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# 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 have not kept pace  
3 with either the State's ambitious renewable portfolio standard  
4 mandate or the various technologies that generate electricity at  
5 both 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, a number of technical, operational, and  
13 regulatory issues concerning Hawaii's long-running electrical  
14 system are stifling the full potential of local renewable energy  
15 production. The implementation of formal electric reliability  
16 standards to govern all segments of the electric power system to  
17 ensure fair and transparent grid access is a critical part of  
18 moving beyond the barriers confronting Hawaii's lofty clean



1 energy requirements. In addition, clear regulatory oversight of  
2 the State's grids would ensure system reliability, resiliency,  
3 and accountability.

4 Electric reliability standards are formal planning and  
5 operating procedures that govern the design and operation of an  
6 electrical grid or grids to ensure the adequate reliability of  
7 that system or set of systems by establishing real-time  
8 protocols, such as resource and demand balancing, critical  
9 infrastructure protection, and interconnection reliability. The  
10 legislature finds that electric system planning, operations, and  
11 interconnections on the mainland United States are governed by a  
12 well-coordinated effort headed by the Federal Energy Regulatory  
13 Commission and the North American Electric Reliability  
14 Corporation, with help from a group of subordinate regional  
15 oversight entities. Under federal commission oversight, the  
16 corporation and the regional entities collectively create and  
17 adopt national and regional reliability standards, administer  
18 related compliance and enforcement programs, and perform other  
19 additional functions as needed to ensure that all entities  
20 operating in connection to the bulk-power system follow  
21 applicable standards. With a recent blackout affecting millions  
22 of people throughout the southwestern United States and northern



1 Mexico, the need for solid reliability standards and  
2 accompanying grid oversight of modern electrical systems is  
3 readily apparent. Although Hawaii is not part of the bulk power  
4 system that links the vast grid regions of North America, our  
5 local electrical system still requires a level of reliability  
6 protocols and oversight provided by a set of local standards and  
7 an accompanying enforcement system that is commensurate with the  
8 State's ambitious renewable energy mandates.

9       The public utilities commission continues to advance the  
10 development of local grid reliability standards and procedures  
11 via ongoing proceedings connected to Hawaii's feed-in tariff  
12 program and other interconnection-related dockets. Initial  
13 reliability standards tailored to Hawaii's electrical system are  
14 being formed by the Hawaii reliability standards working group,  
15 which, following commission approval of acceptable standards  
16 produced by the working group, will require ongoing enforcement  
17 and oversight by a dedicated body. However, the legislature  
18 finds the commission's efforts in this area are the result of a  
19 lack of formal, well-developed reliability and interconnection  
20 standards in Hawaii. This has been identified as a principal  
21 roadblock for a number of big- and small-scale clean energy  
22 projects. The State recently received \$750,000 from the United



1 States Department of Energy to assist in developing technical  
2 reliability standards to connect renewable energy projects to  
3 local grids. In addition, a number of major government and  
4 private renewable energy projects currently slated for  
5 development in the near future, including military solar  
6 installations estimated to create hundreds of megawatts of new  
7 electricity generation on Oahu by the middle of this decade,  
8 further necessitate the adoption of strong, formalized  
9 reliability and interconnection standards. Following the  
10 creation of initial standards, a well-organized, continuing  
11 effort to enforce the adopted standards, propose new or update  
12 existing standards, and oversee grid access will be required.

13 The purpose of this Act is to authorize the public  
14 utilities commission to perform necessary electric system  
15 reliability and grid access oversight functions, and to allow  
16 the commission to contract for the services of a Hawaii  
17 electricity reliability administrator to support the commission  
18 in carrying out these critical functions throughout the State.  
19 In addition, this Act allows for a surcharge affecting users and  
20 operators of the Hawaii electric system for the purpose of  
21 maintaining system reliability.



