
A BILL FOR AN ACT

RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM.

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

1 SECTION 1. The legislature finds that the increasing
2 deployment of customer generation in Hawaii is in the public
3 interest, lessening Hawaii's dependence on imported oil,
4 creating thousands of jobs, fostering billions of dollars of
5 economic activity, and giving tens of thousands of households
6 and businesses access to reasonably priced electricity. The
7 legislature also finds that energy storage and other components
8 of a "smart grid", such as demand response management, can
9 support the continued deployment of customer generation, improve
10 the resiliency, flexibility, and efficiency of the Hawaii
11 electric system, and are thus also in the public interest. The
12 legislature expects customer generation will play a major role
13 in supplying the State's future electricity needs and clean
14 energy goals, recognizing that appropriate investments in energy
15 storage and smart grid improvements are vital to achieve
16 Hawaii's robust clean energy goals.

17 Accordingly, it is the legislature's intent that all Hawaii
18 residents have the right to install and interconnect customer



1 generation regardless of the location of their homes and
2 businesses on the Hawaii electric system. It is also the
3 legislature's intent that all Hawaii residents be allowed to
4 interconnect customer generation to the Hawaii electric system
5 in a timely manner and for a reasonable cost.

6 The legislature finds that technical and economic barriers
7 are preventing Hawaii customer-generators from interconnecting
8 to the Hawaii electric system in a timely manner. The State's
9 interconnection procedures limit the amount of customer
10 generation that can be installed on each circuit of the Hawaii
11 electric system to ensure the safe and reliable operation of
12 that system. While the interconnection procedures allow for
13 upgrades to the electric system to increase the system's
14 capacity to host customer generation, such upgrades can delay
15 projects and are only constructed after the interconnection
16 procedures are applied to individual projects. The large number
17 of customer-generators requesting interconnection to the
18 electric system has required upgrades preventing the
19 interconnection of large numbers of Hawaii residents in a timely
20 manner.

21 The legislature finds that the failure to adequately and
22 sufficiently plan for and implement the modifications necessary



1 to accommodate customers' choices to install customer generation
2 negatively impacts all Hawaii residents. The legislature
3 further finds that if technical and economic barriers are not
4 addressed, a number of undesirable scenarios may result,
5 including irreparable loss of jobs in the nascent solar industry
6 and an ever increasing number of Hawaii residents disconnecting
7 from the Hawaii electric system.

8 The legislature further finds that utility planning and
9 construction of upgrades to the electrical system, including the
10 use of advanced grid modernization technology such as energy
11 storage, to accommodate anticipated growth in customer
12 generation could resolve technical barriers in advance of the
13 interconnection procedures being applied. Such proactive
14 planning could ensure that all Hawaii residents are able to
15 interconnect to the system in a timely manner.

16 The legislature also finds that the use of strict cost
17 causation principles within the State's interconnection rules
18 for customer generation prevent all Hawaii residents from
19 accessing the Hawaii electric system for a reasonable cost.
20 These rules allocate the costs for upgrades to the State's
21 electric system to the marginal customer-generator that caused
22 the need for the upgrade. Laying the cost obligation for



1 upgrades on one customer is frequently burdensome and
2 unreasonable for small residential and commercial customer-
3 generators who have little choice about where on the electrical
4 system to locate their generation. Strict cost causation
5 principles pose a barrier to Hawaii residents' ability to
6 install customer generation.

7 The legislature finds that the upgrades necessary to
8 accommodate small residential and commercial customer-generators
9 can be installed in a manner that benefits load and customer
10 generation such that a number of customers will benefit.
11 Accordingly, a superior way to allocate the costs of electrical
12 system upgrades caused by small customer-generators may be for
13 each public utility to appropriately allocate these costs among
14 all electric customers and customer-generators that benefit from
15 the upgrades.

16 It is the legislature's intent that the Hawaii public
17 utilities commission open a proceeding by July 1, 2014, to
18 address these technical and economic barriers and to ensure all
19 Hawaii customers have the ability to install generation in a
20 timely manner and at a reasonable cost without sacrificing the
21 safe and reliable operation of the Hawaii electric system. It
22 is also the legislature's intent that the same commission



1 proceeding consider whether the establishment of differentiated
2 authorized rates of return on common equity are warranted to
3 encourage increased utility investments in transmission,
4 distribution infrastructure, and advanced grid modernization
5 technology, pursuant to section 269-6, Hawaii Revised Statutes,
6 and identify which types of transmission and distribution
7 infrastructure and advanced grid modernization technology would
8 be eligible for such differentiated authorized rates of return
9 on common equity.

