



**Hawaiian
Electric**

Green Button Connect My Data Webinar

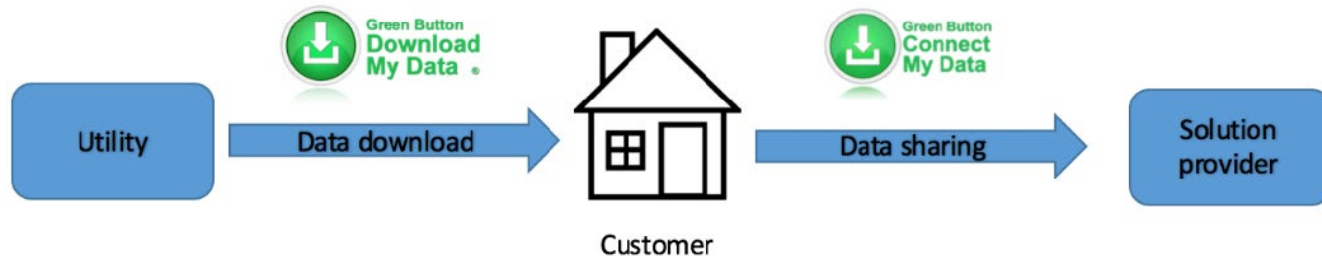
Agenda

- ◆ Green Button Overview
- ◆ Third Party Registration
- ◆ Customer Journey
- ◆ Lessons Learned as Third Party (Hawaii Energy)
- ◆ Q&A

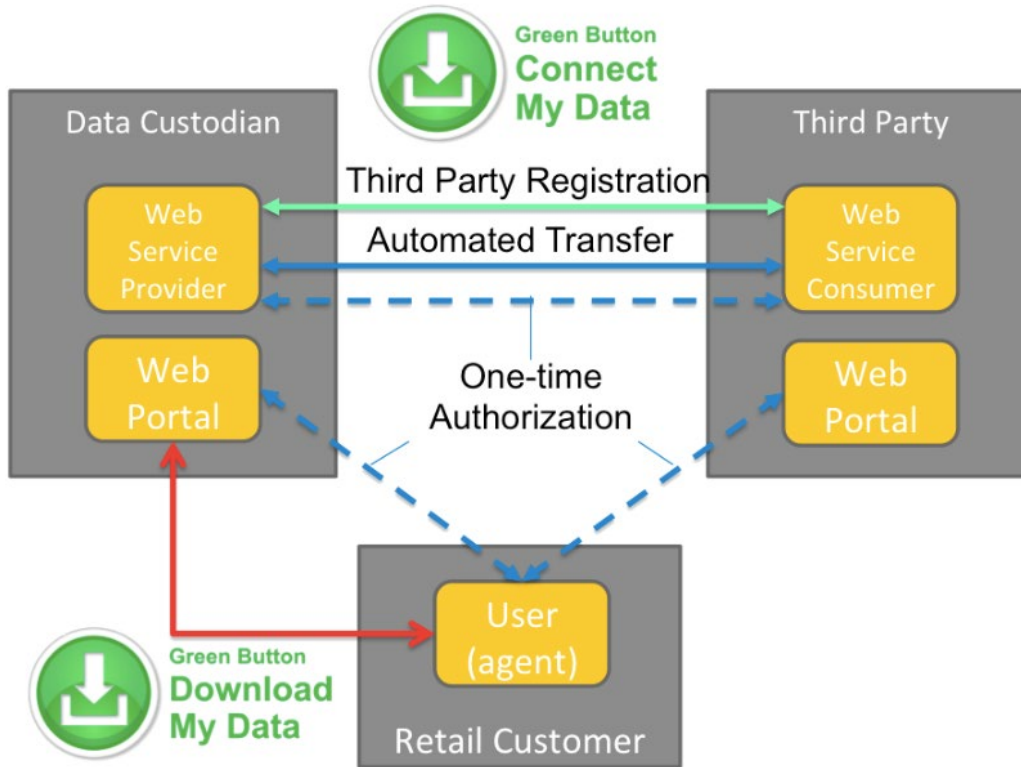


Green Button

- ◆ Green Button is the energy industry standard for enabling customers to easily download and securely share their energy usage data
- ◆ Solution provider able to offer better, data-driven customized solutions based on higher fidelity advanced metering data set
 - Almost 470K Hawaiian Electric customers will have advanced meters by Q3 2024
- ◆ This webinar will cover the Data Sharing component



