
A BILL FOR AN ACT

RELATING TO ELECTRICITY.

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

1 SECTION 1. The legislature finds that the capability and
2 accessibility of Hawaii's electrical system must be aligned with
3 both the State's ambitious renewable portfolio standard mandate
4 and the various technologies that generate electricity at both
5 the distribution and transmission levels. Localized energy-
6 generation technology has become increasingly attainable for all
7 types of renewable energy developers and the electricity
8 consumer over the past several years. A highly diverse set of
9 generation resources ranging from large wind projects to simple
10 residential photovoltaic systems are now primed to deliver
11 electricity to consumers across the State's isolated island
12 grids. However, to ensure that these types of generation
13 resources can be integrated into the island grids, the
14 technical, operational, and regulatory issues associated with
15 running the electrical system must be considered and addressed
16 to achieve the full potential of local renewable energy
17 production. The implementation of formal reliability standards
18 to govern all segments of the electric power system and to



1 ensure fair and transparent grid access is a critical part of
2 achieving Hawaii's lofty clean energy requirements. Moreover,
3 clear regulatory oversight of the State's grids will ensure
4 system reliability, resiliency, and accountability.

5 Reliability standards are formal planning and operating
6 procedures that govern the design and operation of an electrical
7 grid or grids to ensure adequate system reliability by
8 establishing real-time protocols, such as resource and demand
9 balancing, critical-infrastructure protection, and
10 interconnection reliability. The legislature finds that
11 electric system planning, operations, and interconnections on
12 the mainland United States are governed by a well-coordinated
13 effort headed by the Federal Energy Regulatory Commission and
14 the North American Electric Reliability Corporation, with help
15 from a group of subordinate regional oversight entities
16 ("regional entities"). Under federal commission oversight, the
17 corporation and the regional entities collectively create and
18 adopt national and regional reliability standards, administer
19 related compliance and enforcement programs, and perform other
20 additional functions as needed to ensure that all entities
21 operating in connection to the bulk-power system follow
22 applicable standards. Although Hawaii is not part of the bulk-



1 power system that links the vast grid regions of North America,
2 our local electrical system still requires a level of
3 reliability protocols and oversight provided by a set of local
4 standards and an accompanying enforcement system that is
5 commensurate with the State's ambitious renewable energy
6 mandates.

7 The public utilities commission continues to advance the
8 development of local grid reliability standards and procedures
9 via ongoing proceedings connected to Hawaii's feed-in tariff
10 program and other interconnection-related dockets. The
11 reliability standards working group is developing proposed
12 reliability standards tailored to Hawaii's electrical system.
13 Following the commission's adoption of reliability standards, a
14 dedicated body will be required to enforce and oversee
15 compliance with the standards. However, the legislature finds
16 the commission's efforts in this area are the result of a lack
17 of formal, well-developed reliability and interconnection
18 standards in Hawaii that have been identified as a principal
19 roadblock for a number of large- and small-scale clean energy
20 projects. Furthermore, a number of major government and private
21 renewable energy projects are currently slated for development
22 in the near future, including military solar installations



1 estimated to generate hundreds of megawatts of electricity on
2 Oahu by the middle of this decade, which further necessitates
3 the adoption of strong, formalized reliability standards and
4 interconnection requirements. Following the creation of initial
5 standards, a well-organized, continuing effort to enforce the
6 adopted standards, propose new or update existing standards, and
7 oversee grid access will be required.

8 The purpose of this Act is to authorize the public
9 utilities commission to perform necessary electric system
10 reliability and grid access oversight functions, and to allow
11 the commission to contract for the services of a Hawaii
12 electricity reliability administrator to support the commission
13 in carrying out those critical functions throughout the State.
14 In addition, this Act allows for the creation of a surcharge
15 affecting users and operators of the Hawaii electric system to
16 be collected for the purpose of maintaining system reliability.

17 SECTION 2. Chapter 269, Hawaii Revised Statutes, is
18 amended by adding a new part to be appropriately designated and
19 to read as follows:

20 **"PART . ELECTRIC RELIABILITY**

21 **§269-A Definitions.** As used in this part:



1 "Ancillary services" means those essential grid support
2 services provided by a facility or other equipment to support
3 and ensure the reliable generation, transmission, and
4 distribution of electricity, including frequency response and
5 regulation, inertial response, reactive power and voltage
6 control, and operating reserves.

