March 6, 2023

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

Dear Commissioners:

Subject: Docket No. 2022-0212 – Instituting a Proceeding Relating to an Innovative Pilot Process for the Hawaiian Electric Companies
Hawaiian Electric Companies' Responses to PUC-Hawaiian Electric-IRs 1-13

The Hawaiian Electric Companies[1] enclose for filing the Companies' responses to PUC-Hawaiian Electric-IRs 1-13, which the Commission issued in this proceeding on February 24, 2023, and a certificate of service.

Very truly yours,

/s/ Dean K. Matsuura

Dean K. Matsuura
Director, Regulatory Rate Proceedings

Enclosures

[1] The "Hawaiian Electric Companies" or "Companies" refer to Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawai‘i Electric Light Company, Inc.

PUC-Hawaiian Electric-IR-01

Reference: Hawaiian Electric Companies' EV Telematics Notice of Intent, filed on February 6, 2023 ("Pilot Notice") at 3.

The Pilot Notice states that the EV Telematics pilot ("Pilot") was developed out of an expressed desire by the Companies and stakeholders for more robust customer electric vehicle ("EV") data, which "could potentially help identify customer charging patterns, shape future customer behavior, and allow for the ability to consider EV-specific rate options more effective."

a. To help inform such efforts, to what extent is data from current residential charging data helpful, versus soliciting information from when participants would like their EVs to be charged?
b. Is similar data available from separate EV meters?
c. Please discuss in as much detail as possible how the pilot will be used in Docket No. 2018-0165, Integrated Grid Planning, taking into consideration load forecasting from EVs, planning for new generation and infrastructure, and designing managed EV charging programs.
d. Given the identified importance of managed EV charging in Docket No. 2018-0165, please discuss how this Pilot will support future managed charging design and implementation.

Hawaiian Electric Companies' Response:

a. The Companies are currently unable to discern meaningful insights related to EV charging from residential electric usage. As discussed in the Notice, there is a lack of actual residential charging data. Data points such as actual electricity demand at given time intervals is a critical need for the Companies, and in the near term can help inform the siting of charging stations. Actual residential charging data can also help with design of future EV-related programs. The Companies are also interested in participant feedback on when participants would like to charge their EVs as additional factors to consider along with a range of factors, including where and when EV owners are charging, but also the amount of solar energy during mid-day hours among other factors. Both current residential charging data and customer preferences will help inform future programs; they are among a number of factors to consider when designing future programs. Information on when participants would like their EVs to be charged may also be a helpful input in developing profiles for load forecasts. See the response to part c. below.

b. The data collected from the Pilot would not be able to be retrieved from separate EV meters. The Companies note that the Pilot is intended for residential customers with EVs and the Companies offer service by separate EV meters only through optional commercial EV charging rates.

c. The Integrated Grid Planning ("IGP") process is focused on the long-term planning of the Companies' grid needs and considers a broad variety of inputs to support the development of modeling inputs and assumptions. Data collected from Pilot participants across the Companies' service area is one form of input and can inform the load forecasts modeled in the next cycle of the IGP process. For example, the EV load profiles assumed in the IGP process could be updated or validated based on the charging behavior observed in the Pilot (e.g., charging frequency and duration).

As discussed in the Notice, EV telematics data may 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.
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. A full-scale program could involve a significantly larger number of participants, different incentive structures, and potentially managed charging.[1]

d. The experience, feedback, and data collected will help inform what a future managed charging program could look like. However, this Pilot is not intended to test managed charging. An EV telematics platform such as software offered by EV Energy can provide

[1] *See* Notice at 21, and Exhibit F at 5.

the Companies with the ability to manage EV charging across the grid. In a future where most EV drivers are signed up to a platform similar to the one proposed in the Pilot, the Companies may have the ability to command charging remotely, thereby mitigating EV charging spikes and enabling more effective grid balancing. A future expanded Pilot to test managed charging could potentially encourage EV drivers to charge during the daytime hours when renewable energy is more prevalent and time-of-use rate designs offer lower rates. See also the response to part a.

PUC-Hawaiian Electric-IR-02

Reference: Pilot Notice at 12.

The Companies indicate that "[d]rivers are already opted into data sharing arrangements via their original equipment manufacturers' ('OEM') terms and conditions[,]" and that the "OEMs [are] enabled to share EV telematics data with third parties."