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

4 "PART . ELECTRIC RELIABILITY

5 §269-A Definitions. As used in this part:

6 "Ancillary services" means those essential grid support  
7 services performed by an entity, facility, or other equipment to  
8 support and ensure the reliable generation, transmission, and  
9 distribution of electricity, including frequency response and  
10 regulation, inertial response, reactive power and voltage  
11 control, and operating reserves.

12 "Commission" means the public utilities commission.

13 "Electric element" means any plant, line, cable, facility,  
14 control system, equipment, or other technology used for the  
15 generation, transmission, distribution, storage, regulation, or  
16 physical control of electricity.

17 "Hawaii electric system" means all electric elements  
18 located within the State together with all interconnections  
19 located within the State that collectively provide for the  
20 generation, transmission, distribution, storage, regulation, or  
21 physical control of electricity over a geographic area; provided  
22 that this definition shall not include any electric element



1 operating without any interconnection to any other electric  
2 element located within the State.

3 "Interconnection" means the physical contact point  
4 connecting an electric element to another electric element or  
5 group of electric elements that allows for the flow and transfer  
6 of electricity from one electric element to another or the  
7 reverse.

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

15 "Reliability standard" means an electric reliability  
16 requirement or requirements, adopted by the commission under  
17 this part, to ensure the reliable design and operation of any or  
18 all portions of the Hawaii electric system, including ancillary  
19 service requirements.

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



1 (1) Owns, controls, operates, or manages plants or  
2 facilities for the generation, transmission, or  
3 furnishing of electricity; and  
4 (2) Provides, sells, or transmits all of that power,  
5 except power used in its own internal operations or  
6 for its own consumption, directly to a public utility  
7 for either transmission or distribution to the public;  
8 provided that a user, owner, or operator of the Hawaii electric  
9 system shall not be considered a public utility within the  
10 meaning of this part.

11 **§269-B Reliability standards; adoption and development;**  
12 **force and effect; interconnection requirements.** (a) The  
13 commission may adopt, by rule or order, standards to ensure the  
14 reliable design and operation of the Hawaii electric system.  
15 Reliability standards adopted by the commission shall have the  
16 full force and effect of law on all utilities and any other  
17 user, owner, or operator of the Hawaii electric system. The  
18 commission shall not contract for the performance of the  
19 functions under this subsection to any other entity under  
20 section 269-F.

21 (b) The commission may develop reliability standards as it  
22 determines necessary or upon recommendation from any entity,



1 including an entity contracted by the commission to serve as the  
2 Hawaii electricity reliability administrator provided for under  
3 this part, for the continuing reliable design and operation of  
4 the Hawaii electric system. Any reliability standard developed  
5 by the commission shall be adopted by the commission in  
6 accordance with subsection (a) to be effective. The commission  
7 shall not contract for the performance of the functions under  
8 this subsection to any other entity under section 269-F.

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

21 **§269-C Monitoring.** (a) The commission shall have the  
22 authority to monitor the reliability and operation of the Hawaii





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

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

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



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

6       **§269-D Compliance and enforcement.** (a) The commission  
7 shall take all necessary steps, including audits, spot checks,  
8 data requests, report requests, and internal monitoring  
9 procedures, to ensure that any utility, person, business, or  
10 entity connecting to the Hawaii electric system, or any other  
11 user, owner, and operator of an element within the Hawaii  
12 electric system is in compliance with all adopted reliability  
13 standards.

14       (b) The commission may impose reasonable penalties on any  
15 person, business, or organization acting in violation of an  
16 adopted reliability standard after notice as provided under  
17 section 269-12 and an opportunity for a proceeding under section  
18 269-15 has been given. Any entity issuing a penalty in the  
19 performance of its duties as Hawaii electricity reliability  
20 administrator provided for under contract with the commission  
21 under section 269-F shall first file with the commission a  
22 notice and record of proceeding pursuant to this subsection.



