A BILL FOR AN ACT

RELATING TO ENERGY EFFICIENCY.

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

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

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

In 2009, the legislature passed Act 155, Regular Session, Session Laws of Hawaii 2009 (Act 155), which explained that the Act "present[ed] a range of measures to reach aggressive energy goals while balancing the interests of various stakeholders."
Part VII of Act 155 focused on the solar water heater mandate. Act 155 explained that in passing Act 204, the legislature "found that retrofitting a home for a solar water heater after [the home] was constructed was more costly, and that such upfront costs . . . were substantial barriers for the average consumer. The financial barriers can be addressed, however, by including the installation of a solar water heater into the purchase price and mortgage of a home, where the cost of the system may pay for itself immediately."

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

1. Installation is impractical due to poor solar resource;
2. Installation is cost-prohibitive based upon a life cycle cost-benefit analysis;
3. A renewable energy technology system (e.g., solar photovoltaic system) is substituted for use as the primary energy source for heating water; or
4. A demand water heater device approved by Underwriter Laboratories, Inc. is installed; provided that at
least one other gas appliance is installed in the
dwelling.

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

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

In Act 155, the legislature found "that it [was] necessary
to clarify the intent of the variance provision that allows for
a demand water heater device. There is a potential that this
provision may be used to allow a developer/builder, the
purchaser of a water heating device, of a single-family
dwelling, to circumvent the policy objectives of Act 204." The
legislature also noted that it "intended for a consumer to have
the option to use gas appliances with the full knowledge that
such a system may be more costly and less efficient. To obviate
any attempt to circumvent Act 204, then, the legislature intends
that if the potential variance applicant is not the party who will ultimately pay for the energy cost consumption, then only variance exceptions (1), (2) or (3) of subsection (a) in section 196-6.5, Hawaii Revised Statutes, should apply."

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

Despite Act 155 clarifying the legislature's intent, it is apparent that the variance process is being used to circumvent the objectives of Act 204. Variances have not been rare, as intended. Through January 2019, over 6,600 variance requests were filed. More than ninety-nine per cent of those variances were granted. The vast majority, nearly ninety-six per cent, of the variance requests were for instantaneous gas water heaters. It is clear that variances requests are often not being submitted by the end consumer, as the legislature intended.
The legislature finds that it is necessary to amend the solar water heater mandate to implement the intent of Act 204 and Act 155 and protect consumers. This need is particularly important at a time when substantial new residential tracts are being developed, and where the solar water heater mandate must be implemented as intended.

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

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

"§196-6.5 Solar water heater system required for new single-family residential construction. (a) On or after January 1, 2010, no building permit shall be issued for a new single-family dwelling that does not include a solar water heater system that meets the standards established pursuant to
section 269-44, unless the coordinator approves a variance. A variance application shall only be accepted if [submitted] signed by an architect or mechanical engineer licensed under chapter 464, who attests and demonstrates that:

(1) Installation is impracticable due to poor solar resource;

(2) Installation is cost-prohibitive based upon a life cycle cost-benefit analysis that incorporates the average residential utility bill and the cost of the new solar water heater system with a life cycle that does not exceed fifteen years; or

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

(4) A demand water heater device approved by Underwriters Laboratories, Inc., is installed; provided that at least one other gas appliance is installed in the dwelling. For the purposes of this paragraph, "demand water heater" means a gas tankless instantaneous water heater that provides hot water only as it is needed].
(b) 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 shall be used in place of a solar water heater. For the purposes of this subsection, "grid-interactive water heater" means an electric resistance water heater fitted with grid-integrated controls that are capable of participating in an electric utility loan control or demand response program.

(c) A request for a variance shall be submitted to the coordinator on an application prescribed by the coordinator and shall include a description of the location of the property and detailed justification for the approval of a variance using the criteria established in subsection (a)[1], and the type of replacement water heater being used in accordance with subsection (b). The coordinator may exercise discretion in denying any variance application deemed incomplete or insufficient to satisfy the criteria in subsections (a) and (b).

A variance shall be deemed approved if not denied within [thirty working] sixty calendar days after receipt of the variance application. The coordinator shall publicize:
(1) All applications for a variance within seven days after receipt of the variance application; and

(2) The disposition of all applications for a variance within seven days of the determination of the variance application.

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

(e) Nothing in this section shall preclude any county from establishing procedures and standards required to implement this section.

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

SECTION 3. Statutory material to be repealed is bracketed and stricken. New statutory material is underscored.
SECTION 4. This Act shall take effect upon its approval.

INTRODUCED BY: [Signature]

By Request
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.

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