

JAN 18 2019

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# A BILL FOR AN ACT

RELATING TO CRITICAL INFRASTRUCTURE.

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

1           SECTION 1. Chapter 46, Hawaii Revised Statutes, is amended  
2 by adding a new part to be appropriately designated and to read  
3 as follows:

4                               **"PART           .    CRITICAL INFRASTRUCTURE**

5           **§46-A Definitions.** As used in this part, unless the  
6 context requires otherwise:

7           "Battery storage device" means any identifiable facility,  
8 equipment, or apparatus that:

- 9           (1) Is electrically connected to a critical  
10           infrastructure's critical load and paired with a new  
11           or existing renewable generation system;
- 12           (2) Stores electricity from its paired renewable  
13           generation system via a chemical or mechanical  
14           process;
- 15           (3) Delivers stored energy at a later time to the critical  
16           infrastructure's critical load, an electric utility,  
17           or the Hawaii electric system; and



- 1           (4) Has a storage capacity capable of supplying:
- 2           (A) A critical infrastructure's critical load for a
- 3           minimum of forty-eight hours; or
- 4           (B) The total of a critical infrastructure's average
- 5           daily usage for a minimum of five hours.

6           "Critical infrastructure" means police stations, fire

7           stations, hospitals, nursing homes, designated emergency

8           shelters, and other critical infrastructure that may be

9           designated as such by the governor or other authorized official

10          pursuant to a natural disaster or state of emergency

11          designation. "Critical infrastructure" may include privately

12          owned property.

13          "Critical load" means the minimum load necessary for any

14          critical infrastructure to perform its essential functions

15          during a natural disaster or state of emergency.

16          "Designated emergency shelter" means any building owned by

17          the State, a county, or a municipal government agency that has

18          been designated by appropriate authorities as a place of

19          community refuge made available to provide temporary shelter and

20          housing to citizens during any natural disaster or state of



1 emergency as declared by the governor or other authorized  
2 official.

3 "Electrically isolated community" means a rural or remote  
4 community vulnerable to prolonged outages because the community  
5 is served by a single distribution or transmission line, is  
6 located in or surrounded by mountainous or other isolating  
7 terrain, or has historically experienced frequent or prolonged  
8 outages.

9 "Grid resiliency" means the installation and operation of  
10 electric equipment that:

- 11 (1) Prevents or reduces the severity of damage to the  
12 electric grid from a natural disaster or state of  
13 emergency;
- 14 (2) Enables faster recovery of normal grid operations  
15 after a grid outage due to a natural disaster or state  
16 of emergency;
- 17 (3) Maintains critical loads at critical infrastructure  
18 during a grid outage due to a natural disaster or  
19 state of emergency; and



1           (4) May include, without limitation, distributed energy  
2           resources, battery storage devices, and microgrid  
3           projects, as defined in section 269-46.

4           "Prolonged outage" means any outage of the electrical grid  
5           lasting forty-eight hours or longer.

6           **§46-B Identification of critical infrastructure.** (a) It  
7           is declared to be the policy of the State to ensure that there  
8           is an adequate supply of critical infrastructure in the State  
9           and to ensure that critical infrastructure can continue  
10          operations in service of the public following a natural  
11          disaster. The counties of this state, in coordination with the  
12          department of business, economic development, and tourism, shall  
13          be responsible for implementing this policy in a manner  
14          consistent with this chapter.

15          (b) No later than July 1, 2020, each county, in  
16          coordination with the department of business, economic  
17          development, and tourism, shall:

18               (1) Develop a comprehensive list of critical  
19               infrastructure in this State. The comprehensive list  
20               shall include:



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- 1           (A) The name and address of each critical
- 2                    infrastructure location;
- 3           (B) The name, telephone number, and electronic mail
- 4                    address of at least one individual employed at
- 5                    the critical infrastructure location in a
- 6                    supervisory role;
- 7           (C) The estimated capacity of each designated
- 8                    emergency shelter, stated as the number of
- 9                    individuals who could feasibly take refuge at the
- 10                  designated emergency shelter during a natural
- 11                  disaster or state of emergency; and
- 12           (D) The estimated critical load of each critical
- 13                    infrastructure location;
- 14        (2) Determine the estimated number of hours that the
- 15                  designated emergency shelter would be able to continue
- 16                  operations following a natural disaster or during a
- 17                  state of emergency. The determination shall consider:
- 18            (A) Each critical infrastructure location's ability
- 19                    to store or access adequate food, water, and
- 20                    medical supplies to serve the local community
- 21                    that may be expected to rely on the critical



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1            infrastructure following a natural disaster or  
2            during a state of emergency;

3            (B) The ability of each designated emergency shelter  
4            to store or access adequate food, water, and  
5            medical supplies to serve the estimated number of  
6            individuals who could feasibly take refuge at the  
7            designated emergency shelter following a natural  
8            disaster or during a state of emergency; and

