
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 a modern electrical
2 grid is essential to meeting Hawaii's clean energy goals. In
3 recent years, Hawaii's electric utilities have integrated
4 significant levels of new renewable energy projects on each
5 island grid, and distributed generation in the form of rooftop
6 photovoltaic systems has been the fastest growing share of new
7 renewable energy generation each year. To date, Hawaii's
8 electric utilities are on track to exceed the next renewable
9 portfolio standard goal in 2015. However, moving beyond the
10 current levels of renewable energy on each grid will likely
11 require further investment in advanced grid modernization
12 technology to meet the State's aggressive clean energy goals and
13 maintain a reliable electricity grid.

14 The legislature further finds investments in advanced grid
15 modernization technology may be needed because Hawaii's island
16 grids are reaching significant levels of variable renewable
17 energy that can affect the overall operation of the grid at the
18 system level and the ability of utilities to provide safe and



1 reliable service at the point of delivery to customers.
2 Continued growth in renewable energy, particularly distributed
3 generation, will require investment to modernize the grid to
4 interconnect higher levels of distributed generation and to
5 support other new customer energy options such as electric
6 vehicles and demand response technologies.

7 The legislature also finds that the rapid growth of the
8 State's solar industry has reduced Hawaii's dependence on
9 imported oil, created thousands of jobs during a statewide
10 economic downturn, and provided thousands of households and
11 businesses new options to manage their energy bills. The
12 legislature believes a long-term, sustainable solar industry is
13 in the State's interest.

14 The legislature further finds that the solar industry is
15 significantly impaired by the current interconnection process.
16 As Hawaii transitions from the early stages of its clean energy
17 transformation, the State needs a more transparent and timely
18 process for electricity customers to exercise their options to
19 manage their energy use.

20 The legislature additionally finds that, as distributed
21 generation plays an increasingly significant role in the State's
22 clean energy transition, the utility's processes for



1 interconnection and distribution system planning must evolve
2 along with new rules and tariffs for distributed generation.
3 The current rules and tariffs for distributed generation were
4 developed to support a nascent and emerging solar industry. Now
5 that this energy source and industry have achieved a significant
6 portion of the electricity system's energy mix, tariffs for
7 distributed generation need to be developed and adopted that
8 compensate the utility for grid services provided to customers
9 and that compensate customers for the grid services provided to
10 the utility by distributed generation. These modified tariffs
11 will also set the stage for further innovations in this sector,
12 such as advanced information, photovoltaic inverters, and energy
13 storage systems that expand the nature of services offered by
14 customer-sited resources to the electric grid operator.

15 The legislature finds that the resolution of the matters
16 noted in this Act requires detailed discussion of technical,
17 economic, environmental, and cultural issues, and a process that
18 will expedite decision-making on near-term, high priority
19 issues. In recognition of the importance of these issues, the
20 purpose of this Act is to establish guiding principles and
21 outline a timely regulatory process to address modernization of
22 the Hawaii electric system.



1 SECTION 2. 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) In advancing the public interest, the commission shall
12 balance technical, economic, environmental, and cultural
13 considerations associated with modernization of the electric
14 grid, based on principles that include but are not limited to:

- 15 (1) Enabling a diverse portfolio of renewable energy
16 resources;
17 (2) Expanding options for customers to manage their energy
18 use;
19 (3) Maximizing interconnection of distributed generation
20 to the State's electric grids on a cost-effective
21 basis at non-discriminatory terms and at just and
22 reasonable rates, while maintaining the reliability of



1 the State's electric grids, and allowing such access
2 and rates through applicable rules, orders, and
3 tariffs as reviewed and approved by the commission;
4 (4) Determining fair compensation for electric grid
5 services and other benefits provided to customers and
6 for electric grid services and other benefits provided
7 by distributed generation customers and other non-
8 utility service providers; and
9 (5) Maintaining or enhancing grid reliability and safety
10 through modernization of the State's electric grids."

11 SECTION 3. Statutory material to be repealed is bracketed
12 and stricken. New statutory material is underscored.

13 SECTION 4. This Act shall take effect upon its approval.



Report Title:

Grid Modernization; Hawaii Electric System; Public Utilities
Commission;

Description:

Amends the public utilities commission principles regarding the
modernization of the electric grid. (HB1943 CD1)

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

