

DATA ACCESS AND PRIVACY POLICY

The Hawaiian Electric Companies¹ respectfully submit the following Data Access and Privacy Policy for Grid Modernization Strategy (“GMS”) Phase 1 (“Phase 1”) in accordance with Decision and Order No. 36230, filed on March 25, 2019 in Docket No. 2018-0141 (“D&O 36230”).²

As noted in the GMS, one of the Companies’ guiding principles to inform grid modernization is to “enable greater customer engagement, empowerment, and options for utilizing and providing energy services.”³ In alignment with this principle, the Companies’ GMS Phase 1 includes investments in technology that provide access to energy usage data via an integrated online customer energy portal to customers and customer-authorized third parties. This portal provides valuable energy usage information that will empower customers with the insight to better manage their energy consumption.

The Companies agree with the Commission’s guidance that the “Companies must enable customers and customer-authorized third parties to easily and reliably access up-to-date customer usage and billing data, while simultaneously providing data privacy and security.”⁴ As such, the Companies provide the following Data Access and Privacy Policy, which was the result of a collaborative process that included industry best practices and stakeholder input.

I. DATA ACCESS EFFORT AND TIMELINE

D&O 36230 requires that the Data Access and Privacy Policy must, at a minimum, describe the “Companies’ planned data access efforts and the expected timelines for implementation.”⁵ The Companies recognize the value of providing customers access to their data and are working to implement solutions that will bring data access capabilities to customers as soon as possible.

The Companies anticipate making the energy portal available to customers with advanced meters upon successful completion of the hosted field pilot, which involves testing the portal with actual customer meter data in a hosted field pilot environment. Accordingly, the end of 2019 the Companies will invite these customers to access the energy portal in a hosted environment with targeted functionality, which includes viewing of 15-minute interval usage data. By the end of 2020, the Companies anticipate launching an on-premise energy portal with additional functionality.

¹ Hawaiian Electric Company, Inc., Hawai‘i Electric Light Company, Inc. and Maui Electric Company, Limited are collectively referred to as the “Hawaiian Electric Companies” or “Companies.”

² See Docket No. 2018-0141, Order No. 36334 *Clarifying Decision and Order No. 36230*, issued on May 28, 2019 (“Order 36334”), at 48.

³ See GMS, Section 1 (Vision, Definition & Scope), at 2.

⁴ See Order 36334 at 47.

⁵ D&O 36230 at 48.

Customers with advanced meters that are connected to the Companies' Field Area Network ("FAN"), either in areas where the RF mesh network has been deployed or through LTE communication, will be able to access their energy data by logging into the existing Online Customer Service Center, the site where customers are currently able to view electronic copies of their bills. From this website, customers with advanced meters⁶ will be able to click a link to access the customer energy portal ("Energy Portal"), where they will be able to view their energy usage interval data. Similarly, the Companies' key commercial account customers will log into their existing MyBiz portal, and those with advanced meters will be able to click on a link to access the Energy Portal. All customers will be taken to the Energy Portal without having to log in again, and from there, will be able to view the following information:

- Delivered interval energy usage data, and Received and Net interval data if applicable;
- Comparisons to prior energy usage;
- Average daily kWh for the current billing period;
- Current rate usage tier for the billing period;
- Final rate usage tier position reached for each previous billing period with an indicator showing where each tier was crossed; and
- Time-of-Use ("TOU") usage report showing average daily usage for the on-, mid-, and off-peak periods.

Customers will also be able to download their data in extensible markup language ("XML"), comma-separated values ("csv"), or Excel formats.⁷ Additionally, customers may provide access to third parties such as solar vendors or contractors to view or download the customers' energy usage data directly.⁸

The on-premise implementation of the Energy Portal will be completed in or around year-end 2020 and will provide additional functionality to customers, including:

- Displaying the customer's bill;
- Calculating and displaying the projected bill amount for the current billing period;
- Calculating and displaying the projected usage for the current month along with a comparison to the same period in the prior year;
- Performing rate and usage comparisons to allow customers to see if selecting a different rate schedule or adjusting energy usage will result in cost savings;
- Displaying monthly cumulative net rolling credits for Distributed Energy Resources ("DER") customers;

⁶ Verizon Grid Wide meters will be integrated into the on-premise deployment; therefore, data from the Verizon Grid Wide meters will be available in the Energy Portal once the on-premise implementation goes live around year-end 2020.