7 "Commission" means the public utilities commission.

8 "Electric element" means any plant, line, cable, facility,
9 control system, equipment, or other technology used for the
10 generation, transmission, distribution, storage, regulation, or
11 physical control of electricity.

12 "Hawaii electric system" means all electric elements
13 located within the State, together with all interconnections
14 located within the State, that collectively provide for the
15 generation, transmission, distribution, storage, regulation, or
16 physical control of electricity over a geographic area; provided
17 that this definition shall not include any electric element
18 operating without any interconnection to any other electric
19 element located within the State.

20 "Interconnection" means the physical contact point
21 connecting an electric element to another electric element or
22 group of electric elements that allows for the flow and transfer



1 of electricity from one electric element to another or the
2 reverse.

3 "Interconnection requirement" means a standard or rule,
4 adopted by the commission under this part, concerning the
5 performance levels, processes, practices, equipment, or
6 facilities of any entity either having or seeking to obtain an
7 interconnection to the Hawaii electric system under procedures
8 established pursuant to section 269-E to ensure the reliable
9 operation of the Hawaii electric system.

10 "Reliability standard" means an electric reliability
11 requirement or requirements, adopted by the commission under
12 this part, to ensure the reliable design and operation of any or
13 all portions of the Hawaii electric system, including ancillary
14 service requirements.

15 "User, owner, or operator of the Hawaii electric system"
16 means any person, business, organization, or other entity who:

- 17 (1) Owns, controls, operates, or manages plants or
18 facilities for the generation, transmission, or
19 furnishing of electricity; and
- 20 (2) Provides, sells, or transmits all of that power,
21 except such power as is used in its own internal
22 operations or is used for its own consumption,



1 directly to a public utility for either transmission
2 or distribution to the public;
3 provided that a user, owner, or operator of the Hawaii electric
4 system shall not be considered a public utility within the
5 meaning of this chapter.

6 §269-B Reliability standards; adoption and development;
7 force and effect; interconnection requirements. (a) The
8 commission may adopt, by rule or order, reliability standards
9 and interconnection requirements. Reliability standards and
10 interconnection requirements adopted by the commission shall
11 have the full force and effect of law on all electric utilities
12 and any user, owner, or operator of the Hawaii electric system.
13 The commission shall not contract for the performance of the
14 functions under this subsection to any other entity as provided
15 under section 269-G.

16 (b) The commission may develop reliability standards and
17 interconnection requirements as it determines necessary or upon
18 recommendation from any entity, including an entity contracted
19 by the commission to serve as the Hawaii electricity reliability
20 administrator provided for under this part, for the continuing
21 reliable design and operation of the Hawaii electric system.
22 Any reliability standard or interconnection requirement



1 developed by the commission shall be adopted by the commission
2 in accordance with subsection (a) in order to be effective. The
3 commission shall not contract for the performance of the
4 functions under this subsection to any other entity as provided
5 under section 269-G.

6 (c) The commission shall have jurisdiction over matters
7 concerning interconnection requirements and interconnections
8 located in the State between electric utilities, any user,
9 owner, or operator of the Hawaii electric system, or any other
10 person, business, or entity connecting to the Hawaii electric
11 system or otherwise applying to connect generation or equipment
12 providing ancillary services to or operate generation and
13 equipment providing ancillary services in parallel with the
14 Hawaii electric system under processes established in accordance
15 with section 269-E. Nothing in this subsection is intended to
16 give the commission general supervision authority over any user,
17 owner, or operator of the Hawaii electric system or any other
18 person, business, or entity that is not a public utility as
19 defined in section 269-1.

20 §269-C Monitoring. (a) The commission shall have the
21 authority to monitor the reliability and operation of the Hawaii
22 electric system using any data, files, maps, reports, or any



1 other information concerning any electric utility; any user,
2 owner, or operator of the Hawaii electric system; or any other
3 person, business, or entity connecting to the Hawaii electric
4 system, considered by the commission to be necessary for
5 ensuring the reliable operation of the Hawaii electric system.
6 The authority of the commission to monitor information in this
7 section shall include the authority to request, acquire, or
8 otherwise accumulate real-time data on any matter the commission
9 deems necessary to monitor the reliable design and operation of
10 the Hawaii electric system.

