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

HAWAIIAN ELECTRIC COMPANIES'

EV TELEMATICS PILOT
NOTICE OF INTENT

EXHIBITS A-H

AND

CERTIFICATE OF SERVICE

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NOTICE OF INTENT

In accordance with Decision and Order No. 37507 ("D&O 37507") in Docket No. 2018-0088,[1] and Order No. 38663 ("Order 38663") in this proceeding, the Hawaiian Electric Companies[2] respectfully submit this Notice of Intent ("Notice") to commence an EV Telematics pilot project ("EV Pilot" or "Pilot") for the Commission's review and approval.

I. Executive Summary

The Companies propose to implement an EV telematics pilot with the objectives to enroll EV driving participants, collect telematics data, gain visibility into EV charging behavior data, and share the data with internal and external stakeholders and solicit feedback on its usefulness.

[1] *See* D&O 37507 at 172-174 and 218. D&O 37507 (at 173) states that at a minimum, the Notice shall include a narrative explanation of the pilot project, key customer benefits (participants and non-participants) where applicable, eligibility requirements, subscriber cap (if applicable), lifecycle greenhouse gas ("GHG") analysis (if applicable), an estimate of the pilot costs and forecasted revenues (if applicable), project timeline, proposed reporting requirements, and proposed success criteria. These requirements are addressed within this Notice, with exception of a discussion of a lifecycle GHG analysis. This Pilot focuses on collecting data and analytics on EV charging to better understand charging on the grid and to inform a range of potential use cases. While a long-term objective of increased EV adoption is reduced GHG emissions, the scope of this Pilot primarily relates to data collection, sharing the data, and evaluating its usefulness, and, as such, a lifecycle analysis of GHG emissions is not applicable to this Pilot.

[2] Hawaiian Electric Company, Inc. ("Hawaiian Electric"), Hawai'i Electric Light Company, Inc. ("Hawai'i Electric Light"), and Maui Electric Company, Limited ("Maui Electric"), are collectively referred to as the "Hawaiian Electric Companies" or the "Companies."

The market share of Electric Vehicles ("EVs") continues to rapidly grow both globally and in the state of Hawai'i, and the State's transportation sector presents a significant opportunity to advance state and county clean energy and decarbonization goals.[3] The State of Hawai'i has set progressive decarbonization goals and aims to be zero emission by 2045.[4] Mayors from each county have pledged to end the State's dependence on fossil fuels by eliminating fossil fuels from ground transportation by 2045. The Hawaii Department of Transportation ("HDOT"), the City & County of Honolulu ("C&CH"), and Maui County are working towards their own fleet electrification targets or EV infrastructure buildouts.[5,6,7,8]

The Companies are committed to decarbonization and have set a goal of 70 percent carbon reduction by 2030 and envision zero emissions by 2045.[9] With this exponential growth in the EV ecosystem, the Companies' vision is to be a global leader in clean, electric transportation with a reliable, dynamic, and inclusive mobility platform.

The Companies and external stakeholders lack data and visibility on EV drivers, and to keep up with the rapid growth in EVs, need a better understanding of customer charging

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[3] In the *Hawaii Greenhouse Gas Emissions Report for 2016*, Final Report, dated December 2019, ground transportation accounted for 4.05 (Table 3-1) out of 9.23 million metric tons (MMT) of carbon dioxide equivalent (Table ES-1, including Sinks, excluding Aviation), or 44 percent of GHG statewide emissions. *See* https://health.hawaii.gov/cab/files/2019/12/2016-Inventory_Final-Report_December2019-1.pdf

[4] Act 15 (2018) established a zero emissions clean economy target by no later than 2045. *See* Act 15 (2018), HRS §225P-B(a), as amended by Act 238 (2022), HRS §225P-5(a), available at: www.capitol.hawaii.gov/session/slh.aspx.

[5] The C&CH website states that the City will be expanding its ever-growing all electric TheBus fleet. *See* https://www.honolulu.gov/transportation/news-releases/48099-honolulu-announces-$20-million-in-fta-grant-funds-for-new-ev-buses.html.

[6] The C&CH's Office of Climate Change, Sustainability and Resiliency ("CCSR") website states that "the Resilience Office has secured new public-private energy service contracts to ensure there are even more EV chargers available in public parking lots in 2020 and beyond." *See* https://www.resilientoahu.org/transportation.

[7] *See Maui County Unveils New Electric Buses*, dated October 8, 2022, at: https://mauinow.com/2022/10/08/maui-county-unveils-new-electric-buses/.

[8] The County of Maui's Office of Climate Change, Resiliency, and Sustainability ("CCRS") website states that "Maui County is committed to 100% clean ground transportation by 2045 and 100% clean fleet by 2035." *See* https://www.resilientmauinui.org/pages/ev-initiative.

[9] *See* Hawaiian Electric news release, dated November 5, 2021, at: https://www.hawaiianelectric.com/documents/about_us/news/2021/20211105_hawaiian_electric_climate_change_action_plan.pdf.

behavior. For example, without access to this type of data, the Companies have a limited understanding of how to optimize programs and are faced with a number of problems, including limitations with both system design and the ability to consider EV-specific rate options more effectively. Additionally, certain State agencies lack data on EVs to help inform the optimal deployment of public EV charging infrastructure. Thus, the Companies and external stakeholders have a critical need for robust customer EV data.

During calendar year 2022, the Hawaiian Electric Companies held several discussions with stakeholders involved in electric transportation that ultimately led to the development of this proposed Pilot. For example, the Companies met with Drive Electric Hawaii[10] organizations as well as parties to the performance-based regulation proceeding (Docket No. 2018-0088). Through conversations with stakeholders, it became clear that obtaining such EV data could potentially help identify customer charging patterns, shape future customer behavior, and allow for the ability to consider EV-specific rate options more effectively. During stakeholder discussions, Ulupono Initiative ("Ulupono") expressed that it sees value in sharing anonymized data with stakeholders to help understand where people are charging, potentially how often existing charging stations are occupied, and where more charging stations are needed.[11] Similarly, HDOT, C&CH, and the County of Maui have expressed an interest in charging location data to help with the effective deployment of their respective public EV charging networks.[12,13] Thus, the Companies developed the foundation of the Pilot and refined it through valuable feedback received from stakeholders.

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[10] Drive Electric Hawaii is a coalition of local government, private-sector, and nonprofit stakeholders interested in increasing awareness, knowledge, and adoption of EVs in the state of Hawaii. *See* https://driveelectrichi.com/.

[11] *See, e.g.*, Ulupono Letter of Support, Exhibit A at 6-7.
[12] *See* HDOT Letter of Support, Exhibit A at 5.
[13] *See* C&CH Letter of Support, Exhibit A at 1-2.

In concert with stakeholder discussions, the Companies explored partnering with an EV telematics company to create an EV program for non-commercial vehicles, from which this data could be collected. Through preliminary research, the Companies determined that it would be possible to obtain such data through EV telematics, and that some technology companies had developed utility-focused products that could support a telematics pilot. After a due diligence phase, the Companies chose to work with ev.energy corp. ("EV Energy").[14]

EV Energy's EV telematics platform is a hardware agnostic-software application ("app") that wirelessly connects to existing internet connectivity already embedded within most major manufacturers' EVs (i.e., telematics),[15] or alternatively, connects to internet-connected EV chargers to cover vehicles lacking telematics. The result is broad EV market coverage enabling the Companies to gain insights into customer EV charging behavior. From the customers' perspective, EV Energy's mobile application is free to download and enables EV drivers to connect their vehicle or charger, enroll in the Pilot, and manage their vehicle charging more effectively by tracking energy usage and costs.

A handful of other utilities, including Pacific Gas & Electric, National Grid, and Consolidated Edison have rolled out similar EV telematics pilot projects. A successful Pilot can help lay the foundation of a possible permanent customer-centric EV program linking to the development of further Electrification of Transportation ("EoT") related projects and programs for stakeholders, supporting increased EV adoption and equitable access for the Companies' customers. If the data from this Pilot proves valuable to stakeholders, the Companies intend to explore expanding the Pilot into a more permanent program.

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[14] Section IV.B explains the primary reasons why the Companies selected EV Energy for this Pilot.
[15] For example, popular EVs such as the Tesla Models 3 and Y are already enabled to share EV telematics data with third parties.

The Pilot aligns with both State energy goals as well as Commission orders. For example, in its letter of support, HDOT states that it "believes the transition to clean transportation will support the State of Hawaii's 2045 zero-emission decarbonization goals" and that "the Pilot aligns closely with HDOT's plan to deploy public EV infrastructure."[16] In addition, the Pilot is expected to help facilitate the evaluation of Time-of-Use ("TOU") rates in the Advanced Rate Design ("ARD") Track of Docket No. 2019-0323 by identifying EV customers that can be placed on TOU rates as part of the ARD TOU Study. The Pilot also aligns with several Innovation Pilot Framework ("IPF") Workplan Areas of Collaboration ("AOCs") including (1) decarbonization, (2) customer resources and services, (3) beneficial electrification, (4) data sharing, access, and analytics, and (5) technology innovations, as well as a number of EoT Strategic Roadmap initiatives.[17]

The total proposed Pilot budget of $822,000 includes vendor fees for a suite of services to be performed by EV Energy, incentives for Pilot participants, as well as estimated project management fees.

The Companies propose to run the Pilot for eighteen (18) months with a proposed start at the beginning of the second quarter of 2023.

II. Correspondence and Communications

Correspondence and communications regarding this Notice should be addressed to:

Dean K. Matsuura
Director, Regulatory Rate Proceedings
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawai'i 96840-0001

[16] HDOT Letter of Support, Exhibit A at 5.
[17] *See* Electrification of Transportation Strategic Roadmap filed on June 18, 2018 in Docket No. 2018-0135, Initiative 1: Work with partners to deliver education and outreach to drivers; Initiative 4: Investigate and develop opportunities to lower customer bills in return for smart charging of vehicles; and Initiative 7: Expand availability of public charging, at 65.

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III. Exhibits

The Companies submit the following exhibits in support of this Notice:

Exhibit A – Letters of Support
Exhibit B – Pilot Stakeholder Feedback
Exhibit C – EV Energy News Release
Exhibit D – Vendor Fee Details[18]
Exhibit E – Pilot Eligibility Requirements
Exhibit F – Commission's Guidance for Future Pilot Notices
Exhibit G – Illustrative Pilot Participant Terms and Conditions
Exhibit H – Confidentiality Justification Table

IV. Proposed EV Telematics Pilot

A. Stakeholder Engagement and Pilot Need

EV market share has been growing globally, year over year, and Hawai'i is a leader in EV adoption per capita. In December 2022, there were over 22,249 passenger EVs registered in the state of Hawai'i – an increase of 4,514 vehicles (+26%) from the same month the prior year.[19] The development of the proposed Pilot was partly in response to the aforementioned growth and is intended to augment electrification of transportation efforts by the Companies and other stakeholders. For example, Hawai'i state agencies have set aggressive EV-related targets and supporting laws:

- The C&CH's Office of Climate Change, Sustainability and Resiliency ("CCSR") plans to convert its entire fleet to be 100% electric by 2035 – it already has 17 electric

[18] Exhibit D contains confidential vendor bid and pricing information that has been redacted and is being provided subject to Protective Order No. 38665. Exhibit H provides the justification for the confidential treatment of that information.

[19] *See Monthly Energy Trend Highlights, December 2022 Highlights*, dated January 9, 2023, at: https://dbedt.hawaii.gov/economic/files/2023/01/Energy_Trend.pdf.

buses and has plans to purchase an additional 36 to 38.[20] In addition, the C&CH is building out its own public EV charging network.[21]

- The County of Maui's Office of Climate Change, Resiliency, and Sustainability ("CCRS") is developing its own EV charging network, has purchased 6 electric buses,[22] and is committed to 100% clean ground transportation by 2045.[23]

- Hawaii County's Council approved Bill 120, which will enforce State laws requiring EV chargers to be installed and maintained at large parking structures.[24]

In addition, major rental car companies, which have a vital role in tourism across Hawai'i, are transitioning fleets to be electric. For example, Hertz announced a $4.2 billion deal to purchase 100,000 Tesla vehicles and aim to have 30% of their fleet be electric by the end of 2024.[25] The Companies intend to support the statewide electrification targets and need a clearer understanding of how EVs will impact the grid. While the Companies' EV Critical Backbone Study: Selection Tool ("Backbone Tool") estimates that 85 percent of charging happens in the residential sector, the Companies are unable to accurately observe variables such as:

- Charging behavior details:
  - Plug-in/unplug times and average plug-in duration
  - Charging session location
- Battery level details:
  - Actual charge delivered (in kWh)
  - State of charge (battery %)
- Vehicle details:
  - Make, model and trim
  - Battery Electric Vehicle ("BEV") vs. Plug-in Hybrid Electric Vehicle ("PHEV")
- Charger equipment details:

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[20] *See* C&CH News Release, dated August 16, 2022, at: https://www.honolulu.gov/transportation/news-releases/48099-honolulu-announces-$20-million-in-fta-grant-funds-for-new-ev-buses.html.

[21] The C&CH's CCSR website states that "the Resilience Office has secured new public-private energy service contracts to ensure there are even more EV chargers available in public parking lots in 2020 and beyond." *See* https://www.resilientoahu.org/transportation.

[22] *See Maui County Unveils New Electric Buses*, dated October 8, 2022, at: https://mauinow.com/2022/10/08/maui-county-unveils-new-electric-buses/.

[23] The County of Maui's CCRS website states that "Maui County is committed to 100% clean ground transportation by 2045 and 100% clean fleet by 2035." *See* https://www.resilientmauinui.org/pages/ev-initiative.

[24] *See Hawaii County Leads The Way On EV Charging Policy*, dated October 24, 2022, at: https://www.civilbeat.org/2022/10/hawaii-county-leads-the-way-on-ev-charging-policy/.

[25] *See How The Massive EV Transition Is Starting In The Car Rental Industry*, dated June 18, 2022, at: https://www.cnbc.com/2022/06/18/how-the-massive-ev-transition-is-starting-in-the-car-rental-industry.html.

- Home vs. away charging equipment
- Type of charger (Level 1, Level 2, or DC fast charging)

Without having access to this type of data, the Companies are faced with several problems:

- Lack of data visibility into customer charging patterns can limit both system design and the ability to consider EV-specific rate options more effectively. These data points are critical to a variety of planning efforts and for potential future programs.

- Customer behavior that affects EV load profiles likely varies between the islands and across different regions of each island (e.g., charge frequency and duration), and the EV data made available through the Pilot can show what these differences look like across the Companies' grids. As a result, load forecasting can be more informed with EV data obtained from the Pilot, which is an important input to the Integrated Grid Planning ("IGP") process.

