
A BILL FOR AN ACT

RELATING TO ENERGY RESILIENCY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that Hawaii has become a
2 global leader in the installation of customer-sited, distributed
3 energy resources such as rooftop solar and battery energy
4 storage. As of December 2022, the Hawaiian Electric service
5 territories achieved a renewable energy portfolio standard of
6 31.8 per cent of total electricity generation, with the
7 majority, forty-seven per cent, coming from customer-sited
8 rooftop solar systems. Kauai Island Energy Cooperative service
9 territories achieved a renewable energy portfolio standard of
10 60.2 per cent of total electricity generation, with twenty-one
11 per cent of that total coming from customer-sited rooftop solar
12 systems.

13 According to the United States Department of Energy funded,
14 Berkeley Labs, ninety-six per cent of all residential rooftop
15 solar installations in Hawaii now include battery storage.
16 Nevada, the next closest state, is only at twelve per cent. In
17 addition to lowering customer and grid electricity costs and



1 helping balance supply and demand for energy throughout the day,
2 when combined, solar and battery storage are a powerful provider
3 of resilience by allowing residents and businesses to "ride
4 through" grid outages and provide clean and reliable sources of
5 power during weather-related or other emergencies.

6 Distributed energy resources can also be used to provide
7 grid services through utility controlled and dispatched
8 programs. Hawaiian Electric's battery bonus program enrolled
9 forty megawatts on Oahu to provide emergency energy capacity in
10 response to the closing of the AES coal plant. A comparable
11 program on Maui totals more than six megawatts.

12 In the aftermath of the catastrophic Maui wildfires,
13 Hawaii's solar industry, in partnership with emergency
14 responders, charities, and other non-governmental organizations,
15 rapidly mobilized for response and recovery efforts. Within
16 days, resilient power systems consisting of photovoltaic solar
17 and energy storage were set up at ad hoc or planned distribution
18 hubs at Napili park, Pohaku park, and numerous other locations.
19 These systems provided, and in some cases, still provide, vital
20 sources of electricity to serve the people of west Maui. Solar
21 plus storage systems powered Starlink and other Wi-Fi



1 communication networks, refrigeration trucks, and lighting
2 systems to support the response effort and distribute food,
3 water, and other critical services with clean, quiet, and
4 emissions-free electricity in a time of need. These emergency
5 response efforts:

- 6 (1) Deployed eighteen distributed microgrids powered by
7 solar and energy storage;
- 8 (2) Assessed twenty-four potential sites;
- 9 (3) Served over one thousand three hundred people per day
10 at partner sites;
- 11 (4) Installed over one hundred kilowatts of distributed
12 solar capacity and three hundred eighty kilowatt-hours
13 of storage capacity; and
- 14 (5) Built over \$600,000 of grounded value installed.

15 Going forward, on-site solar and battery storage or
16 distributed energy resources can play a critical role in not
17 only rebuilding the west Maui grid but also providing resilient
18 and affordable power across the entire State if properly funded
19 and supported. With increasing risk of weather- and climate-
20 related extreme events, such as the hurricane-induced high-winds
21 that knocked out Hawaiian Electric's transmission and



1 distribution system on August 8, distributed energy resources
2 offer a relatively cost-effective option for building resiliency
3 and reliable power systems. Distributed energy resources
4 installed in communities can work in conjunction with power
5 shut-off plans and avoid high-cost investments in underground
6 transmission and distribution lines. Resilience hubs with clean
7 and quiet distributed power systems, coordinated microgrids, and
8 community-based assets are other powerful options that can aid
9 Maui and the State going forward.

10 The purpose of this Act is to:

- 11 (1) Ensure deployment of solar plus storage systems by
12 providing fair compensation for distributed energy
13 exports enrolled in grid services programs; and
14 (2) Incentivize customer investments in resiliency that
15 benefit the entire electric grid.

16 SECTION 2. Chapter 196, Hawaii Revised Statutes, is
17 amended by adding a section to part II to be appropriately
18 designated and to read as follows:

19 "§196- Retail crediting for solar and battery storage
20 energy exports. Notwithstanding any law, rule, or ordinance to
21 the contrary, energy exported to the electrical grid past a



1 participating customer-generator's point of common coupling,
2 including metered exports, from photovoltaic solar systems
3 paired with battery storage as part of a utility-controlled grid
4 service program shall be credited at the full retail rate of
5 electricity for the relevant time period. In addition to the
6 retail credit for grid service exports, the commission shall
7 establish compensation values for resiliency, capacity, and
8 ancillary services."

9 SECTION 3. New statutory material is underscored.

10 SECTION 4. This Act shall take effect upon its approval.

11
INTRODUCED BY:

Wade E. Loven

JAN 17 2024



H.B. NO. 1687

Report Title:

Renewable Energy; Distributed Energy Resources; Retail
Crediting; PUC

Description:

Requires retail crediting for energy exports enrolled in grid services programs, whereby energy exported to the electrical grid past a participating customer-generator's point of common coupling from photovoltaic solar systems paired with battery storage as part of a utility-controlled grid service program would be credited at the full retail rate of electricity for the relevant time period.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