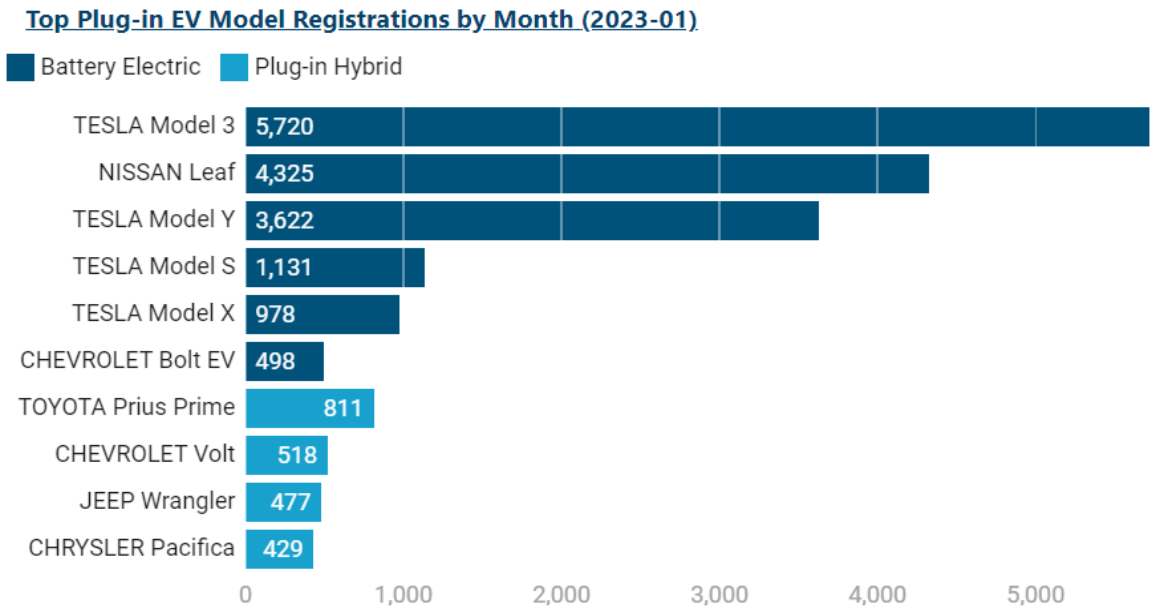
a. Do the Companies have an estimate for the number and/or percentage of Hawaii EV drivers that have opted into such data sharing arrangements with their OEMs?
b. Do the Companies have a breakdown of EV models in Hawaii and which ones are capable of providing telematics data?

Hawaiian Electric Companies' Response:

a. The Companies do not have a specific estimate for the number or percentage of Hawaii EV drivers that are opted into data sharing arrangements with their OEMs. However, EVs that have data sharing capabilities generally require that the vehicle owner has consented to sharing data with the OEM when they purchase/lease the vehicle. Based on discussions with EV Energy, OEMs capable of data sharing include Audi, BMW, Cadillac, Chevrolet, Chrysler, Ford, Hyundai, Jaguar, Jeep, Kia, Land Rover, Lincoln, Mini, Nissan, Rivian, Tesla, Toyota, Volkswagen, and Volvo.

The Hawaii State Energy Office Open Data Portal lists the top EV model registrations based on information retrieved from the Hawaii Department of Transportation, City & County of Honolulu, and National Highway Traffic Safety Administration. The top plug-in EV model registrations as of January 2023 are shown in the chart below.[1]

[1] *See* https://energy.hawaii.gov/energy-data/. To the Companies knowledge, the numbers shown in the Top Plug-in EV Model Registrations by Month charts are cumulative.



Source: Hawaii Department of Transportation, City and County of Honolulu, National Highway Traffic Safety Administration

As shown in the chart, the majority of EV models in Hawaii as of January 2023 are Tesla and Nissan vehicles, and all Tesla models and post-2017 Nissan Leafs have data sharing arrangements.

b. Other than the EV model registration data cited in part a, the Companies do not have a specific breakdown of EV models in Hawaii and which ones are capable of providing telematics data. As discussed in response to part a., the following OEMs are capable of data sharing: Audi, BMW, Cadillac, Chevrolet, Chrysler, Ford, Hyundai, Jaguar, Jeep, Kia, Land Rover, Lincoln, Mini, Nissan, Rivian, Tesla, Toyota, Volkswagen, and Volvo.

PUC-Hawaiian Electric-IR-03

Reference: Pilot Notice at 12.