Green Button Flow Diagram



Source: <https://green-button.github.io/developers/>



Third Party Registration Link

1. Access Third Party Registration by visiting <https://myenergyusehawaii.com>
2. On the bottom of the web page there is “Third Party Registration” link
3. Click on the link to access the Third Party Registration form



https://myenergyusehawaii.com

Login

Remember Me Forgot your Password?

Welcome to My Energy Use!

The meter at your home or business provides mountains of useful data. Now you can spot trends, track your usage, and even receive energy related alerts and challenges. It's your energy make the most of it.


- Data & alerts where you are**
Alerts and meter data are accessible across lots of different devices and our mobile alert system keeps you up-to-date even when you're on the road.
- Track & compare your usage**
Track your usage against weather conditions and see how you compare to your own usage from previous years.
- Customizable markers**
Track important events and monitor associated energy changes with handy markers. Using markers helps the system know how and when to provide important alerts.
- Download and share your usage data**
Share your energy usage data safely and securely with third parties in Green Button and CSV format.

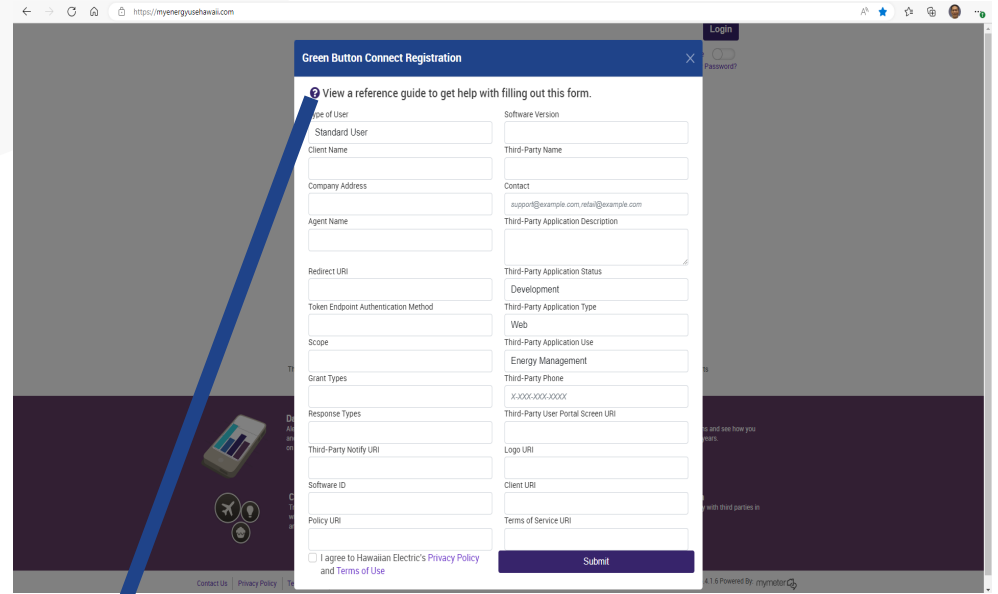
Contact Us | Privacy Policy | Terms of Use | [Third Party Registration](#)

Select Language v5.4.1.6 Powered By mymeter

Contact Us | Privacy Policy | Terms of Use | **Third Party Registration**

Third Party Registration Form

1. Fill out the Fields on the Form
2. Click on the  icon to view the reference guide for filling out the form



The screenshot shows a web browser window with the URL <https://myenergy.hawaii.com>. The main content is a registration form titled "Green Button Connect Registration". A blue arrow points from the help icon in the second step of the list to the help icon on the form. The form contains the following fields:

- Type of User (Dropdown)
- Client Name (Text)
- Company Address (Text)
- Agent Name (Text)
- Redirect URI (Text)
- Token Endpoint Authentication Method (Text)
- Scope (Text)
- Grant Types (Text)
- Response Types (Text)
- Third-Party Notify URI (Text)
- Software ID (Text)
- Policy URI (Text)
- Software Version (Text)
- Third-Party Name (Text)
- Contact (Text)
- Third-Party Application Description (Text)
- Third-Party Application Status (Dropdown)
- Third-Party Application Type (Dropdown)
- Third-Party Application Use (Text)
- Third-Party Phone (Text)
- Third-Party User Portal Screen URI (Text)
- Logo URI (Text)
- Client URI (Text)
- Terms of Service URI (Text)

At the bottom of the form, there is a checkbox for "I agree to Hawaiian Electric's Privacy Policy and Terms of Use" and a "Submit" button.

Green Button Connect Registration

 View a reference guide to get help with filling out this form.

Input Field	Description
Type of User	Select one of the following: Standard User: All other parties Community Choice Aggregator: Registered Community Choice Aggregator within Hawaiian Electric's service territory Energy Efficiency User: On-Bill Repayment, On-Bill Finance, and energy efficiency programs
Client Name	The name of the application to which access would be granted (OAuth client name).
Company Address	Please provide full address of company: Address Line 1, Address Line 2, City, State, Zip Code
Agent Name	Agent name registered with Department of Commerce and Consumer Affairs (DCCA)



Third Party Registration Form

1. At the bottom of the form is Agreement to Hawaiian Electric's Privacy Policy and Terms of Use.

2. Please access the links to the documents and review before clicking the check box and hitting "Submit"

I agree to Hawaiian Electric's [Privacy Policy](#) and [Terms of Use](#)

[Share](#)

Customer Information Privacy Policy

Hawaiian Electric is sensitive to your concerns about the confidentiality and privacy of your personal information. This privacy policy applies to all customer information (data about you and your energy usage), whether provided by you, recorded by our meters, or collected by our websites.

Our Privacy Principles

- We will not sell, rent, or license your personal information.
- We treat customer information as confidential, consistent with legal and regulatory requirements.
- We will only share your information with your consent or as provided for in this policy.
- We require any person or organization we share data with to protect customer information.
- We do not allow any person or organization acting on our behalf to use customer information for their own marketing purposes.
- We use customer data for customer service, billing, planning, and grid management, as well as optional customer programs for demand response and distributed power generation (like rooftop solar). We also use it to communicate with you about your account, your utility service, and other programs.
- We track online behavior on our website and through email communications only to improve our programs and services.
- We limit our data gathering to the electricity data recorded by the meter, unless you give us permission to gather additional data by signing up for one of our special programs.

[Share](#)

Terms of Use

Legal Notice & Terms of Use

Welcome to the website of Hawaiian Electric Company. Your use of this website constitutes your agreement to be bound by this legal notice and terms of use, Hawaiian Electric Company privacy policy and other applicable terms of use.

Proprietary Rights

The content of this website, including but not limited to all information, data, text, software, music, images, sounds, photographs, video, messages and other materials, and the arrangement thereof, is the property of Hawaiian Electric Company and constitutes copyrights, trademarks, service marks or other intellectual property or proprietary rights owned or licensed by Hawaiian Electric Company. The name and logo of Hawaiian Electric Company, and the names and logos of Hawaiian Electric Company subsidiaries or affiliated companies that appear in this site are trademarks and trade names protected by law.

Usage Restrictions

Hawaiian Electric Company hereby authorizes you to copy and display the content of this website for your personal, noncommercial, informational use only. Any copy you make must include this copyright notice: Copyright 2020 by Hawaiian Electric Company, Inc., all rights reserved. You may not distribute, publish, transmit, modify, create derivative works from, or in any way exploit any of the content, in whole or in part, for any purpose. Except as expressly authorized in this paragraph, you are not being granted a license under any copyright, trademark, service mark, patent or other intellectual property or proprietary right in the content. Under no circumstances will you obtain any rights in the products, services, processes or technology described in the content. All those rights are retained by Hawaiian Electric Company, its affiliates and any third party owners of those rights.

