JAN 2 4 2018

### A BILL FOR AN ACT

RELATING TO RESILIENCY.

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

- 1 SECTION 1. The legislature finds that Hawaii's residents
- 2 and businesses are vulnerable to disruptions in the islands'
- 3 energy systems caused by extreme weather events or other
- 4 disasters. In 2017, Puerto Rico was devastated by Hurricane
- 5 Maria, leaving ninety per cent of the island's residents without
- 6 power one month after the storm hit. Puerto Rico is now
- 7 rebuilding its energy system and incorporating microgrids, or
- 8 smaller grids with local control capability that can disconnect
- 9 from the larger electricity grid and operate autonomously.
- 10 The legislature finds that the increased use of renewable
- 11 energy, advanced distributed energy resources, and energy
- 12 efficiency in Hawaii provides significant economic, health,
- 13 environmental, and workforce benefits to the State. Microgrids
- 14 can facilitate the achievement of Hawaii's clean energy policies
- 15 by enabling the integration of higher levels of renewable energy
- 16 and advanced distributed energy resources. Microgrids can also
- 17 provide valuable services to the public utility electricity



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- 1 grid, including energy storage and demand response, to support
- 2 load shifting, frequency response, and voltage control, among
- 3 other ancillary services.
- 4 The legislature finds that microgrids can isolate
- 5 themselves from the larger electricity grid in a time of
- 6 emergency. By "islanding" and running autonomously, microgrids
- 7 can provide a building or set of buildings with emergency power
- 8 for critical medical equipment, refrigeration, and charging
- 9 critical communications devices. Microgrids can also provide
- 10 backup power for hospitals and emergency centers. The
- 11 legislature believes that the use of microgrids would build
- 12 energy resiliency into our communities, thereby increasing
- 13 public safety and security.
- 14 The legislature finds that while Hawaii is a national
- 15 leader in developing renewable energy, few microgrids have been
- 16 developed, as their development has been inhibited by a number
- 17 of factors, including interconnection barriers and a lack of
- 18 standard terms regarding the value of services exchanged between
- 19 the microgrid operator and the utility.

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2 regarding interconnection and the value of microgrid services, 3 businesses and residents developing microgrids may choose to 4 leave the utility grid altogether, thereby weakening the overall 5 system and increasing costs for other utility customers. 6 The purpose of this Act is to encourage and facilitate the 7 development and use of microgrids through the establishment of a 8 standard microgrid services tariff. 9 SECTION 2. Chapter 269, Hawaii Revised Statutes, is amended by adding a new section to part I to be appropriately 10 11 designated and to read as follows: 12 "§269-Microgrids. (a) By July 1, 2018, the public 13 utilities commission shall open a proceeding to establish a 14 microgrid services tariff. 15 (b) Any person or entity may own or operate an eligible 16 microgrid project or projects provided that the person or entity **17** complies with all applicable statutes, rules, tariffs, and 18 orders governing the ownership and interconnection of the 19 project or projects.

The legislature further finds that without standard terms

1	(c) As used in this section:
2	"Microgrid project" means a group of interconnected loads
3	and distributed energy resources within clearly defined
4	electrical boundaries that acts as a single controllable entity
5	with respect to the utility's electrical grid and can connect t
6	a public utility's electrical grid to operate in grid-connected
7	mode and can disconnect from the grid to operate in island mode
8	and that:
9	(1) Is subject to a microgrid services tariff; and
10	(2) Generates or produces energy.
11	"Microgrid services tariff" means a tariff approved by the
12	public utilities commission that:
13	(1) Is designed to provide fair compensation for
14	electricity, electric grid services, and other
15	benefits provided to, or by, the electric utility, th
16	person or entity operating the microgrid, and other
17	ratepayers; and
18	(2) To the extent possible, standardizes and streamlines
19	the related interconnection processes for microgrid
20	projects."
21	SECTION 3. New statutory material is underscored.

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

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INTRODUCED BY: W.

By Request

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### Report Title:

Energy Resiliency; Microgrid Services Tariff

#### Description:

Directs the public utilities commission to establish a microgrid services tariff or tariffs to encourage and facilitate the development and use of energy resilient microgrids.

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