

JAN 18 2019

A BILL FOR AN ACT

RELATING TO ENERGY EFFICIENCY.

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

1 SECTION 1. In 2008, the legislature passed Act 204,
2 Regular Session, Session Laws of Hawaii 2008 (Act 204), which
3 for the benefit of consumers, required that new homes shall
4 utilize solar water heating except in narrowly limited
5 circumstances. This is known as the "solar water heater
6 mandate".

7 The legislature finds that the variance provision currently
8 utilized in the solar water heater mandate is being
9 substantially abused to circumvent the objectives of Act 204, to
10 the detriment of consumers and the State's progress toward
11 renewable energy. This Act provides amendments to close this
12 loophole and protect consumers, while promoting the State's
13 energy security and sustainability.

14 In 2009, the legislature passed Act 155, Regular Session,
15 Session Laws of Hawaii 2009 (Act 155), which explained that the
16 Act "present[ed] a range of measures to reach aggressive energy
17 goals while balancing the interests of various stakeholders."



1 Part VII of Act 155 focused on the solar water heater mandate.
2 Act 155 explained that in passing Act 204, the legislature
3 "found that retrofitting a home for a solar water heater after
4 [the home] was constructed was more costly, and that such
5 upfront costs . . . were substantial barriers for the average
6 consumer. The financial barriers can be addressed, however, by
7 including the installation of a solar water heater into the
8 purchase price and mortgage of a home, where the cost of the
9 system may pay for itself immediately."

10 The solar water heater mandate included a variance process
11 by which a single family dwelling can be built without a solar
12 water heater if:

- 13 (1) Installation is impractical due to poor solar
14 resource;
- 15 (2) Installation is cost-prohibitive based upon a life
16 cycle cost-benefit analysis;
- 17 (3) A renewable energy technology system (e.g., solar
18 photovoltaic system) is substituted for use as the
19 primary energy source for heating water; or
- 20 (4) A demand water heater device approved by Underwriter
21 Laboratories, Inc. is installed; provided that at



1 least one other gas appliance is installed in the
2 dwelling.

3 In this context, a demand water heater "means a
4 gas-tankless instantaneous water heater that provides hot water
5 only as it is needed." In Hawaii, the gas used for this type of
6 tankless water heater is typically ninety-seven per cent to one
7 hundred per cent derived from fossil fuels.

8 The legislature finds that until the State's gas
9 infrastructure can supply consumers with a more renewable fuel,
10 allowing variance exceptions for gas-fired demand water heaters
11 is inconsistent with the State's transition to renewable energy.

12 In Act 155, the legislature found "that it [was] necessary
13 to clarify the intent of the variance provision that allows for
14 a demand water heater device. There is a potential that this
15 provision may be used to allow a developer/builder, the
16 purchaser of a water heating device, of a single-family
17 dwelling, to circumvent the policy objectives of Act 204." The
18 legislature also noted that it "intended for a consumer to have
19 the option to use gas appliances with the full knowledge that
20 such a system may be more costly and less efficient. To obviate
21 any attempt to circumvent Act 204, then, the legislature intends



1 that if the potential variance applicant is not the party who
2 will ultimately pay for the energy cost consumption, then only
3 variance exceptions (1), (2) or (3) of subsection (a) in section
4 196-6.5, Hawaii Revised Statutes, should apply."

5 Furthermore, the legislature intended "that the variances
6 provided for in Act 204, Session Laws of Hawaii 2008, (Act 204)
7 will be rarely, if ever, exercised or granted because the burden
8 of proof will lie with the applicant to demonstrate that a solar
9 water heater system, regardless of location or circumstance, is
10 not cost effective in the context of a thirty-year mortgage
11 term."

12 Despite Act 155 clarifying the legislature's intent, it is
13 apparent that the variance process is being used to circumvent
14 the objectives of Act 204. Variances have not been rare, as
15 intended. Through January 2019, over 6,600 variance requests
16 were filed. More than ninety-nine per cent of those variances
17 were granted. The vast majority, nearly ninety-six per cent, of
18 the variance requests were for instantaneous gas water heaters.
19 It is clear that variances requests are often not being
20 submitted by the end consumer, as the legislature intended.



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1 The legislature finds that it is necessary to amend the
2 solar water heater mandate to implement the intent of Act 204
3 and Act 155 and protect consumers. This need is particularly
4 important at a time when substantial new residential tracts are
5 being developed, and where the solar water heater mandate must
6 be implemented as intended.