Accordingly, the Companies have a critical need for robust customer EV data to help with the planning and design of the Companies' existing systems, as well as load forecasting for future programs, including possible EV-specific rate options.

The Companies presented an EV Telematics pilot concept to the following organizations who attended the Drive Electric Hawaii stakeholder meeting held on August 15, 2022: C&CH, Division of Consumer Advocacy ("Consumer Advocate"), Hawaii County, HDOT, Hawaii Energy, Hawaii State Energy Office ("HSEO"), Kauai County, Kauai Island Utility Cooperative ("KIUC"), Maui County, Blue Planet Foundation ("Blue Planet"), and Ulupono.

The Companies subsequently held an IPF stakeholder meeting on August 31, 2022. The organizations invited to the August 31, 2022 meeting primarily included parties to the performance-based regulation proceeding (Docket No. 2018-0088). However, the August 31, 2022 meeting was also extended to additional stakeholders including, Elemental Excelerator, Hawaii Energy, Hawaii Natural Energy Institute, among others.

Following the meetings outlined above, the Companies issued identical surveys to pilot stakeholders, providing the organizations an opportunity to provide feedback on topics pertaining to the Pilot concept, interest in specific types of EV telematics data, and incentive payment amounts. Respondents to the survey indicated the following:

- The majority of respondents saw value in launching this Pilot.
- A "Heatmap" of EV charging hotspots and charging behavior were the most desired information from the Pilot.
- The majority of respondents selected $100 as the minimum amount they would accept as compensation for sharing EV charging data with Hawaiian Electric.

See Exhibit B at 2-4 for additional information on the survey responses.

The Companies initially proposed to offer Pilot participants a financial enrollment incentive of $100 per participant to connect their EV to EV Energy's platform for the duration of the Pilot, up to a total proposed maximum enrollment of 2,000 total Pilot participants. Most stakeholders agreed that this amount is comparable to other national utilities with similar EV telematics pilots or programs. However, Ulupono expressed a concern that this amount may be insufficient for customers in Hawai'i and suggested increasing the incentive. Under a cost-share arrangement, Ulupono agreed to contribute $100,000 to the Pilot participant incentive pool, which equates to $50 toward each Pilot participant's enrollment incentive, increasing the total to $150 per participant.[26,27]

It became clear during the stakeholder discussions[28] that the Pilot could address both internal and external stakeholder needs. Following these discussions, the Companies requested

[26] *See* Ulupono Letter of Support, Exhibit A at 6.
[27] Ulupono's $100,000 contribution to the incentives is excluded from the Companies' proposed pilot cost recovery.
[28] The Companies held an additional pilot stakeholder meeting on December 7, 2022 and provided an update on the proposed Pilot. The Companies will host additional IPF meetings as posted on the Companies' IPF web page at: https://www.hawaiianelectric.com/about-us/innovation/innovation-pilot.

letters of support from stakeholders. Letters of support from C&CH, Hawaii Energy, Hawaii EV Association, HDOT, and Ulupono are provided in Exhibit A.

B. Proposed Solution to Identified Need

The Companies and stakeholders lack access to EV data, which makes it challenging to identify customer charging patterns, manage customer energy usage, and design more effective rates to support EV driving customers. Through preliminary research, the Companies determined that it would be possible to obtain such data through EV telematics. There is an emerging category of technology companies that offer utility-focused products. The emerging nature of these solutions lend themselves to a pilot. The Companies conducted due diligence and reviewed competing EV telematics software companies and interviewed utilities that deployed similar programs to obtain feedback about their experience with each of the respective software companies. After reviewing product demonstrations and speaking with client references for each of the vendors, the Companies chose to work with EV Energy for the Pilot for the following reasons:[29]

- Wide coverage: EV Energy's platform had the widest coverage of EV brands and networked charger telematics data based on a comparison of vendor proposals.[30] This supports the Companies' efforts to connect with a larger population across the neighboring islands – better enabling the Companies to meet participant sign-up objectives, particularly in areas such as Moloka'i and Lana'i.

- Mobile application: EV Energy's customer-facing platform is in the form of an app, designed to be user friendly for customers. EV Energy is one of two vendors that have an app – and of the two, it was the only one with a highly-rated service (above 4 stars) on Google and Apple's respective app stores. The vendor's platform should create the most engaging customer experience compared to other vendors, supporting higher enrollment from drivers.

- Utility-focused EV telematics project experience: EV Energy has partnered with a number of mainland and international utilities, including National Grid, Consolidated

[29] D&O 37507 (at 169) states "the Companies may exercise flexibility in selecting pilot vendors and need not strictly adhere to traditional contract bidding and selecting processes."
[30] *See, e.g.*, Figure 3, Vehicle Coverage and Networked Chargers.

Edison, and E.ON. EV Energy also has experience with smart charging, managed charging, and rebate programs.

- Marketing/outreach: EV Energy has a dedicated in-house marketing team that can provide a suite of services including design of marketing materials, customer recruitment strategy and execution, and front-line customer support and engagement.

EV Energy is a software company that offers wireless technology to better integrate EVs into the electrical grid. EV Energy's hardware-agnostic platform enables customer vehicles to wirelessly connect to the existing internet connectivity already embedded by many manufacturers into their EV models, to collect data (i.e., "telematics"), or alternatively, to collect data through internet-connected EV chargers in order to cover any vehicles lacking telematics (for example, pre-2017 models of the Nissan Leaf). The result is broad EV market coverage allowing utilities to gain insights into customers' EV charging, which can lead to more effective EV and grid management.

The Pilot will include a customer-facing interface (i.e., a free app available for download on Google and Apple stores) as well as a utility-focused application (i.e., web-based dashboards displaying real-time customer charging data) developed by EV Energy. This approach uses emerging technology (i.e., real-time onboard EV telematics) to collect data on EV charging metrics and provide utilities with information on EV driving habits.

Figure 1 below is a graphical representation of how the proposed Pilot project would function.

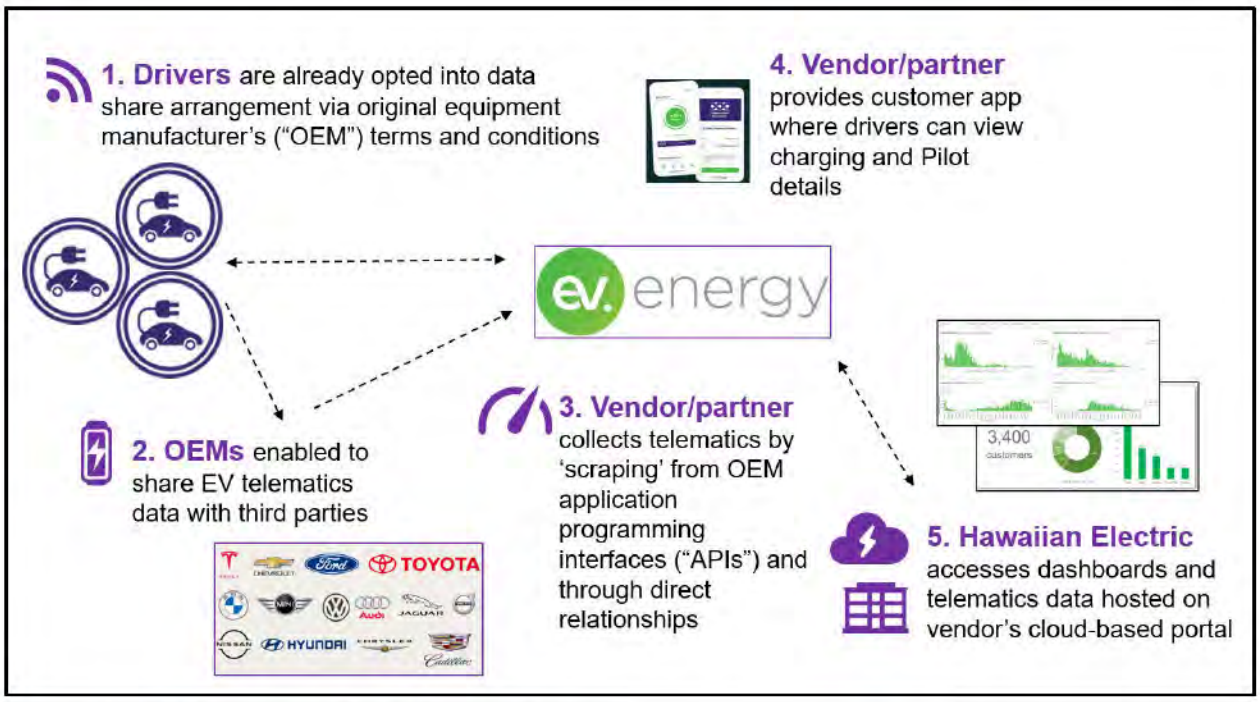

Figure 1. EV Telematics Pilot Concept Diagram.

C. Pilot Objectives

The objectives of this Pilot are to enroll EV driving participants, collect telematics data, gain visibility into EV charging behavior data, and share the data with stakeholders and solicit feedback on its usefulness. More specifically, the Companies' goals are to:

- Enroll a representative sample size of the Companies' EV customers onto EV Energy's platform. Assuming a total of approximately 20,000 EVs in the Companies' service area, the Companies propose an enrollment target of 2,000 participants (i.e., 10% of total EVs), including an enrollment target of 300 participants for each of Maui County (including Lanai and Molokai) and Hawai'i County.[31]

- Gain increased visibility into EV customer charging behavior, including an interactive heatmap of where EVs are being charged, insights on customer habits, and a breakdown of customer vehicle and charging equipment types.

- Share EV data with internal and external stakeholders that have indicated a use for EV data (or request it at a later date), collect feedback over the course of the Pilot, and determine whether the data provides value.

[31] Other utilities have initially used 10% enrollment targets for their EV telematics pilots/programs, before expanding their pilots/programs to more customers.

EV telematics data solutions for utilities are a relatively new concept and the proposed data to be collected is new information for the Companies. Thus, the solution being explored in the Pilot through the IPF supports the Commission's intention "to foster innovation by establishing an expedited implementation process for pilots that test new technologies, programs, business models, and other arrangements."[32] Under a pilot format, the Companies will be able to collect data, learn more about how EVs are interacting with the grid, and share data with interested stakeholders over a relatively quick timeline.

Over the course of the Pilot, the Companies will periodically assess the value of the data, backed by stakeholder feedback, and decide whether to pivot or expand the Pilot. A full-scale program could involve a larger participant cap with an on-going data sharing arrangement with agencies such as HDOT and the cities and counties of Hawai'i. As expanded on in Section IX, the Pilot's metrics of success and outcomes will help inform the design of a more permanent, full-scale EV program. For example:

- EV driver feedback may indicate that drivers would benefit from additional features in EV Energy's app.
- Stakeholders, such as the C&CH, have a direct use case for this data and can help determine its usefulness. The C&CH has expressed that they have previously benefited from the Companies' data gathering efforts, and that the Pilot data may help "better understand charging behavior and where to place infrastructure in order to realize maximum benefit to those with the greatest need."[33]

V. Alignment with State Energy Goals and Commission Orders

As a state, Hawai'i has set progressive decarbonization goals, aiming for a zero emissions clean economy by 2045,[34] and has enacted a number of laws to support this shift.[35] As recently

[32] D&O 37507 at 166.
[33] C&CH Letter of Support, Exhibit A at 1.
[34] *See* Act 15 (2018), HRS §225P-B(a), as amended by Act 238 (2022), HRS §225P-5(a), available at: www.capitol.hawaii.gov/session/slh.aspx.
[35] *See* State of Hawaii Electric Vehicle Laws and Incentives at: https://energy.hawaii.gov/ev-laws-incentives.

as the 2021 Legislative Session, several clean transportation policies were passed, supporting continued EV adoption. For example, Act 74 (2021)[36] bolsters the State's commitment to EV adoption by prioritizing zero-emission vehicles when purchasing or leasing light, medium, and -heavy-duty motor vehicles for all state agencies.

Through the federal government's $5 billion National Electric Vehicle Infrastructure ("NEVI") Program to help states deploy EV charging infrastructure, HDOT expects to receive approximately $6.1 million dollars in the first two years of the program and announced its plans to deploy a network of EV fast chargers across the State.[37] HDOT, in its letter of support, states that "we understand that the telematics data gathered from this pilot can help us identify EV driver charging patterns, potentially shape future charging behavior, and enable more robust planning and development with respect to EV charging infrastructure development (e.g., effective placement of public EV chargers)," and that "we believe the Pilot aligns closely with HDOT's plan to deploy public EV infrastructure through the National Electric Vehicle Infrastructure ('NEVI') Program," which highlights the alignment between the State's plans for federal funding and the proposed Pilot.[38]

Similarly, the Pilot aligns with the Companies' EoT Strategic Roadmap ("Roadmap"), filed in Docket No. 2016-0168 as required by the Commission in Decision and Order No. 34592 ("D&O 34592").[39,40] The Pilot aligns with Roadmap Initiatives 1 (Work with partners to deliver education and outreach to drivers), Initiative 4 (Investigate and develop opportunities to lower

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[36] *See* Act 74 (2021) amending HRS §103D-412(a)(1) at: https://www.capitol.hawaii.gov/slh/Years/SLH2021/SLH2021_Act74.pdf.

[37] *See* HDOT Announces Implementation of Electric Vehicle Infrastructure State Plan, dated September 29, 2022, available at: https://hidot.hawaii.gov/administration/hdot-announces-implementation-of-electric-vehicle-infrastructure-state-plan/.

[38] HDOT Letter of Support, Exhibit A at 5.

[39] *See* D&O 34592 at 57-59, discussing how the Companies' commercial public EV charging facilities pilot fit in to the Companies' Electrification of Transportation strategy, and requiring the Companies to file an EoT Strategy.

[40] The Companies' EoT Strategic Roadmap was refiled on June 18, 2018, in Docket No. 2018-0135.

customer bills in return for smart charging of vehicles), and Initiative 7 (Expand availability of public charging), by enabling participants with access to information (i.e., visibility on energy, usage, and cost) that will allow them to more effectively manage their energy use, enabling customers with smart charging capabilities to manage their vehicle energy usage through EV Energy's app, and more broadly, by promoting the development of EV infrastructure which should over the long term reduce the State's reliance on imported fossil fuels and lower cost for all customers.[41]

In Decision and Order No. 38680 ("D&O 38680"), the Commission directed the Companies to select a statistically significant number of customers on each relevant rate schedule that will be placed onto TOU rates in time for the TOU Study in July 2023, stating that "these customers will represent the first cohort of TOU participants and their experience on TOU rates will be the scope of study in the E&A Plan" and that "the study should pay particular attention to collecting data from specific customer segments including LMI customers and customers that own electric vehicles."[42]

The Pilot, through participant data, will allow the Companies to identify a sample of EV customers who can be placed on TOU rates as well as those who will remain on their current rate schedule. Without the Pilot customers, the TOU Study is able to identify only a small number of existing EV-TOU rate customers who have Advanced Metering Infrastructure ("AMI") meters installed. Incorporating EV owners identified in this Pilot would significantly expand the size of available participants for the TOU Study.

