
A BILL FOR AN ACT

RELATING TO ENERGY MODERNIZATION AT THE UNIVERSITY OF HAWAII
SYSTEM.

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

1 SECTION 1. The legislature finds that the use of renewable
2 energy, advanced distributed energy resources, and energy
3 efficiency in Hawaii provides significant financial, health,
4 environmental, and workforce benefits to the State. While
5 Hawaii is a national leader in developing renewable energy,
6 barriers remain that inhibit the development of "microgrids", a
7 rapidly emerging technology that can play a key role in
8 expanding the use of clean energy to serve persons and buildings
9 in the State that have been unable to enjoy its benefits.

10 The legislature further finds that the use of microgrids,
11 generally defined as a localized electrical system composed of
12 interconnected loads and distributed energy resources within
13 clearly defined electrical boundaries, is a positive step toward
14 achieving Hawaii's energy goals. Microgrids can facilitate the
15 achievement of Hawaii's clean energy policies by enabling the
16 integration of higher levels of renewable energy and advanced



1 distributed energy resources, including energy storage and
2 demand response.

3 The legislature further finds that the development of
4 microgrids in Hawaii faces two key barriers. First, local
5 ordinances could prevent or have the effect of preventing the
6 development of microgrids. Second, any entity developing a
7 microgrid that serves residents in Hawaii could be subject to
8 regulation by the public utilities commission. It is not the
9 intent of this Act for the public utilities commission to
10 regulate microgrids, especially when such systems could be of
11 great value to isolated and rural areas of our State or provide
12 overriding public benefits in areas such as education, health,
13 housing, transportation, and other community service areas.

14 The legislature finds that the University of Hawaii system
15 is burdened with the high cost of electricity and is the second
16 largest electricity user in the State. In response, the
17 legislature passed what eventually was enacted as Act 99,
18 Session Laws of Hawaii 2015, which established a collective goal
19 for the University of Hawaii to become "net-zero with respect to
20 energy use, producing as much energy as the system consumes
21 across all campuses by January 1, 2035."



1 The legislature additionally finds that Act 99, Session
2 Laws of Hawaii 2015, aligns with the State's policy goal of
3 achieving a renewable portfolio standard of one hundred per cent
4 by 2045 as set forth in Act 97, Session Laws of Hawaii 2015.

5 The purpose of this Act is to encourage and facilitate the
6 development and use of microgrids at the various campuses and
7 facilities operated by the University of Hawaii in such a manner
8 as to expand access to locally generated renewable energy and
9 advanced distributed energy resources and to promote the
10 efficient distribution of electricity to the State's residents
11 and businesses by exempting microgrids that promote and serve
12 public higher education institutions from regulation as a public
13 utility by the public utilities commission.

14 SECTION 2. Chapter 304A, Hawaii Revised Statutes, is
15 amended by adding a new section to subpart D of part VI to be
16 appropriately designated and to read as follows:

17 "§304A- Microgrid project. (a) Notwithstanding any
18 other law to the contrary, the university is authorized to
19 establish, implement, and operate one or more microgrid projects
20 at, or within, any properties owned, leased, or controlled by
21 the university.



1 (b) Nothing in this section shall preclude the university
2 from working with, and receiving assistance from, any other
3 department or agency in carrying out the purposes of this
4 section.

5 (c) Notwithstanding any law to the contrary, no electric
6 utility shall be allowed to assess a charge, fee, or penalty of
7 any kind to the university for planning, designing,
8 constructing, or operating a microgrid.

9 (d) As used in this section, a "microgrid" means a
10 localized electrical system with distributed energy resources,
11 operated by the university or one in which the university
12 participates, that is powered by a renewable energy system, as
13 defined in section 269-1, that may include energy storage,
14 generation, or both, to serve interconnected loads of one or
15 more persons or buildings within clearly defined electrical
16 boundaries, that acts as a single controllable entity with
17 respect to the grid, and that can:

18 (1) Include lands and buildings owned or controlled by the
19 university and several adjacent or nearby properties,
20 all having different tax map key designations; and



1 (2) Operate either independently of, or in parallel with,
2 the utility grid."

