

JAN 20 2017

A BILL FOR AN ACT

RELATING TO ENERGY EFFICIENCY.

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

1 SECTION 1. Energy efficiency is historically the lowest-
2 cost new energy resource in Hawaii. In its most recent program
3 year, the State's energy efficiency program, administered by the
4 public utilities commission, invested \$36,000,000 to enable
5 \$435,000,000 in lifetime energy savings. Energy efficiency thus
6 costs a mere fraction of the cost of energy purchased from the
7 electric grid. The legislature therefore finds that it is in
8 the strong interest of the State's economy and environment to
9 advance energy efficiency in the State.

10 Net zero energy capable design in new single family
11 residential construction means that the home has effectively
12 maximized its energy efficiency, such that it becomes more cost-
13 effective to generate on-site renewable energy rather than to
14 further increase the efficiency of the home.

15 There currently exists a split incentive that creates a
16 barrier to energy efficiency in new homes, to the detriment of
17 consumers. Residential developers often seek to minimize their



1 expenditures in the development of new homes. However, by
2 missing energy efficiency opportunities in those new homes,
3 developers shift the increased costs to consumers, in the form
4 of unnecessarily high energy costs during the lifetime of the
5 home.

6 In one example of addressing this split incentive issue,
7 California has targeted zero net energy standards for all new
8 residential buildings by 2020 and all new commercial structures
9 (and fifty per cent of existing commercial structures) by 2030.
10 California has also confirmed that implementing zero net energy
11 home building codes and standards is cost-effective. A 2012
12 analysis completed for Pacific Gas & Electric found that adding
13 energy efficiency upgrades to create a net zero energy code-
14 compliant new home will cost approximately \$2 to \$8 per square
15 foot. This is approximately 0.4 per cent to 1.7 per cent of the
16 present median cost per square foot of homes on the market in
17 Hawaii. As explained above, the cost-effectiveness of energy
18 efficiency in Hawaii means that this small initial cost can be
19 recouped many times over by the consumers in the form of lower
20 energy costs. In the context of a thirty-year mortgage, energy
21 efficiency can mean immediate savings for consumers, as slightly



1 higher mortgage payments are immediately offset by lower energy
2 costs.

3 Hawaii's energy codes and standards can be used to protect
4 consumers from this split incentive problem and to maximize
5 cost-effective energy efficiency in new homes. The purpose of
6 this Act is to require the state building code council to adopt
7 net zero energy capability standards and require all new single-
8 family residential construction in the State shall be net zero
9 capable by 2019.

10 SECTION 2. Chapter 107, Hawaii Revised Statutes, is
11 amended by adding a new section to part II to be appropriately
12 designated and to read as follows:

13 "§107- Energy efficiency; net zero energy capability
14 standards; adoption. No later than December 31, 2018, the
15 council shall adopt net zero energy capability standards
16 intended to ensure that new single-family residential
17 construction shall maximize energy efficiency opportunities,
18 such that in the council's estimation it would generally become
19 more cost-effective to generate on-site renewable energy rather
20 than to further increase the efficiency of the home. Such



1 standards may be amended by the council thereafter from time to
2 time as the council deems necessary."

3 SECTION 3. Chapter 196, Hawaii Revised Statutes, is
4 amended by adding a new section to be appropriately designated
5 and to read as follows:

6 "§196- Net zero energy capable construction. (a) By
7 January 1, 2019, all new single-family residential construction
8 shall be net zero energy capable.

9 (b) An individual who constructs a single-family residence
10 for use as the individual's own primary residence may apply to
11 the coordinator for an exemption from subsection (a), which the
12 coordinator may grant if the individual shows, to the
13 satisfaction of the coordinator, that complying with subsection
14 (a) would be impractical or cost-prohibitive."

15 SECTION 4. Section 196-2, Hawaii Revised Statutes, is
16 amended by adding a new definition to be appropriately inserted
17 and to read as follows:

18 "Net zero energy capable" means compliance with the net
19 zero energy capability standards for new single-family
20 residential construction adopted by the state building code
21 council pursuant to section 107- ."



1 SECTION 5. New statutory material is underscored.

2 SECTION 6. This Act shall take effect on July 1, 2017.

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S.B. NO. 571

Report Title:

Energy Efficiency; Net Zero Energy Capable Construction

Description:

Requires the state building code council to adopt net zero energy capability standards for new single-family residential construction. Requires all new single-family residential construction to be net zero capable by 1/1/2019.

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