⁷ See Appendix A, attached, for an example of these download formats.

⁸ See Appendix B, attached, for further discussion of the secondary authorization process.

- Displaying the DER credit expiration dates associated with the net rolling credits for DER customers; and
- Displaying the monthly minimum charge for DER customers.

II. EXTENDING FUNCTIONALITY TO ALL CUSTOMERS

The Energy Portal requires interval⁹ energy usage data to perform calculations and comparisons; almost all of the functionalities listed in Section I above would not be available to customers without the interval data provided by advanced meters. Therefore, the Companies plan to market the Energy Portal as one of many incentives for customers to adopt advanced meters.

D&O 36230 further requires that the Companies “explore the expenditures and time required to extend Green Button Connect [My Data] and [Green Button] Download My Data functionality to all customers, including those without advanced meters.”¹⁰ Without an advanced meter, the Companies only have access to customers’ monthly energy usage data, and most access and collection is manual (i.e., through meter readers). Extending Green Button Connect My Data (“CMD”) and Green Button Download My Data (“DMD”) functionality to non-advanced meter customers would require that information to be separately uploaded into the Meter Data Management System (MDMS), so it could then be made available via the Energy Portal.

The costs of making non-advanced meter data available on the Energy Portal include:

- Approximately 200 hours of additional outside service labor, or roughly \$40,000 at \$200/hour, in order to add the logic and design configurations to include all customers;
- An increase of roughly \$ [REDACTED] in the estimated annual Software-as-a-Service license cost, if this capability is desired immediately while the Companies are utilizing the hosted solution through year end 2020 to cover the additional customer endpoints since the Companies’ original estimates only covers the initial 175,170 meters for Phase 1; and
- When the on-premise solution is launched around the end of 2020, to cover the additional customer endpoints, the up-front licensing costs would increase by roughly \$ [REDACTED], and the annual maintenance fees would increase by roughly \$ [REDACTED].

Moreover, these costs would be expended to provide non-advanced-meter customers with little more information than they are already provided on their bill. Current customer invoices

⁹ See Docket No. 2018-0141, GMS Phase 1 Application, Exhibit B, at 28. The Companies stated that “the advanced meters proposed as part of Phase 1 will likely be configured to read data in five-minute intervals.”

¹⁰ See Order 36334 at 48.

provide monthly energy usage data, historical over the past year, which is also available online through the Online Customer Service Center.

III. DATA SPECIFICATIONS

D&O 36230 further mandates that the Data Access and Privacy Policy provide additional insight on data specifications, including but not limited to:

(1) data sets to be offered to customers (e.g., historical and current interval usage, demand, voltage, etc.); (2) the Companies' data hosting policies; and (3) third party data access and data availability, including a discussion on the Companies' plans regarding a third party authorization process.¹¹

The requested additional data specification information is provided below.

A. DATA SETS TO BE OFFERED TO CUSTOMERS

The Green Button initiative is an industry-led effort that provides utility customers with easy and secure access to their energy usage information in a consumer-friendly and computer-friendly format for electricity, natural gas, and water usage. It provides customers and third parties with a safe and secure mechanism to access data.

The data sets provided will meet the requirements set by the Green Button initiative. Initially, the following data sets will be available for customers: interval usage data; delivered/consumption and received/generation data; usage summary information; and data that supports different programs such as Demand Response (DR) and DER programs.

The following information may also be available for customer viewing: name, address and telephone number; device IDs; e-mail addresses; billing information; and other electric account information, such as account number, service agreement, service start date, electricity demand (in kilowatts), monthly billed revenue, billing dates, billing history, credit history, rate schedule(s), meter read dates, interval usage or interval TOU indicators, or number or type of meters at a location.

Initially, the data will not include cost information since the billing will be done through the existing Online Customer Service Center. With the full rollout of the On-Premise solution of the Energy Portal at the end of 2020, usage summary information with cost will become available for customers.

