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

energy resource within an arena that can connect and disconnect

from the electrical grid. Integrated energy districts provide

12 many benefits including being a secure and reliable power source

13 when the central electrical grid is down, creating clean and

14 renewable energy, earning revenue through selling excess energy,

15 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

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H.B. NO. 764

- 1 electrical load, reducing electrical line loss, balancing the
- 2 electrical load, helping stabilize grid frequency and voltage,
- 3 reducing grid congestion, and lessening strain on the central
- 4 grid though load shedding.
- 5 While integrated energy districts have existed for decades,
- 6 they were mostly limited to universities and military bases.
- 7 The recent growth of affordable clean energy from solar, wind,
- 8 qeothermal, and natural gas have made integrated energy
- 9 districts increasingly more economically feasible for states
- 10 communities. For example, Connecticut, Maryland, Massachusetts,
- 11 New Jersey, and New York have taken steps toward promoting
- 12 integrated energy districts including appropriating tens of
- 13 millions of dollars to construction.
- 14 The purpose of this Act is remove barriers to the
- 15 development of integrated energy districts in Hawaii by
- 16 requiring the public utilities commission to establish a process
- 17 for electricity consumers to form integrated energy districts.
- 18 SECTION 2. Chapter 269, Hawaii Revised Statutes, is
- 19 amended by adding a new section to part I to be appropriately
- 20 designated and to read as follows:

H.B. NO.264

| 1 | " <u>§269-</u> <u>Integrated energy districts.</u> (a) The public |
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| 2 | utilities commission shall establish, by rules adopted pursuant |
| 3 | to chapter 91, a process to establish integrated energy |
| 4 | districts. The process shall include measures to expedite |
| 5 | interconnection agreement processing for the establishment and |
| 6 | operation of integrated energy districts without compromising |
| 7 | the stability and reliability of a public utility's electrical |
| 8 | grid. |
| 9 | (b) As used in this section, "integrated energy district" |
| 10 | means a group of interconnected loads and distributed energy |
| 11 | resources within clearly defined electrical boundaries that acts |
| 12 | as a single controllable entity with respect to the electrical |
| 13 | grid and can connect to a public utility's electrical grid to |
| 14 | operate in grid-connected mode and can disconnect from the grid |
| 15 | to operate in island mode." |
| 16 | SECTION 3. New statutory material is underscored. |
| 17 | SECTION 4. This Act shall take effect upon its approval. |
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INTRODUCED BY:

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JAN 2 2-2015

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H.B. NO. 164

Report Title:

Integrated Energy Districts; Renewable Energy; Microgrids

Description:

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

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