Finally, the Pilot aligns with several of the IPF Workplan AOCs,[43] for example:

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[41] *See* D&O 36448 at 6.
[42] D&O 38680 at 136-137.
[43] *See* IPF Workplan, filed on November 12, 2021, in Docket No. 2018-0088.

- *(1) Decarbonization*: The Pilot supports EV charging which will reduce the use of imported fossil fuels, and increasing usage of renewables including the use of smart charging technology. Beneficial Electrification also supports the Decarbonization AOC.

- *(2) Customer Resources and Services*: The Pilot will enable participants to better manage their energy use and could inform programs that allow customers to participate in utility programs using their EV load.

- *(3) Beneficial Electrification*: This Pilot supports EoT initiatives, including supporting EV adoption by increasing the understanding of charging behavior, and informing incentive structures for future programs.

- *(4) Data Sharing, Access, and Analytics*: The Pilot will collect and provide stakeholder access to voluminous EV telematics data that will enable better decision making and stakeholder collaboration.

- *(5) Technology Innovations*: The Pilot tests an innovative solution through the deployment of an emerging cloud-based technology platform that will enable new data streams and insights on EV charging behavior.

In summary, the proposed Pilot aligns with a number of State energy goals and Commission proceedings. However, the Pilot is one part of a broader EoT effort and is distinct from other company initiatives. The Companies' EoT efforts encompass a range of initiatives from customer outreach to improve EV adoption, to EV infrastructure deployment, to EV rates. This Pilot is focused on collecting charging data from EV driving customers, sharing the data with stakeholders, and evaluating the usefulness of the data. In the near term, the Pilot data should enable stakeholders to help identify customer charging patterns and support the siting of EV infrastructure. Longer term, there may be opportunities to help advance on broader goals as discussed in Section VI.B.1.

VI. Key Customer Benefits

A. Participant Benefits

Participants will receive a $150 incentive for signing up and participating in the Pilot. The incentive is expected to be paid in two tranches – one at the onset of the Pilot, and the final

paid at the end of the Pilot. Hawaiian Airlines has also agreed to offer an option for participants to receive discounted HawaiianMiles (10,000 miles) instead of the incentive payment.

Participants will also have access to EV Energy's mobile app for iOS and Android that offers a range of features and benefits, including:

- Visibility on the cost, energy, and carbon impact of charging sessions;
- The ability to time charging to ensure that the EV will be ready by a certain time of day;[44] and
- Ongoing customer education on how to charge EVs most effectively for the driver (e.g., time-of-use, if applicable).

As a result, Pilot participants will have access to information that enables them to more effectively manage their energy use. A customer enrolled in a National Grid/EV Energy EV telematics program commented that "[t]he program has made me way more aware of what I'm spending, how I'm driving, how much charging I actually need to do and that allows me to manage my battery better."[45] Customers who participate in the Pilot will have continued access to EV Energy's platform after the conclusion of the Pilot at no additional cost to the participant or the Companies.

An example of EV Energy's mobile app interface is shown in Figure 2 below.

[44] The majority of EVs in Hawai'i are smart charge capable. Older EV models, such as a pre-2017 Nissan Leafs may not be able to use this particular feature.
[45] *See* Exhibit C at 2.

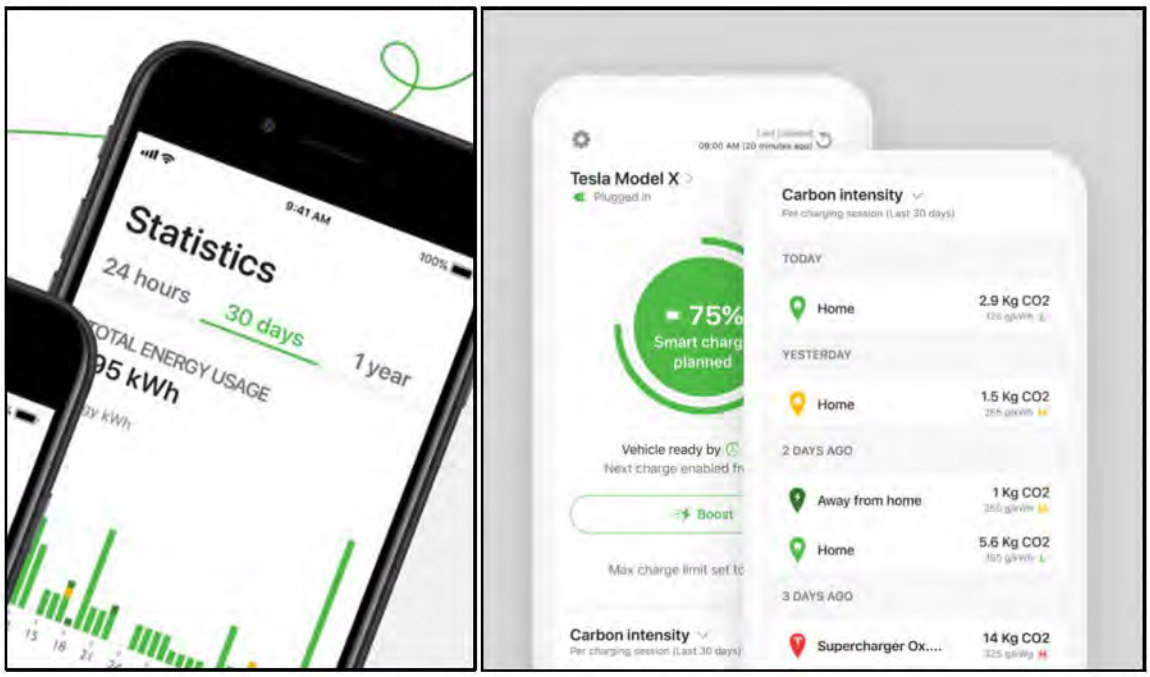

Figure 2. Illustrative EV driver user interface.

Over the course of the Pilot, feedback from semi-annual surveys and focus groups will be solicited from pilot participants to obtain qualitative customer insights around EV charging pain points and customer willingness to adjust charging schedules. Participant feedback will help inform what an expanded Pilot or full-scale program should look like.

During the development of the proposed Pilot, the Companies identified the following North American utilities that have similar EV telematics pilots and the incentives they offered to participating customers:

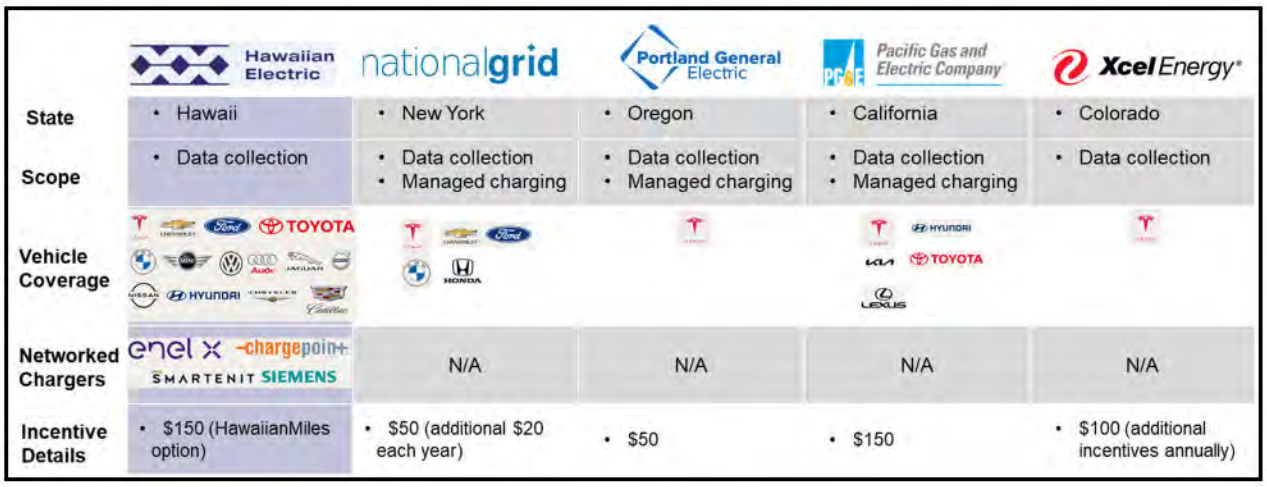

Figure 3. Utility EV telematics pilot / program comparison.[46]

Based on interviews with three of the above listed utilities, customer participation was high – all three of these pilots met or exceeded their participant enrollment caps. In addition, the caps set by these utilities typically reflected 10% of total EV market share for their respective regions, which is in line with the proposed 2,000 participant cap for this Pilot. It is worth noting that the proposed Pilot will cover a broader range of customer EV brands and collect data through networked smart chargers as an option for participants that do not have relatively new EVs (e.g., older Nissan Leafs).

B. Non-Participant Benefits

By helping to accelerate broader EV deployment, the Pilot supports the electrification of the State's transportation sector. Increasing EV energy demand is expected to result in net benefits for all customers as the utilities' fixed costs for generating and distributing energy are

[46] Details retrieved from respective utility websites:
- National Grid (*See* https://www.nationalgridus.com/MA-Home/Connected-Solutions/EV-and-PHEV-Program.)
- Portland General Electric (*See* https://landing.portlandgeneral.ev-pulse.com/.)
- PG&E (*See* https://join.pge.ev-pulse.com/.)
- Xcel Energy (*See* https://chargingperks.xcelenergy.ev-pulse.com/.)

spread across more kWh units, thereby lowering the unit cost to all customers.[47] Furthermore, increasing EV charging will reduce the use of imported fossil fuels and correspondingly reduce GHG emissions (through the reduction in fossil fuel use for ground transportation, and through the increased use of non-fossil renewable energy, including daytime PV), helping the State advance on its emission reduction goals. By supporting EV adoption, the Pilot will help deliver these benefits to all customers over the long term.

1. Use Cases

A key Pilot objective is to share EV Telematics data with internal and external stakeholders, and to solicit their feedback on the usefulness of the Pilot data. For example, external stakeholders such as HDOT, the C&CH, and the County of Maui, have indicated their intent to use the Pilot data to support identifying locations for their respective public EV charging networks.[48,49]

As discussed in Section V, D&O 38680 includes the assessment of the effect of new TOU rates on EV customer charging patterns as an important objective of the required TOU Study. Existing customer information systems do not readily identify customers who have EVs. The Pilot is expected to help facilitate the evaluation of TOU rates in the ARD Track of Docket No. 2019-0323 by identifying EV customers that can be placed on TOU rates as part of the ARD TOU Study. Pilot participants will be asked to provide Hawaiian Electric account numbers and can then be selected either to be placed on TOU rates along with other customers in the TOU Study or would remain on their current rate schedule.[50] The effects of TOU rates on EV

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[47] *See* Electrification of Transportation Strategic Roadmap, filed June 18, 2018, in Docket No. 2018-0135 at 33 and 36.
[48] *See* HDOT Letter of Support, Exhibit A at 5.
[49] *See* C&CH Letter of Support, Exhibit A at 1-2.
[50] Pilot participants who are placed on TOU rates in this process will be able to "opt-out" and return to their non-TOU rate schedule.

charging patterns will be evaluated separately, as part of the TOU Study Evaluation and Assessment ("E&A") reporting in Docket No. 2019-0323.[51]

In addition, the following use cases illustrate how data collected from the Pilot could potentially be used by internal stakeholders within the Companies:

- Daily average EV charging profiles collected from the Pilot (i.e., load profiles) may help the Companies assess potential future Customer Energy Resource programs.
- Location-based adoption information could be helpful for both forecasting and distribution planning (e.g., increasing load forecasts in areas with higher EV adoption).
- Load shapes derived from the Pilot could potentially help the Company more accurately forecast the impact of EV adoption on the transmission and distribution system.

EV telematics data may also be used to inform future programs and initiatives that manage the energy usage on the system to a more consistent and stable level (e.g., managed charging). However, this is a longer-term goal.

VII. Proposed Project Timeline

The Companies' proposed project timeline for the Pilot is illustrated in Figure 4 below.[52] As illustrated in Figure 4, the Pilot will last an estimated eighteen (18) months from commencement to project close out. The Companies propose to commence the Pilot at the beginning of the second quarter 2023, and assuming a start date at the beginning of April 2023, the Pilot would be expected to end by the end of September 2024. Figure 4 also describes key project tasks to be completed during the Pilot.

[51] Ulupono, in its letter of support, has expressed that going forward, data from the Pilot could help support shifting EV charging demand to when renewable energy is most abundant and maximize energy cost savings for customers through TOU rates. *See* Exhibit A at 6-7.

[52] Timeline is representative and depends on start date for the project.