The Companies state that the Pilot is intended to, among other things, utilize a representative sample size of the Companies' EV customers to gain increased visibility into EV customer charging behavior.
What percentage of EV owners have their own charger? What percentage of these owners have PV?

Hawaiian Electric Companies' Response:

The Companies do not currently have visibility into EV specific customer details, including the percentage of EV owners that have their own charger and percentage of these owners that have PV. In prior years, the Companies have made attempts to ascertain EV driver details such as charger ownership and correlation to PV ownership. At this time, however, EV registration information is voluntary and nonpublic, and has not been made available to the Companies by the State or the cities and counties.

The telematics data from the Pilot should provide insights on whether the EV owner has a charger at home and what type of charger it is (e.g., Level 1 vs. Level 2). In addition, during the Pilot sign-up period and close-out survey, the Companies intend to ask participants whether they have EV chargers and/or PV or not.

PUC-Hawaiian Electric-IR-04

Reference: Pilot Notice at 11.

The Companies state that the Pilot "will include a customer-facing interface (i.e., a free app available for download on Google and Android stores) as well as a utility-focused application (i.e., web-based dashboards displaying real-time customer charging data) developed by EV Energy."

a. Will the app be available to a participant and their family members, or just one participant on one device per family? What if multiple individuals in the household drive and charge the EV car?
b. If a participant has more than one EV car, will the Pilot incentive for that participant be doubled? Will the data be collected separately for each EV car?
c. Can the app be initially installed but then deleted or disabled by the participant during the course of the Pilot? Or is it always running in the background, and always collecting data without participant control?
d. Will the app also be able to collect comments from the participant as they go through the Pilot regarding experiences such as average wait time at a particular charger, average distance the participant is willing to travel to charge the EV, proposed new locations for chargers, and proposed existing locations that require additional chargers?
e. Can a Pilot participant opt out during the trial, and if so, will the incentives be rescinded?

Hawaiian Electric Companies' Response:

a. There will be one EV Energy account per EV. If multiple family members share the vehicle, then they can each download the EV Energy app onto their mobile phones and login with the same username and password.

b. No, a single participant will not be able to enroll multiple EVs and no single participant will be able to double the incentive. A participant will need to have separate name and login credentials to receive a Pilot incentive. The data will be collected separately for each individual EV, as each EV is assigned a unique ID in EV Energy's systems.

c. The EV Energy app collects data whenever an EV is charging, even if the app is not open on the driver's mobile phone. If the driver wishes to withdraw from the pilot and delete their EV Energy account, they can request unenrollment and deletion from within the mobile app.

d. The EV Energy app is not capable of collecting comments from the participants; however, EV Energy agreed to conduct surveys and focus group discussions and will include questions on Pilot experiences.

e. A Pilot participant can opt out at any time during the Pilot. However, per the terms and conditions of the Pilot, if a participant chooses to unenroll during the Pilot, they will not be eligible for the full incentive payout. For example, when a participant initially enrolls, they will receive the initial $75. However, the remaining $75 will only be paid to participants who remain enrolled for the duration of the Pilot.

PUC-Hawaiian Electric-IR-05

Reference: Pilot Notice at 19, Figure 3.

Figure 3 identifies a number of networked charges associated with Hawaiian Electric.

a. Please confirm that "network connected chargers" refer to both residential and public chargers.
b. How many network connected chargers are currently installed in Hawaii, and of them, how many of them can provide telematics data?
c. What is the specific difference in the telematic data collected by a public network connect charger of an EV with data sharing opted in vs. opted out?
d. On each island in the Companies' service territory, what is the breakdown, in percentage, of the number of chargers owned by 1) the Companies; 2) a government agency; 3) private EV charging companies; and 4) other?
e. In the programs offered by the other utilities listed in Figure 3, who funded the incentives and the telematics costs – was it the utility, ratepayers, or external parties such as the EV manufacturers or the EV charging companies?

Hawaiian Electric Companies' Response:

a. Confirmed. Networked (i.e., internet-connected) chargers refers to both residential and public chargers. However, Pilot participants would only connect to residential networked chargers to their app account if their EVs are not capable of sharing telematics data with EV Energy.

b. Hawaiian Electric cannot fully answer this request, as information regarding the number of network connected chargers currently in Hawaii is not known by the Companies and is not publicly available on any data source that the Companies are aware of. In an effort to provide a response to this question, the Companies evaluated publicly available data from PlugShare and the U.S. Department of Energy's Alternative Fuels Data Center. This evaluation, which is non-exhaustive, indicated the following information:

- PlugShare: 810 chargers across Hawaii (Level 2 and DC fast chargers).[1]

[1] *See* charger counts across four Hawaii regions at https://www.plugshare.com/directory/us/hawaii.

