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# A BILL FOR AN ACT

RELATING TO RENEWABLE ENERGY.

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

1           SECTION 1. The legislature finds that pursuant to Act 97,  
2 Session Laws of Hawaii 2015, Hawaii has committed to achieving a  
3 one hundred per cent renewable portfolio standard by  
4 December 31, 2045. This transition away from imported fossil  
5 fuels toward locally available renewable energy sources is  
6 critical for ensuring the State's energy independence, economic  
7 sustainability, and environmental resilience.

8           The legislature further finds that the transition to a  
9 clean energy economy requires customer-friendly processes to  
10 enable widespread adoption of distributed energy resources and  
11 electrification technologies. Current interconnection and  
12 utility service upgrade processes have at times led to delays,  
13 unexpected costs, and increased customer dissatisfaction,  
14 hindering progress toward achieving the State's clean energy  
15 goals. These challenges also result in localized power quality  
16 issues and power outages when customers increase loads without  
17 informing the utility.



1           The legislature finds that establishing streamlined and  
2 transparent interconnection processes will encourage customer  
3 adoption, enable proactive utility planning, and ensure  
4 reliability and cost-effectiveness in the power system. The  
5 integration of smart inverters and other customer-sited  
6 technologies is critical to minimizing grid investments and  
7 achieving a clean, sustainable energy future.

8           Accordingly, the purpose of this Act is to establish a  
9 grid-ready home interconnection process that supports the rapid  
10 adoption of clean energy technologies, facilitates smart utility  
11 investments, and ensures power system reliability.

12           SECTION 2. Section 269-141, Hawaii Revised Statutes, is  
13 amended by adding a new definition to be appropriately inserted  
14 and to read as follows:

15           ""Grid-ready home" means any residential property equipped  
16 with or modified to anticipate and streamline the integration of  
17 clean electrification technologies such as electric vehicle  
18 chargers and heat pumps, distributed energy resources such as  
19 photovoltaic systems, energy storage batteries leveraging  
20 current national standards for functionality such as



1 Underwriters Laboratories (UL) 1741 and UL 3141, and advanced  
2 grid modernization technology."

3 SECTION 3. Section 269-142, Hawaii Revised Statutes, is  
4 amended to read as follows:

5 "~~§~~269-142~~§~~ **Reliability standards; interconnection**  
6 **requirements; adoption and development; force and effect.** (a)

7 The commission may adopt, by rule or order, reliability  
8 standards and interconnection requirements. Reliability  
9 standards and interconnection requirements adopted by the  
10 commission shall apply to any electric utility and any user,  
11 owner, or operator of the Hawaii electric system. The  
12 commission shall not contract for the performance of the  
13 functions under this subsection to any other entity as provided  
14 under section 269-147.

15 (b) The commission may develop reliability standards and  
16 interconnection requirements as it determines necessary or upon  
17 recommendation from any entity, including an entity contracted  
18 by the commission to serve as the Hawaii electricity reliability  
19 administrator provided for under this part, for the continuing  
20 reliable design and operation of the Hawaii electric system.  
21 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.  
3 The commission shall not contract for the performance of the  
4 functions under this subsection to any other entity as provided  
5 under section 269-147.

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 269-145. 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 (d) The commission shall establish a streamlined  
21 grid-ready home interconnection process to equip existing and



1 new homes with customer-sited and grid-tied renewable energy  
2 generation and storage systems. The process shall include:

3 (1) A streamlined notification and approval process for a  
4 customer seeking to install distributed energy  
5 resources systems using Underwriters Laboratories (UL)  
6 1741, UL 3141, or equivalent certified functionality;

7 (2) A cost-sharing mechanism to be adopted by the  
8 commission to facilitate payment by an interconnecting  
9 customer for service upgrades and interconnection  
10 costs attributable to installation, to be paid by the  
11 owner of the customer generating facility; provided  
12 that the cost-sharing schedule shall be reviewed and  
13 may be adjusted every six months upon approval by the  
14 commission, based on the actual costs of service  
15 upgrades completed by the public utility during the  
16 preceding two years to facilitate interconnection;  
17 provided further that for the purposes of this  
18 paragraph, "customer generating facility" means a  
19 customer-sited and grid-tied renewable energy  
20 generation and storage system; provided further that  
21 nothing in this paragraph shall be construed to

1 modify, waive, or shift established cost causation  
2 principles and the interconnecting customer shall  
3 remain responsible for the reasonable and necessary  
4 grid upgrade costs caused by the customer's  
5 interconnecting project;

