
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 (renewable) energy as the system
21 consumes 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 be appropriately designated
16 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 the
21 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, except as provided in
9 the definition of "public utility" in section 269-1.

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

19 (1) Include lands and buildings owned or controlled by the
20 university and several adjacent or nearby properties,
21 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 adding a new definition to be appropriately inserted
6 and to read:

7 "Microgrid" means a localized electrical system with
8 distributed energy resources, powered by a renewable energy
9 system, as defined in this chapter, 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 that acts as a single controllable entity
13 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 "Public utility":

20 (1) Includes every person who may own, control, operate,
21 or manage as owner, lessee, trustee, receiver, or



1 otherwise, whether under a franchise, charter,
2 license, articles of association, or otherwise, any
3 plant or equipment, or any part thereof, directly or
4 indirectly for public use for the transportation of
5 passengers or freight; for the conveyance or
6 transmission of telecommunications messages; for the
7 furnishing of facilities for the transmission of
8 intelligence by electricity within the State or
9 between points within the State by land, water, or
10 air; for the production, conveyance, transmission,
11 delivery, or furnishing of light, power, heat, cold,
12 water, gas, or oil; for the storage or warehousing of
13 goods; or for the disposal of sewage; provided that
14 the term shall include:

15 (A) An owner or operator of a private sewer company
16 or sewer facility; and

17 (B) A telecommunications carrier or
18 telecommunications common carrier; and

19 (2) Shall not include:

20 (A) An owner or operator of an aerial transportation
21 enterprise;



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



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



1 county agency that entered into the service
2 contract;

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

8 (iii) The facility does not make sales of water to
9 residential customers;

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



- 1 (v) The facility is not engaged, either directly
- 2 or indirectly, in the processing of food
- 3 wastes;

- 4 (K) Any person who owns, controls, operates, or
- 5 manages any seawater air conditioning district
- 6 cooling project; provided that at least fifty per
- 7 cent of the energy required for the seawater air
- 8 conditioning district cooling system is provided
- 9 by a renewable energy resource, such as cold,
- 10 deep seawater;

- 11 (L) Any person who owns, controls, operates, or
- 12 manages plants or facilities primarily used to
- 13 charge or discharge a vehicle battery that
- 14 provides power for vehicle propulsion;

- 15 (M) Any person who:
- 16 (i) Owns, controls, operates, or manages a
- 17 renewable energy system that is located on a
- 18 customer's property; and
- 19 (ii) Provides, sells, or transmits the power
- 20 generated from that renewable energy system
- 21 to an electric utility or to the customer on



1 whose property the renewable energy system
2 is located; provided that, for purposes of
3 this subparagraph, a customer's property
4 shall include all contiguous property owned
5 or leased by the customer without regard to
6 interruptions in contiguity caused by
7 easements, public thoroughfares,
8 transportation rights-of-way, and utility
9 rights-of-way; [~~and~~]

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

18 (i) An interconnection, as defined in section
19 269-141, is maintained with an electric
20 public utility to preserve the lessees' or



1 tenants' ability to be served by an electric
2 utility;

3 (ii) Such person does not use an electric public
4 utility's transmission or distribution lines
5 to provide, sell, or transmit electricity to
6 lessees or tenants;

7 (iii) At the time that the lease agreement is
8 signed, the rate charged to the lessee or
9 tenant for the power generated by the
10 renewable energy system shall be no greater
11 than the effective rate charged per kilowatt
12 hour from the applicable electric utility
13 schedule filed with the public utilities
14 commission;

15 (iv) The rate schedule or formula shall be
16 established for the duration of the lease,
17 and the lease agreement entered into by the
18 lessee or tenant shall reflect such rate
19 schedule or formula;

20 (v) The lease agreement shall not abrogate any
21 terms or conditions of applicable tariffs