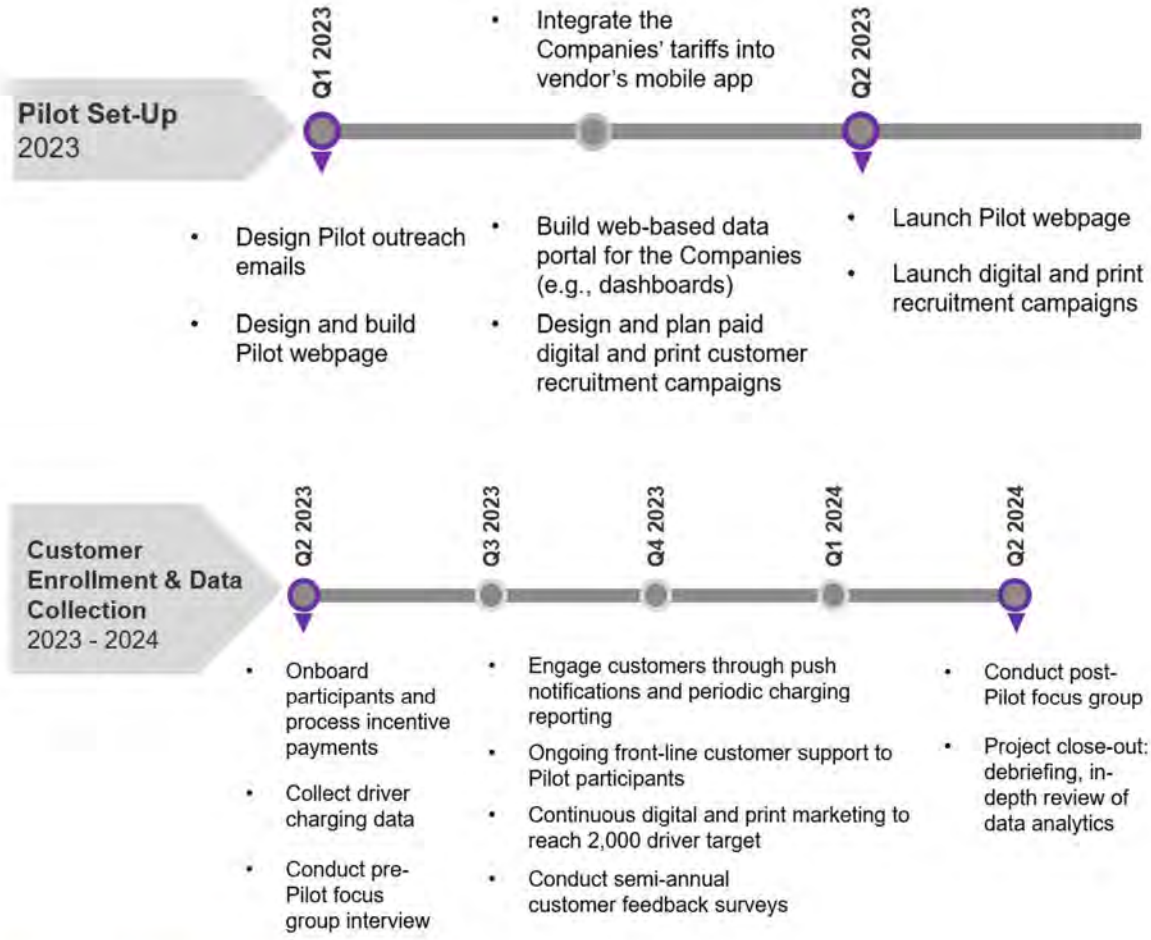

Figure 4. Proposed EV Pilot Timeline

Depending on Pilot participant feedback and utilization, the Companies may propose to extend and/or expand the Pilot project, and in accordance with D&O 37507, the Companies will submit a request to the Commission to modify the Pilot no later than one year prior to the scheduled end of the Pilot.[53]

[53] *See* D&O 37507 at 180.

VIII. Estimated Pilot Costs and Revenues

The total proposed Pilot cost is $822,000 and consists of estimates for non-labor outside services and incentive payments for 2,000 Pilot participants.[54] The Companies are not proposing to recover any internal labor expenses for this Pilot, and no capital expenditures are expected for this Pilot. The table below summarizes the proposed Pilot costs by category and activity:

Vendor Fees (including EV Energy's proprietary EV telematics platform) - Data-Collection Setup - Marketing Setup - Program Management - Ongoing Customer Engagement - Customer Support	$510,000
Pilot Participant Incentives (i.e., $100 per Pilot participant x 2,000 participants)[1]	$200,000
Estimated External Project Management Fees - Pilot Project Management and Oversight - Project Reporting and Data Analysis - Billing and Invoice Administration - Coordination of Data Sharing	$112,000
Total:	**$822,000**

[1] Ulupono has agreed to contribute an additional $50 per Pilot participant, increasing the total participant incentive to $150 per Pilot participant.

The proposed vendor fees of $510,000 are for a suite of services to be performed by EV Energy, including Data Collection – Setup, Marketing Setup, Program Management, Ongoing Customer Engagement, and Customer Engagement, to launch and manage the Pilot. More specifically, EV Energy will design the Pilot landing page, email potential drivers and EV associations, conduct paid social outreach, process incentives, conduct participant surveys and focus panel interviews, and provide ongoing participant technical support.[55] As discussed in Section IV.B, the Companies evaluated three vendors and selected EV Energy for its wider

[54] In accordance with the approved Pilot Process at 6, "[a]ll costs associated with the approved pilot will be deferred and recorded as expense in the applicable functional expense account(s)."
[55] Exhibit D, page 1, itemizes EV Energy's proposed fees by more specific work activities.

coverage of EVs and for its user-friendly and highly-rated customer-facing app.[56] The Companies have negotiated the scope of services and are formalizing the agreed-upon scope in a formal contract, and intend to execute the contract with EV Energy subsequent to Commission approval of the Notice.

The proposed Pilot costs also include $200,000 for Pilot participant incentives, i.e., $100 per Pilot participant x 2,000 participants. Participants who enroll in EV Energy's app and connect their EV or networked EV charger will be paid $75 upon enrollment, and the remaining $75 at the end of the Pilot provided that the participant remains connected to the app for the duration of the Pilot. Payment options can include PayPal, Venmo, or a gift card and will be distributed by EV Energy to Pilot participants. As discussed in Section IV.A., Ulupono's $100,000 contribution to the incentives is excluded from the Companies' proposed pilot cost recovery.[57] In addition, Hawaiian Airlines has agreed to allow Pilot participants to elect to receive 10,000 Hawaiian Miles in lieu of receiving the $150 incentive payment. Pilot participants will not be eligible for the Hawaiian Miles unless they remain connected to the app for the duration of the Pilot. This arrangement has no impact on Pilot costs since Hawaiian Airlines will receive the $150 payment for each participant that elects the option to receive the Hawaiian Miles. The Hawaiian Airlines arrangement reflects a 50% discount on the conversion rates normally offered to the general public.[58] Formal agreements with Ulupono and Hawaiian Airlines will be finalized and executed subsequent to Commission approval of the Notice.

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[56] D&O 37507 (at 169) states "the Companies may exercise flexibility in selecting pilot vendors and need not strictly adhere to traditional contract bidding and selecting processes."

[57] *See also* Ulupono Letter of Support, Exhibit A at 6.

[58] *See* conversion rate of $300 for 10,000 miles at: https://hawaiianair.custhelp.com/app/answers/detail/a_id/1705/~/hawaiianmiles---purchase-miles.

The estimated project management fees of $112,000 are for non-labor outside consultant services specifically for Pilot project management and oversight, project reporting and data analysis, billing and invoice administration, and coordination of data sharing. The project management fees are based on an estimated 560 hours of outside consultant services at a rate of $200 per hour – reflecting costs for similar services performed by other consulting firms. Exhibit D, page 2, describes the expected project management activities in more detail. The Companies intend to seek vendor quotes subsequent to the filing of this Notice.

Recovery of Pilot costs will be limited to the actual costs incurred in accordance with Order No. 37865 ("Order 37865") and the approved Pilot Process.[59]

See Exhibit F, Section G for further discussion.

The non-labor expenses for the Pilot are allocated 70%/15%/15% to Hawaiian Electric, Maui Electric, and Hawai'i Electric Light, respectively, consistent with various regulatory filings and prior rate cases.

There are no anticipated revenues from the Pilot.

IX. Expected Outcomes of the Pilot, Metrics for Measuring Success, Success Criteria, and Proposed Reporting Requirements

The core objectives of this Pilot are to enroll EV driving participants, collect telematics data, gain visibility into EV charging behavior data, and share the data with stakeholders and solicit feedback on its usefulness.

To meet these Pilot objectives, expected outcomes include:

- *Participant enrollment*: A successful measure would be enrollment of at least 80% of the 2,000 participant target within the first three months after EV Energy commences the recruiting campaign.

[59] *See* Order 37865 at 9 and Pilot Process at 6.

- *EV charging data collection*: Pilot data will be collected and accessed through a web-based portal that allows authorized employees of the Companies to view and download EV charging data. The Companies expect to receive the following data points if the Pilot is successful:

    - Pilot enrollment data[60]
    - Vehicle make/model/trim
    - Days since last charge
    - Charging session data reported in 15 or 30-minute intervals[61]
    - Plug-in date/time
    - Battery level (kWh) at plug-in
    - Charging session start date/time
    - Charge delivered (kWh)
    - Charging session end/time
    - Battery level (kWh) at unplug
    - Unplug date/time
    - Charging session location (latitude/longitude)
    - Estimated customer cost of the charging session

- *Data sharing and stakeholder feedback solicitation*: Pilot data will be shared with internal and external stakeholders that have indicated a use for the data. Over the course of the pilot, these stakeholders will be surveyed quarterly to learn whether the data is of value to them.

    - HDOT, the C&CH, the County of Maui, and internal stakeholders will be surveyed as the initial users of the Pilot data. Should additional stakeholders request data, the feedback group will be expanded.

    - Stakeholders will have the opportunity to rate the usefulness of the Pilot data for their respective initiatives. If the majority of stakeholders find the data useful and provide positive qualitative feedback, this would indicate a successful pilot.

The Companies propose to report on progress towards meeting the objectives outlined above including participant enrollment, EV charging, and feedback from participant and stakeholder surveys during the quarterly IPF stakeholder meetings and any additional Pilot update meetings. The Companies will also report on data trends (e.g., heatmap and other pertinent charts/tables), participant focus group interviews, and the actual expenses incurred

[60] The Pilot will follow the Companies' standard governance practices to protect customers' personally identifiable information.

[61] The Companies expect a high volume of data to be collected, as data for up to 2,000 EVs will be collected in 15 to 30-minute intervals over the course of the Pilot.

relative to the proposed Pilot costs. The above metrics will also be included in the annual Pilot update report due by March 31 of each year.

X. Pilot Eligibility Requirements

D&O 37507 describes a number of eligibility requirements that pilot projects should address.[62] Exhibit E provides a discussion of how the proposed Pilot meets each of these requirements or how these requirements are not applicable.

XI. Commission's Guidance for Future Pilot Notices

In Decision and Order No. 38753 ("D&O 38753"), the Commission offered the Companies guidance to support the development of future pilot notices.[63] To facilitate the Commission's review of this Notice, Exhibit F summarizes how this Notice addresses the guidance provided by the Commission.

XII. Pilot Participant Terms and Conditions

Pilot participants will be required to agree to general terms and conditions that have yet to be determined. The specific and complete list of terms and conditions will be developed as part of the Pilot upon approval. An illustrative example of the terms and conditions used in Consolidated Edison's EV telematics program is provided in Exhibit G.

XIII. Conclusion

The Companies appreciate the opportunity to submit this Notice pursuant to D&O 37507 and Order 38663. The goals of this Pilot are to enroll EV driving participants, collect telematics data, gain visibility into EV charging behavior data, and share the data with stakeholders and solicit feedback on its usefulness. The Pilot was developed by the Companies and refined through valuable feedback received from a broad group of stakeholders. Feedback from

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[62] *See* D&O 37507 at 170-171.
[63] *See* D&O 38753 at 20-23.

stakeholders was positive as illustrated in the letters of support included in Exhibit A. The EV-focused Pilot aligns closely with both State energy plans, such as the 2045 zero-emission decarbonization goals, as well as several Pilot Workplan AOCs. The Companies intend to use the Pilot data to help facilitate the evaluation of TOU rates as required in the ARD Track of Docket No 2019-0323. The Companies respectfully request Commission approval of the EV Telematics Pilot project as proposed herein.[64]

DATED: Honolulu, Hawai'i, February 6, 2023.

/s/ Eric H. Kunisaki
Eric H. Kunisaki

Attorney for
HAWAIIAN ELECTRIC COMPANY, INC.
HAWAI'I ELECTRIC LIGHT COMPANY, INC.
MAUI ELECTRIC COMPANY, LIMITED

[64] As stated in Order 38663, if the Commission does not take affirmative action on a Notice by the end of the forty-five (45) day period following the filing of a Notice, the Notice shall be considered approved as submitted. The Commission may also, where necessary, suspend the Notice for further investigation within the forty-five (45) day period where circumstances warrant (e.g., where more information is required). *See* Order 38663 at 10-11.

OFFICE OF CLIMATE CHANGE, SUSTAINABILITY AND RESILIENCY
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11th FLOOR • HONOLULU, HAWAI'I 96813
PHONE: (808) 768-2277 • EMAIL: resilientoahu@honolulu.gov • INTERNET: www.resilientoahu.org

RICK BLANGIARDI
MAYOR

MATTHEW GONSER, AICP, CFM
EXECUTIVE DIRECTOR &
CHIEF RESILIENCE OFFICER

December 15, 2022

Aki Marceau
Director, Electrification of Transportation
Hawaiian Electric Company, Inc.
AL14
P.O. Box 2750
Honolulu, Hawaii 96840

Dear Ms. Marceau:

I am writing to express my support of Hawaiian Electric Companies' proposal to launch a residential EV telematics pilot (the "Pilot") and emphasize its importance for our work here at the City and County of Honolulu Office of Climate Change, Sustainability and Resiliency ("CCSR").

Our community, City and State have ambitious clean energy goals and also a rapidly growing electric vehicle market on O'ahu which we plan to continue to support and accelerate. As we understand the Pilot, EV users on O'ahu who volunteer for this Pilot will be provided a small financial incentive for sharing their driving and charging session data for the purpose of supporting future infrastructure planning. Participants will also benefit via access to an app which is intended to give them better visibility into charging costs, energy use, and carbon emissions associated with their driving.

Currently the City has very limited access to this type of data, making decisions around where to place limited resources for public charging infrastructure somewhat challenging. We are currently developing pilot EV charging rates for public use of City chargers, and considering issues such as dwell time, time of use pricing, and other variables. This effort will be greatly assisted by data from this Pilot in the future.

We are also working on deploying dozens of new charging stations across the island at City facilities, with particular interest in determining a more equitable distribution of charging infrastructure for low and moderate income residents. This data may help us to better understand charging behavior and where to place infrastructure in order to realize maximum benefit to those with the greatest need. We have already

benefited from other early Hawaiian Electric Companies' insight and data gathering efforts, such as the requests for community input on maps regarding where charging infrastructure is most needed.

CCSR recognizes the importance of building out EV infrastructure, and electrification in general, as a key component of the broader transition to clean transportation, in support of the State of Hawai'i 2045 zero-emission goals. Key to achieving those goals is to do so in a way that focuses programs and resources on serving households who can least afford additional cost burdens to be part of the transition.

Thank you for the opportunity to provide supporting comments – we look forward to the successful launch of the Pilot. Should you have any questions, please contact me at nicola.hedge@honolulu.gov or at (808) 768-2277.

Sincerely,

Nicola Hedge
Deputy Director

Hawai'i Energy

45 North King Street, Suite 500 • Honolulu, Hawai'i 96817 • HawaiiEnergy.com • P: (808) 839-8880 • F: (808) 441-6068

December 5, 2022

To: Aki Marceau
Director, Electrification of Transportation
Hawaiian Electric Company, Inc.
AL14
P.O. Box 2750
Honolulu, HI 96840

RE: Docket No. 2022-0212: Instituting a Proceeding Relating to an Innovative Pilot Process for the Hawaiian Electric Companies

Aloha Aki,

On behalf of Hawai'i Energy, I am providing this letter of support for Hawaiian Electric's EV Telematics Pilot Program as outlined in the Hawai'i Public Utilities Commission's Docket No. 2022-0212: Instituting a Proceeding Relating to an Innovative Pilot Process for the Hawaiian Electric Companies.