Information Provided by You

Any information communicated to Hawaiian Electric Company through this site is the exclusive property of Hawaiian Electric Company. Hawaiian Electric Company is entitled to use any information submitted for any purpose in accordance with the terms of this site's privacy policy and without compensation to the person sending the submission. You acknowledge the originality of any submission communicated to Hawaiian Electric Company and accept responsibility for its accuracy, appropriateness and legality.



Third Party Registration Form

1. Once a valid form is submitted the information will be vetted internally by Hawaiian Electric
2. Companies that pass the vetting process will be flagged as active
3. Active companies will have their Metadata sent to them
4. The Metadata will include the Registration Access Token which is needed to access the MyMeter application



The screenshot shows the 'Green Button Connect Management' page in a web browser. The page has a header with the Hawaiian Electric logo and navigation links for Dashboard, Reports, Message Center, and Admin. A search bar is located in the top right. The main content area contains a table with the following columns: Third Party, Active, Date Registered On, Date Expires On, Edit, Generate Metadata, and Delete. The table lists several third parties, including Vu Le, SteffanTest, gbc, Company2022, TestAgentL_HECO_ConnectedApp, CompanyZ, CompanyB, and CompanyA. Each row has an 'Active' checkbox, a 'Date Registered On' field, a 'Date Expires On' field, an 'Edit' button, a 'Generate Metadata' button, and a 'Delete' button. The 'Active' checkboxes for SteffanTest, gbc, Company2022, TestAgentL_HECO_ConnectedApp, CompanyB, and CompanyA are checked. The 'Delete' buttons for Vu Le and CompanyZ are visible. At the bottom of the page, there are links for Contact Us, Privacy Policy, Terms of Use, and Third Party Registration, along with a language selection dropdown and a version number (v4.1.6) and copyright notice (Powered By: mymeter).

The screenshot shows the 'Third Party Metadata' page in a web browser. The page has a dark blue header with the title 'Third Party Metadata' and a close button. The main content area is divided into two columns. The left column contains the following fields and values: Client Name: Test 11/21/2022, Enabled: True, Authorization Endpoint: https://qa.myenergyusehawaii.net/OAuthServer/Authorize, Token Endpoint: https://qa.myenergyusehawaii.net/OAuthServer/Token, Bulk Request URI: https://myenergyusehawaii.com/resourceapi/317/GBC/esp/1_1/Resource/Batch/Bulk/, Resource Endpoint: https://myenergyusehawaii.com/resourceapi/317/GBC/esp/1_1/Resource/Batch/Subscription/gbc_0, Client Id: TeMdhEp2, Client Id Issued At: 11/21/2022 11:43:41 AM, Client Secret Expires At: 11/21/2023 11:43:41 AM, Registration Client URI: https://myenergyusehawaii.com/resourceapi/317/GBC/esp/1_1/Resource/ApplicationInformation/gbc_0, Registration Access Token: 4va6woo+fwxMrV+2/80cXd2IliQTrxaomegmYKuDLK2cH7F/AK0NyIBDtPEDKgyw36kxSaTVLQcdr6+V1bh1RQ3sUciaCGkjluoHn3/5EZBFhkOxk4Vdrjdk3hKkLYzrIRkJDRz9d8QBkLruj6SBFPQIVwKMaRzp1nsg2rIHyzXB/DRiAzzJxk6R8C2HaK5YHUE6nx6Llf6Q00qHImB6tqVd1T196Loh4xc0YwwyDkM+NCmWTqt6yY3qtCSMZCM0J7bbDPxXNq4m9Ik7ztxrtQF3PRv9Pd3ZerF9z/UvWbIk7+np+sCp0yJfKj5eWtVPC7o0F+RzLXJSnEjLPdUIAuasDFy9XhFmONrNZMjyb5Pb8NWz1rrEik1dLyYhXiNqTDUUxzVXGmP+YfYVgD5uYwTsiZaVfW3F5RYARLm8evLBDrnSEdyXkGupyrYTVshVCHONqf2T/ztdFDk801UhrNH26cQ0rtrSIYQLVAIMD41Px+I3EZ9dD+I3IL5HCgazzEqQjp3jPV9iyuJCIFNuw==, AuthorizationServerURI: https://qa.myenergyusehawaii.net/OAuthServer/