6 (3) Procedural timelines for public utility action,  
7 including requiring the public utility to:

8 (A) Notify the customer applying for interconnection  
9 that their application is complete or if not, the  
10 specific information that is missing no later  
11 than five business days after receipt of the  
12 application;

13 (B) Provide the customer an executable  
14 interconnection agreement no later than five  
15 business days after confirming the completeness  
16 of the interconnection application; and

17 (C) Provide the customer a fully executed  
18 interconnection agreement, information regarding  
19 the process, any necessary notifications, and  
20 grant interconnection, no later than five  
21 business days after receiving the customer's



1 executed interconnection agreement and verifying  
2 that all required permits have been issued by the  
3 appropriate authority;

4 (4) Provisions to allow distributed energy resources  
5 operation with managed power export and import where  
6 service upgrades are required; provided that the  
7 upgrades shall be completed within three months of  
8 notification of the interconnecting customer by the  
9 public utility; and

10 (5) Protocols for virtual commissioning and issuing of  
11 interconnection agreements within one week of the  
12 submission of a commissioning packet."

13 SECTION 4. Section 269-145, Hawaii Revised Statutes, is  
14 amended to read as follows:

15 "[~~§~~269-145~~]~~ **Grid access; procedures for**  
16 **interconnection; dispute resolution.** (a) Each user, owner, or  
17 operator of the Hawaii electric system, or any other person,  
18 business, or entity seeking to make an interconnection on the  
19 Hawaii electric system shall do so in accordance with procedures  
20 to be established by the commission by rule or order.



1 (b) The commission shall have the authority to make final  
2 determinations regarding any dispute between any user, owner, or  
3 operator of the Hawaii electric system, or any other person,  
4 business, or entity connecting to the Hawaii electric system,  
5 concerning either an existing interconnection on the Hawaii  
6 electric system or an interconnection to the Hawaii electric  
7 system created under the processes established by the commission  
8 under this section.

9 (c) In establishing a rule or order for the utility  
10 interconnection process for renewable energy and storage systems  
11 for grid-ready homes, the commission shall ensure the process:

12 (1) Allows licensed electricians to isolate electrical  
13 service at utility meters for meter panel replacement,  
14 meter socket adapter installation, or main panel  
15 upgrades; provided that access shall be subject to:

16 (A) Notification by the public utility to the owner  
17 of the grid-ready home of the planned service  
18 disconnection on the morning of the planned  
19 service disconnection;

20 (B) Confirmation of passed inspections by the  
21 appropriate authority; and



1           (C) Confirmation of reconnection procedures; and  
 2           (2) Establishes a virtual commissioning process whereby  
 3           system installers may submit documentation confirming  
 4           compliance with filed settings and operational  
 5           requirements of the installed distributed energy  
 6           resources."

7           SECTION 5. Section 269-145.5, Hawaii Revised Statutes, is  
 8 amended to read as follows:

9           "**§269-145.5 Advanced grid modernization technology;**  
 10 **principles.** (a) The commission, in carrying out its  
 11 responsibilities under this chapter, shall consider the value of  
 12 improving electrical generation, transmission, and distribution  
 13 systems and infrastructure within the State through the use of  
 14 advanced grid modernization technology [~~in order~~] to improve the  
 15 overall reliability and operational efficiency of the Hawaii  
 16 electric system.

17           (b) In advancing the public interest, the commission shall  
 18 balance technical, economic, environmental, and cultural  
 19 considerations associated with modernization of the electric  
 20 grid, based on principles that include but are not limited to:



- 1 (1) Enabling a diverse portfolio of renewable energy  
2 resources;
- 3 (2) Expanding options for customers to manage their energy  
4 use;
- 5 (3) Maximizing interconnection of distributed generation  
6 to the State's electric grids on a cost-effective  
7 basis at non-discriminatory terms and at just and  
8 reasonable rates, while maintaining the reliability of  
9 the State's electric grids, and allowing [~~such~~] access  
10 and rates through applicable rules, orders, and  
11 tariffs as reviewed and approved by the commission;
- 12 (4) Determining fair compensation for electric grid  
13 services and other benefits provided to customers and  
14 for electric grid services and other benefits provided  
15 by distributed generation customers and other non-  
16 utility service providers; and
- 17 (5) Maintaining or enhancing grid reliability and safety  
18 through modernization of the State's electric grids.
- 19 (c) The commission, in carrying out its responsibilities  
20 under this chapter, shall ensure the grid-ready home



1 interconnection process aligns with principles of advanced grid  
2 modernization technology by:

3 (1) Streamlining customer access to renewable energy and  
4 storage resources;

5 (2) Enhancing customer participation in reliance-enhancing  
6 energy programs through rapid integration;

7 (3) Optimizing grid operations to accommodate increased  
8 electrification while minimizing infrastructure costs;

9 and

10 (4) Providing guidance on compliance with technology  
11 safety standards and certifications."