- Alternative Fuels Data Center: 831 chargers across Hawaii (Level 2 and DC fast chargers).[2]

To fully identify all network connected chargers currently in Hawaii, the Companies would need to identify and contact each individual customer providing charging at their facilities and verify each charger, and such data would only be reflective of the circumstances at that point in time. The networked charger companies that can share data with EV Energy include: Enel X, ChargePoint, Siemens, and SmartenIt.

c. There is no material difference in the quality of data. Networked chargers share charging session related data with EV Energy's platform (e.g., start/end times, kWh delivered, min/max/avg power draw). EVs that are opted in share the same information in addition to data-points beyond the charging session, including the make/model/trim/year/VIN of the vehicle that is charging, as well as its battery level at different charge times.

d. Information on the active public chargers operated by the Companies are available on the Companies' website: https://www.hawaiianelectric.com/products-and-services/electric-vehicles/fast-charging/fast-charging-locations. However, as discussed in response to part b., there are limits to which publicly available data sources can provide an accurate breakdown of chargers owned or operated by other entities. In an effort to provide an answer to this question, the Companies reviewed the U.S. Department of Energy's Alternative Fuels Data Center, which indicates that there are 754 Level 2 and 77 DC fast chargers in Hawaii (the Companies own and operate 32 of the 77, or 42%, of the DC fast chargers); however, these figures do not include residential electric vehicle charging

[2] *See* Hawaii Station Counts by State and Fuel Type at https://afdc.energy.gov/stations/states (last accessed 2/27/2023).

infrastructure, and it is unclear if all the chargers are in service or not.[3] Another source of data is Plugshare.com's crowdsourced interactive EV charging map of Hawaii; however, this map does not show residential chargers or a breakdown of which entities own specific public chargers.[4]

e. The Companies conducted outreach to the utilities that participated in a pilot program with EV Energy. Of those utilities willing to provide feedback, National Grid and Southern Company stated that they funded their programs through ratepayers. The Companies have not received information regarding the funding for the other three utility programs identified in Figure 3; however, based on conversations with EV Energy, these types of programs are typically funded by ratepayers. The Companies are not aware of any situations where a similar utility program was not funded by ratepayers. External parties such as OEMs or EV charging companies are usually not involved in the funding of the programs.

[3] *See* Hawaii Station Counts by State and Fuel Type at https://afdc.energy.gov/stations/states (last accessed 2/27/2023).
[4] *See* map of Hawaiian islands at https://www.plugshare.com/.

PUC-Hawaiian Electric-IR-06

Reference: Pilot Notice at 4.

The Companies state that a benefit of the Pilot will be that customers will be able to "manage their vehicle charging more effectively by tracking energy usage and costs."

a. Will the mobile app utilize current utility rate schedule when charging at home and the actual charging station rate when charging at a public charging station?
b. Do residential Level 2 EV chargers provide this same capability?

Hawaiian Electric Companies' Response:

a. For at-home charging, the EV Energy app will estimate a customer's EV charging costs based on their current rate schedule. For away-from-home charging, EV Energy is currently able to obtain EV charging costs from the Tesla supercharging network and is working with other public charging networks to expand this feature and functionality. As third-party owned public chargers have rates that differ from site owner to site owner, vary considerably based on local market conditions, and are not readily available to the public, EV charging rates for non-Tesla public networked chargers cannot be consistently collected or calculated at this time.

b. Some residential Level 2 EV chargers provide at-home charging estimate functionality, including, the ChargePoint and Enel X Juicebox brands.

PUC-Hawaiian Electric-IR-07

Reference: Pilot Notice at 17.

The Companies state that a benefit of the Pilot will be that customers will "[t]he ability to time charging [sic] to ensure that the EV will be ready by a certain time of date[.]"

a. Of the number of residential Level 2 currently installed, how many support smart charging?
b. Please confirm that EV owners do not need to participate in this Pilot to utilize smart charging.
c. What number of Hawaii EV owners uses Level 1 charging?

