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# A BILL FOR AN ACT

RELATING TO ENERGY.

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

1           SECTION 1. The legislature finds that integrated energy  
2 districts, also known as microgrids, are quickly becoming an  
3 integral part of the world's energy transformation. As a  
4 fundamental building block for a smart electric grid, the annual  
5 integrated energy district market in North America is expected  
6 to increase from \$10,000,000,000 in 2013 to \$40,000,000,000 by  
7 2020, and capacity is expected to increase from eight hundred  
8 sixty-six megawatts in 2014 to 4.1 gigawatts by 2020.

9           Integrated energy districts are a type of interconnected  
10 energy resource within an arena that can connect and disconnect  
11 from the electrical grid. Integrated energy districts provide  
12 many benefits, including being a secure and reliable power  
13 source when the central electrical grid is down, creating clean  
14 and renewable energy, earning revenue through selling excess  
15 energy, being customizable to the needs of the district, helping  
16 institutions enhance their environmental reputation, preventing  
17 the need to upgrade the central grid to handle additional  
18 electrical load, reducing electrical line loss, balancing the



1 electrical load, helping stabilize grid frequency and voltage,  
2 reducing grid congestion, and lessening strain on the central  
3 grid though load shedding.

4 While integrated energy districts have existed for decades,  
5 they were mostly limited to universities and military bases.  
6 The recent growth of affordable clean energy from solar, wind,  
7 geothermal, and natural gas has made integrated energy districts  
8 increasingly more economically feasible for states and  
9 communities. For example, Connecticut, Maryland, Massachusetts,  
10 New Jersey, and New York have taken steps toward promoting  
11 integrated energy districts, including appropriating tens of  
12 millions of dollars for construction.

13 The purpose of this Act is to remove barriers to the  
14 development of integrated energy districts in Hawaii by  
15 requiring the public utilities commission to establish a process  
16 for electricity consumers to form integrated energy districts.

17 SECTION 2. Chapter 269, Hawaii Revised Statutes, is  
18 amended by adding a new section to part I to be appropriately  
19 designated and to read as follows:

20 "§269- Integrated energy districts. (a) The public  
21 utilities commission shall open a proceeding by July 1, 2016, to



1 establish a process to establish integrated energy districts.  
2 The process shall include measures to expedite interconnection  
3 agreement processing for the establishment and operation of  
4 integrated energy districts without compromising the stability  
5 and reliability of a public utility's electrical grid.

6 (b) As used in this section, "integrated energy district"  
7 means a group of interconnected loads and distributed energy  
8 resources within clearly defined electrical boundaries that acts  
9 as a single controllable entity with respect to the electrical  
10 grid and can connect to a public utility's electrical grid to  
11 operate in grid-connected mode and can disconnect from the grid  
12 to operate in island mode."

13 SECTION 3. New statutory material is underscored.

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



**Report Title:**

Integrated Energy Districts; Renewable Energy; Microgrids

**Description:**

Requires the PUC to establish a process for the creation of integrated energy districts. (SD1)

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