B. DATA HOSTING POLICIES

The Companies are committed to protecting their customers, partners, clients, and vendors from damaging acts that are intentional or unintentional. Protecting customer data and

¹¹ D&O 36230 at 48.

the systems that collect, process and maintain this information is of critical importance. Consequently, system security must include controls and safeguards to offset possible threats, as well as controls to ensure availability, integrity and confidentiality of data:

- Availability – addresses ensuring timely and reliable access to and use of information.
- Integrity – addresses the concern that sensitive data has not been modified or deleted in an unauthorized and undetected manner.
- Confidentiality – addresses preserving restrictions on information access and disclosure so that access is restricted to only authorized users and services.

Security measures must be taken to guard against unauthorized access to and alteration, disclosure or destruction of data and systems. This also includes protection against accidental loss or destruction.

To safeguard and ensure the availability, integrity, and confidentiality of data, the Companies will maintain all customer data with an on-premise solution to be implemented toward the end of 2020. In the interim, in order to provide customers with a portal in 2019, a cloud-based hosted solution will be implemented and learnings from this interim solution will be integrated into the on-premise solution.

In both implementation scenarios, the Companies and vendors shall protect customer information while at rest, stored or being accessed. The Companies and vendors will take appropriate safeguards for protecting customer information to limit potential mishandling or loss while being stored, accessed, transported or disposed.

For data transported, the Companies and their vendors will use HTTPS, a protocol for secure communication over a computer network, which is widely used on the Internet. HTTPS consists of communication over Hypertext Transfer Protocol (HTTP) within a connection encrypted by Transport Layer Security (TLS) or its predecessor, Secure Sockets Layer. At a minimum, TLS 1.2 will be used to increase security. Authorization and access to customer data by third parties will utilize OAuth 2.0. OAuth 2.0 is the industry-standard protocol for authorization and is the modern standard for securing access to APIs for software applications. Green Button uses the OAuth 2.0 Authorization Framework protocol to provide secure authorization for users accessing their data while protecting their account credentials.

C. THIRD-PARTY ACCESS AND DATA AVAILABILITY

The Companies will be implementing Green Button for third-party access and data availability in two phases. The Energy Portal will initially roll out in November 2019 and give select customers the ability to utilize the Green Button DMD feature. This will allow customers to download and share data with third parties in a format consistent with other utilities. In addition to this feature, the Energy Portal will provide an option for secondary access that is not

part of the Green Button initiative but gives customers the ability to select the data to which they wish to give access to third parties.¹²

At the end of 2020, the Energy Portal will be further enhanced to allow third-party access through the Green Button CMD feature. Green Button CMD is an open-data standard designed to unlock access to utility interval usage and billing data – providing easy, seamless access for software applications. Green Button CMD enables utility customers to authorize third-party solutions to quickly and securely obtain interval meter data and enables an accurate and detailed level of analysis to inform energy management decision-making, while ensuring customer data is protected and privacy is maintained. Green Button CMD access is typically granted for a specified period of time, and a customer has the ability to revoke third-party access at any time.

The Companies will work closely with Green Button Alliance and other utilities to determine the best implementation method to meet Green Button CMD standards and make the overall customer experience easy for all users. The Green Button CMD process will allow third parties to register for access to customer data. Once the customer authorizes access, the data can be pushed or pulled in an automated method as determined by the third party.

IV. FRAMEWORK

Finally, D&O 36230 notes the Commission’s expectation that the Data Access and Privacy Policy “include a framework describing how the Companies intend to protect customer data.”¹³ The Companies are proposing the Framework set forth in Appendix C as a supplement to the Companies’ pre-existing Customer Information Privacy Policy, which protects non-public and personally-identifiable customer information.

In developing the proposed Framework, the Companies drew from other jurisdictions, community stakeholders, industry experts, and U.S. Department of Energy (“DOE”) best practices. Beginning with the frameworks adopted by California and Illinois, the Companies made modest modifications to conform with the DOE’s DataGuard program and to account for differences in, e.g., state laws, utility operations, etc. The resulting draft was then sent to industry experts, including the DOE, and community stakeholders, including the Consumer Advocate, who were asked to provide comments in writing or in person at a workshop held on July 16 and 17, 2019. All comments and suggestions were incorporated into the Framework, and a revised draft was circulated on August 28 with another request for comments or suggestions. No additional comments or edits were received, indicating that the Framework attached as Appendix C effectively incorporates the suggestions made and addresses the concerns raised by community stakeholders.

¹² See also Appendix B.