Hawaiian Electric Companies' Response:

a. The Companies do not have access to this level of data. Please see the Companies' response to PUC-Hawaiian Electric-IR-05, part b.[1,2]

b. EV owners do not need to participate in the Pilot in order to utilize smart charging, however, without using EV Energy's app or similar software, drivers would need a smart charger to use this feature.

c. Level 1 charging is not networked. Level 1 charging involves individual customers charging EVs using standard electric outlets, and therefore the Companies do not know how many EV owners use this method of charging.

[1] The response to PUC-Hawaiian Electric-IR-05, part b, discusses network connected chargers which encompasses residential Level 2 chargers.

[2] In August 2019, 254 residential customers applied for and were connected with Enel X 'JuiceBox' Level 2 EV smart chargers as part of a project run by Enel X North America's mobility group. The Companies received a final summary report on the project from Enel X in September 2020, however, do not have continued access to this customer EV data.

PUC-Hawaiian Electric-IR-08

Reference: Pilot Notice, Exhibit B.

Exhibit B to the Pilot Notice summarizes the Companies' stakeholder feedback for the Pilot.

a. What was the response rate for the pilot stakeholder surveys?
b. Given the relatively small sample size for the stakeholder surveys, did the Companies consider another round of stakeholder surveys to attempt to collect a more robust distribution of observations?

Hawaiian Electric Companies' Response:

a. Five of 11 (45%) stakeholders responded to the first survey sent out at the Drive Electric Hawaii meeting. An additional four stakeholders responded to the survey at the second stakeholder meeting. The total of nine respondents makes up approximately 30% of the broad range of organizations (over 30) invited to the second stakeholder meeting.

b. There is a relatively small subset of organizations in Hawaii that are invested in electrification of transportation, which includes all Drive Electric Hawaii members. Since each survey response was representative of key organizations in Hawaii rather than individuals, the weight of those responses was highly valued by the Companies in developing the Pilot. Given the strong letters of support, lack of opposition, and in the spirit of moving quickly under an innovative framework, the Companies did not consider another round of stakeholder surveys necessary.

For the Pilot implementation, the Companies plan to issue surveys to participating EV drivers, and the Companies expect a greater number of respondents since these surveys will be directed to individuals rather than organizations.

PUC-Hawaiian Electric-IR-09

Reference: Pilot Notice at 9 and 16-17.

The Companies state that participants (2,000 max) will receive a $150 incentive payment or 10,000 Hawaiian Miles, and a free app they can keep after the Pilot ends.

a. Given the benefits that may naturally accrue to Pilot participants, such as the opportunity to provide input on charging infrastructure, increased insight into their own EV telematic data, and the free app, did the Companies consider whether an additional incentive (i.e., $150 or 10,000 Hawaiian miles) was necessary for Pilot participation (versus using those funds to offset Pilot costs, which impact all ratepayers)?

The Companies state that Ulupono Initiative has offered to contribute $100,000 to the Pilot to increase the incentive for customers to participate in the Pilot.

b. Did the Companies consider, and/or was there an option, to use these funds to reduce the vendor and project management costs instead of increasing the incentive to help lower the project cost impacts to non-participants?
c. If other stakeholders contribute funds, would the Companies use the funds to increase the incentive further or lower pilot implementation costs?
d. Based on stakeholder feedback reported in the Pilot Notice, this Pilot aligns with many government agencies' EV initiatives. Has Hawaiian Electric engaged in efforts to collect contributions from other stakeholders (e.g., State and county agencies, EV manufacturers, rental car companies, charging station companies, etc.)? If so, please elaborate. If not, please explain why not.
e. Have the Companies solicited contributions from entities who may stand to benefit more from the data collected through this Pilot?

Hawaiian Electric Companies' Response:

a. The Companies' focus was on collecting a robust sample size and encouraging active participation from EV drivers. In the past, the Companies have found it challenging to sign up customers for certain other customer-facing programs without offering strong incentives. In the case of the Pilot, drivers can utilize apps like EV Energy for free, without having to share data with the utility. The Companies determined that a modest incentive would be needed to drive participation in the Pilot and convince drivers to share data with their utility. Research and feedback during interviews with National Grid, Xcel Energy, Baltimore Gas and Electric, Portland General Electric Company, and Southern Company supported the inclusion of an incentive amount.

b. Ulupono offered to contribute specifically to increase the incentive pool, as they considered the $100 incentive to be too low for the Hawaii market. Ulupono also wanted their investment to go directly to EV drivers in Hawaii, rather than to a vendor. Therefore, there was not an option to leverage the funding from Ulupono to go towards vendor and project management costs instead of increasing the incentive.