12 SECTION 6. Section 269-146, Hawaii Revised Statutes, is  
13 amended to read as follows:

14 "[+]§269-146[+] **Hawaii electricity reliability surcharge;**  
15 **authorization; cost recovery.** (a) The commission may require,  
16 by rule or order, that all utilities, persons, businesses, or  
17 entities connecting to the Hawaii electric system, or any other  
18 user, owner, or operator of any electric element that is a part  
19 of an interconnection on the Hawaii electric system shall pay a  
20 surcharge that shall be collected by Hawaii's electric  
21 utilities. The commission shall not contract or otherwise



1 delegate the ability to create the Hawaii electricity  
2 reliability surcharge under this section to any other entity.  
3 This surcharge amount shall be known as the Hawaii electricity  
4 reliability surcharge.

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

10 (c) The Hawaii electricity reliability surcharge shall be  
11 used for the purposes of ensuring the reliable operation of the  
12 Hawaii electric system and overseeing grid access on the Hawaii  
13 electric system through the activities of the Hawaii electricity  
14 reliability administrator contracted under section 269-147;  
15 provided that amounts collected under the Hawaii electricity  
16 reliability surcharge shall not be available to meet any current  
17 or past general obligations of the State.

18 (d) The commission may allow an electric utility to  
19 recover appropriate and reasonable costs under the Hawaii  
20 electricity reliability surcharge for any interconnection to the  
21 Hawaii electric system, including interconnection studies and



1 other analysis associated with studying the impact or necessary  
2 infrastructure and operational requirements needed to reliably  
3 interconnect a generator, as well as from electric utility  
4 customers through a surcharge or assessment subject to review  
5 and approval by the commission under section 269-16.

6 (e) The commission may allow the Hawaii electricity  
7 reliability administrator contracted under section 269-147, if  
8 contracted to perform the commission's functions under section  
9 269-142(d), to recover appropriate and reasonable costs under  
10 the Hawaii electricity reliability surcharge for the  
11 implementation and operation of the grid-ready home  
12 interconnection process, including staffing, training, and  
13 infrastructure upgrades required to meet the grid-ready home  
14 interconnection process's timelines and standards.

15 ~~[-(e)]~~ (f) Nothing in this section shall create or be  
16 construed to cause amounts collected through the Hawaii  
17 electricity reliability surcharge to be considered state or  
18 public moneys subject to appropriation by the legislature or be  
19 required to be deposited into the state treasury."

20 SECTION 7. Section 269-149, Hawaii Revised Statutes, is  
21 amended by amending subsection (b) to read as follows:



1           "(b) The Hawaii electricity reliability administrator  
2 shall report to the commission each year on the date of  
3 agreement under section 269-147 following the original  
4 contracting between the Hawaii electricity reliability  
5 administrator and the commission on [~~the~~]:

6           (1) The status of its operations, financial position, and  
7           a projected operational budget for the fiscal year  
8           following the date of the report[~~+~~]; and

9           (2) The status, effectiveness, and outcomes of the  
10           grid-ready home interconnection process, including:

11           (A) The number of customers served under the process;

12           (B) Average timelines for interconnection approvals  
13           and upgrades;

14           (C) Total fees collected by the public utility under  
15           the process;

16           (D) Total costs recovered by the public utility in  
17           service of the process; and

18           (E) Value of infrastructure upgrades deferred or  
19           avoided as a result of the process."

20           SECTION 8. Statutory material to be repealed is bracketed  
21 and stricken. New statutory material is underscored.



**1** SECTION 9. This Act shall take effect on July 1, 2050.

**2**



**Report Title:**

PUC; Renewable Energy; Grid-Ready Homes Interconnection Process;  
Hawaii Electricity Reliability Administrator; Electricity  
Reliability Surcharge; Report

**Description:**

Requires the Public Utilities Commission to establish a streamlined grid-ready homes interconnection process. Authorizes the use of the Hawaii electricity reliability surcharge for cost recovery of certain expenses of the Hawaii Electricity Reliability Administrator associated with the grid-ready homes interconnection process. Requires a report to the PUC on the grid-ready homes interconnection process. Effective 7/1/2050. (SD1)

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

