

JAN 25 2017

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,
7 which is a rapidly emerging technology that can play a key role
8 in expanding the use of clean energy to serve persons and
9 buildings in the State that have been unable to enjoy its
10 benefits.

11 The legislature further finds that "microgrids", which is
12 generally defined as a localized electrical system composed of
13 interconnected loads and distributed energy resources within
14 clearly defined electrical boundaries, is a positive step toward
15 achieving Hawaii's energy goals. Microgrids can facilitate the
16 achievement of Hawaii's clean energy policies by enabling the
17 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 engender
11 great value to isolated and rural areas of our State or provide
12 overriding public benefit in areas such as education, health,
13 housing, transportation and other community service areas.

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

22 The legislature additionally finds that Act 99 is in line
23 with the policy goal of achieving a renewable portfolio standard

1 of one hundred per cent by 2045 as set forth in Act 97, Session
2 Laws of Hawaii 2015.

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

12 SECTION 2. Chapter 304A, Hawaii Revised Statutes, is
13 amended by adding a new section to be appropriately designated
14 and to read as follows:

15 "§304A- Microgrid project. (a) Notwithstanding any
16 other law to the contrary, the university is authorized to
17 establish, implement, and operate one or more microgrid projects
18 at or within any properties owned, leased, or controlled by the
19 university.

20 (b) Nothing in this section shall preclude the university
21 from working with and receiving assistance from any other
22 department or agency in carrying out the purposes of this
23 section.

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

5 (d) For purposes of this section, a "microgrid" means a
6 localized electrical system with distributed energy resources,
7 operated by the university or one in which the university
8 participates, that is powered by a renewable energy system, as
9 defined in chapter 269, that may include energy storage,
10 generation, or both, to serve interconnected loads of one or
11 more persons or buildings within clearly defined electrical
12 boundaries that acts as a single controllable entity with
13 respect to the grid and that can: (1) include lands and
14 buildings owned or controlled by the university and several
15 adjacent or nearby properties, all having different tax map key
16 designations, and (2) operate either independent of or in
17 parallel with the utility grid."

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

20 (1) By inserting a new definition to be appropriately
21 inserted and to read as follows:

22 "Microgrid" means a localized electrical system with
23 distributed energy resources, powered by a renewable energy

1 system, as defined in this chapter, that may include energy
2 storage, generation, or both, to serve interconnected loads of
3 one or more persons or buildings within clearly defined
4 electrical boundaries that acts as a single controllable entity
5 with respect to the grid and can: (1) include several adjacent
6 or nearby properties having different tax map key designations
7 and (2) operate either independent of or in parallel with the
8 utility grid."

9 (2) By amending the definition of "public utility" to read
10 as follows:

11 "Public utility":

12 (1) Includes every person who may own, control, operate,
13 or manage as owner, lessee, trustee, receiver, or
14 otherwise, whether under a franchise, charter,
15 license, articles of association, or otherwise, any
16 plant or equipment, or any part thereof, directly or
17 indirectly for public use for the transportation of
18 passengers or freight; for the conveyance or
19 transmission of telecommunications messages; for the
20 furnishing of facilities for the transmission of
21 intelligence by electricity within the State or
22 between points within the State by land, water, or
23 air; for the production, conveyance, transmission,

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1 delivery, or furnishing of light, power, heat, cold,
2 water, gas, or oil; for the storage or warehousing of
3 goods; or for the disposal of sewage; provided that
4 the term shall include:

5 (A) An owner or operator of a private sewer company
6 or sewer facility; and

7 (B) A telecommunications carrier or
8 telecommunications common carrier; and

9 (2) Shall not include:

10 (A) An owner or operator of an aerial transportation
11 enterprise;

12 (B) An owner or operator of a taxicab as defined in
13 this section;

14 (C) Common carriers that transport only freight on
15 the public highways, unless operating within
16 localities, along routes, or between points that
17 the public utilities commission finds to be
18 inadequately serviced without regulation under
19 this chapter;

20 (D) Persons engaged in the business of warehousing or
21 storage unless the commission finds that
22 regulation is necessary in the public interest;