c. The $150 incentive amount is in line with market practice and the Companies do not plan to increase it. Further outside contributions, if made available, could potentially be used to lower other Pilot costs.

d. The Companies did seek cost-share from other stakeholders, including government agencies. In addition, the Companies solicited other local organizations including food and beverage retailers and climate-focused organizations. Ultimately, Ulupono and Hawaiian Airlines were willing and able to partner with the Companies on this Pilot. Private EV-related entities such as OEMs, EV charging companies, or rental companies were not approached, as there was concern that a negotiated cost-share arrangement would appear to show favoritism for a particular product.

e. The Companies have not solicited contributions beyond the entities described in response to part d.

PUC-Hawaiian Electric-IR-10

Reference: Pilot Notice at 12.

The Companies state that one of the goals of the Pilot is to gain increased visibility into EV customer charging behavior, including "an interactive heatmap of where EVs are being charged…."

a. How will data inform where new infrastructure is needed if the "heat map" reflects utilization of existing sites, which are subject to limited availability and location, rather than true quantity and location needs?
b. Have the Companies considered the risk that any resulting "heatmap" that relies on existing charging infrastructure may simply reflect heavy charging due to limited locations, which could lead to expansion in those locations, rather than identifying new, more desirable locations?

Figure 1 indicates that Pilot participants will have their EV telematics data collected and then shared with a third-party vendor.

c. Will participants be able to participate if they do not want to have their data shared with third parties?
d. Will participants' contact information be provided to the third parties also, or will the information remain anonymous?
e. If they do allow data to be shared, will participants be provided a complete list of third parties with whom their data is shared?

Figure 1 indicates that participants' EV telematics data will be hosted on the vendor's cloud-based portal.

f. Are the connections to the cloud and all internet-connected devices secure (cyber-secure) for the mobile app user and for the charging stations?

Hawaiian Electric Companies' Response:

a. The heat map would reflect where charging is currently happening but also where there are charging deserts. Varying intensities of the level of charging in certain areas may also indicate where additional charging may be needed. It is important to note, however, that the heat map is intended to provide an additional perspective that is not currently available to the Companies or interested stakeholders. Data collected from the Pilot is meant to be a supplemental resource rather than a sole source of data to support EV infrastructure siting needs. Instead, the heat map would be part of a larger effort overlayed with a variety of other site selection activities.

b. The Companies have considered this risk. As noted above, the heatmap is intended to be an additional form of input in deploying additional charging infrastructure. See the response to part a.

c. In Figure 1 of the Notice, the third-party data sharing refers to the agreement drivers have with their OEMs. In a special circumstance where a driver has somehow been able to opt-out of data sharing with their EV's OEM, then they would not be able to participate in the Pilot, as their data would not be able to be collected by EV Energy.

d. The Companies do not intend to share participant contact data with external parties. Any information shared externally will be aggregated and anonymized. See also the response to part c. (i.e., the third-party data sharing in Figure 1 refers to the agreement drivers have with their OEMs) and the response part f (concerning data security).

e. EV OEMs determine how their customer data is shared with third parties. See also the response to part c.

f. Yes, EV Energy complies with European Union access controls and ensures the security of data by encrypting all data at rest and in transit.[1] In the master services agreement, the Companies intend to require EV Energy to comply with all laws, rules, regulations, reasonable practices, and standards applicable to data privacy, data security and the transmission of technical or personal data.

[1] *See* "9. Security of personal data" at https://www.ev.energy/privacy.

PUC-Hawaiian Electric-IR-11

Reference: Pilot Notice at 18.

The Companies state that the over the course of the Pilot, it will collect feedback from semi-annual surveys and focus groups from Pilot participants.
Will the survey also ask the participants to add "preferred charger locations" to the heat map?

Hawaiian Electric Companies' Response:

The heatmap referred to in the Notice is a software application "dashboard" that will be made available to the Companies. Participant drivers will not have access to this heatmap, and there is no functionality within EV Energy's mobile app to designate preferred charger locations. Instead, as part of the Pilot surveys, the Companies intend to ask Pilot participants to indicate preferred charger locations on the Companies' crowdsourced interactive charging map at www.chargeuphi.com.

PUC-Hawaiian Electric-IR-12

Reference: Pilot Notice at 8, 15, and 22; and Docket No. 2019-0323.

