouse Pilot on January 1, 2023, with preliminary work starting in January 2023 and system integration work commencing once specific resources are allocated and the Statement of Work (“SOW”) is finalized with the vendor.<sup>3</sup>

### II. Overall Schedule & Performance

Preliminary work on the Clearinghouse Pilot commenced in January 2023 to finalize the SOW with the primary vendor and to draft the scope for the first MVP Release #1. The vendor SOW was finalized on February 6, 2023, and the formal internal project kickoff and beginning of the first Program Increment commenced on February 27, 2023. The Hawaiian Electric Companies are currently planning the expected deliverables with the vendor for MVP Release #1, which is expected to complete on August 30, 2023. An external stakeholder kickoff is

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<sup>1</sup> The “Hawaiian Electric Companies” or “Companies” refers collectively to Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawai‘i Electric Light Company, Inc.

<sup>2</sup> The specific conditions are set forth in D&O 38753, Section II.B at 19-20. The Companies address Condition No. 1 regarding “use cases” herein, in Section IV “MVP & Use Cases.” Condition No. 2 regarding expanding participation and/or use of the Pilot interface to additional entities, and Condition No. 3 regarding reporting on the participants’ use of data, are not applicable as foundational work to implement Minimum Viable Product (“MVP”) Release #1 has not yet commenced. Similarly, since Pilot work is still being planned, not all of the requirements in Decision and Order No. 37507 (at 175-176) can be met at this time. *See, e.g.*, Pilot impacts on underserved communities.

<sup>3</sup> *See* Hawaiian Electric Companies’ Response to Decision and Order No. 38753, at 1, n.3.

expected to be scheduled in late April or early May 2023 to review the proposed MVP Release #1 scope and related use cases.

### III. Costs & Revenues

No costs were incurred nor revenues recognized in 2022, and no revenues are anticipated from the Pilot.<sup>4</sup>

### IV. MVP & Use Cases

D&O 38753, Condition No. 1, states in part: “The Companies shall prioritize developing a list of ‘use cases’ as early as possible in the Data Clearinghouse development through stakeholder feedback and provide a preliminary list in the annual Pilot Update.”<sup>5</sup>

The Hawaiian Electric Companies are currently planning the expected deliverables with the vendor for MVP Release #1 and related overall work expected in 2023.<sup>6</sup> The use cases proposed in PUC-HECO-IR-02, filed on December 1, 2022, in Docket No. 2022-0212, are still planned for implementation during the Pilot, but have not been identified by specific release date. These include the following:<sup>7</sup>

- Correlation of Weather on Energy Use Patterns
- Energy Efficiency Participation Impacts on Energy Use Patterns
- Site Type Load Patterns Benchmarking
- PV Program Participation Load Shape Patterns
- EV Charging Patterns

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<sup>4</sup> As stated in the Pilot Notice (at 22), filed on October 26, 2022, in Docket No. 2022-0212, there is a potential to evolve the Clearinghouse as a data product for commercial interests. However, no revenues are anticipated at this time.

<sup>5</sup> D&O 38753 at 19.

<sup>6</sup> See Proposed Project Timeline in Section VII of the Pilot Notice.

<sup>7</sup> See Companies’ response to PUC-HECO-IR-2 at 4.

The Companies will work with the Pilot participants to develop a communication schedule and approach to developing the use cases with collaborative feedback.

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAI'I

In the Matter of

PUBLIC UTILITIES COMMISSION

Instituting a Proceeding Relating to an  
Innovative Pilot Process for the Hawaiian  
Electric Companies.

DOCKET NO. 2022-0212

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing document, together with this Certificate of Service, were duly served on the following party, by electronic mail service as set forth below:

Dean Nishina  
Acting Executive Director  
Division of Consumer Advocacy  
Department of Commerce and Consumer Affairs  
dnishina@dcca.hawaii.gov  
consumeradvocate@dcca.hawaii.gov

DATED: Honolulu, Hawai'i, February 28, 2023.

/s/ Kyle Kawata  
Kyle Kawata  
HAWAIIAN ELECTRIC COMPANY, INC.