11 (b) The commission shall have the authority to monitor
12 and compel the production of data, files, maps, reports, or any
13 other information concerning any electric utility; any user,
14 owner, or operator of the Hawaii electric system; or other
15 person, business, or entity, considered by the commission to be
16 necessary for exercising jurisdiction over interconnection to
17 the Hawaii electric system, or for administering the process for
18 interconnection to the Hawaii electric system under section 269-
19 E.

20 (c) Any and all data, files, maps, reports, or any other
21 information the commission requests under subsection (a) and
22 subsection (b) shall be produced in a timely manner. The



1 commission may institute proceedings in accordance with section
2 269-15 upon a determination that any party for or on behalf of
3 an electric utility; any other user, owner, or operator of the
4 Hawaii electric system; or other person, business, or entity,
5 has refused to provide or is causing unreasonable delay in
6 providing information requested under this section.

7 §269-D Compliance and enforcement. (a) The commission
8 shall take all necessary steps, including audits, spot checks,
9 data requests, report requests, and internal monitoring
10 procedures, to ensure that any electric utility; any user,
11 owner, or operator of the Hawaii electric system; or any other
12 person, business, or entity connecting to the Hawaii electric
13 system is in compliance with all adopted reliability standards
14 and interconnection requirements, as appropriate.

15 (b) The commission may impose reasonable penalties on any
16 user, owner, or operator of the Hawaii electric system, or any
17 other person, business, or entity connecting to the Hawaii
18 electric system acting in violation of an adopted reliability
19 standard after notice as provided under section 269-12 and an
20 opportunity for a proceeding under section 269-15 has been
21 given. The commission shall adopt rules pursuant to chapter 91
22 for the issuance of any penalty under this section. In adopting



1 rules, the commission may make provisions for the Hawaii
2 electricity reliability administrator to recommend penalties and
3 enforcement to the commission.

4 §269-E Grid access; procedures for interconnection;
5 dispute resolution. (a) Each user, owner, or operator of the
6 Hawaii electric system, or any other person, business, or entity
7 seeking to make an interconnection on the Hawaii electric system
8 shall do so in accordance with procedures to be established by
9 the commission by rule or order.

10 (b) The commission shall have the authority to make final
11 determinations regarding any dispute between any user, owner, or
12 operator of the Hawaii electric system, or any other person,
13 business, or entity connecting to the Hawaii electric system,
14 concerning either an existing interconnection on the Hawaii
15 electric system or an interconnection to the Hawaii electric
16 system created under the processes established by the commission
17 under this section.

18 §269-F Hawaii electricity reliability surcharge;
19 authorization; cost recovery. (a) The commission may require,
20 by rule or order, that all utilities, persons, businesses, or
21 entities connecting to the Hawaii electric system, or any other
22 user, owner, or operator of any electric element that is a part



1 of an interconnection on the Hawaii electric system shall pay a
2 surcharge that shall be collected by Hawaii's electric
3 utilities. The commission shall not contract or otherwise
4 delegate the ability to create the Hawaii electricity
5 reliability surcharge under this section to any other entity.
6 This surcharge amount shall be known as the Hawaii electricity
7 reliability surcharge.

8 (b) Amounts collected through the Hawaii electricity
9 reliability surcharge shall be transferred in whole or in part
10 to any entity contracted by the commission to act as the Hawaii
11 electricity reliability administrator provided for under this
12 part.

13 (c) The Hawaii electricity reliability surcharge shall be
14 used for the purposes of ensuring the reliable operation of the
15 Hawaii electric system and overseeing grid access on the Hawaii
16 electric system through the activities of the Hawaii electricity
17 reliability administrator contracted under section 269-G;
18 provided that amounts collected under the Hawaii electricity
19 reliability surcharge shall not be available to meet any current
20 or past general obligations of the State.