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

a. Do the Companies plan to track the rate schedule of each charger under this program?

b. Only participants with Advanced Metering Infrastructure ("AMI") meters who are in Schedules R, G, and J are being considered for participation in the ARD TOU trial project. What rate schedule are non-residential, public, utility-provided and commercial charging stations currently on: Schedule G, or J or other?

The Companies state that the Pilot will support the Companies' efforts to identify a sample of EV customers who can be placed on TOU rates by helping identify which EV-TOU customers have AMI.

c. Referencing the Pilot Timeline in Figure 4, if participants are identified in early April, will the Companies have sufficient time to determine who on the list also owns AMI meters and incorporate that information into the ARD TOU Pilot list which is needed in early May?

Hawaiian Electric Companies' Response:

a. The program is intended for residential customers with EVs only.

b. The Companies' DC fast chargers are on the pilot-specific Schedule EV-U or on Schedule EV-MAUI. Non-residential public commercial charging stations may be on commercial Schedules G, J, P, or DS, depending on electricity demand and consumption. Non-residential public commercial charging stations may also be on Schedules EV-F, EV-J, or EV-P.[1]

c. Provided the Pilot launches according to the planned timeline, the Companies anticipate having sufficient time to determine which participant owns AMI meters and to provide to the participant appropriate TOU communications similar to other TOU Study participants.

[1] The Companies' commercial EV rates are detailed at https://www.hawaiianelectric.com/products-and-services/electric-vehicles/electric-vehicle-rates-and-enrollment/commercial-facility.

PUC-Hawaiian Electric-IR-13

Reference: Pilot Notice at 10-11.

The Companies list a number of reasons why they selected EV Energy as the EV telematics software company for this Pilot.

a. Has EV Energy successfully designed an app, dashboard, etc., for another utility or company, and if so, what utilities? If so, can this Pilot be considered innovative if it has already been developed and used by other utilities?
b. Is this Pilot intended as a proof-of-concept to test the functionality of data collection and sharing, or is it intended to collect and share data?

Hawaiian Electric Companies' Response:

a. Yes. EV Energy has successfully deployed a mobile app and utility dashboards to a number of utilities across the world and within the United States, including: Con Edison, Orange & Rockland, Avangrid, Southern Company, National Grid, American Electric Power, Ameren, Madison Gas & Electric, Silicon Valley Clean Energy, Marin Clean Energy, and Peninsula Clean Energy. While this technology has been deployed at other utilities advancing the electrification of transportation, a telematics-based pilot for EV customers would be the first of its kind in Hawaii, and the Companies view the Pilot as addressing a critical need for data and visibility on customer behavior.

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 behavior. EV telematics data solutions for utilities are a relatively new concept, the data to be collected is new information for the Companies, and the data collected and insights into customer behavior may be used to inform more effective programs and initiatives, including programs that enable customers to better manage their energy use, incentive structures for future programs (e.g., EV rates), and programs that manage the

energy usage on the system to a more consistent and stable level.[1] In addition, the Hawaii Department of Transportation, the City & County of Honolulu, and the County of Maui have expressed an interest in charging location data to help inform the optimal deployment of their respective public EV charging networks. The use of the technology, i.e., real-time onboard EV telematics, customer interface, and utility application, is also relatively new and has not been widely adopted. For the foregoing reasons, the Companies view the proposed Pilot as innovative.

b. No. This Pilot is not intended as a proof-of-concept to test the functionality of data collection and sharing. The objective of this Pilot is to collect and share data, and if the data is useful, the Pilot concept could potentially be extended and/or expanded into a more permanent program. The data collected from the Pilot would be used to help inform the activities described in the Notice and in the response to part a.

[1] *See* Notice at 15-16 and 21, and *Hawaiian Electric Companies' Innovation Pilot Framework Workplan*, filed on November 12, 2021, in Docket No. 2018-0088, Areas of Collaboration "2. Customer Resources and Services," and "3. Beneficial Electrification."

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAI‘I

In the Matter of PUBLIC UTILITIES COMMISSION Instituting a Proceeding Relating to an Innovative Pilot Process for the Hawaiian Electric Companies.	DOCKET NO. 2022-0212

CERTIFICATE OF SERVICE

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

Dean Nishina
Acting Executive Director
Division of Consumer Advocacy
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DATED: Honolulu, Hawai‘i, March 6, 2023.

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