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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 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, in order to ensure that these types of  
13  generation resources can be integrated into the island grids,  
14  the technical, operational, and regulatory issues associated  
15  with running the electrical system must be considered and  
16  addressed in order to achieve the full potential of local  
17  renewable energy production. The implementation of formal  
18  reliability standards to govern all segments of the electric



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

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



1 Hawaii is not part of the bulk-power system that links the vast  
2 grid regions of North America, our local electrical system still  
3 requires a level of reliability protocols and oversight provided  
4 by a set of local standards and an accompanying enforcement  
5 system that is commensurate with the State's ambitious renewable  
6 energy 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 Hawaii  
11 reliability standards working group is developing proposed  
12 reliability standards tailored to Hawaii's electrical system.  
13 Following commission 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 standards and  
18 interconnection requirements in Hawaii that have been identified  
19 as a principal roadblock for a number of large- and small-scale  
20 clean energy projects. In addition, a number of major  
21 government and private renewable energy projects are currently  
22 slated for development in the near future, including military



1 solar installations estimated to create hundreds of megawatts of  
2 new electricity generation on Oahu by the middle of this decade,  
3 which further necessitates the adoption of strong, formalized  
4 reliability standards and interconnection requirements.

5 Following the creation of initial standards and requirements, a  
6 well-organized, continuing effort to enforce the adopted  
7 standards and requirements, propose new or update existing  
8 standards, and oversee grid access and operation will be  
9 required.

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

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



1                                   **"PART . ELECTRIC RELIABILITY**

2           **§269-A Definitions.** As used in this part:

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

9           "Commission" means the public utilities commission.

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

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



1 "Interconnection" means the physical contact point  
2 connecting an electric element to another electric element or  
3 group of electric elements that allows for the flow and transfer  
4 of electricity between electric elements.

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

12 "Reliability standard" means an electric reliability  
13 requirement or requirements, adopted by the commission under  
14 this part, to ensure the reliable design and operation of any or  
15 all portions of the Hawaii electric system, including but not  
16 limited to ancillary service requirements.

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

- 19 (1) Owns, controls, operates, or manages plants or  
20 facilities for the generation, transmission, or  
21 furnishing of electricity; and

1 (2) Provides, sells, or transmits all of that electricity,  
2 except such electricity as is used in its own internal  
3 operations or is used for its own consumption,  
4 directly to a public utility for either transmission  
5 or distribution to the public;  
6 provided that a user, owner, or operator of the Hawaii electric  
7 system shall not be considered a public utility for the purposes  
8 of this chapter.

9 **§269-B Reliability standards; interconnection**  
10 **requirements; adoption and development; force and effect. (a)**

11 The commission may adopt, by rule or order, reliability  
12 standards and interconnection requirements. Reliability  
13 standards and interconnection requirements adopted by the  
14 commission shall apply to any electric utility and any user,  
15 owner, or operator of the Hawaii electric system. The  
16 commission shall not contract for the performance of the  
17 functions under this subsection to any other entity as provided  
18 under section 269-G.

19 (b) The commission may develop reliability standards and  
20 interconnection requirements as it determines necessary or upon  
21 recommendation from any entity, including an entity contracted  
22 by the commission to serve as the Hawaii electricity reliability



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

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





1           **§269-C Monitoring.** (a) The commission shall have the  
2 authority to monitor the reliability and operation of the Hawaii  
3 electric system using any data, files, maps, reports, or any  
4 other information concerning any electric utility, any user,  
5 owner, or operator of the Hawaii electric system, or any person,  
6 business, or entity connecting to the Hawaii electric system,  
7 considered by the commission to be necessary for ensuring the  
8 reliable operation of the Hawaii electric system. The authority  
9 of the commission to monitor information in this section shall  
10 include the authority to request, acquire, or otherwise  
11 accumulate real-time data on any matter the commission deems  
12 necessary to monitor the reliable design and operation of the  
13 Hawaii electric system.

14           (b) The commission shall have the authority to monitor and  
15 compel the production of data, files, maps, reports, or any  
16 other information concerning any electric utility, any user,  
17 owner, or operator of the Hawaii electric system, or other  
18 person, business, or entity, considered by the commission to be  
19 necessary for exercising jurisdiction over interconnection to  
20 the Hawaii electric system, or for administering the process for  
21 interconnection to the Hawaii electric system under section  
22 269-E.