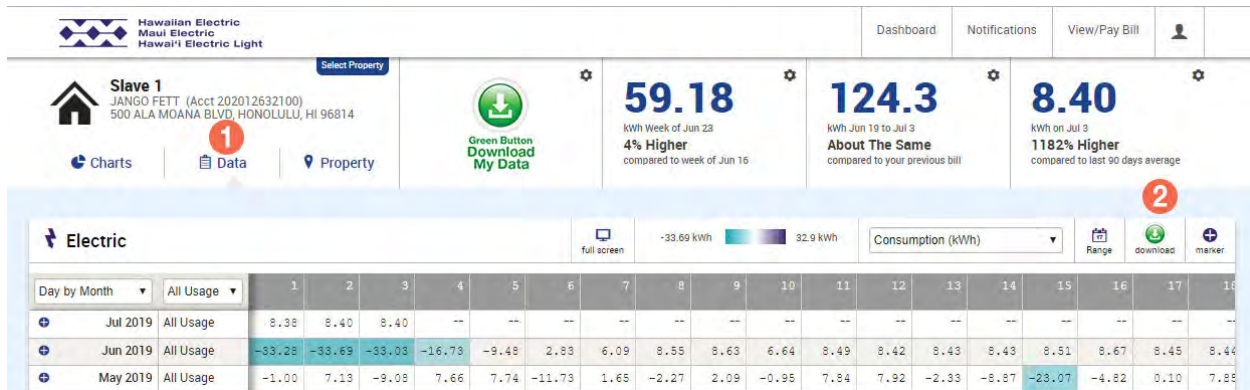
¹³ D&O 36230 at 48-49.

APPENDIX A

GREEN BUTTON DOWNLOAD MY DATA

In November 2019, with the initial rollout, the energy portal will give customers the option to use the Green Button Download My Data (DMD) feature.

Within the portal, the data tab will display customers' incremental usage data for any date range, showing data down to 15-minute intervals with daily totals.



The customer will have the option to click on the Green Button DMD icon and be given the option to export data in their chosen format.

The following is an example of the Green Button DMD in XML format:

```

<?xml version="1.0" encoding="UTF-8" ?>
<xml-stylesheet type="text/xsl" href="GreenButtonDataStyleSheet.xslt" ?>
<feed xmlns="http://www.w3.org/2005/Atom" xsi:schemaLocation="http://naesb.org/espi espiDerived.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <id>urn:uuid:491ED0DC-DC79-4802-96E7-9DF238D5693F</id>
  <title>ThirdPartyX Batch Feed</title>
  <updated>2019-06-22T01:21:21</updated>
  <link rel="self" href="/ThirdParty/83e269c1/Batch"/>
  <entry>
    <id>urn:uuid:EB4D3385-B052-48DA-8D75-68EB5A17A9F7</id>
    <link rel="self" href="RetailCustomer/9b6c7063/UsagePoint/01"/>
    <link rel="up" href="RetailCustomer/9b6c7063/UsagePoint"/>
    <link rel="related" href="RetailCustomer/9b6c7063/UsagePoint/01/MeterReading"/>
    <link rel="related" href="RetailCustomer/9b6c7063/UsagePoint/02/ElectricPowerUsageSummary"/>
    <link rel="related" href="LocalTimeParameters/01"/>
    <title>Green Button Test Title</title>
    <content>
      <UsagePoint xmlns="http://naesb.org/espi">
  
```

The following is an example of the Green Button Download My Data in csv format and opened in Excel:

The screenshot shows a Microsoft Excel spreadsheet titled 'data.csv - Excel'. The spreadsheet has three columns: 'Read Date' (Column A), 'Meter' (Column B), and 'kWh' (Column C). The data is as follows:

Read Date	Meter	kWh
5/19/2019 0:00	MPX000806799g -	0
5/19/2019 0:00	MPX000806799g -	0.65
5/19/2019 0:15	MPX000806799g -	0
5/19/2019 0:15	MPX000806799g -	0.65
5/19/2019 0:30	MPX000806799g -	0
5/19/2019 0:30	MPX000806799g -	0.65
5/19/2019 0:45	MPX000806799g -	0
5/19/2019 0:45	MPX000806799g -	0.65
5/19/2019 1:00	MPX000806799g -	0
5/19/2019 1:00	MPX000806799g -	0.65

The csv file can also be opened in a text format.