10 The legislature requests that the commission complete the
11 proceeding and submit a report on the results of the proceeding
12 to the legislature no later than twenty days prior to the
13 convening of the regular session of 2016. Recognizing the
14 expedited nature of the proceeding, it is the legislature's
15 intent to make available to the commission \$750,000 in general
16 funds to conduct the proceeding. It is also the legislature's
17 intent to exempt the commission from section 103D-304, Hawaii
18 Revised Statutes, in the commission's procurement of any
19 professional services needed to provide technical expertise
20 during the proceeding.

21 SECTION 2. Section 269-145, Hawaii Revised Statutes, is
22 amended to read as follows:



1 "[+]§269-145[+] Grid access; procedures for
2 interconnection; dispute resolution. (a) Each user, owner, or
3 operator of the Hawaii electric system, or any other person,
4 business, or entity seeking to make an interconnection on the
5 Hawaii electric system shall do so in accordance with procedures
6 to be established by the commission by rule or order.

7 (b) The procedures established by the commission by rule
8 or order pursuant to subsection (a) shall be revised as
9 necessary to ensure any person, business, or entity can make a
10 safe and reliable interconnection on the Hawaii electric system
11 in a timely manner and for a reasonable cost regardless of where
12 that person, business, or entity is located on the Hawaii
13 electric system.

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



1 SECTION 3. Section 269-145.5; Hawaii Revised Statutes, is
2 amended to read as follows:

3 "[+]§269-145.5[+] **Advanced grid modernization technology;**
4 **principles.** (a) The commission, in carrying out its
5 responsibilities under this chapter, shall consider the value of
6 improving electrical generation, transmission, and distribution
7 systems and infrastructure within the State through the use of
8 advanced grid modernization technology in order to improve the
9 overall reliability and operational efficiency of the Hawaii
10 electric system.

11 (b) The commission shall ensure that any person, business,
12 or entity can operate customer generation regardless of where
13 that person, business, or entity is located on the Hawaii
14 electric system."

15 SECTION 4. (a) The public utilities commission shall
16 commence a proceeding by July 1, 2014, to consider how the use
17 of advanced grid modernization technology and the planning and
18 construction of upgrades to the Hawaii electric system by each
19 public utility can accommodate anticipated growth in customer
20 generation. The same commission proceeding shall consider
21 whether the establishment of differentiated authorized rates of
22 return on common equity is warranted to encourage increased

1 utility investments in transmission and distribution
2 infrastructure and advanced grid modernization technology, as
3 authorized by section 269-6, Hawaii Revised Statutes, and
4 identify which types of transmission, distribution
5 infrastructure, and advanced grid modernization technology would
6 be eligible for such differentiated authorized rates of return
7 on common equity.

8 (b) The commission shall submit a report of its findings
9 and recommendations to the legislature no later than twenty days
10 prior to the convening of the regular session of 2016.

11 (c) The commission shall be exempt from section 103D-304,
12 Hawaii Revised Statutes, in its procurement of any professional
13 services needed to conduct the proceeding.

14 SECTION 5. There is appropriated out of the general
15 revenues of the State of Hawaii the sum of \$750,000 or so much
16 thereof as may be necessary for fiscal year 2014-2015 for the
17 public utilities commission to conduct a proceeding to address
18 technical and economic barriers to ensure that all Hawaii
19 customers have the ability to install generation in a timely
20 manner and at reasonable cost without sacrificing the safe and
21 reliable operation of the Hawaii electric system.



1 The sum appropriated shall be expended by the public
2 utilities commission for the purposes of this Act.

3 SECTION 6. Statutory material to be repealed is bracketed
4 and stricken. New statutory material is underscored.

5 SECTION 7. This Act shall take effect upon its approval;
6 provided that section 5 shall take effect on July 1, 2014.
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INTRODUCED BY: [Signature]

Tom Brown

Nicole E. Lujan

[Signature]

Cynthia Thriener
PCURR-SUN

[Signature]
Linda Lehman

[Signature] [Signature]

Bella A. Blasko

[Signature] [Signature]

[Signature]

Jakobus Brno

[Signature]

[Signature]
[Signature]

Richard Crayton



[Signature]
[Signature]

H.B. NO. 1943

Report Title:

Grid Modernization; Hawaii Electric System; Public Utilities Commission; Appropriation

Description:

Requires the public utilities commission to adopt rules for improved accessibility to connect to the Hawaii electric system for any individual or business. Requires the commission to initiate a proceeding no later than July 1, 2014, to discuss upgrades to the Hawaii electric system for anticipated growth of customer generation.

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