1 for termination of services for nonpayment
2 of electric utility services or rules
3 regarding health, safety, and welfare;
4 (vi) The lease agreement shall disclose: (1)
5 the rate schedule or formula for the
6 duration of the lease agreement; (2) that,
7 at the time that the lease agreement is
8 signed, the rate charged to the lessee or
9 tenant for the power generated by the
10 renewable energy system shall be no greater
11 than the effective rate charged per kilowatt
12 hour from the applicable electric utility
13 schedule filed with the public utilities
14 commission; (3) that the lease agreement
15 shall not abrogate any terms or conditions
16 of applicable tariffs for termination of
17 services for nonpayment of electric utility
18 services or rules regarding health, safety,
19 and welfare; and (4) whether the lease is
20 contingent upon the purchase of electricity
21 from the renewable energy system; provided



1 further that any disputes concerning the
2 requirements of this provision shall be
3 resolved pursuant to the provisions of the
4 lease agreement or chapter 521, if
5 applicable; and

6 (vii) Nothing in this section shall be construed
7 to permit wheeling[-]; and

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

18 (i) The institution's property shall include all
19 contiguous property, owned, leased, or
20 otherwise controlled by the institution
21 without regard to interruptions in



- 1 contiguity caused by easements, public
2 thoroughfares, transportation rights-of-way,
3 and utility rights-of-way;
- 4 (ii) The microgrid in which the institution is
5 participating makes only limited use of an
6 electric public utility's transmission or
7 distribution lines to provide, sell, or
8 transmit electricity, meaning that the
9 institution only requires the electric
10 utility to install and operate electric
11 lines and facilities to transport
12 electricity from the power source to the
13 microgrid and the microgrid users'
14 electrical systems;
- 15 (iii) The rate charged to any person, lessee, or
16 tenant of the institution or any participant
17 in the microgrid for the power generated and
18 transmitted by the microgrid shall be no
19 greater than the effective rate charged per
20 kilowatt hour from the applicable electric



1 utility schedule filed with and approved by
2 the public utilities commission;
3 (iv) Transmittal of electricity within the area
4 covered by the microgrid, particularly from
5 the power source to the microgrid and its
6 users' electrical systems, shall be
7 permitted by the applicable electrical
8 utility if the entire microgrid area is
9 within lands owned or controlled by the
10 State, inclusive of the university and all
11 state government agencies, bodies, entities,
12 boards, and commissions, or (1) does not
13 exceed a total area of acres; (2) does
14 not require the electric utility to
15 transport electricity more than five miles
16 from the power source to the microgrid and
17 the microgrid users' electrical systems
18 microgrid users; and (3) all microgrid
19 users within the microgrid area enter into
20 or execute agreements confirming their
21 commitment to establish and operate the



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

19 If the application of this chapter is ordered by the
20 commission in any case provided in paragraph (2) (C), (D), (H),
21 and (I), the business of any public utility that presents



1 evidence of bona fide operation on the date of the commencement
 2 of the proceedings resulting in the order shall be presumed to
 3 be necessary to the public convenience and necessity, but any
 4 certificate issued under this proviso shall nevertheless be
 5 subject to terms and conditions as the public utilities
 6 commission may prescribe, as provided in sections 269-16.9 and
 7 269-20."

8 SECTION 4. There is appropriated out of the general
 9 revenues of the State of Hawaii the sum of \$ or so much
 10 thereof as may be necessary for fiscal year 2017-2018 and the
 11 same sum or so much thereof as may be necessary for fiscal year
 12 2018-2019 for the University of Hawaii to build transmission and
 13 distribution lines to connect energy projects on multiple
 14 parcels of land.

15 The sums appropriated shall be expended by the University
 16 of Hawaii for the purposes of this Act.

17 SECTION 5. Statutory material to be repealed is bracketed
 18 and stricken. New statutory material is underscored.

19 SECTION 6. This Act shall take effect on July 1, 2017.



Report Title:

University of Hawaii; Microgrid

Description:

Exempts 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". Appropriates funds. (HB848 HD1)

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