APPENDIX B
SECONDARY ACCESS

Another data sharing option for customers is through the authorization of secondary user(s). Within the energy portal, customers will be able to add and manage additional user authorizations that allow third party access to their data. Customers will be able to designate whether the secondary user is restricted to only accessing usage data, or will also have permission to view financial data, i.e. billing data, and edit customer account information. The customer will also be able to specify how long this authorization will last and which accounts the secondary user will have access to. Below is an example of the secondary user authorization screen.

Add Secondary User ✕

Permissions

- Usage Data ⓘ
- Financial Information ⓘ
- Edit Account Information ⓘ

Duration

- 30 Days
- 60 Days
- 90 Days
- Select An End Date
- No End Date

Select Accounts

-  **Account 1**
JANGO FETT (Acct 202012632100)
500 ALA MOANA BLVD, HONOLULU, HI 96814
-  **Account# 202012632100.00**
JANGO FETT
500 ALA MOANA BLVD, HONOLULU, HI 96814

Secondary User Email

Secondary User Email Confirm

[Continue](#)

DATA ACCESS & PRIVACY FRAMEWORK

1. PREAMBLE

The following rules apply to protecting the privacy and security of customers' electric usage information and related data obtained through the Grid Modernization initiatives of Hawaiian Electric Company Inc., Maui Electric Company, Ltd., and Hawai'i Electric Light Company, Inc. ("Hawaiian Electric Companies" or "Companies") in alignment with Hawai'i Public Utilities Commission Docket No. 2018-0141.

In addition to the protections of Covered Information set forth in this Framework, all customer-specific information gathered by the Hawaiian Electric Companies is covered and protected by the Companies' "Customer Information Privacy Policy" available on the Companies websites. All non-public, personally-identifiable customer information is kept confidential and disclosed to third parties only upon written customer authorization, as required by law, pursuant to Commission order, or in the event of an emergency or imminent threat of life. The Companies' vendors who provide services necessary to the Companies' operations may also be provided customer information, but only on an as-needed basis and only after agreeing to stringent contractual duties of confidentiality, privacy, and security.

The following Framework shall supplement the Companies' "Customer Information Privacy Policy" with regard to electric usage data collected by Advanced Meters.

2. DEFINITIONS

- A. **Advanced Meters.** Meters designed to measure consumer electric usage that are capable of two-way communication.
- B. **Aggregated Usage Data.** Usage information from multiple customers that is combined for the purpose of analysis, reporting, or program management such that it cannot reasonably be connected to a specific individual, family, household, or residence shall not classify as Covered Information under this Framework, nor be subject to the restrictions and protections provided herein.
- C. **Anonymized Usage Data.** Usage information without any identifiable characteristics (*e.g.*, without limitation, name, address, account number, meter number) such that it cannot reasonably be connected to a specific individual, family, household, or residence shall not classify as Covered Information under this Framework, nor be subject to the restrictions and protections provided herein.
- D. **Covered Entity.** A "Covered Entity" is (1) one of the Hawaiian Electric Companies or their contractors or vendors, (2) any third party who accesses, collects, stores, uses, or discloses Covered Information pursuant to an order of the Commission,

- or (3) any third party authorized by the customer that accesses, collects, stores, uses, or discloses Covered Information relating to 11 or more customers.
- E. Covered Information. “Covered Information” is any usage information recorded at intervals of less than one (1) hour and obtained through the use of Advanced Meters that are owned by the Hawaiian Electric Companies, when associated with any information that can reasonably be used to identify an individual, family, household, or residence.
- F. Data Breach. A “Data Breach” occurs anytime Covered Information is accessed by or disclosed to an unauthorized individual or entity; provided, however, that a Data Breach does not include access or disclosure to an employee or contractor of an authorized entity, if the access or disclosure was inadvertent and adequately addressed and contained.
- G. Primary Purposes. The “Primary Purposes” for the collection, storage, use, or disclosure of Covered Information are to:
- (1) provide or bill for electrical power;
 - (2) provide for system, grid, or operational needs;
 - (3) provide services as specifically authorized by an order of the Commission or as required by state or federal law; and
 - (4) plan, implement, or evaluate grid services, demand response, energy management, or energy efficiency programs.
- H. Secondary Purpose. “Secondary Purpose” means any purpose that is not a Primary Purpose.