1 (c) Any and all data, files, maps, reports, or any other  
2 information the commission requests under subsection (a) or (b)  
3 shall be produced in a timely manner. The commission may  
4 institute proceedings in accordance with section 269-15 upon a  
5 determination that any party for or on behalf of an electric  
6 utility, any other user, owner, or operator of the Hawaii  
7 electric system, or other person, business, or entity, has  
8 refused to provide or is causing unreasonable delay or expense  
9 in providing information requested under this section.

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

18 (b) The commission may impose reasonable penalties on any  
19 user, owner, or operator of the Hawaii electric system, or any  
20 other person, business, or entity connecting to the Hawaii  
21 electric system acting in violation of an adopted reliability  
22 standard after notice as provided under section 269-12 and an



1 opportunity for a proceeding under section 269-15 has been  
2 given.

3 (c) The commission shall adopt rules pursuant to chapter  
4 91 for the issuance of any penalty under this section. In  
5 adopting rules, the commission may make provisions for the  
6 Hawaii electric reliability administrator to recommend penalties  
7 and enforcement to the commission.

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

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



1           **§269-F Hawaii electricity reliability surcharge;**  
2 **authorization; cost recovery.** (a) The commission may require,  
3 by rule or order, that all utilities, persons, businesses, or  
4 entities connecting to the Hawaii electric system, or any other  
5 user, owner, or operator of any electric element that is a part  
6 of an interconnection on the Hawaii electric system shall pay a  
7 surcharge that shall be collected by Hawaii's electric  
8 utilities. The commission shall not contract or otherwise  
9 delegate the ability to create the Hawaii electricity  
10 reliability surcharge under this section to any other entity.  
11 This surcharge amount shall be known as the Hawaii electricity  
12 reliability surcharge.

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

18           (c) The Hawaii electricity reliability surcharge shall be  
19 used for the purposes of ensuring the reliable operation of the  
20 Hawaii electric system and overseeing grid access on the Hawaii  
21 electric system through the activities of the Hawaii electricity  
22 reliability administrator contracted under section 269-G;



1 provided that amounts collected under the Hawaii electricity  
2 reliability surcharge shall not be available to meet any current  
3 or past general obligations of the State.

4 (d) The commission may allow an electric utility to  
5 recover appropriate and reasonable costs under the Hawaii  
6 electricity reliability surcharge for any interconnection to the  
7 Hawaii electric system, including interconnection studies and  
8 other analysis associated with studying the impact or necessary  
9 infrastructure and operational requirements needed to reliably  
10 interconnect a generator, as well as from electric utility  
11 customers through a surcharge or assessment subject to review  
12 and approval by the commission 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-G Hawaii electricity reliability administrator;**  
19 **contracting.** (a) The commission may contract for the  
20 performance of its functions under this part with a person,  
21 business, or organization, except for a public utility as  
22 defined under this chapter, that will serve as the Hawaii



1 electricity reliability administrator provided for under this  
2 part; provided that the commission shall not contract for the  
3 performance of its functions under sections 269-B(a) and (b) and  
4 269-F.

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

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

20 (1) Satisfy the qualification requirements established by  
21 the commission by rule or order;



1           (2) Maintain reasonable and necessary staffing with  
2           appropriate skills and expertise to offer prudent and  
3           reasonable recommendations on the development of  
4           reliability standards and interconnection requirements  
5           adopted by the commission under this part, including  
6           the technical skills required to properly monitor  
7           operations of the Hawaii electric system using  
8           information provided under section 269-C; and

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

17          **§269-I Funding; reporting.** (a) The Hawaii electricity  
18          reliability administrator shall use funds collected through the  
19          Hawaii electricity reliability surcharge provided for under  
20          section 269-F to carry out its operations, including  
21          administrative, technological, or other related requirements for



1 effectively ensuring the reliability of the Hawaii electric  
2 system.

3 (b) The Hawaii electricity reliability administrator shall  
4 report to the commission each year on the date of agreement  
5 under section 269-G following the original contracting between  
6 the Hawaii electricity reliability administrator and the  
7 commission on the status of its operations, financial position,  
8 and a projected operational budget for the fiscal year following  
9 the date of the report.