Hawai'i Energy administers the energy-efficiency program in the state of Hawai'i and has identified the reduction of carbon emissions from ground transportation as a key objective for our Clean Energy Technologies Core Area, as stated in our latest Triennial Plan. The Program supports the electrification of transportation sector through the administration of the state's EV Charging Station (EVCS) Rebate Program for the installation of publicly available EVCS.

As a partner with Hawaiian Electric on many fronts, we know how good data can make a big impact on program design and implementation. We look forward to seeing how data gathered from the EV Telematics pilot program will shape the public EV charging network and inform the peak demand flexibility efforts that we partner on with Hawaiian Electric.

With Warm Aloha,

Caroline Carl

Caroline Carl
Executive Director
Hawai'i Energy

Hawaii Electric Vehicle Association
hawaiiev.org
info@hawaiiev.org

November 25, 2022

Aki Marceau
Director, Electrification of Transportation
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96840

SUPPORT for Docket No. 2022-0212: Instituting a Proceeding Relating to an Innovative Pilot Process for the Hawaiian Electric Companies

Dear Ms. Marceau,

On behalf of the Hawaii Electric Vehicle Association (Hawaii EV), I am writing to express my support of Hawaiian Electric Companies' proposal to launch a residential EV telematics pilot.

Hawaii EV is a strong proponent of sustainable transportation and believes the electrification of transportation supports the State of Hawaii's 2045 decarbonization goals. A key to the equitable adoption of electric vehicles is the availability of charging infrastructure. The proposed telematics pilot should provide EV drivers in Oahu, Maui County, and Hawaii Island a financial incentive to use their EVs and the opportunity to experience benefits from the Telematics Pilot's application (information about the cost, energy, and carbon impact of their charging sessions).

Importantly, we agree that the driver charging data gathered from this pilot can help shape and support future charging behavior and enable more effective planning and development of EV charging infrastructure. We believe that this residential EV pilot aligns well with other plans to electrify transportation:

- The Hawaii State Department of Transportation's EV infrastructure plan to build out its public EV charging system.
- The City & County of Honolulu's plans to electrify its fleet by 2035 and deploy its public EV charging network.

Thank you for the opportunity to offer commentary in support for this pilot.

Sincerely,

Noel Morin
President - Hawaii EV

Hawaii EV Association is a grassroots non-profit group representing electric vehicle owners in Hawaii. Our mission is to accelerate the electrification of transportation through consumer education, policy advocacy, and electric vehicle charging infrastructure expansion. For more information, please visit hawaiiev.org.

JOSH GREEN, M.D.
GOVERNOR

EDWIN H. SNIFFEN
DIRECTOR

Deputy Directors
DREANALEE K. KALILI
TAMMY L. LEE
ROBIN K. SHISHIDO
ROSS M. HIGASHI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

DIR 1.11692

December 21, 2022

VIA EMAIL: aki.marceau@hawaiianelectric.com

Ms. Aki Marceau
Director, Electrification of Transportation
Hawaiian Electric Company, Inc.
AL14
P.O. Box 2750
Honolulu, Hawaii 96840

Dear Ms. Marceau:

Subject: Instituting a Proceeding Relating to an Innovative Pilot Process for the Hawaiian Electric Companies, Docket No. 2022-0212

I am writing to express my support of Hawaiian Electric Companies' proposal to launch a residential EV telematics pilot (the "Pilot") and emphasize its importance for our work here at the Hawaii Department of Transportation ("HDOT").

The Pilot will provide EV drivers in Oahu, Maui County, and Hawaii Island with a financial incentive as well as the choice to experience EV driving benefits from the Pilot's associated app (e.g., visibility on the cost, energy, and carbon impact of charging sessions). Further, we understand that the telematics data gathered from this pilot can help us identify EV driver charging patterns, potentially shape future charging behavior, and enable more robust planning and development with respect to EV charging infrastructure development (e.g., effective placement of public EV chargers).

HDOT encourages building out EV infrastructure and believes the transition to clean transportation will support the State of Hawaii's 2045 zero-emission decarbonization goals. In addition, we believe the Pilot aligns closely with HDOT's plan to deploy public EV infrastructure through the National Electric Vehicle Infrastructure ("NEVI") program.

Thank you for the opportunity to provide supporting comments – we look forward to the successful launch of the Pilot.

Sincerely,

EDWIN H. SNIFFEN
Director of Transportation

Ulupono Initiative
999 Bishop St., Suite 1202
Honolulu, HI 96813

P (808) 544-8960
F (808) 432-9695
E info@ulupono.com

ulupono.com

December 16, 2022

Aki Marceau
Director, Electrification of Transportation
Hawaiian Electric Company, Inc.
AL14
P.O. Box 2750
Honolulu, Hawai'i 96840

RE: Support for Docket No. 2022-0212: Instituting a Proceeding Relating to an Innovative Pilot Process for the Hawaiian Electric Companies

Dear Ms. Marceau:

My name is Murray Clay, president at Ulupono Initiative (Ulupono), and we are pleased to submit this letter of support for Hawaiian Electric Companies' (Hawaiian Electric) Electric Vehicle (EV) Telematics Pilot Project (Pilot Project). This Pilot Project is aligned with Ulupono's commitment to support projects and programs that are building a more sustainable and resilient future for Hawai'i.

Ulupono is a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food, renewable energy and clean transportation, and better management of freshwater resources.

As part of our clean transportation strategy, Ulupono has identified e-mobility options, specifically EVs, as an important part of a broader, integrated approach to decarbonize Hawai'i's transportation sector. To that end, Ulupono intends to partner with Hawaiian Electric by contributing up to $100,000 to the incentive pool to be offered to Pilot Project participants. Through this Pilot Project and partnership with Hawaiian Electric, Ulupono hopes to increase visibility and access to data on EV driver charging behavior.

The Pilot Project will provide participating EV drivers in Hawaiian Electric's service territories with both a financial incentive to participate as well as the opportunity to experience the benefits provided by the ev.energy app (e.g., visibility on the cost, energy, and carbon impact of charging sessions). The Pilot Project will also provide Hawaiian Electric with data on EVs that will allow the utility to forecast where and when future peaks in EV charging demand will occur. Going forward, the data and analytics from the Pilot Project can support Hawaiian Electric in shifting EV charging demand to when electric production costs are lowest and renewable energy is most abundant. In doing so,

customers can optimize their charging by utilizing time-of-use rates to maximize energy cost savings.

The Pilot Project will also provide visibility into the charging behavior of participating EV drivers, such as where EVs are being charged (through a topographic "heatmap"), timing and length of charging sessions, and customer vehicle and charging equipment types. Further, Ulupono's understanding and expectation is that anonymized data from the Pilot Project will be publicly accessible and available to empower and support the multitude of players across Hawai'i's EV charging industry. Ulupono anticipates that the EV charging analytics and data will inform and influence optimal EV charging locations and programs that will not only benefit current EV drivers but, more importantly, the hundreds of thousands of drivers transitioning to EVs over the coming years—particularly those in underserved areas which currently may not have a strong penetration of EVs and associated charging infrastructure.

Lastly, this Pilot Project helps to advance the State of Hawai'i's goals to transition to 100% renewable energy and carbon neutrality by 2045, the Hawai'i Department of Transportation's plans to build out public EV charging infrastructure, and transportation electrification goals and commitments of the Counties of Hawai'i and Maui as well as the City & County of Honolulu.

Ulupono strongly supports the EV Telematics Pilot Project application and efforts to help Hawai'i achieve its clean transportation and decarbonization goals. Ulupono is committed to partnering with Hawaiian Electric to ensure this Pilot Project is successful in helping the industry better understand local EV driver charging behaviors.

Thank you for your consideration.