21 (d) The commission may allow a utility to recover
22 appropriate and reasonable costs under the Hawaii electricity



1 reliability surcharge for any interconnection to the Hawaii
2 electric system, including interconnection studies and other
3 analyses associated with studying the impact of necessary
4 infrastructure and operational requirements needed to reliably
5 interconnect a generator and from electric utility customers
6 through a surcharge or assessment subject to review and approval
7 by the commission under section 269-16.

8 (e) Nothing in this section shall create or be construed
9 to cause amounts collected through the Hawaii electricity
10 reliability surcharge to be considered state or public moneys
11 subject to appropriation by the legislature or be required to be
12 deposited into the state treasury.

13 **§269-G Hawaii electricity reliability administrator;**
14 **contracting.** (a) The commission may contract for the
15 performance of its functions under this part to a person,
16 business, or organization that will serve as the Hawaii
17 electricity reliability administrator provided for under this
18 part, but excluding any utility as defined under this chapter;
19 provided that the commission shall not contract for the
20 performance of its functions under sections 269-B(a) and (b) and
21 269-F. The commission shall select an entity with which to
22 contract for the performance of its functions in accordance with



1 state law, including contracting in compliance with chapter
2 103D.

3 (b) Any entity contracted by the commission to serve as
4 the Hawaii electricity reliability administrator under this
5 section must be selected by the commission in accordance with
6 state law, including chapter 103D. The Hawaii electricity
7 reliability administrator shall, if so enabled by the commission
8 through mutual agreement under the laws of the State of Hawaii,
9 hold the powers and rights delegated by the commission under
10 this part for the term of the executed contract; provided that
11 the commission shall retain both full authority over the Hawaii
12 electricity reliability administrator and the exclusive
13 authority to carry out functions and responsibilities enumerated
14 under sections 269-B(a) and (b) and 269-F.

15 **§269-H Hawaii electricity reliability administrator;**
16 **qualifications.** Any entity contracted by the commission to
17 serve as the Hawaii electricity reliability administrator shall:

18 (1) Satisfy the qualification requirements established by
19 the commission by rule or order;

20 (2) Maintain reasonable and necessary staffing with the
21 appropriate skills and expertise to offer prudent and
22 reasonable recommendations on the development of



1 reliability standards and interconnection requirements
2 adopted by the commission under this part, including
3 the technical skills required to properly monitor
4 operations of the Hawaii electric system using
5 information provided under section 269-C; and

- 6 (3) Maintain reasonable and necessary staffing with the
7 appropriate level of independence to fairly and
8 impartially review matters concerning interconnection
9 to the Hawaii electric system under section 269-E,
10 including independence of the entity from any electric
11 utility; any user, owner, or operator of the Hawaii
12 electric system; or any other person, business, or
13 entity connecting to the Hawaii electric system.

14 **§269-I Funding; reporting.** (a) The Hawaii electricity
15 reliability administrator shall use funds collected through the
16 Hawaii electricity reliability surcharge provided for under
17 section 269-F to carry out its operations, including any and all
18 administrative, technological, or other related requirements for
19 effectively ensuring the reliability of the Hawaii electric
20 system.

21 (b) The Hawaii electricity reliability administrator shall
22 report to the commission each year on the date of agreement



1 under section 269-G following the original contract between the
2 Hawaii electricity reliability administrator and the commission
3 on the status of its operations, its financial position, and a
4 projected operational budget for the fiscal year following the
5 date of the report.

6 (c) The Hawaii electricity reliability administrator shall
7 be subject to regulation by the commission under any provision
8 applicable to a public utility in sections 269-7, 269-8, 269-
9 8.2, 269-8.5, 269-9, 269-10, 269-13, 269-15, 269-19.5, and 269-
10 28. Notwithstanding any other provision of law to the contrary,
11 the Hawaii electricity reliability administrator shall not be an
12 electric public utility or an electric public utility
13 affiliate."