9            (C) Whether each critical infrastructure location has  
10           sufficient access to a source of backup  
11           electricity such that it would be capable of  
12           supplying its critical load without significant  
13           interruption during an electrical grid outage;  
14           and

15           (3) Develop a list of improvements that the county  
16           considers reasonably necessary to ensure that each  
17           critical infrastructure location can continue  
18           operations following a natural disaster or during a  
19           state of emergency. The list of improvements shall  
20           include, as applicable:

21           (A) Food and water storage equipment;



- 1 (B) Medical supplies and equipment to store
- 2 perishable medical supplies; and
- 3 (C) Grid resiliency improvements; provided that any
- 4 electricity generation technology used in such
- 5 grid resiliency improvements shall be consistent
- 6 with the State's renewable portfolio standards
- 7 established in section 269-92.

8 **§46-C Critical infrastructure access to electricity.** (a)

9 It is declared to be the policy of the State to ensure that  
10 critical infrastructure locations in the State have access to  
11 adequate supplies of electricity after natural disasters and  
12 during states of emergency. The counties, in coordination with  
13 the department of business, economic development, and tourism,  
14 shall be responsible for implementing this policy in a manner  
15 consistent with this chapter.

16 (b) No later than July 1, 2020, each county shall develop  
17 a plan to ensure that each critical infrastructure location has  
18 access to electricity after natural disasters and during states  
19 of emergency. The plan shall:

- 20 (1) Recommend grid resiliency improvements for each
- 21 critical infrastructure location; provided that any



1 electricity generation technology used in such grid  
2 resiliency improvements shall be consistent with the  
3 State's renewable portfolio standards established in  
4 section 269-92;

5 (2) Consider potential cost savings that may result from  
6 the use of grid resiliency improvements at critical  
7 infrastructure locations to supply the critical  
8 infrastructure location's daily electricity needs, or  
9 a portion of such daily electricity needs, in addition  
10 to the critical infrastructure's critical load after a  
11 natural disaster or during a state of emergency; and

12 (3) Consider and account for the increasing use and  
13 importance of electricity in the fields of  
14 transportation, communications, and medicine and each  
15 of these field's importance to responding to natural  
16 disasters and states of emergency.

17 (c) No later than July 1, 2020, each county shall develop  
18 recommendations to ensure that any electrically isolated  
19 community has access to electricity after natural disasters and  
20 during states of emergency. The recommendations shall include:





- 1           (1) A brief statement explaining the reason or reasons  
2                   that the area is an electrically isolated community;  
3                   and  
4           (2) Specific grid resiliency improvements that would allow  
5                   each electrically isolated community to have access to  
6                   electricity in the event of a prolonged outage of the  
7                   electrical grid after natural disasters and during  
8                   states of emergency; provided that:  
9                   (A) The county shall only recommend measures that are  
10                   consistent with the State's renewable portfolio  
11                   standards established in section 269-92; and  
12                   (B) The county shall consider measures capable of  
13                   supplying the critical loads of critical  
14                   infrastructure in the electrically isolated  
15                   community as well as other loads in the  
16                   electrically isolated community."

17           SECTION 2. Chapter 196, Hawaii Revised Statutes, is  
18 amended by adding two new sections to be appropriately  
19 designated and to read as follows:

20           "§196-        Identification of critical infrastructure. (a)

21 It is declared to be the policy of the State to ensure that



1 there is an adequate supply of critical infrastructure in the  
2 State and to ensure that critical infrastructure can continue  
3 operations in service of the public following a natural  
4 disaster. The department of business, economic development, and  
5 tourism, in coordination with the counties, shall be responsible  
6 for implementing this policy in a manner consistent with this  
7 chapter.

8 (b) No later than July 1, 2020, the department of  
9 business, economic development, and tourism shall:

10 (1) Develop a comprehensive list of critical  
11 infrastructure in the State. The comprehensive list  
12 shall include:

13 (A) The name and address of each critical  
14 infrastructure location;

15 (B) The name, telephone number, and electronic mail  
16 address of at least one individual employed at  
17 the critical infrastructure location in a  
18 supervisory role;

19 (C) The estimated capacity of each designated  
20 emergency shelter, stated as the number of  
21 individuals who could feasibly take refuge at the



1                   designated emergency shelter during a natural  
2                   disaster or state of emergency; and  
3           (D)   The estimated critical load of each critical  
4                   infrastructure location;  
5           (2)   Determine the estimated number of hours that each  
6                   designated emergency shelter would be able to continue  
7                   operations following a natural disaster or during a  
8                   state of emergency. The determination shall consider:  
9                   (A)   Each critical infrastructure location's ability  
10                   to store or access adequate food, water, and  
11                   medical supplies to serve the local community  
12                   that may be expected to rely on the critical  
13                   infrastructure following a natural disaster or  
14                   during a state of emergency;  
15                   (B)   With respect to each designated emergency  
16                   shelter, the ability to store or access adequate  
17                   food, water, and medical supplies to serve the  
18                   estimated number of individuals who could  
19                   feasibly take refuge at the designated emergency  
20                   shelter following a natural disaster or during a  
21                   state of emergency; and