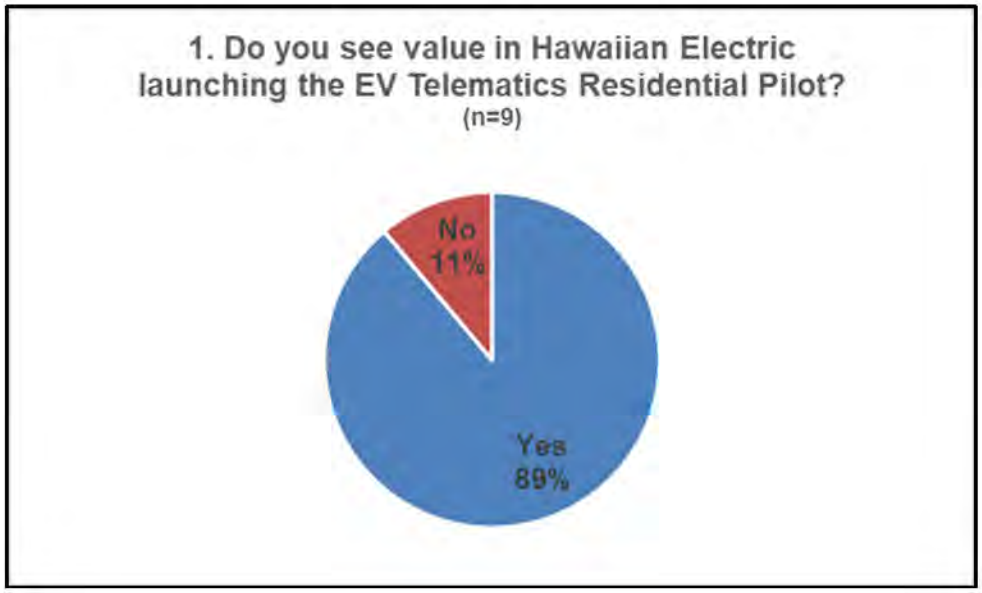
Sincerely,

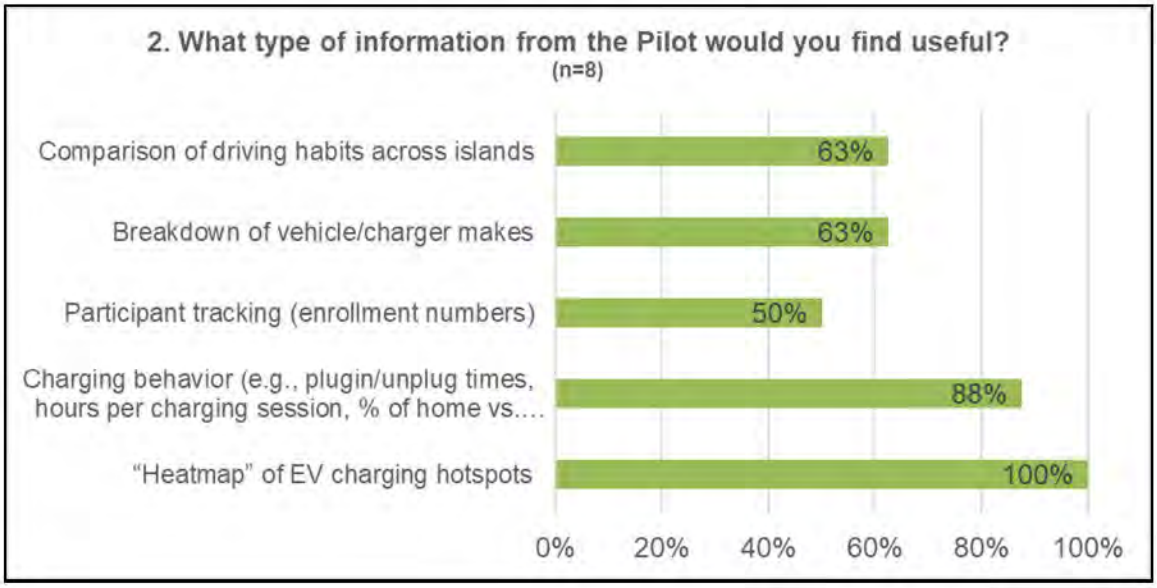
Murray Clay
President

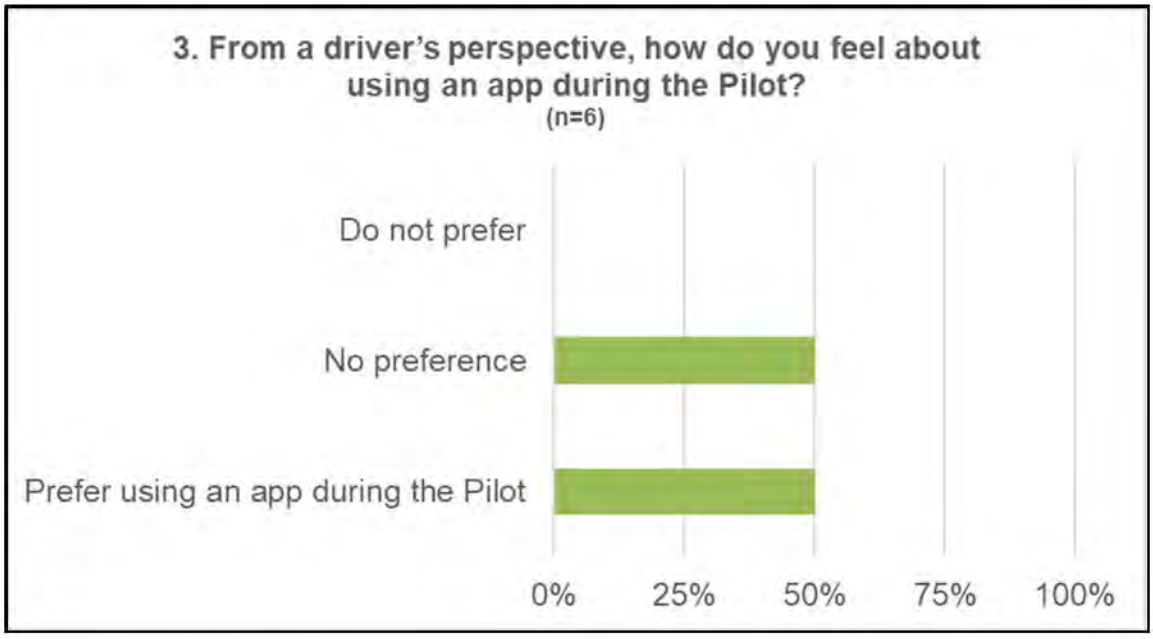
Pilot Stakeholder Feedback

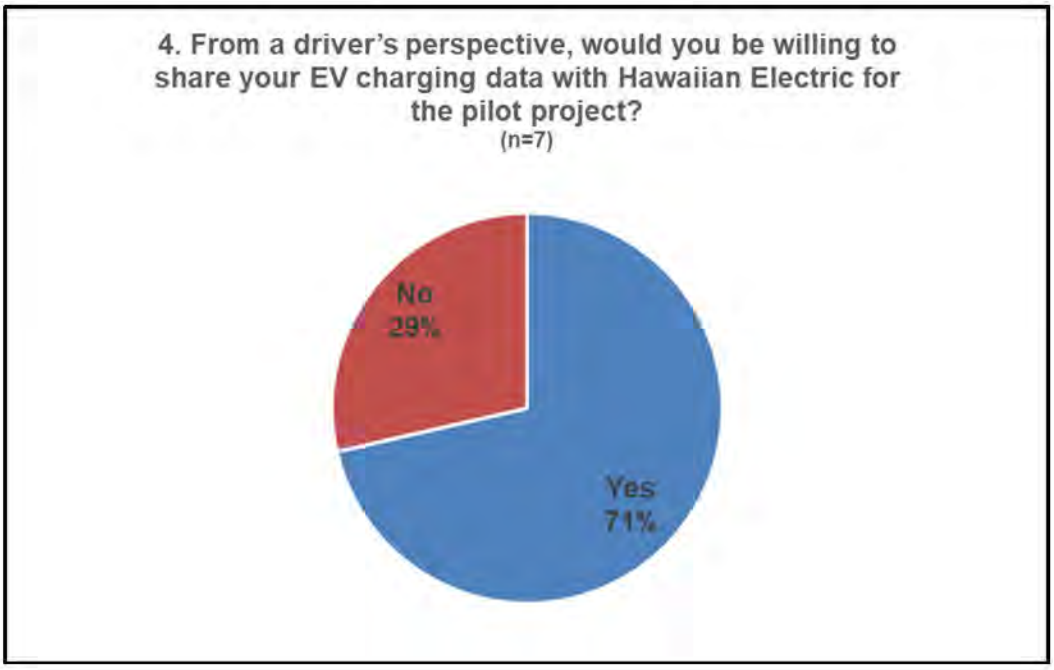
During the development of the proposed EV Telematics Pilot, the Companies issued two identical surveys to pilot stakeholders. The first survey was issued to the following organizations who attended the Drive Electric Hawaii stakeholder meeting held on August 15, 2022: City and County of Honolulu, Division of Consumer Advocacy, Hawaii County, Hawaii Department of Transportation, Hawaii Energy, Hawaii State Energy Office, Kauai County, Kauai Island Utility Cooperative, Maui County, Blue Planet Foundation, and Ulupono Initiative.[1] The second survey was issued to a broad range of organizations who were invited to a pilot stakeholder meeting held on August 31, 2022. The organizations invited to the August 31, 2022 meeting primarily included parties to the performance-based regulation proceeding (Docket No. 2018-0088), however, the August 31, 2022 meeting was also extended to additional stakeholders including, Elemental Accelerator, Hawaii Energy, Hawaii Natural Energy Institute, among others. The charts below summarize feedback received from survey respondents.

[1] Drive Electric Hawaii is a coalition of local government, private-sector, and nonprofit stakeholders interested in increasing awareness, knowledge, and adoption of EVs in the state of Hawaii. *See* https://driveelectrichi.com/.

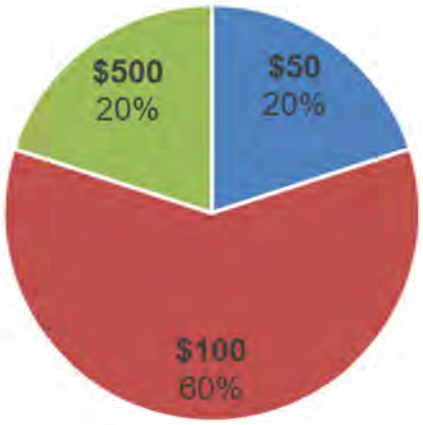

1. Do you see value in Hawaiian Electric launching the EV Telematics Residential Pilot?
(n=9)
No
11%
Yes
89%


2. What type of information from the Pilot would you find useful?
(n=8)
Comparison of driving habits across islands
63%
Breakdown of vehicle/charger makes
63%
Participant tracking (enrollment numbers)
50%
Charging behavior (e.g., plugin/unplug times, hours per charging session, % of home vs....
88%
"Heatmap" of EV charging hotspots
100%
0%
20%
40%
60%
80%
100%


3. From a driver's perspective, how do you feel about using an app during the Pilot?
(n=6)
Do not prefer
No preference
Prefer using an app during the Pilot
0%
25%
50%
75%
100%


4. From a driver's perspective, would you be willing to share your EV charging data with Hawaiian Electric for the pilot project?
(n=7)
No
29%
Yes
71%

5. If, as a driver, you were to be compensated for sharing your EV charging data with Hawaiian Electric for the duration of the pilot project, what is the minimum amount of money you would be willing to accept?
(n=5)



National Grid Expands Residential Off-Peak EV Charging Rebate Program in Massachusetts with cleantech software provider, ev.energy

NEWS PROVIDED BY
ev.energy →
Jun 01, 2022, 08:00 ET

PALO ALTO, Calif. and WALTHAM, Mass., June 1, 2022 /PRNewswire/ -- National Grid is expanding its Off-Peak Charging Rebate Program in Massachusetts with ev.energy, a global provider of managed electric vehicle (EV) charging software. The program allows customers to receive a discount on their charging by connecting their vehicle or home charger to National Grid's new mobile app called Charge Smart MA. National Grid electric customers in Massachusetts will have the ability to earn money back on their monthly bill by plugging in their vehicles during off-peak hours and tracking their charging.

The program utilizes the Charge Smart MA app, built by ev.energy for National Grid customers and available on Google Play and Apple's App Store. EV drivers can enroll their vehicle or home charger to earn 3¢ - 5¢ off every kWh of charging they do during off-peak hours. The Charge Smart MA app allows National Grid customers to log in using their National Grid billing account so that any rebates earned are credited straight back onto their electric bill. The app also enables EV drivers to track their EV charging costs.

National Grid Expands Residential Off-Peak EV Charging Rebate Program in Massachusetts with cleantech software provider, ev.energy

"With energy prices remaining volatile, we've partnered with National Grid to make it easy for Massachusetts EV drivers to manage their charging costs and save money at the same time," said Joseph Vellone, Head of North America for ev.energy. "Even better, charging off-peak with National Grid means that EV drivers are supporting grid stability and using lower-carbon energy."

The number of EV drivers continues to grow in the Bay State with more than 51,000 registered EVs across the state and a goal of more than 300,000 EVs on the road by 2025. As energy demands grow, flexibility will become a critical asset. "The MA EV Off-Peak

Charging Program helps EV drivers reduce the cost of charging their EVs and improving the resiliency of the electric grid," said Helen Burt, Chief Customer Officer for National Grid. "National Grid believes EVs are an integral part to achieving a clean and fossil-free future for Massachusetts."

Three EV drivers already participating in the program; Orlando Pacheco from Rockport, Bradley Bissell from Topsfield and Arsenio Martins from Dighton have enjoyed using the Charge Smart MA app.

National Grid customer, Arsenio Martins states "The app has become part of my regular charging routine and it really helps me understand my energy costs and what can expect my monthly energy bills to be."

"The program has made me way more aware of what I'm spending, how I'm driving, how much charging I actually need to do and that allows me to manage my battery better" says another customer, Orlando Pacheco.

"I bought an EV nine years ago to save on fuel costs and in 2022, it's a huge saving," said Bradley Bissel. "I ended up changing my charging habits once I was able to see how smart charging off-peak saved me money, supported the integrity of our energy grid, and will support the environment for years to come. Saving money and earning rebates is just a bonus."

About ev.energy

ev.energy is a Certified B Corporation® with a mission to make EV charging greener, cheaper, and smarter for utilities and their customers. Its end-to-end software platform wirelessly connects to a range of electric vehicles and L2 chargers and intelligently manages EV charging while keeping customers engaged and rewarded through a mobile app interface. With a growing base of utility customers including National Grid, the United Illuminating Company, Southern Company, Madison Gas and Electric, and American Electric Power, ev.energy manages tens of thousands of EVs on its platform each day. Learn more at https://ev.energy.

About National Grid

National Grid (NYSE: NGG) is an electricity, natural gas, and clean energy delivery company serving more than 20 million people through our networks in New York, Massachusetts, and Rhode Island. National Grid is transforming our electricity and natural gas networks with smarter, cleaner, and more resilient energy solutions to meet the goal of reducing greenhouse gas emissions.

Media Contact

ev.energy@missionC2.com

SOURCE ev.energy

Proposed Vendor Fees

The following table breaks out EV Energy's proposed fees by specific activities to be performed during the proposed 18-month Pilot:

Activity	Cost
Data-Collection Setup: - -	[redacted]
Marketing Setup: - - - -	
Program Management: - -	
Ongoing Customer Engagement: - - -	
Customer Support: -	
Total	**$510,000**

Estimated Project Management Fees

EV Telematics Pilot (18 months)		
Activities	**Est. Hours**	**Notes/Assumptions**
Pilot Project Management/Oversight		
- Department Updates	72	2 hour bi-weekly department and team status meetings/updates.
- Stakeholder Meetings	20	To prepare and present at quarterly stakeholder meetings (DEH, IPF, and working group).
- Vendor Management	18	1 hour / month for coordinating ongoing enrollment and outreach to customers (including participant interviews and surveys).
Project Reporting and Data Analysis	390	Analyzing EV data, generating insights to share with stakeholders, and developing annual report.
Billing and Invoicing	18	1 hour / month for managing departmental billing and invoicing.
Coordination of Data Sharing	36	2 hours / month for sharing data with internal and external stakeholders and collecting feedback.
Pilot Close Out Meetings	6	Includes Pilot debriefing, presentations to leadership, discussions on future of Pilot.
Total:	**560**	

Figure 1. [redacted]/HECO MSA Bill Rates for software and data-based project management engagements.

23		[redacted]	Principal Engineers and Consultants, Project Managers, and Program Managers
24			
25			
26			
27			
28			
29			
30			

"23" to "30" reflects bill levels for vendor's engagement staff.

Figure 2. [redacted]/HECO MSA Bill Rates for data management and support engagements.

Data Management and Support				
Sr. Engineer	per hour	[redacted]	96	[redacted]

Assuming $200/hour, estimated fees would be $112,000.

Pilot Eligibility Requirements

The following sections discuss how the proposed EV Telematics Pilot ("EV Pilot" or "Pilot") meets the eligibility requirements set forth in Decision and Order No. 37507 ("D&O 37507") or how these requirements are not applicable.[1]

A. Products or Services Beyond the Sale of Basic Electric Service and Alignment with Established Regulatory Goals

D&O 37507 states that pilot projects should "[i]nvolve products or services beyond the sale of basic electric service and align with an established regulatory goal, such as those established within the PBR Framework."[2]

The proposed Pilot will involve collecting EV telematics data, dissemination of that data to internal and external stakeholders, and analyzing the data to gain insights on customers' EV charging behavior. These activities are separate from the sale of basic electric service.

The Pilot aligns with State energy goals and Commission orders, including the Advanced Rate Design ("ARD") Track of Docket No. 2019-0323, and multiple Workplan Areas of Collaboration (including Decarbonization, Customer Resources and Services, Beneficial Electrification, Data Sharing, Access, and Analytics, and Technology Innovations), as discussed in Section V of the Notice.

B. Funding from Alternative Resources

D&O 37507 states that pilot projects should "[s]eek to leverage funding from alternative sources, e.g., grants or third-party investments, to minimize impacts to customers."[3]

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[1] *See* D&O 37507 at 170-171.
[2] *Id.* at 170.
[3] *Id.* at 170.

During stakeholder discussions, the Companies initially proposed to offer Pilot participants a financial enrollment incentive of $100 per participant to connect their EV to EV Energy's platform for the duration of the Pilot, up to a total proposed maximum enrollment of 2,000 total Pilot participants. Most stakeholders agreed that this amount is comparable to other national utilities with similar EV telematics pilots or programs. However, Ulupono Initiative ("Ulupono") expressed a concern that this amount may be insufficient for customers in Hawai'i and suggested increasing the incentive. The Companies sought cost-sharing arrangements with stakeholder and third-party organizations and two organizations agreed to provide cost-sharing support for the Pilot. As discussed in Sections IV.A. and VIII of the Notice, Ulupono agreed to contribute $50 toward each pilot participant's enrollment incentive, increasing the total to $150 per participant. In addition, Hawaiian Airlines has agreed to offer Pilot participants the option to exchange the enrollment incentive for a discounted HawaiianMiles award.

C. Cost Sharing and Hawaii-Based Vendors

D&O 37507 states that pilot projects should "[i]ncorporate a requirement for pilots involving non-local vendors and larger sole-sourced vendors (i.e., vendors with more than 100 employees) to participate in cost-sharing for the pilot (e.g., in-kind contributions, such as engineering or project management support)," and "[i]ncorporate preference for pilot partnerships with Hawaii-based vendors (e.g., contracting for services and/or technologies from local businesses)."[4]

During discussions with EV Energy, the Companies requested that EV Energy include additional support through customer surveys and focus group interviews as part of the proposed

[4] *Id.* at 170.

Pilot fees, and EV Energy agreed to provide these services as part of the ongoing customer engagement, at no additional cost.

In addition, as explained in Section B, above, and in Sections IV.A. and VIII of the Notice, the Companies obtained cost-sharing support through Ulupono and Hawaiian Airlines.

The Companies strive to work with local vendors, however, there are no Hawaii-based vendors that offer EV telematics solutions for utilities and only non-local vendors could be considered.

D. Estimated Net Present Value and Other Metrics

D&O 37507 states that pilot projects should "[p]rovide estimates of Net Present Value ("NPV") with considerations such as new sources of revenue, cost savings over a defined time period, or other metrics such as a reduction in GHG and contributions to State policy goals via reduction in imported fossil fuels."[5]

While the Companies have identified the Pilot costs to implement the EV Telematics Pilot, the Companies are not assessing user fees and generating revenues. Beyond the immediate incentives paid to Pilot participants, the cost savings benefits for all customers are anticipated to be realized over the longer term, and are not quantifiable at this time. Since these cost savings are not quantifiable at this time, there is no current value in estimating NPV. Similarly, while the Pilot is expected to advance the State toward carbon reduction, GHG reduction, and other State policy goals, these potential benefits are qualitative not measurable at this time. The Companies discuss the expected outcomes of the Pilot and their proposed success criteria in Sections IV.C. and IX of the Notice.

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[5] *Id.* at 171.