3 SECTION 3. Section 269-1, Hawaii Revised Statutes, is
4 amended as follows:

5 1. By inserting a new definition to be appropriately
6 inserted and to read as follows:

7 "Microgrid" means a localized electrical system with
8 distributed energy resources, powered by a renewable energy
9 system, as defined in this section, that may include energy
10 storage, generation, or both, to serve interconnected loads of
11 one or more persons or buildings within clearly defined
12 electrical boundaries, and that acts as a single controllable
13 entity with respect to the grid and can:

14 (1) Include several adjacent or nearby properties having
15 different tax map key designations; and

16 (2) Operate either independently of or in parallel with
17 the utility grid."

18 2. By amending the definition of "public utility" to read
19 as follows:

20 "Public utility":



- 1 (1) Includes every person who may own, control, operate,
2 or manage as owner, lessee, trustee, receiver, or
3 otherwise, whether under a franchise, charter,
4 license, articles of association, or otherwise, any
5 plant or equipment, or any part thereof, directly or
6 indirectly for public use for the transportation of
7 passengers or freight; for the conveyance or
8 transmission of telecommunications messages; for the
9 furnishing of facilities for the transmission of
10 intelligence by electricity within the State or
11 between points within the State by land, water, or
12 air; for the production, conveyance, transmission,
13 delivery, or furnishing of light, power, heat, cold,
14 water, gas, or oil; for the storage or warehousing of
15 goods; or for the disposal of sewage; provided that
16 the term shall include:
- 17 (A) An owner or operator of a private sewer company
 - 18 or sewer facility; and
 - 19 (B) A telecommunications carrier or
 - 20 telecommunications common carrier; and
- 21 (2) Shall not include:



- 1 (A) An owner or operator of an aerial transportation
2 enterprise;
- 3 (B) An owner or operator of a taxicab as defined in
4 this section;
- 5 (C) Common carriers that transport only freight on
6 the public highways, unless operating within
7 localities, along routes, or between points that
8 the public utilities commission finds to be
9 inadequately serviced without regulation under
10 this chapter;
- 11 (D) Persons engaged in the business of warehousing or
12 storage unless the commission finds that
13 regulation is necessary in the public interest;
- 14 (E) A carrier by water to the extent that the carrier
15 enters into private contracts for towage,
16 salvage, hauling, or carriage between points
17 within the State; provided that the towing,
18 salvage, hauling, or carriage is not pursuant to
19 either an established schedule or an undertaking
20 to perform carriage services on behalf of the
21 public generally;



- 1 (F) A carrier by water, substantially engaged in
2 interstate or foreign commerce, that transports
3 passengers on luxury cruises between points
4 within the State or on luxury round-trip cruises
5 returning to the point of departure;
- 6 (G) Any user, owner, or operator of the Hawaii
7 electric system as defined under section 269-141;
- 8 (H) A telecommunications provider only to the extent
9 determined by the public utilities commission
10 pursuant to section 269-16.9;
- 11 (I) Any person who controls, operates, or manages
12 plants or facilities developed pursuant to
13 chapter 167 for conveying, distributing, and
14 transmitting water for irrigation and other
15 purposes for public use and purpose;
- 16 (J) Any person who owns, controls, operates, or
17 manages plants or facilities for the reclamation
18 of wastewater; provided that:
 - 19 (i) The services of the facility are provided
20 pursuant to a service contract between the
21 person and a state or county agency and at



1 least ten per cent of the wastewater
2 processed is used directly by the state or
3 county agency that entered into the service
4 contract;

5 (ii) The primary function of the facility is the
6 processing of secondary treated wastewater
7 that has been produced by a municipal
8 wastewater treatment facility owned by a
9 state or county agency;