10 (c) The Hawaii electricity reliability administrator shall  
11 be subject to regulation by the commission under any provision  
12 applicable to a public utility in sections 269-7, 269-8,  
13 269-8.2, 269-8.5, 269-9, 269-10, 269-13, 269-15, 269-19.5, and  
14 269-28. Notwithstanding any other provision of law to the  
15 contrary, the Hawaii electricity reliability administrator shall  
16 not be an electric public utility or an electric public utility  
17 affiliate."

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

21 "Public utility":





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

17 (A) An owner or operator of a private sewer company  
18 or sewer facility; and

19 (B) A telecommunications carrier or  
20 telecommunications common carrier; and

21 (2) Shall not include:



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



1 (F) A carrier by water, substantially engaged in  
2 interstate or foreign commerce, that transports  
3 passengers on luxury cruises between points  
4 within the State or on luxury round-trip cruises  
5 returning to the point of departure;

6 (G) ~~[Any person who:~~  
7 ~~(i) Controls, operates, or manages plants or~~  
8 ~~facilities for the production, transmission,~~  
9 ~~or furnishing of power primarily or entirely~~  
10 ~~from nonfossil fuel sources; and~~  
11 ~~(ii) Provides, sells, or transmits all of that~~  
12 ~~power, except as is used in its own internal~~  
13 ~~operations, directly to a public utility for~~  
14 ~~transmission to the public;]~~ Any user,  
15 owner, or operator of the Hawaii electric  
16 system as defined under section 269-A;

17 (H) A telecommunications provider only to the extent  
18 determined by the public utilities commission  
19 pursuant to section 269-16.9;

20 (I) Any person who controls, operates, or manages  
21 plants or facilities developed pursuant to  
22 chapter 167 for conveying, distributing, and



1 transmitting water for irrigation and other  
2 purposes for public use and purpose;

3 (J) Any person who owns, controls, operates, or  
4 manages plants or facilities for the reclamation  
5 of wastewater; provided that:

6 (i) The services of the facility are provided  
7 pursuant to a service contract between the  
8 person and a state or county agency and at  
9 least ten per cent of the wastewater  
10 processed is used directly by the state or  
11 county agency that entered into the service  
12 contract;

13 (ii) The primary function of the facility is the  
14 processing of secondary treated wastewater  
15 that has been produced by a municipal  
16 wastewater treatment facility owned by a  
17 state or county agency;

18 (iii) The facility does not make sales of water to  
19 residential customers;

20 (iv) The facility may distribute and sell  
21 recycled or reclaimed water to entities not  
22 covered by a state or county service



1 contract; provided that, in the absence of  
2 regulatory oversight and direct competition,  
3 the distribution and sale of recycled or  
4 reclaimed water shall be voluntary and its  
5 pricing fair and reasonable. For purposes  
6 of this subparagraph, "recycled water" and  
7 "reclaimed water" means treated wastewater  
8 that by design is intended or used for a  
9 beneficial purpose; and

10 (v) The facility is not engaged, either directly  
11 or indirectly, in the processing of food  
12 wastes;

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

20 (L) Any person who owns, controls, operates, or  
21 manages plants or facilities primarily used to



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

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



1 fide operation on the date of the commencement of the  
2 proceedings resulting in the order shall be presumed to be  
3 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. In codifying the new part and sections added to  
9 chapter 269, Hawaii Revised Statutes, by section 2 of this Act,  
10 the revisor of statutes shall substitute appropriate section  
11 numbers for the letters used in designating and referring to the  
12 new sections in this Act.

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

15 SECTION 6. This Act shall take effect on July 1, 3000.



**Report Title:**

Electricity; Reliability Standards; Interconnection Requirements

**Description:**

Authorizes the Public Utilities Commission to: (1) Develop, adopt, and enforce reliability standards and interconnection requirements; and (2) Contract for the performance of related duties with a party that will serve as the Hawaii electricity reliability administrator. Authorizes the collection of a Hawaii electricity reliability surcharge to be collected by Hawaii's electric utilities. Effective July 1, 3000. (SB2787 HD1)

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