3. TRANSPARENCY (NOTICE)

- A. Generally. Covered Entities shall provide customers with meaningful, clear, accurate, specific, and comprehensive notice regarding the Covered Entity’s policy as to the accessing, collection, storage, use, and disclosure of Covered Information. Provided, however, that Covered Entities accessing, collecting, using, or disclosing Covered Information on behalf of and under contract with the Companies are not required to provide notice separate from that provided by the Companies.
- B. When Provided. Covered Entities shall provide written notice to customers within ninety (90) days of policy implementation, policy change, and when confirming a new customer account; at least once every two (2) years thereafter, Covered Entities shall inform customers how they may obtain a copy of the Covered Entity’s notice; and Covered Entities shall provide a conspicuous link to the notice on the home page of their website.
- C. Form. The notice shall be labeled “*Privacy Notice Relating to Energy Usage Information Collected by Advanced Meters*” and shall:
- (1) be written in easily understandable English language, and

- (2) be no longer than is necessary to convey the requisite information.
- D. Content. The notice and the posted privacy policy shall state clearly:
- (1) the identity of the Covered Entity;
 - (2) the effective date of the notice or posted privacy policy;
 - (3) the Covered Entity's process for altering the notice or posted privacy policy, including how the customer will be informed of any alterations and where prior versions will be made available to customers;
 - (4) the title and contact information, including email address, postal address, and telephone number, of an official at the Covered Entity who can assist the customer with privacy questions, concerns, or complaints regarding the collection, storage, use, or distribution of Covered Information;
 - (5) a description of:
 - (a) each category of Covered Information collected, used, stored, or disclosed by the Covered Entity, and for each category of Covered Information, the reasonably specific purposes for which it will be collected, stored, used, or disclosed;
 - (b) each category of Covered Information that is disclosed to third parties, and for each such category, the purposes for which it is disclosed and the categories of third parties to which it is disclosed; and
 - (c) the identities of those third parties to whom data is disclosed for Secondary Purposes and the Secondary Purposes for which the information is disclosed;
 - (6) the approximate period of time that Covered Information will be retained by the Covered Entity; and
 - (7) the process by which customers may view, inquire about, or dispute their Covered Information, as well as the process by which customers may limit the collection, use, storage, or disclosure of their information and the consequences (if any) of exercising such limits.

4. USE & DISCLOSURE

- A. Primary Purpose Uses. A Covered Entity need not obtain customer consent for the collection, use, or storage of Covered Information for any Primary Purpose in a manner that is consistent with the notice required under Section 3.
- B. Secondary Purpose Uses. Except as expressly provided in Subsections D and E below, no Covered Entity shall use or disclose Covered Information for any Secondary Purpose without obtaining the customer's prior, express, written (or electronic) authorization consistent with this Subsection.

- (1) Unique. Separate authorizations must be obtained from each customer for each type of disclosure.
- (2) Revocation. Customers have the right to revoke, at any time, any previously-granted authorization.
- (3) Limitations. The consent of a customer may be for a defined period or continue without expiration. If a third party receives information pursuant to a residential customer's authorization without expiration, the third party shall contact the customer at least annually to inform the customer of the authorization granted and to provide an opportunity for revocation.
- (4) Expiration of Consent. If customer consent is granted for an defined period of time, the Hawaiian Electric Companies will not allow the third party to access Covered Information for that customer after the expiration date of the consent.
- (5) Parity. Covered Entities shall permit customers to revoke authorization by the same mechanism initially used to grant authorization.