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- 1 (E) A carrier by water to the extent that the carrier
2 enters into private contracts for towage,
3 salvage, hauling, or carriage between points
4 within the State; provided that the towing,
5 salvage, hauling, or carriage is not pursuant to
6 either an established schedule or an undertaking
7 to perform carriage services on behalf of the
8 public generally;
- 9 (F) A carrier by water, substantially engaged in
10 interstate or foreign commerce, that transports
11 passengers on luxury cruises between points
12 within the State or on luxury round-trip cruises
13 returning to the point of departure;
- 14 (G) Any user, owner, or operator of the Hawaii
15 electric system as defined under section 269-141;
- 16 (H) A telecommunications provider only to the extent
17 determined by the public utilities commission
18 pursuant to section 269-16.9;
- 19 (I) Any person who controls, operates, or manages
20 plants or facilities developed pursuant to
21 chapter 167 for conveying, distributing, and
22 transmitting water for irrigation and other
23 purposes for public use and purpose;

- 1 (J) Any person who owns, controls, operates, or
2 manages plants or facilities for the reclamation
3 of wastewater; provided that:
- 4 (i) The services of the facility are provided
5 pursuant to a service contract between the
6 person and a state or county agency and at
7 least ten per cent of the wastewater
8 processed is used directly by the state or
9 county agency that entered into the service
10 contract;
- 11 (ii) The primary function of the facility is the
12 processing of secondary treated wastewater
13 that has been produced by a municipal
14 wastewater treatment facility owned by a
15 state or county agency;
- 16 (iii) The facility does not make sales of water to
17 residential customers;
- 18 (iv) The facility may distribute and sell recycled
19 or reclaimed water to entities not covered
20 by a state or county service contract;
21 provided that, in the absence of regulatory
22 oversight and direct competition, the
23 distribution and sale of recycled or

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1 reclaimed water shall be voluntary and its
2 pricing fair and reasonable. For purposes
3 of this subparagraph, "recycled water" and
4 "reclaimed water" means treated wastewater
5 that by design is intended or used for a
6 beneficial purpose; and

7 (v) The facility is not engaged, either directly
8 or indirectly, in the processing of food
9 wastes;

10 (K) Any person who owns, controls, operates, or
11 manages any seawater air conditioning district
12 cooling project; provided that at least fifty per
13 cent of the energy required for the seawater air
14 conditioning district cooling system is provided
15 by a renewable energy resource, such as cold,
16 deep seawater;

17 (L) Any person who owns, controls, operates, or
18 manages plants or facilities primarily used to
19 charge or discharge a vehicle battery that
20 provides power for vehicle propulsion;

21 (M) Any person who:

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- 1 (i) Owns, controls, operates, or manages a
2 renewable energy system that is located on a
3 customer's property; and
- 4 (ii) Provides, sells, or transmits the power
5 generated from that renewable energy system
6 to an electric utility or to the customer on
7 whose property the renewable energy system
8 is located; provided that, for purposes of
9 this subparagraph, a customer's property
10 shall include all contiguous property owned
11 or leased by the customer without regard to
12 interruptions in contiguity caused by
13 easements, public thoroughfares,
14 transportation rights-of-way, and utility
15 rights-of-way; [and]
- 16 (N) Any person who owns, controls, operates, or
17 manages a renewable energy system that is located
18 on such person's property and provides, sells, or
19 transmits the power generated from that renewable
20 energy system to an electric utility or to
21 lessees or tenants on the person's property where
22 the renewable energy system is located; provided
23 that:

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- 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
21 lessee or tenant shall reflect such rate
22 schedule or formula;

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

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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 (0) 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
22 contiguity caused by easements, public

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1 thoroughfares, transportation rights-of-way,
2 and utility rights-of-way;

3 (ii) The microgrid in which the institution is
4 participating makes only limited use of an
5 electric public utility's transmission or
6 distribution lines to provide, sell, or
7 transmit electricity, meaning that the
8 institution only requires the electric
9 utility to install and operate electric
10 lines and facilities to transport
11 electricity from the power source to the
12 microgrid and the microgrid users'
13 electrical systems;

14 (iii) The rate charged to any person, lessee, or
15 tenant of the institution or any participant
16 in the microgrid for the power generated and
17 transmitted by the microgrid shall be no
18 greater than the effective rate charged per
19 kilowatt hour from the applicable electric
20 utility schedule filed with and approved by
21 the public utilities commission;