E. Access to Data

D&O 37507 states that pilot projects should "[p]rovide the Commission, Consumer Advocate, and key stakeholders with reasonable access to data (e.g., to assess key performance metrics)."[6]

A key Pilot objective is to share EV Telematics data with internal and external stakeholders, and to solicit their feedback on the usefulness of the Pilot data. For example, data will be made available to external stakeholders such as the Hawaii Department of Transportation ("HDOT"), the City & County of Honolulu ("C&CH"), and the County of Maui, who indicated their intent to use the Pilot data to support identifying locations for their respective public EV charging networks. Should additional stakeholders request data, the Companies will provide reasonable access to the Pilot data. The Commission and Consumer Advocate will also have access to the Pilot data if requested. See Notice, Sections VI.B.1. and IX.

F. Participant Surveys and Progress Against Success Criteria

D&O 37507 states that pilot projects should "[i]ncorporate participant customer surveys or measurement and verification evaluation to measure progress against program success criteria and metrics."[7]

Over the course of the Pilot, feedback from semi-annual surveys and focus groups will be solicited from pilot participants to obtain qualitative customer insights around EV charging pain points and customer willingness to adjust charging schedules. As noted in Section C, above, the Companies requested, and EV Energy agreed, to conduct surveying as part of their services.

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[6] *Id.* at 171.
[7] *Id.* at 171.

Participant feedback will help measure progress against program success criteria and inform what an expanded Pilot or full-scale program should look like. The Companies propose reporting on feedback from the surveys as a program metric. See Sections IV.C., VI.A, and IX of the Notice.

Commission's Guidance for Future Pilot Notices

The following is a summary of how the Notice of Intent ("Notice") addresses the Commission's Guidance for Future Pilot Notices provided in Decision and Order No. 38753 ("D&O 38753").[1]

A. Benefits to Pilot Participants and Non-Participants

D&O 38753 states:

> To the greatest extent possible, notices should describe benefits that are expected to accrue, both directly and indirectly, as a result of the pilot to both pilot participants and non-participants, and attempt to quantify them to the extent possible.[2]

As discussed in the Notice, the EV Telematics Pilot ("EV Pilot" or "Pilot") is part of a broader effort to help accelerate EV deployment, supporting the State's electrification of transportation goals.

In the near-term, participants will directly benefit by receiving a $150 incentive for signing up and participating in the Pilot.[3] Hawaiian Airlines has also agreed to offer an option for participants to receive discounted HawaiianMiles (10,000 miles) instead of the $150 incentive. In addition, Participants will have access to EV Energy's mobile app for iOS and Android that has a range of features available, including:

- Visibility on the cost, energy, and carbon impact of charging sessions
- The ability to time charging to ensure that the EV will be ready by a certain time of day.
- Ongoing customer education on how to charge EVs most effectively for the driver (e.g., time-of-use, if applicable).

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[1] *See* D&O 38753 at 20-23.
[2] *Id.* at 21.
[3] Ulupono Initiative ("Ulupono") has stated an intention to contribute up to $100,000 to the pilot incentive pool, which equates to $50 per pilot participant, assuming an enrollment target of 2,000 participants.

The benefits to non-participants are expected to be realized over the longer term. Increasing EV energy demand is expected to result in net benefits for all customers as the utilities' fixed costs for generating and distributing energy are spread across more kWh units, thereby lowering the unit cost to all customers.[4] Furthermore, increasing EV charging will reduce the use of imported fossil fuels and correspondingly reduce GHG emissions (through the reduction in fossil fuel use for ground transportation, and through the increased use of non-fossil renewable energy, including daytime PV), helping the State advance on its emission reduction goals. By supporting EV adoption, the Pilot will help deliver these benefits to all customers.

See Notice, Sections VI.A and VI.B.

B. Pilot Innovation

D&O 38753 states:

> Notices should include a discussion explaining why and how the Companies view the pilot as innovative, including: on what scale the Companies view the pilot as innovative (e.g., technologically, on a State, industry, or other level, if there are experimental design aspects incorporated or particular questions the pilot is answering, whether the pilot is testing a new concept or program, etc.); the extent to which a pilot seeks to achieve objectives not otherwise addressed through other Company initiatives or Commission proceedings; and how the pilot is clearly distinguishable from existing Company initiatives.[5]

The Companies view the Pilot as innovative on a technological and national utility level. The Pilot uses emerging technology (i.e., real-time onboard EV telematics) to collect data on EV charging metrics and will provide utilities with information on EV driving habits. The Pilot will include a customer-facing interface (i.e., a free app available for download on Google and Apple stores) as well as a utility-focused analytics application (i.e., web-based dashboards displaying

[4] *See* Electrification of Transportation Strategic Roadmap, filed June 18, 2018 in Docket No. 2018-0135 at 33 and 36.
[5] *See* D&O 38753 at 21.

real-time customer charging data) developed by EV Energy. EV Energy's hardware-agnostic platform enables customer vehicles to wirelessly connect to the existing internet connectivity already embedded by many manufacturers into their EV models, to collect data (i.e., "telematics"), or alternatively, to collect data through internet-connected EV chargers in order to cover any vehicles lacking telematics (for example, pre-2018 models of the Nissan Leaf). The result is broad EV market coverage allowing utilities to gain insights into customers' EV charging, which can lead to more effective EV and grid management. See Notice, Section IV.B.

The Pilot is deploying a solution only being used by a handful of utilities across the United States. EV telematics data solutions for utilities are a relatively new concept and the proposed data to be collected is new information for the Companies, which could lead to more advanced programs such as managed charging. Thus, the solution being explored in the Pilot through the IPF supports the Commission's intention "to foster innovation by establishing an expedited implementation process for pilots that test new technologies, programs, business models, and other arrangements."[6] See Notice, Section IV.C.

With regard to the Commission's concern on how pilots are distinguishable or overlapping with existing projects and programs, the Pilot is distinct from previously approved programs, utility services, and pilot notices. The Pilot uniquely addresses the Companies' and State agencies' need for visibility into EV charging behavior across the Companies' service territories and is not duplicative with any other existing initiatives.

One initiative that may be misconstrued as overlapping with the Pilot, is the Companies' Data Analytics Clearinghouse ("Clearinghouse"). The Clearinghouse is a cloud-based repository

[6] D&O 37507 at 166.

for utility analytics designed to disseminate information, data, and metadata to its participants. The EV Telematics and Clearinghouse do not overlap and serve two distinct purposes. The EV Telematics is a "transactional system" and a "System of Record." As a transactional system, the EV Telematics is the primary aggregator of data from "Data Collection Points" – specifically, the EVs themselves and the EV charging stations. In this capacity, the purpose is to process a high volume of real-time transactional data components with multiple connections to the Data Collection Points. Transactional systems are optimized for real-time data processing over fewer data rows. As a System of Record, the EV Telematics is the primary and authoritative source for this EV data. By contrast, the Clearinghouse is neither a transactional system nor a System of Record. The Clearinghouse's purpose is to take data from multiple transactional-Systems of Record and aggregate and transform that data for analytics purposes. Thus, the EV telematics Pilot data could be ingested by the Clearinghouse for analytics purposes. In this context, the platform that supports the Clearinghouse becomes a Source of Record, but that data is always a secondary copy of data from the source systems, and analytic processes in the Clearinghouse are not used for transactional purposes. The purpose of analytic systems is to analyze voluminous data for business analytics and accomplish this by connecting to multiple Systems of Record and are optimized for large data sets and volume of data over significant amount of data rows. The purpose of transacting and operating data in source systems versus aggregating multiple systems for comparative analytics are two separate functions.

C. Pilot vs. Full-Scale Project

D&O 38753 states:
> Notices should clearly describe why the project or effort should be piloted, rather than pursued as a full-scale effort, including discussion of what a full-scale version of the pilot may look like and how it will be informed by the pilot phase. This should include a clear list of metrics that the Companies will assess to determine a pilot's success, failure, or need for modification before scaling up.[7]

As discussed in Section B, above, the Pilot utilizes emerging technology to gain visibility on EV charging behavior. An objective of the Pilot is to share the EV charging data and gauge the usefulness of the data, such as the ability to inform utility projects and programs and State initiatives, before potentially expanding the Pilot to a large scale.

Over the course of the Pilot, the Companies will periodically assess the value of the data, backed by stakeholder feedback, and decide whether to pivot or expand the Pilot. A full-scale program could involve a larger participant cap, on-going data sharing arrangements with agencies such as the Hawaii Department of Transportation ("HDOT") and the cities and counties of Hawai'i, and potentially managed charging. See Notice, Section IV.C.

As expanded on in Sections IV and IX of the Notice, the Pilot's metrics of success and outcomes will help inform the design of a more permanent, full-scale EV program. For example:

- EV driver feedback may indicate that drivers would benefit from additional features in EV Energy's app.
- Stakeholders such as the City & County of Honolulu ("C&CH") have a direct use case for this data and can help determine its usefulness. The C&CH has expressed that they have previously benefited from the Companies' data gathering efforts, and that the Pilot data may help "better understand charging behavior and where to place infrastructure in order to realize maximum benefit to those with the greatest need."[8]

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[7] *See* D&O 38753 at 21-22.
[8] C&CH Letter of Support, Exhibit A at 1.

To meet Pilot objectives, expected outcomes include:

- *Participant enrollment*: A successful measure would be enrollment of at least 80% of the 2,000 target within the first three months after EV Energy commences the recruiting campaign.

- *EV charging data collection*: Pilot data will be collected and accessed through a web-based portal that allows authorized employees of the Companies to view and download EV charging data.

- *Data sharing and stakeholder feedback solicitation*: Pilot data will be shared with internal and external stakeholders that have indicated a use for the data. Over the course of the pilot, these stakeholders will be surveyed quarterly to learn whether the data is of value to them.

See Section IX for a discussion of the Companies' expected outcomes and proposed metrics.

D. Pilot Goals and Outcomes

D&O 38753 states:
Notices should discuss how the goals and outcomes of the pilot, including the State energy goals intended to be served by the pilot, are distinguishable or overlapping with previously approved programs, utility services, or pilot notices.[9]

Section V of the Notice describes how the Pilot aligns with both State energy goals as well as Commission orders. For example, in its letter of support, HDOT states that it "believes the transition to clean transportation will support the state of Hawaii's 2045 zero-emission decarbonization goals" and that "the Pilot aligns closely with HDOT's plan to deploy public EV infrastructure."[10] In addition, the Pilot is expected to help facilitate the evaluation of TOU rates in the Advanced Rate Design ("ARD") Track of Docket No. 2019-0323 by identifying EV customers that can be placed on TOU rates as part of the ARD TOU Study. The Pilot also

[9] *See* D&O 38753 at 22.
[10] HDOT Letter of Support, Exhibit A at 5.

aligns with several Innovation Pilot Framework ("IPF") Workplan Areas of Collaboration ("AOCs") including decarbonization, customer resources and services, beneficial electrification, data sharing, access, and analytics, and technology innovations, as well as a number of EoT Strategic Roadmap initiatives.[11] See Notice, Section V, for further detail.

Section B, above, discusses how the Pilot uniquely addresses the Companies' and State agencies' need for visibility into EV charging behavior across the Companies' service territories, and is therefore distinct from previously approved programs, utility services, and pilot notices and not duplicative with existing initiatives.

E. Stakeholder Engagement

D&O 38753 states:
Notices should seek to reflect a broad range of stakeholder engagement and feedback, including compliance with the approved Pilot Workplan.[12]

During the development of the proposed Pilot, the Companies engaged with and solicited feedback from a broad range of stakeholders in compliance with the Pilot Workplan. The Notice, Section IV.A., describes a number of stakeholder meetings that were held during 2022. For example, the Companies presented an EV Telematics pilot concept to the following organizations who attended the Drive Electric Hawaii[13] stakeholder meeting held on August 15, 2022: C&CH, Consumer Advocate, Hawaii County, HDOT, Hawaii Energy, Hawaii State Energy Office, Kauai County, Kauai Island Utility Cooperative, Maui County, Blue Planet

[11] *See* Electrification of Transportation Strategic Roadmap filed on June 18, 2018 in Docket No. 2018-0135, Initiative 1: Work with partners to deliver education and outreach to drivers; Initiative 4: Investigate and develop opportunities to lower customer bills in return for smart charging of vehicles; and Initiative 7: Expand availability of public charging, at 65.
[12] *See* D&O 38753 at 22.
[13] Drive Electric Hawaii is a coalition of local government, private-sector, and nonprofit stakeholders interested in increasing awareness, knowledge, and adoption of EVs in the state of Hawaii. *See* https://driveelectrichi.com/.

Foundation, and Ulupono. Please refer to Notice, Section IV.A, for more detail on the stakeholder meetings leading up to the proposed Pilot. The Companies will continue to seek stakeholder input throughout Pilot implementation.

F. Use Cases

D&O 38753 states:
To the extent possible, notices should be supported by multiple specific use cases to help illustrate the potential application and benefits of the pilot.[14]

The Notice is supported by several specific use cases that help illustrate the potential application and benefits of the Pilot. For example, external stakeholders such as HDOT, the C&CH, and the County of Maui, have indicated their intent to use the Pilot data to support identifying locations for their respective public EV charging networks.[15,16] The Notice also discusses how the Pilot is expected to help facilitate the evaluation of TOU rates in the Advanced Rate Design Track of Docket No. 2019-0323. See Section VI.B.1 of the Notice for more detail on the use cases.

G. Efficient Resource Use

D&O 38753 states:
Notices should demonstrate that the pilot is designed to most efficiently and cost-effectively utilize existing resources, contracted services and project expenditures.[17]

EV Energy provides specialized services that the Companies do not possess in house, including services utilizing a cloud-based software platform, direct data relationships with EV Original Equipment Manufacturers (OEMs), and a customer interface, and the Companies would

[14] *See* D&O 38753 at 22.
[15] *See* HDOT Letter of Support, Exhibit A at 5.
[16] *See* C&CH Letter of Support, Exhibit A at 1-2.
[17] *See* D&O 38753 at 22.

not be able to implement the Pilot without these outside services. Please refer to Section IV.B. of the Notice which explains the primary reasons why the Companies selected EV Energy.

In addition, the Pilot is a new initiative not included in existing rates. Given the relatively short duration of the Pilot, the uncertain length of the project should the Pilot be expanded (or terminated), and the overall scope of the Companies' EoT initiatives, including ongoing efforts to expand EV infrastructure for eBuses, commercial vehicles, workplace, multi-unit dwelling, and public charging, the Companies intend to utilize outside services to manage the Pilot, and have included estimated outside project management expenses in the proposed Pilot budget. The estimated project management fees are based on the lower range of hourly bill rates from vendors that have been engaged by the Companies for other software and data management projects, and exclude typical fees such as travel and lodging.[18] The Companies intend to execute a contract with an outside project management consultant subsequent to Commission approval of the Notice. For outside project management expenses only, the Companies will propose recovery of the lesser of actual costs for work performed or their estimated cost of $112,000.