C. Disclosures to Third Parties.

- (1) Initial Disclosure by the Companies. The Hawaiian Electric Companies may disclose Covered Information:
 - a. Without customer consent, when the disclosure is to effectuate a Primary Purpose, and the disclosure is to (i) a third party acting under contract with the Commission for the purpose of providing services authorized by an order of the Commission; (ii) to a governmental entity for the purpose of providing services authorized by an order of the Commission; or (iii) to a third party, provided that the third party is contractually bound to the Companies to access, collect, store, use, and disclose the Covered Information under policies, practices, and notification requirements no less protective than those contemplated herein.
 - b. To any third party authorized by the customer, consistent with such authorization.
- (2) Subsequent Disclosures. Any entity that receives Covered Information from the Hawaiian Electric Companies may disclose such Covered Information to another entity without customer consent, when the disclosure is to effectuate the same Primary Purpose for which the Covered Information was originally disclosed, and the disclosing entity requires, by contract, that the entity receiving the Covered Information use the Covered Information only for that Primary Purpose and agree to store, use, and disclose the Covered Information under policies, practices, and notification requirements no less protective than those contemplated herein.
- (3) Ceasing Disclosures. When a Covered Entity discloses Covered Information to a third party under this Subsection 4(C), it shall specify by

contract that it shall be considered a material breach if the third party engages in a pattern or practice of accessing, storing, using, or disclosing the Covered Information in violation of the third party's contractual obligations to handle the Covered Information solely for the purposes designated and pursuant to policies no less protective than those contemplated hereunder.

- (a) If a Covered Entity finds that a third-party contractor to which it disclosed Covered Information violates the third party's contractual obligations related to the handling of Covered Information either (i) in a way that poses a significant risk to the confidentiality of the Covered Information or (ii) is reoccurring after the third party has been notified and given an adequate opportunity to cure the violation, the disclosing entity shall promptly cease disclosing Covered Information to such third party.
- (b) If a Covered Entity disclosing Covered Information to a Commission-authorized or customer-authorized third party becomes aware, through a customer complaint or otherwise, that a third party may be misusing Covered Information or otherwise violating these rules, the disclosing entity may cease disclosure of the customer's information to such third party until the authorizing entity (the customer or the Commission) can be notified of the alleged violation and given sufficient opportunity to either ratify or revoke the authorization.

D. Disclosures Required by Law.

- (1) Except as otherwise provided in this rule or expressly authorized by state or federal law or by court or Commission order, a Covered Entity shall not disclose Covered Information except pursuant to a warrant or other court order naming with specificity the customer whose information is sought. Unless otherwise directed by a court, law, or order of the Commission, Covered Entities shall treat requests for real-time access to Covered Information as wiretaps, requiring approval under the federal or state wiretap law as appropriate.
- (2) Nothing in this rule prevents a person or entity seeking Covered Information from demanding such information from the customer under any applicable legal procedure or authority.
- (3) Nothing in this section prohibits a Covered Entity from disclosing Covered Information with the consent of the customer, where the consent is expressed in written form and is specific to the purpose and to the person or entity seeking the information.
- (4) Nothing in this rule prevents a Covered Entity from disclosing, in response to a subpoena, the name, address and other contact information regarding a customer or other information that is collected through means other than Advanced Meters.

- E. Emergency Circumstances. These rules concerning access, control, and disclosure do not apply to information provided to emergency responders in situations involving an imminent threat to life or property. Emergency disclosures, however, remain subject to reporting rule 9(D)(3).

5. DATA MINIMIZATION

- A. Generally. Covered Entities shall use and disclose only as much Covered Information as is reasonably necessary or as authorized by the Commission to accomplish a specific Primary Purpose identified in the notice required under Section 3 or for a specific Secondary Purpose authorized by the customer.
- B. Data Retention. Covered Entities shall maintain Covered Information only for as long as reasonably necessary or as authorized by the Commission to accomplish a specific Primary Purpose identified in the notice required under Section 3 or for a specific Secondary Purpose authorized by the customer.
- C. Data Disclosure. Covered Entities shall not disclose to any third party more Covered Information than is reasonably necessary or as authorized by the Commission to carry out, on behalf of the Covered Entity, a specific Primary Purpose identified in the notice required under Section 3, or for a specific Secondary Purpose authorized by the customer.

6. DATA QUALITY & INTEGRITY

Covered Entities shall use reasonable efforts to ensure that the Covered Information they collect, store, use, and disclose is reasonably accurate and complete or otherwise compliant with applicable rules and tariffs regarding the quality of energy usage data.