Customer Journey Overview

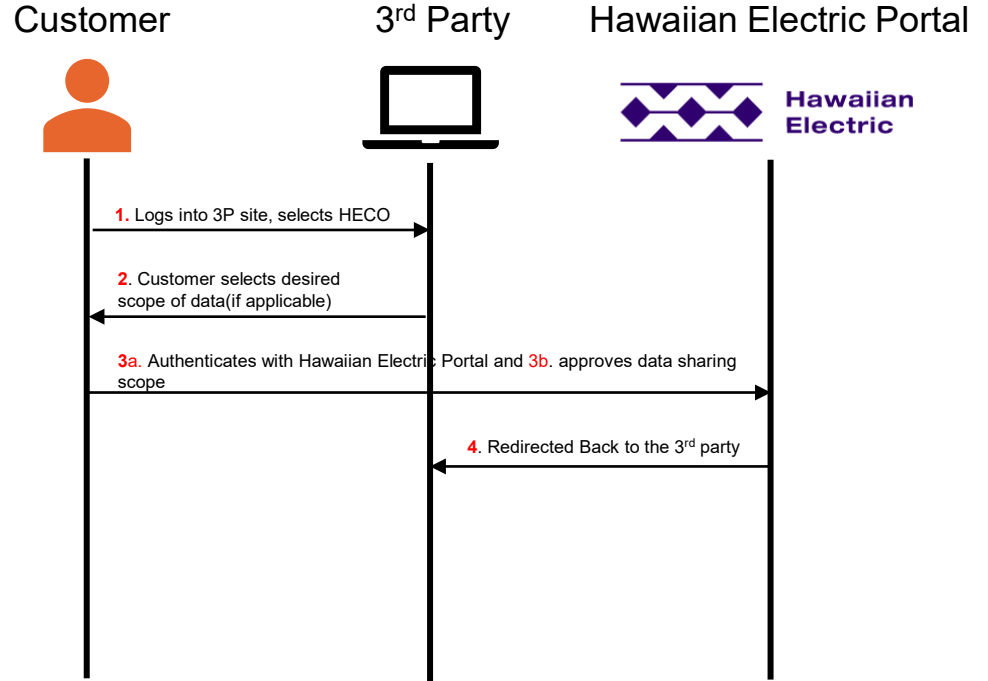
1. Customer logs in 3rd party and selects HECO
3. Selects the scope of desired data (if applicable)
- 3a. Authenticates with Hawaiian Electric Portal

Existing Customer? [Log on from our Online Customer Service Center >](#)