- 1           (C) Whether each critical infrastructure location has  
2           sufficient access to a source of backup  
3           electricity such that it would be capable of  
4           supplying its critical load without significant  
5           interruption during an electrical grid outage;  
6           and
- 7       (3) Develop a list of improvements that the department of  
8       business, economic development, and tourism considers  
9       reasonably necessary to ensure that each critical  
10       infrastructure location can continue operations  
11       following a natural disaster or during a state of  
12       emergency. The list of improvements shall include, as  
13       applicable:
- 14       (A) Food and water storage equipment;  
15       (B) Medical supplies and equipment to store  
16       perishable medical supplies; and
- 17       (C) Grid resiliency improvements; provided that any  
18       electricity generation technology used in such  
19       grid resiliency improvements shall be consistent  
20       with the State's renewable portfolio standards  
21       established in section 269-92.



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1        §196- Critical infrastructure access to electricity.

2        (a) It is declared to be the policy of the State to ensure that  
3 critical infrastructure locations in the State have access to  
4 adequate supplies of electricity after natural disasters and  
5 during states of emergency. The department of business,  
6 economic development, and tourism, in coordination with the  
7 counties, shall be responsible for implementing this policy in a  
8 manner consistent with this chapter.

9        (b) No later than July 1, 2020, the department of  
10 business, economic development, and tourism shall:

11        (1) Develop a plan to ensure that each critical  
12 infrastructure location has access to electricity  
13 after natural disasters and during states of  
14 emergency. The plan shall:

15        (A) Recommend grid resiliency improvements for each  
16 critical infrastructure location; provided that  
17 any electricity generation technology used in the  
18 grid resiliency improvements shall be consistent  
19 with the State's renewable portfolio standards  
20 established in section 269-92;



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- 1           (B) Consider potential cost savings that may result  
2           from the use of grid resiliency improvements at  
3           critical infrastructure locations to supply the  
4           critical infrastructure location's daily  
5           electricity needs, or a portion of daily  
6           electricity needs, in addition to the critical  
7           infrastructure's critical load after a natural  
8           disaster or during a state of emergency; and
- 9           (C) Consider and account for the increasing use and  
10           importance of electricity in the fields of  
11           transportation, communications, and medicine and  
12           each of these field's importance to responding to  
13           natural disasters and states of emergency; and
- 14        (2) Develop recommendations to ensure access to  
15        electricity in electrically isolated communities in  
16        the State after natural disasters and during states of  
17        emergency. The plan shall:
- 18           (A) Identify and list electrically isolated  
19           communities; and
- 20           (B) Recommend specific grid resiliency improvements  
21           that would allow electrically isolated



1 communities to have access to electricity in the  
2 event of a prolonged outage of the electrical  
3 grid after natural disasters and during states of  
4 emergency; provided that the department of  
5 business, economic development, and tourism  
6 shall:

7 (i) Only recommend measures that are consistent  
8 with the State's renewable portfolio  
9 standards established in section 269-92; and

10 (ii) Consider measures capable of supplying the  
11 critical loads of critical infrastructure in  
12 electrically isolated communities as well as  
13 other loads in such electrically isolated  
14 communities."

15 SECTION 3. Section 196-2, Hawaii Revised Statutes, is  
16 amended by adding seven new definitions to be appropriately  
17 inserted and to read as follows:

18 "Battery storage device" shall have the same meaning as in  
19 section 46-A.

20 "Critical infrastructure" shall have the same meaning as in  
21 section 46-A.



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1        "Critical load" shall have the same meaning as in section  
2 46-A.

3        "Designated emergency shelter" shall have the same meaning  
4 as in section 46-A.

5        "Electrically isolated community" shall have the same  
6 meaning as in section 46-A.

7        "Grid resiliency" shall have the same meaning as in section  
8 46-A.

9        "Prolonged outage" shall have the same meaning as in  
10 section 46-A."

11        SECTION 4. In codifying the new sections added by section  
12 1 of this Act, the revisor of statutes shall substitute  
13 appropriate section numbers for the letters used in designating  
14 the new sections in this Act.

15        SECTION 5. New statutory material is underscored.

16        SECTION 6. This Act shall take effect upon its approval.

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INTRODUCED BY:

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**Report Title:**

Critical Infrastructure; Identification; Access to Electricity;  
Natural Disaster; State of Emergency

**Description:**

Requires the department of business, economic development, and tourism and the counties to identify and develop plans for critical infrastructure following a natural disaster or during a state of emergency. Requires the department of business, economic development, and tourism and the counties to identify and develop plans for ensuring access to electricity following a natural disaster or during a state of emergency.

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