7. CUSTOMER ACCESS & CONTROL

- A. Access. Upon request, Covered Entities shall provide to customers convenient and secure access to their Covered Information in an easily readable format that is at a level no less detailed than that at which the Covered Entity discloses the data to third parties.
- B. Control. Covered Entities shall provide customers with convenient mechanisms for:
- (1) granting and revoking authorization for Secondary Purpose uses of Covered Information;
 - (2) disputing the accuracy or completeness of Covered Information that the Covered Entity is storing or distributing for any Primary or Secondary Purpose; and
 - (3) requesting corrections or amendments to Covered Information that the Covered Entity is collecting, storing, using, or distributing for any Primary or Secondary Purpose.

8. DATA SECURITY

- A. Generally. Covered Entities shall implement reasonable administrative, technical, and physical safeguards to protect Covered Information from unauthorized access, destruction, use, modification, or disclosure.
- B. Data Destruction. Within ten (10) business days of (i) Covered Information no longer being necessary, (ii) expiration of the applicable contract or customer authorization, or (iii) a written request from the disclosing entity or customer, whichever is most applicable, all Covered Information shall be deleted or destroyed by using industry standard data elimination methods designed to prevent subsequent access or recovery.
- C. Notification of Data Breach.
 - (1) Any entity with access to Covered Information shall notify the Hawaiian Electric Companies within forty-eight (48) hours of detection of an actual or suspected Data Breach.
 - (2) After discovery or notification of a Data Breach, a Covered Entity shall assess the risk of harm to affected customers, including consideration of (i) the likelihood of unauthorized access or disclosure; (ii) the identity of the entity or individual who may have accessed or received the Covered Information; and (iii) the ability to minimize or mitigate the unauthorized access or disclosure. Based upon these factors, if it appears more likely than not that customer privacy has actually been compromised, the Covered Entity shall provide written notification to all affected customers, including a brief description of the circumstances surrounding the Data Breach and any mitigation and prevention steps being taken.
 - (3) In the event of a Data Breach affecting 1,000 or more customers, the Companies shall notify the Commission within two weeks of the detection or within one week of notification.
 - (4) In addition, the Hawaiian Electric Companies shall file an annual report with the Commission, commencing with the calendar year 2020, that is due within 120 days from the end of the calendar year, notifying the Commission of all Data Breaches within the calendar year, whether by the Companies or by a third party.

9. ACCOUNTABILITY

- A. Generally. Covered Entities shall be accountable for complying with the requirements herein and must make available to the Commission upon request:
 - (1) the privacy notices that they provide to customers;
 - (2) their internal privacy and data security policies;
 - (3) examples of any customer authorization forms used; and

- (4) the categories of agents, contractors, and other third parties to which they disclose Covered Information, the purposes for which all such information is disclosed, and for each category of disclosure, indication as to whether it is a Primary or Secondary Purpose.
- B. Customer Requests & Complaints. Covered Entities shall provide customers with a process to gain reasonable access to Covered Information, request correction of inaccurate Covered Information, and communicate complaints regarding the handling of Covered Information.
- C. Training. Covered Entities shall provide reasonable training to all employees who use, store, or process Covered Information.
- D. Reporting Requirements. On an annual basis, the Hawaiian Electric Companies shall disclose to the Commission the following information:
- (1) the number of authorized third parties accessing Covered Information;
 - (2) the number of known non-compliances with this rule or with contractual provisions required by this rule experienced by the utility, and the number of known customers affected by each non-compliance and a detailed description of each non-compliance; and
 - (3) the number of demands received for disclosure of Covered Information pursuant to legal process or pursuant to situations of imminent threat to life or property and the number of customers whose records were disclosed.

Upon request by the Commission, Covered Entities shall report additional information to the Commission about such disclosures. The Commission may, within its discretion, make such reports publicly available without identifying the affected customers.

- E. Limitation of Liability: The Hawaiian Electric Companies shall not be liable for any claims, demands, causes of actions, damages, or expenses arising from or resulting from any release of Covered Information or other confidential customer information pursuant to a customer's written authorization (whether via hard copy or electronic means), legal process, emergency circumstance, or Commission order, including but not limited to claims pertaining to the unauthorized use or disclosure of Covered Information or other confidential customer information by a third party receiving such information pursuant to a customer's written authorization, legal process, emergency circumstance, or Commission order or any subsequent disclosure thereto. After the Companies make a secure and authorized transfer of Covered Information to a third party pursuant to customer authorization, legal process, emergency circumstance, or Commission order, the Companies shall not be responsible for the security of the Covered Information or data or its use or misuse by a third party.