The Companies do not propose to recover any internal labor expenses or capital costs for this Pilot.

In accordance with Order No. 37865 ("Order 37865") and the approved Pilot Process, recovery of any and all Pilot costs will be limited to the actual costs incurred.[19]

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[18] *See* Exhibit D at 2.

[19] *See* Order 37865 at 9 and Pilot Process at 6, which states: "the ultimate amount of costs that may be recovered from ratepayers will be determined on a case-by-case basis upon review of the estimated costs in the Notice and the actual costs included in the Pilot Update submitted as part of the PBR Framework's annual Spring Review."

H. Industry Efforts

D&O 38753 states:

> Information on other similar industry efforts is welcome, but that information should be provided in the most streamlined manner possible, with a description of why the similar effort is relevant to the Notice, specific excerpts that are relevant to substantiating the Notice against any of the above criteria, and hyperlinks to resources for additional information.[20]

Where applicable, the Companies have provided information on similar mainland utility EV telematics initiatives. See Sections IV.B and VI.A of the Notice. The Companies have also included hyperlinks to relevant resources. See, e.g., footnote 46 of the Notice which is repeated here for convenience.[21]

[20] *See* D&O 38753 at 22-23.

[21] Details retrieved from respective utility websites:

- National Grid (*See* https://www.nationalgridus.com/MA-Home/Connected-Solutions/EV-and-PHEV-Program.)
- Portland General Electric (*See* https://landing.portlandgeneral.ev-pulse.com/.)
- PG&E (*See* https://join.pge.ev-pulse.com/.)
- Xcel Energy (*See* https://chargingperks.xcelenergy.ev-pulse.com/.).

Illustrative Pilot Participant Terms and Conditions

This exhibit provides an illustrative example of pilot participant terms and conditions from the SmartCharge New York Program, a similar EV telematics program offered by Consolidated Edison Company of New York, Inc. ("Con Edison") in partnership with ev.energy corp. ("EV Energy"). See the SmartCharge New York Program Participant Agreement provided in pages 2 through 5. The SmartCharge New York Program scope is broader than the Companies' proposed Pilot as it includes incentives for EV drivers who shift their EV charging to designated off-peak time periods, however, the Companies' Pilot will also use EV Energy's telematics platform. The terms and conditions shown herein are examples of the types of terms and conditions that will need to be developed by the Companies. The actual terms and conditions have yet to be developed and will be determined as part of the Pilot upon approval.

SmartCharge New York
Powered by ev.energy

conEdison

SmartCharge New York Participation Agreement

Thank you for your interest in participating in the (SmartCharge New York Program) SCNY (the"Program") that is being offered by the program partner (Orange and Rockland Utilities) ORU and Consolidated Edison Company of New York (CECONY).

Your participation in the Program is completely voluntary and expressly conditioned on your acceptance of this Participation Agreement ("Agreement"). Therefore, if you do not agree with any of the terms and conditions under this Agreement, including the Privacy Policies referenced below, please do not download the ev.energy mobile app or enter the SCNY referral code into the app.

1. Voluntary Participation

Thank you for your interest in participating in the SmartCharge New York Program ("SmartCharge New York" or the "Program") that is being offered to you by Consolidated Edison Company of New York, Inc. ("Con Edison") and ev.energy Corp. ("ev.energy"). "You" and "your" is a reference to you as a Participant (as defined below). Your participation in the Program is completely voluntary and expressly conditioned on your acceptance of this Participation Agreement (this "Agreement"). Therefore, if you do not agree with any of the terms and conditions of this Agreement, including the Privacy Policies and software Terms of Use referenced below, then please do not participate in the Program. Ev.energy and Con Edison reserve the right to modify this Agreement at any time. Any modifications to this Agreement will be made available for viewing at the following web address: **https://ev.energy/scny/terms/**. Please check this page periodically. Your continued participation in the Program after any changes will constitute your acceptance of any modifications to this Agreement.

2. Overview of the Program

The Program encourages eligible EV drivers ("Participants") to voluntarily shift their electric vehicle (EV) charging towards designated off-peak time periods by providing incentives described on the Con Edison website at **https://www.ConEd.com/SmartCharge**. ev.energy is the administrator of the Program. Among other things, the ev.energy software application will collect charging data to calculate the incentives due to Participants in accordance with the requirements of the Program (the "Service").

Beginning January 1, 2023, Participants may earn financial incentives from Con Edison for joining the Program provided that Participants follow the Program requirements, including correctly connecting their EV or charging station hardware ("Connected Hardware") and consenting to sharing their data with Con Edison and ev.energy. Participants may also receive incentives for charging their EVs during designated time periods.

Con Edison may offer enhancements to the Program from time to time. Participation in enhancements to the Program may be subject to additional eligibility requirements and subject to additional terms and conditions, which will be provided at the time the enhancement is introduced.

Con Edison electric customers on a Residential or Small Business Time of Use (TOU) rate in service class I or II, or commercial vehicles charging on wholesale rates, will not be eligible to participate in the Program or earn incentives.

3. Participant Requirements

Participants in the program must be at least 18 years old. Therefore, if you are not at least 18 years old, then please do not participate in the Program. Participants agree to not participate in the Program in any way that is illegal, fraudulent or abusive, including to harass, threaten, abuse, defame or slander any individual.

To enroll in the Program, you must, at minimum, have a supported EV with functional onboard telematics using a 4G or 5G modem or supported charging station. See Program website at **https://www.ev.energy/scny/faq** for a current list of supported EVs and charging stations. In some cases, the vehicle Original Equipment Manufacturer ("OEM") may require you to (i) activate the vehicle's onboard telematics function and/or (ii) purchase a subscription or pay a fee to activate and/or maintain the vehicle's onboard telematics function. These costs will be borne by you and not by Con Edison. ev.energy's ability to connect to the supported vehicles is dependent on (i) OEM server uptime; (ii) stability of the internet connection in the vehicle's telematics platform; and (iii) a Participant's paid subscription to telematic service packages required by some OEMs. ev.energy's ability to connect to supported EV charging stations is dependent on (i) charging station server uptime; and (ii) the stability of the internet connection used to connect the charging station to the cloud.

Participant acknowledges and confirms that any information or response provided in the ev.energy software application (such as their name, e-mail, home address, primary charging address, vehicle make/model/trim/year, and charging station information) is accurate and will remain updated throughout their participation in the Program.

4. Disclaimer; Limitation of Liability

Con Edison and ev.energy make no representations or warranties as to the effectiveness of the Service to reduce Participant's charging costs or reduce emissions. Further, Con Edison and ev.energy make no representations, express or implied, regarding the reliability, performance, or operation of the Service.

Participant agrees that to the fullest extent permitted by law, neither ev.energy nor Con Edison, nor any of their parents, subsidiaries, affiliated entities, employees, officers, directors, agents, or representatives, successors or assigns or any of them (collectively, the "program operators") will be liable for any indirect, incidental, punitive, special or consequential damages whatsoever, including, without limitation, loss, damage or injury to persons or vehicles or other property, in connection with, arising from of or related to this agreement, even if a program operator has been advised of the possibility of such damages. This limitation and waiver will apply regardless of the theory of liability. Participant also agrees that in no event shall the program operators be responsible for problems, damages or losses caused by participant, third parties, or by an act of God.

5. ev.energy Terms of Use and Privacy Policy; Con Edison Privacy Statement

In order to participate in the Program, Participant must agree to the Terms of Use and Privacy Policy of ev.energy, and to the Con Edison Privacy Statement. The ev.energy Terms of Use and Privacy Policy may be found at **https://ev.energy/terms-of-use** and **https://www.ev.energy/privacy**and may be updated from time to time. The Con Edison Privacy Statement is available at **https://www.coned.com/en/conedison-privacy-statement** and reflects further information on how Con Edison collects and may use and share your information, including any of the above-described data and information that Con Edison receives about you in

connection with your participation in SmartCharge New York. The Service is owned and operated by ev.energy. Con Edison makes no representations or warranties regarding the Service and disclaims all liability resulting from Participant's use of the Service.

6. Term

Con Edison anticipates that the Program will continue through December 31, 2025. Participants may choose to leave the Program for any reason at any time by providing notice to Con Edison and ev.energy of such termination by writing to **SCNY@ev.energy**. Con Edison may terminate a Participant's participation in the Program if a Participant no longer meets the eligibility requirements set forth in this Agreement, or if Con Edison determines, in its sole judgment, that a Participant is no longer actively participating in the Program. Con Edison reserves the right to modify or terminate this Program, in whole or in part, at any time and for any reason, without prior notice.

7. Indemnification

Participant agrees to defend, indemnify, and hold harmless Con Edison, its members, officers, officials, agents, and employees, from and against any and all loss, liability, expense, claims, suits, and damages, including attorneys' fees ("Claims") to the extent arising out of or resulting from Participant's use of the Service and/or participation in the Program except to the extent that any Claims arise from the negligence of Con Edison.

8. Collection and Use of Participant Data

Participant consents to Con Edison and ev.energy, and Participant's respective agents, accessing data from Participant's Connected Hardware, including vehicle make/model/trim/year, vehicle identification number (VIN), battery size, charger make/model, charger serial number or other unique identifier, vehicle battery state of charge, plug-in/unplug times, start/stop times of charging sessions, kWh of energy consumed, vehicle charging location and similar data ("Collected Data") and sharing aggregated and anonymized Collected Data with each other for purposes of administering incentives and evaluating the Program. Additional data (e.g., connected hardware metadata, vehicle location, technical data and application usage data) may be stored and processed by ev.energy in line with ev.energy's Privacy Policy for the purpose of administering the Program, but this data will not be shared with Con Edison.

Participant is responsible for notifying everyone who owns or uses (as a driver or a passenger) the EV in which the information will be collected and available to participant, Con Edison and ev.energy. By participating in the program, participant represents that participant has the consent of the registered vehicle owner and the users of each EV enrolled in the program and that participant, Con Edison and ev.energy are permitted to view and use the data and information collected.

9. Participant Feedback and Data Collection

Participant will cooperate in good faith with Con Edison or its authorized representative in performing evaluation, measurement, and verification of the Program. Con Edison will use Collected Data to evaluate the Program and for future planning purposes, including, but not limited to, assessing Participant experience, measuring potential savings to Participant, avoiding energy distribution and/or supply costs to Con Edison, and reducing emissions. Additionally, Con Edison may request that Participants complete surveys during and after the conclusion of the Program. Con Edison may use and publicize anonymized quotes from Participant surveys in promotional materials.

10. Assignment

This Agreement is personal to Participant. Participant may not assign or transfer rights or delegate obligations under this Agreement. Con Edison and ev.energy are permitted to assign this Agreement, in whole or in part, to any person, at any time, and without notice to you.

11. Taxes

Participant is responsible for paying all taxes, if any, associated with receipt of incentives or any other thing of value in connection with the Program.

12. Entire Agreement

This Agreement (including any other documents or policies incorporated by reference) constitutes the entire agreement between Participant, on the one hand, and Con Edison and ev.energy, on the other hand, with respect to the Program and supersedes all prior or other arrangements, understandings, negotiations and discussions, whether oral or written, with respect to the subject matter of this Agreement.

13. Waiver/ Severability

No waiver of any provision of this Agreement shall be deemed or constitute a waiver of any other provision of or any subsequent breach of this Agreement. No waiver shall be valid unless made in a writing signed by the party granting the waiver. If any provision in this Agreement is declared invalid or unenforceable, then such provision shall be severed from the remainder of this Agreement, which will otherwise remain in full force and effect.

14. No Third-Party Beneficiaries

This Agreement is for the benefit of ev.energy and Con Edison and their respective successors and assigns with respect to Participant's obligations under this Agreement and for Participant's benefit with respect to Participant's rights under this Agreement. There are no other third-party beneficiaries under this Agreement and this Agreement will not be deemed to confer upon or give to any other person any claim or other right or remedy.

15. Law and Venue

This Agreement shall be interpreted and enforced in accordance with the laws of the State of New York without reference to its principles on conflicts of laws.

In accordance with Protective Order No. 38665, this log identifies redacted confidential information that is being submitted as "confidential information" and (1) identifies, in reasonable detail, the information's source, character, and location; (2) states clearly the basis for the claim of confidentiality; and (3) describes, with particularity, the cognizable harm to the producing party or participant from any misuse or unpermitted disclosure of the information.

	Identification of Item	**Basis of Confidentiality**	**Harm**
Exhibit D, page 1	Itemized vendor fees	Confidential vendor bid and pricing information included in the Companies' EV Telematics Pilot Notice of Intent; this information is confidential and falls under the frustration of legitimate government function exception of the Uniform Information Practices Act ("UIPA").[1]	The confidential information in this exhibit is being submitted as part of the Companies' Notice of Intent to implement an EV Telematics pilot project. Exhibit D, page 1, itemizes pricing for the various activities that will be performed by the vendor which are unique to the vendor's business model. Public disclosure of the confidential information could place the vendor at a business disadvantage with respect to industry competitors, harm the Companies' relationships with existing and/or prospective vendors, place the Company at a competitive disadvantage in future proposals and contract negotiations and thereby competitively harm the Companies, and by extension, harm the Companies' customers. In addition, public disclosure of this information may discourage parties from doing business with the Companies, discourage parties from making confidential disclosures to the Companies, and expose the Companies to certain liabilities.

[1] Haw. Rev. Stat. § 92F-13(3)

	Identification of Item	Basis of Confidentiality	Harm
Exhibit D, page 2	Vendor hourly rates	Confidential vendor pricing information included in the Companies' EV Telematics Pilot Notice of Intent; this information is confidential and falls under the frustration of legitimate government function exception of the Uniform Information Practices Act ("UIPA").[2]	The confidential information in this exhibit is being submitted as part of the Companies' Notice of Intent to implement an EV Telematics pilot project. Exhibit D, page 2, identifies vendor hourly rates for project management engagements. Public disclosure of the confidential information could place the vendors at a business disadvantage with respect to industry competitors, harm the Companies' relationships with existing and/or prospective vendors, place the Company at a competitive disadvantage in future proposals and contract negotiations and thereby competitively harm the Companies, and by extension, harm the Companies' customers. In addition, public disclosure of this information may discourage parties from doing business with the Companies, discourage parties from making confidential disclosures to the Companies, and expose the Companies to certain liabilities.

[2] Haw. Rev. Stat. § 92F-13(3)

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
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 6, 2023.

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