22 (iv) Transmittal of electricity within the area
23 covered by the microgrid, particularly from

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1 the power source to the microgrid and its
2 users' electrical systems, will be permitted
3 by the applicable electrical utility if the
4 entire microgrid area is within lands owned
5 or controlled by the State of Hawaii,
6 inclusive of the university and all State of
7 Hawaii government agencies, bodies,
8 entities, boards, and commissions, or (1)
9 does not exceed a total area of _____ acres,
10 (2) does not require the electric utility to
11 transport electricity more than five miles
12 from the power source to the microgrid and
13 the microgrid users' electrical systems
14 microgrid users, and (3) all microgrid users
15 within the microgrid area enter into or
16 execute agreements confirming their
17 commitment to establish and operate the
18 microgrid and comply with all applicable
19 rules, terms, conditions, covenants, and
20 restrictions relating thereto.
21 (v) An electric utility may not charge
22 microgrids standby service rates or similar
23 fees and charges for interconnection into

1 the electric utility system; provided that
2 the educational institution shall pay to the
3 electric utility at established rates filed
4 with and approved by the public utilities
5 commission: (1) charges for the use of any
6 electricity from the electric utility and
7 (2) either lease rent or similar charge for
8 the use of or the cost to install electric
9 lines and facilities to transport
10 electricity from the power source to the
11 microgrid and the microgrid users'
12 electrical systems.

13 If the application of this chapter is ordered by the
14 commission in any case provided in paragraph (2) (C), (D), (H),
15 and (I), the business of any public utility that presents
16 evidence of bona fide operation on the date of the commencement
17 of the proceedings resulting in the order shall be presumed to
18 be necessary to the public convenience and necessity, but any
19 certificate issued under this proviso shall nevertheless be
20 subject to terms and conditions as the public utilities
21 commission may prescribe, as provided in sections 269-16.9 and
22 269-20."

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1 SECTION 4. Statutory material to be repealed is bracketed
2 and stricken. New statutory material is underscored.

3 SECTION 5. This Act, upon its approval, shall take effect
4 on July 1, 2017.

5

6

INTRODUCED BY: Ann A. M.

7

BY REQUEST

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; add a definition for "microgrid".

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

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JUSTIFICATION SHEET

DEPARTMENT: University of Hawaii

TITLE: RELATING TO ENERGY MODERNIZATION AT THE UNIVERSITY OF HAWAII SYSTEM.

PURPOSE: To exempt microgrids that promote and serve public higher education institutions from regulation as a public utility by the Public Utilities Commission; add a definition for "microgrid".

MEANS: Add a new section to chapter 304A, Hawaii Revised Statutes (HRS), and amend section 269-1, HRS.

JUSTIFICATION: Act 99, Session Laws of Hawaii 2015, established a goal for the University of Hawaii (UH) to become net-zero, with respect to energy use, by producing as much renewable energy as may be needed to support UH campuses by January 1, 2035. This goal is consistent with the State's overall policy goal of achieving a 100 per cent renewable energy portfolio standard by 2045.

While Hawaii is a national leader in developing renewable energy, barriers remain that inhibit the development of microgrids, which is a rapidly emerging technology that can use renewable energy as the primary power source. Microgrids can play a key role in expanding the availability of clean energy to serve persons and buildings in the State that have so far been unable to enjoy its benefits.

Two key barriers to the development of microgrids in Hawaii include: (1) existing statutes, ordinances, and rules that could prevent or have the effect of preventing the development of microgrids and (2) potential regulation of microgrids as public utilities

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by the Public Utilities Commission. Microgrids are expected to make the use of renewable energy more readily available to the University and other users.

The purpose of this Act is to encourage and facilitate the development and use of microgrids and renewable energy at various University campuses and facilities. The Act seeks to achieve this purpose by: (a) expanding access to locally generated renewable energy and advanced distributed energy resources and (b) exempting microgrids that serve public higher education institutions from regulation as a public utility by the Public Utility Commission.

GENERAL FUND: None.

OTHER FUNDS: None.

PPBS PROGRAM
DESIGNATION: UOH-800, UOH-700, UOH-100.

OTHER AFFECTED
AGENCIES: Public Utilities Commission.

EFFECTIVE DATE: July 1, 2017.