7 The purpose of this Act is to ensure that the variance for
8 a demand water heater may only be granted if solar water heating
9 is impracticable, cost-prohibitive, or if no renewable energy
10 technology system can be substituted for use as the primary
11 energy source for heating water. Where a variance request is
12 granted, consumers may utilize grid-interactive water heaters or
13 heat pump water heaters, which, unlike demand water heaters,
14 will help to balance renewable energy in the State.

15 SECTION 2. Section 196-6.5, Hawaii Revised Statutes, is
16 amended to read as follows:

17 "§196-6.5 Solar water heater system required for new
18 single-family residential construction. (a) On or after
19 January 1, 2010, no building permit shall be issued for a new
20 single-family dwelling that does not include a solar water
21 heater system that meets the standards established pursuant to



1 section 269-44, unless the coordinator approves a variance. A
2 variance application shall only be accepted if [submitted]
3 signed by an architect or mechanical engineer licensed under
4 chapter 464, who attests and demonstrates that:

- 5 (1) Installation is impracticable due to poor solar
6 resource;
- 7 (2) Installation is cost-prohibitive based upon a life
8 cycle cost-benefit analysis that incorporates the
9 average residential utility bill and the cost of the
10 new solar water heater system with a life cycle that
11 does not exceed fifteen years; or

12 (3) A renewable energy technology system, as defined in
13 section 235-12.5, is substituted for use as the
14 primary energy source for heating water [~~or~~

15 ~~(4) A demand water heater device approved by Underwriters~~
16 ~~Laboratories, Inc., is installed; provided that at~~
17 ~~least one other gas appliance is installed in the~~
18 ~~dwelling. For the purposes of this paragraph, "demand~~
19 ~~water heater" means a gas tankless instantaneous water~~
20 ~~heater that provides hot water only as it is needed].~~



1 (b) If a variance is granted for a property that will be
2 connected to an electric utility grid, a grid-interactive water
3 heater or a heat pump water heater shall be used in place of a
4 solar water heater. For the purposes of this subsection,
5 "grid-interactive water heater" means an electric resistance
6 water heater fitted with grid-integrated controls that are
7 capable of participating in an electric utility load control or
8 demand response program.

9 [~~(b)~~] (c) A request for a variance shall be submitted to
10 the coordinator on an application prescribed by the coordinator
11 and shall include a description of the location of the property
12 and detailed justification for the approval of a variance using
13 the criteria established in subsection (a) [~~-~~], and the type of
14 replacement water heater being used in accordance with
15 subsection (b). The coordinator may exercise discretion in
16 denying any variance application deemed incomplete or
17 insufficient to satisfy the criteria in subsections (a) and (b).
18 A variance shall be deemed approved if not denied within [~~thirty~~
19 ~~working~~] sixty calendar days after receipt of the variance
20 application. The coordinator shall publicize:



- 1 (1) All applications for a variance within seven days
2 after receipt of the variance application; and
3 (2) The disposition of all applications for a variance
4 within seven days of the determination of the variance
5 application.

6 ~~[(e)]~~ (d) The director of business, economic development,
7 and tourism may adopt rules pursuant to chapter 91 to impose and
8 collect fees to cover the costs of administering variances under
9 this section~~[-]~~, and impose appropriate penalties or fines for
10 false attestation in various applications. The fees, fines, or
11 penalties, if any, shall be deposited into the energy security
12 special fund established under section 201-12.8.

13 ~~[(d)]~~ (e) Nothing in this section shall preclude any
14 county from establishing procedures and standards required to
15 implement this section.

16 ~~[(e)]~~ (f) Nothing in this section shall preclude
17 participation in any utility demand-side management program or
18 public benefits fee program under part VII of chapter 269."

19 SECTION 3. Statutory material to be repealed is bracketed
20 and stricken. New statutory material is underscored.

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

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INTRODUCED BY: *Wen-MS*
By Request



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Report Title:

Solar Water Heater Mandate; Variance

Description:

Ensures that a variance for a demand water heater may only be granted if solar water heating is impracticable or cost-prohibitive, or if no renewable energy technology system can be substituted for use as the primary energy source for heating water. Requires that if a variance is granted for a property that will be connected to an electric utility grid, a grid-interactive water heater or a heat pump water heater be used in place of a solar water heater. Provides for penalties or fines for false attestation in variance applications.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