10 (iii) The facility does not make sales of water to
11 residential customers;

12 (iv) The facility may distribute and sell
13 recycled or reclaimed water to entities not
14 covered by a state or county service
15 contract; provided that, in the absence of
16 regulatory oversight and direct competition,
17 the distribution and sale of recycled or
18 reclaimed water shall be voluntary and its
19 pricing fair and reasonable. For purposes
20 of this subparagraph, "recycled water" and
21 "reclaimed water" means treated wastewater



- 1 that by design is intended or used for a
2 beneficial purpose; and
- 3 (v) The facility is not engaged, either directly
4 or indirectly, in the processing of food
5 wastes;
- 6 (K) Any person who owns, controls, operates, or
7 manages any seawater air conditioning district
8 cooling project; provided that at least fifty per
9 cent of the energy required for the seawater air
10 conditioning district cooling system is provided
11 by a renewable energy resource, such as cold,
12 deep seawater;
- 13 (L) Any person who owns, controls, operates, or
14 manages plants or facilities primarily used to
15 charge or discharge a vehicle battery that
16 provides power for vehicle propulsion;
- 17 (M) Any person who:
- 18 (i) Owns, controls, operates, or manages a
19 renewable energy system that is located on a
20 customer's property; and



1 (ii) Provides, sells, or transmits the power
2 generated from that renewable energy system
3 to an electric utility or to the customer on
4 whose property the renewable energy system
5 is located; provided that, for purposes of
6 this subparagraph, a customer's property
7 shall include all contiguous property owned
8 or leased by the customer without regard to
9 interruptions in contiguity caused by
10 easements, public thoroughfares,
11 transportation rights-of-way, and utility
12 rights-of-way; [~~and~~]

13 (N) Any person who owns, controls, operates, or
14 manages a renewable energy system that is located
15 on such person's property and provides, sells, or
16 transmits the power generated from that renewable
17 energy system to an electric utility or to
18 lessees or tenants on the person's property where
19 the renewable energy system is located; provided
20 that:



- 1 (i) An interconnection, as defined in section
2 269-141, is maintained with an electric
3 public utility to preserve the lessees' or
4 tenants' ability to be served by an electric
5 utility;
- 6 (ii) Such person does not use an electric public
7 utility's transmission or distribution lines
8 to provide, sell, or transmit electricity to
9 lessees or tenants;
- 10 (iii) At the time that the lease agreement is
11 signed, the rate charged to the lessee or
12 tenant for the power generated by the
13 renewable energy system shall be no greater
14 than the effective rate charged per kilowatt
15 hour from the applicable electric utility
16 schedule filed with the public utilities
17 commission;
- 18 (iv) The rate schedule or formula shall be
19 established for the duration of the lease,
20 and the lease agreement entered into by the



1 lessee or tenant shall reflect such rate
2 schedule or formula;

3 (v) The lease agreement shall not abrogate any
4 terms or conditions of applicable tariffs
5 for termination of services for nonpayment
6 of electric utility services or rules
7 regarding health, safety, and welfare;

8 (vi) The lease agreement shall disclose: (1)
9 the rate schedule or formula for the
10 duration of the lease agreement; (2) that,
11 at the time that the lease agreement is
12 signed, the rate charged to the lessee or
13 tenant for the power generated by the
14 renewable energy system shall be no greater
15 than the effective rate charged per kilowatt
16 hour from the applicable electric utility
17 schedule filed with the public utilities
18 commission; (3) that the lease agreement
19 shall not abrogate any terms or conditions
20 of applicable tariffs for termination of
21 services for nonpayment of electric utility



1 services or rules regarding health, safety,
 2 and welfare; and (4) whether the lease is
 3 contingent upon the purchase of electricity
 4 from the renewable energy system; provided
 5 further that any disputes concerning the
 6 requirements of this provision shall be
 7 resolved pursuant to the provisions of the
 8 lease agreement or chapter 521, if
 9 applicable; and