1 The commission shall adopt rules pursuant to chapter 91 for the  
2 issuance of any penalty under this section.

3 **§269-E Grid access; procedures for interconnection;**  
4 **dispute resolution.** (a) Each person, business, or other entity  
5 seeking to make an interconnection on the Hawaii electric system  
6 shall do so in accordance with procedures to be established by  
7 the commission by rule or order.

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

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



1 269-G. The commission shall select an entity with which to  
2 contract for the performance of its functions in accordance with  
3 state law, including chapter 103D.

4 **§269-G Hawaii electricity reliability surcharge;**  
5 **authorization; cost recovery.** (a) The commission may require,  
6 by rule or order, that all utilities, persons, businesses, or  
7 entities connecting to the Hawaii electric system, or any other  
8 user, owner, or operator of any electric element within the  
9 Hawaii electric system shall pay a surcharge that shall be  
10 collected by Hawaii's electric utilities. The commission shall  
11 not contract or otherwise delegate the ability to create the  
12 Hawaii electricity reliability surcharge under this section to  
13 any other entity. This surcharge amount shall be known as the  
14 Hawaii electricity reliability surcharge.

15 (b) Amounts collected through the Hawaii electricity  
16 reliability surcharge shall be transferred in whole or in part  
17 to the entity contracted by the commission to act as the Hawaii  
18 electricity reliability administrator as provided under this  
19 part.

20 (c) The Hawaii electricity reliability surcharge shall be  
21 used for the purposes of ensuring the reliable operation of the  
22 Hawaii electric system and overseeing grid access on the Hawaii



1 electric system through the activities of the Hawaii electricity  
2 reliability administrator contracted under section 269-H;  
3 provided that amounts collected under the Hawaii electricity  
4 reliability surcharge shall not be available to meet any current  
5 or past general obligations of the State.

6 (d) The commission may allow a utility to recover  
7 appropriate and reasonable costs under the Hawaii electricity  
8 reliability surcharge for any existing interconnection, as  
9 opposed to any new interconnection, to the Hawaii electric  
10 system from electric utility customers through a surcharge or  
11 assessment subject to review and approval by the commission  
12 under section 269-16.

13 (e) Nothing in this section shall create or be construed  
14 to cause amounts collected through the Hawaii electricity  
15 reliability surcharge to be considered state or public moneys  
16 subject to appropriation by the legislature or be required to be  
17 deposited into the state treasury.

18 **§269-H Hawaii electricity reliability administrator;**  
19 **contracting.** (a) The commission may contract with an entity to  
20 serve as the Hawaii electricity reliability administrator for  
21 the purpose of carrying out its functions under this part.



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

14 **§269-I Hawaii electricity reliability administrator;**  
 15 **qualifications.** Any entity contracted by the commission to  
 16 serve as the Hawaii electricity reliability administrator shall:

- 17 (1) Maintain the necessary staff with the appropriate
- 18 skills and expertise to enforce and offer
- 19 recommendations on the development of reliability
- 20 standards adopted by the commission under this part,
- 21 including the technical skills required to properly



1 monitor operations of the Hawaii electric system using  
 2 information provided under section 269-C; and  
 3 (2) Maintain the necessary staff with the appropriate  
 4 level of independence to fairly and impartially review  
 5 matters concerning interconnection to the Hawaii  
 6 electric system under section 269-E, including  
 7 independence of the entity from any utility, person,  
 8 business, or other entity connected to the Hawaii  
 9 electric system, or any user, owner, operator of an  
 10 element within the Hawaii electric system.

11 **§269-J Funding; reporting.** (a) The Hawaii electricity  
 12 reliability administrator shall use funds collected through the  
 13 Hawaii electricity reliability surcharge provided for under  
 14 section 269-G to carry out its operations, including any and all  
 15 administrative, technological, or other related requirements for  
 16 effectively ensuring the reliability of the Hawaii electric  
 17 system.