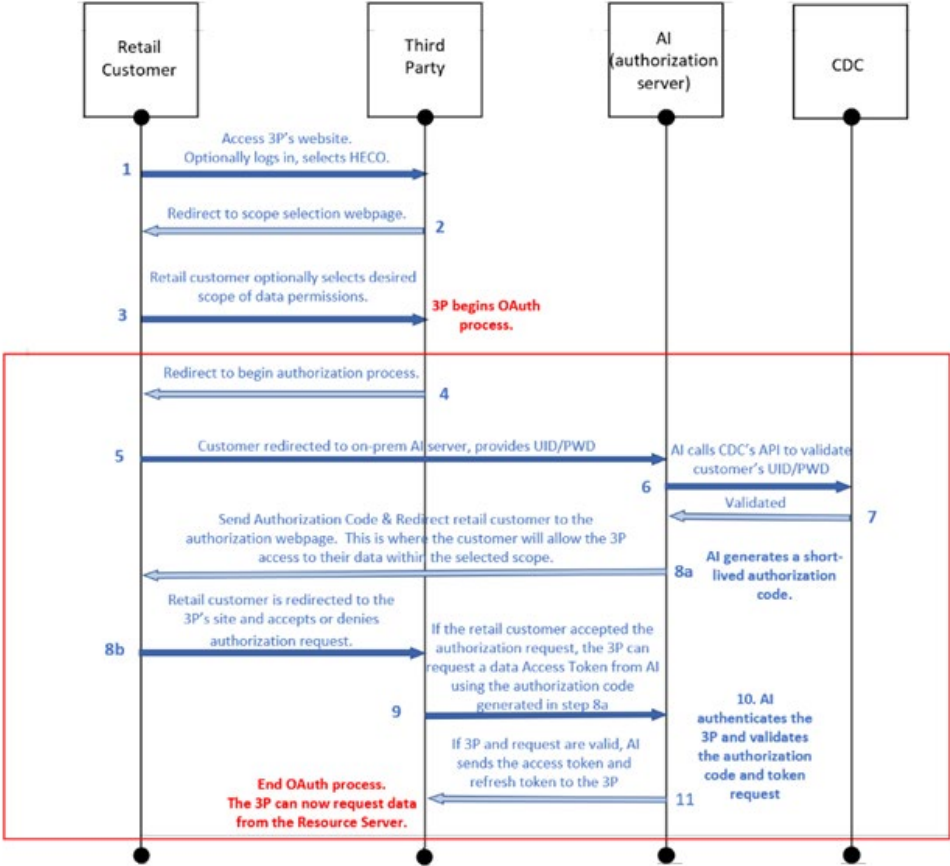
username

Remember Me Forgot your Password?

4. | 



In-Depth – Customer Journey





Hawai'i Energy

HAWAI'I ENERGY SUPPORT

1. Set up test portal
2. Provide feedback on setup process
3. Share lessons learned

Click below to connect your account and view your energy data!

Let's go!

powered by salesforce

Search...

* Name on Utility Bill

* Service Street Address

Find Account

powered by salesforce

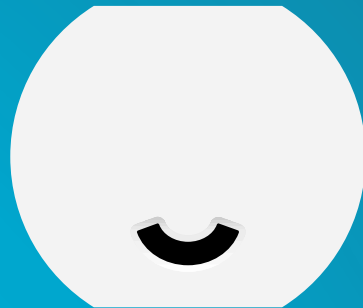
MINIMUM RESOURCE/SKILLSET REQUIREMENTS

1. **Building a Web Site (Html/Javascript)**
2. **Maintaining a Database**
3. **Model-View-Controller Architectural Pattern**
 - **Model:** Database that stores the access/refresh tokens per account
 - **View:** Enables user to integrate their utility account
 - **Controller:** Reads URL parameters from the Web Page (View), makes API callouts and interacts with the database (Model)
4. **Oauth 2.0 Access Token API Verification**
 - **Need web page to direct user to utility login**
 - **Need web page for redirect from utility site to collect Authentication Code and make Token callout**
5. **API Callouts to retrieve/manipulate data**



KEY TAKE-AWAYS & LESSONS

1. **Pay particular attention to the Scope of the data request.**
 - **Has implications on database storage requirement**
 - **May require additional code to handle size limits**
 - **Scope parameter on each data request callout must match the Scope of the original authorization request**
2. **Ensure parameters in the API callouts explicitly use the encoding specified within the documentation**
3. **SSL certificate updates may affect a successful connection. Reach out to Hawaiian Electric for support.**



Mahalo!

www.hawaiienergy.com



facebook.com/hawaiienergy



[@myhawaiienergy](https://twitter.com/myhawaiienergy)

Additional Resources

Website: <https://www.hawaiianelectric.com/products-and-services/customer-incentive-programs/installer-information>

- Instruction manual
- This webinar recording (will be posted)
- This presentation in pdf (will be posted)

Inquiries: connect@hawaiianelectric.com



Mahalo!



**Hawaiian
Electric**