10 (vii) Nothing in this section shall be construed
 11 to permit wheeling[-] and

12 (O) Any public higher education institution that
 13 owns, controls, operates, or manages a microgrid
 14 that is located at least partially upon or within
 15 the institution's property and provides, sells,
 16 or transmits the power generated from that
 17 microgrid to an electric utility or other
 18 government or private entity users on, or within,
 19 properties adjacent to, or nearby, the
 20 institution's property, whether metered or
 21 master-metered; provided that:



- 1 (i) The institution's property shall include all
2 contiguous property, owned, leased, or
3 otherwise controlled by the institution
4 without regard to interruptions in
5 contiguity caused by easements, public
6 thoroughfares, transportation rights-of-way,
7 and utility rights-of-way;

- 8 (ii) The microgrid in which the institution is
9 participating makes only limited use of an
10 electric public utility's transmission or
11 distribution lines to provide, sell, or
12 transmit electricity. For the purpose of
13 this clause, "limited use" means that the
14 institution only requires the electric
15 utility to install and operate electric
16 lines and facilities to transport
17 electricity from the power source to the
18 microgrid and the microgrid users'
19 electrical systems;

- 20 (iii) The rate charged to any person, lessee, or
21 tenant of the institution or any participant



1 in the microgrid for the power generated and
2 transmitted by the microgrid shall be no
3 greater than the effective rate charged per
4 kilowatt hour from the applicable electric
5 utility schedule filed with, and approved
6 by, the public utilities commission;

7 (iv) Transmittal of electricity within the area
8 covered by the microgrid, particularly from
9 the power source to the microgrid and its
10 users' electrical systems, will be permitted
11 by the applicable electrical utility if the
12 entire microgrid area is: within lands owned
13 or controlled by the State of Hawaii,
14 inclusive of the university and all State of
15 Hawaii government agencies, bodies,
16 entities, boards, and commissions; or (1)
17 does not exceed a total area of acres,
18 (2) does not require the electric utility
19 to transport electricity more than five
20 miles from the power source to the microgrid
21 and the microgrid users' electrical systems



1 microgrid users, and (3) all microgrid
2 users within the microgrid area enter into,
3 or execute, agreements confirming their
4 commitment to establish and operate the
5 microgrid and comply with all applicable
6 rules, terms, conditions, covenants, and
7 restrictions relating thereto.
8 (v) An electric utility may not charge
9 microgrids standby service rates or similar
10 fees and charges for interconnection into
11 the electric utility system; provided that
12 the educational institution shall pay to the
13 electric utility at established rates filed
14 with, and approved by, the public utilities
15 commission: (1) charges for the use of any
16 electricity from the electric utility and
17 (2) either lease rent or similar charge for
18 the use of, or the cost to, install electric
19 lines and facilities to transport
20 electricity from the power source to the



1 microgrid and the microgrid users'
2 electrical systems.

3 If the application of this chapter is ordered by the
4 commission in any case provided in paragraph (2) (C), (D), (H),
5 and (I), the business of any public utility that presents
6 evidence of bona fide operation on the date of the commencement
7 of the proceedings resulting in the order shall be presumed to
8 be necessary to the public convenience and necessity, but any
9 certificate issued under this proviso shall nevertheless be
10 subject to terms and conditions as the public utilities
11 commission may prescribe, as provided in sections 269-16.9 and
12 269-20."

13 SECTION 4. Statutory material to be repealed is bracketed
14 and stricken. New statutory material is underscored.

15 SECTION 5. This Act shall take effect on July 1, 2050.



Report Title:

University of Hawaii; Microgrid

Description:

Exempt microgrids that promote and serve public higher education institutions from regulation as a public utility by the Public Utilities Commission. Adds a definition for "microgrid".

(HB848 HD2)

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