14 SECTION 3. Section 269-1, Hawaii Revised Statutes, is
15 amended by amending the definition of "public utility" to read
16 as follows:

17 "Public utility":

18 (1) Includes every person who may own, control, operate,
19 or manage as owner, lessee, trustee, receiver, or
20 otherwise, whether under a franchise, charter,
21 license, articles of association, or otherwise, any
22 plant or equipment, or any part thereof, directly or



1 indirectly for public use for the transportation of
2 passengers or freight; for the conveyance or
3 transmission of telecommunications messages; for the
4 furnishing of facilities for the transmission of
5 intelligence by electricity within the State or
6 between points within the State by land, water, or
7 air; for the production, conveyance, transmission,
8 delivery, or furnishing of light, power, heat, cold,
9 water, gas, or oil; for the storage or warehousing of
10 goods; or for the disposal of sewage; provided that
11 the term shall include:

12 (A) An owner or operator of a private sewer company
13 or sewer facility; and

14 (B) A telecommunications carrier or
15 telecommunications common carrier; and

16 (2) Shall not include:

17 (A) An owner or operator of an aerial transportation
18 enterprise;

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

21 (C) Common carriers that transport only freight on
22 the public highways, unless operating within



1 localities, along routes, or between points that
2 the public utilities commission finds to be
3 inadequately serviced without regulation under
4 this chapter;

5 (D) Persons engaged in the business of warehousing or
6 storage unless the commission finds that
7 regulation is necessary in the public interest;

8 (E) A carrier by water to the extent that the carrier
9 enters into private contracts for towage,
10 salvage, hauling, or carriage between points
11 within the State; provided that the towing,
12 salvage, hauling, or carriage is not pursuant to
13 either an established schedule or an undertaking
14 to perform carriage services on behalf of the
15 public generally;

16 (F) A carrier by water, substantially engaged in
17 interstate or foreign commerce, that transports
18 passengers on luxury cruises between points
19 within the State or on luxury round-trip cruises
20 returning to the point of departure;

21 (G) ~~[Any person who-~~



- 1 ~~(i) Controls, operates, or manages plants or~~
2 ~~facilities for the production, transmission,~~
3 ~~or furnishing of power primarily or entirely~~
4 ~~from nonfossil fuel sources; and~~
- 5 ~~(ii) Provides, sells, or transmits all of that~~
6 ~~power, except as is used in its own internal~~
7 ~~operations, directly to a public utility for~~
8 ~~transmission to the public,] Any user,~~
9 ~~owner, or operator of the Hawaii electric~~
10 ~~system as defined under section 269-A;~~
- 11 (H) A telecommunications provider only to the extent
12 determined by the public utilities commission
13 pursuant to section 269-16.9;
- 14 (I) Any person who controls, operates, or manages
15 plants or facilities developed pursuant to
16 chapter 167 for conveying, distributing, and
17 transmitting water for irrigation and other
18 purposes for public use and purpose;
- 19 (J) Any person who owns, controls, operates, or
20 manages plants or facilities for the reclamation
21 of wastewater; provided that:



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



1 of this subparagraph, "recycled water" and
2 "reclaimed water" means treated wastewater
3 that by design is intended or used for a
4 beneficial purpose; and

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

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

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

19 (M) Any person who:

20 (i) Owns, controls, operates, or manages a
21 renewable energy system that is located on a
22 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 [~~clause,~~] subparagraph, a customer's
7 property shall include all contiguous
8 property owned or leased by the customer
9 without regard to interruptions in
10 contiguity caused by easements, public
11 thoroughfares, transportation rights-of-way,
12 and utility rights-of-way.

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



1 commission may prescribe, as provided in sections 269-16.9 and
2 269-20."

3 SECTION 4. In codifying the new part and sections added to
4 chapter 269, Hawaii Revised Statutes, by section 2 of this Act,
5 the revisor of statutes shall substitute appropriate section
6 numbers for the letters used in designating and referring to the
7 new sections in this Act.

8 SECTION 5. Statutory material to be repealed is bracketed
9 and stricken. New statutory material is underscored.

10 SECTION 6. This Act shall take effect on July 1, 2012.



Report Title:

Electric Reliability Standards; Interconnection Requirements;
Grid Interconnection; Hawaii Electricity Reliability
Administrator; Hawaii Electricity Reliability Surcharge

Description:

Authorizes the Public Utilities Commission to develop, adopt, and enforce reliability standards and interconnection requirements for the Hawaii electric system, and to oversee electric grid access. Authorizes the Public Utilities Commission to contract for the performance of related duties with a party to be named the Hawaii Electricity Reliability Administrator. Effective July 1, 2012. (HB2525 HD2)

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