18 (b) The Hawaii electricity reliability administrator shall  
 19 report to the commission each year on the date of agreement  
 20 under section 269-H following the original contract between the  
 21 Hawaii electricity reliability administrator and the commission  
 22 the status of its operations, its financial position, and a



1 projected operational budget for the fiscal year following the  
2 date of the report.

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

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

14 "Public utility":

15 (1) Includes every person who may own, control, operate,  
16 or manage as owner, lessee, trustee, receiver, or  
17 otherwise, whether under a franchise, charter,  
18 license, articles of association, or otherwise, any  
19 plant or equipment, or any part thereof, directly or  
20 indirectly for public use for the transportation of  
21 passengers or freight; for the conveyance or  
22 transmission of telecommunications messages; for the





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

9           (A) An owner or operator of a private sewer company  
10           or sewer facility; and

11           (B) A telecommunications carrier or  
12           telecommunications common carrier; and

13       (2) Shall not include:

14           (A) An owner or operator of an aerial transportation  
15           enterprise;

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

18           (C) Common carriers that transport only freight on  
19           the public highways, unless operating within  
20           localities, along routes, or between points that  
21           the public utilities commission finds to be



- 1                   inadequately serviced without regulation under  
2                   this chapter;
- 3           (D)   Persons engaged in the business of warehousing or  
4                   storage unless the commission finds that  
5                   regulation is necessary in the public interest;
- 6           (E)   A carrier by water to the extent that the carrier  
7                   enters into private contracts for towage,  
8                   salvage, hauling, or carriage between points  
9                   within the State; provided that the towing,  
10                  salvage, hauling, or carriage is not pursuant to  
11                  either an established schedule or an undertaking  
12                  to perform carriage services on behalf of the  
13                  public generally;
- 14          (F)   A carrier by water, substantially engaged in  
15                  interstate or foreign commerce, that transports  
16                  passengers on luxury cruises between points  
17                  within the State or on luxury round-trip cruises  
18                  returning to the point of departure;
- 19          (G)   ~~[Any person who:~~  
20                  ~~(i)   Controls, operates, or manages plants or~~  
21                  ~~facilities for the production, transmission,~~



1 ~~or furnishing of power primarily or entirely~~  
 2 ~~from nonfossil fuel sources; and~~  
 3 (ii) ~~Provides, sells, or transmits all of that~~  
 4 ~~power, except as is used in its own internal~~  
 5 ~~operations, directly to a public utility for~~  
 6 ~~transmission to the public;] Any user,~~  
 7 owner, or operator of the Hawaii electric  
 8 system as defined under section 269-A;

9 (H) A telecommunications provider only to the extent  
 10 determined by the public utilities commission  
 11 pursuant to section 269-16.9;

12 (I) Any person who controls, operates, or manages  
 13 plants or facilities developed pursuant to  
 14 chapter 167 for conveying, distributing, and  
 15 transmitting water for irrigation and other  
 16 purposes for public use and purpose;

17 (J) Any person who owns, controls, operates, or  
 18 manages plants or facilities for the reclamation  
 19 of wastewater; provided that:

20 (i) The services of the facility are provided  
 21 pursuant to a service contract between the  
 22 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; and

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

21                   (ii) Provides, sells, or transmits the power  
22                   generated from that renewable energy system



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

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

21 SECTION 4. In codifying the new part and sections added to  
 22 chapter 269, Hawaii Revised Statutes, by section 2 of this Act,



1 the revisor of statutes shall substitute appropriate section  
2 numbers for the letters used in designating and referring to the  
3 new sections in this Act.

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

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



**Report Title:**

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

**Description:**

Authorizes the Public Utilities Commission to develop, adopt,  
and enforce reliability standards for electric systems, and to  
oversee electric grid access; authorizes the Public Utilities  
Commission to contract for the performance of related duties  
with a party to be designated as the Hawaii Electricity  
Reliability Administrator. Effective July 1, 2012. (HB2525  
HD1)

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

