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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
HOUSE COMMITTEE ON FINANCE

Monday, March 2, 2026
10:00 AM
State Capitol, Conference Room 308 and Videoconference

Providing Comments on
HB 2608, HD1

RELATING TO WATER HEATING SYSTEMS.

Chair Todd, Vice Chair Takenouchi and Members of the Committee, the Hawai‘i State Energy Office (HSEO) respectfully submits comments on HB 2608, HD1, which authorizes building permit variances for certain high-efficiency electric water heating systems utilizing heat pump technology.

HSEO administers solar water heater variance applications pursuant to HRS §196-6.5, under which §196-6.5(a)(1) and (2) specifies a variance may be granted when installation of a solar water heater is impracticable due to poor solar resource and is cost-prohibitive based on a life-cycle cost analysis. In administering these provisions, HSEO’s Chief Energy Officer may approve high-efficiency electric heat pump water heaters as an alternative water heating system when statutory criteria are satisfied. Current law does not require installation of a photovoltaic (PV) system in order to approve a heat pump water heater under these variance pathways.

HSEO suggests removing the proposed amendment on page 4, lines 13 to 17: “(5) A high-efficiency electric water heating system utilizing heat pump technology, as defined in section 235-12.5, when installed in conjunction with a photovoltaic system, is substituted as the primary energy source for heating water.”

As written, this amendment authorizes approval of a variance only if a high-efficiency electric heat pump water heater is installed in conjunction with a PV system.

Alternatively, the language could be moved, to §196-6.5 (a), amending page 3, lines 9 to 12: (a) On or after January 1, ~~2010~~ 2027, 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, or a high-efficiency electric water heating system utilizing heat pump technology, as defined in section 235-12.5, when installed in conjunction with a photovoltaic system.

To summarize, if the language remains in §196-6.5 (a)(5), this will require installation with a PV system, which will create additional barriers for homeowners who wish to adopt efficient heat pump technology but cannot install PV due to shading or financial constraints. This change would reduce flexibility, add costs, and could slow progress toward Hawai‘i’s energy and decarbonization goals. However, if moved to section §196-6.5 (a), this amendment would effectively allow a heat pump water heater installed in conjunction with a photovoltaic system to receive a building permit without going through the variance request process.

As an additional housekeeping amendment, HSEO recommends deleting the reference to Underwriters Laboratories, Inc. (UL), as UL does not approve gas appliances.

Accordingly, HSEO recommends amending Section 196-6.5 (a)(4) on page 4, lines 6-12:

“(4)A demand water heater device ~~approved by Underwriters Laboratories, Inc~~...”

In place of that, HSEO proposes the following:

“(4) A demand water heater device certified by ENERGY STAR, the Consortium for Energy Efficiency, or other third-party independent entity that identifies appliances to save consumers money by reducing energy usage, ~~approved by~~ ~~Underwriters Laboratories, Inc.,~~ is installed...”

This suggested amendment should be viewed as a housekeeping amendment to improve clarity of the existing statute.

While the intent of HB 2608, HD1, to promote clean energy adoption is commendable, the existing statutory framework already allows consideration and approval of high-efficiency heat pump water heaters through the variance process without imposing additional conditions that may limit homeowner participation.

Thank you for the opportunity to testify.

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March 2, 2026

The Honorable Chris Todd, Chair
House Committee on Finance
State Capitol, Conference Room 308 & Videoconference

RE: House Bill 2608, HD1, Relating to Water Heating Systems

HEARING: Monday, March 2, 2026, at 10:00 a.m.

Aloha Chair Todd, Vice Chair Takenouchi, and Members of the Committee:

My name is Lyndsey Garcia, Director of Advocacy, testifying on behalf of the Hawai'i Association of REALTORS® ("HAR"), the voice of real estate in Hawaii and its over 10,000 members. HAR **supports the intent** of House Bill 2608, HD1, which authorizes building permit variances for certain high-efficiency electric water heating systems utilizing heat pump technology. Effective 7/1/3000.

Under current law, new single-family homes must include a solar water heater system to obtain a building permit. However, some homes may have limited sunlight exposure, which would make solar water heating less effective. HAR supports allowing high-efficiency electric water heating systems utilizing heat pump technology as a viable clean energy alternative that can also be utilized in a broad range of housing types.

Mahalo for the opportunity to testify on this measure.

HAWAIIAN COUNCIL

Hawai‘i State House of Representatives

Committee on Finance

HB2608, HD1 – Relating to Water Heating Systems

RE: Support for HB2608, HD1 March 2, 2026

Hawaiian Council writes in support for HB2608, HD1, which was introduced as a vehicle to encourage utility bill savings, increase household energy independence, and advance energy sovereignty for our islands. While we understand the amendments made by the prior committee that preserved all current forms of variances, we would encourage this committee to reconsider the tax credit element of the original draft of this bill.

Hawaiian Council is a 501(c)3 member-based non-profit committed to advancing the cultural, economic, and community development of Hawai‘i and Native Hawaiians, with a focus on sustainability and economic resilience by advancing self-sufficiency. The recently rescinded 30% federal tax credit (up to $2000) for heat pump water heaters was a critical part of the move towards energy sovereignty and affordable utilities.

The original version of HB2608 helped fill that gap by expanding the state income tax credit to help lower upfront installation costs for heat pump water heaters for local families when paired with a solar PV system, providing years of savings on monthly utility bills. HB2608 recognized the recent technological and cost improvements that provide more flexible and cost-effective options for local homeowners.

The current language of HB2608, HD1 does not support the adoption of heat pump water heaters for existing low- and moderate-income households. **We strongly encourage this committee to restore the original tax credit language.** Hawaiian Council supports measures that provide more choice and equitable access to sustainable technologies. Mahalo for your commitment to Native Hawaiian culture, economic development, and local energy sovereignty.

Mālama pono,

Madelyn McKeague
Director of Advocacy, Hawaiian Council

HB-2608-HD-1
Submitted on: 3/1/2026 7:47:50 AM
Testimony for FIN on 3/2/2026 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Steve Parsons	Kauai Climate Action Coalition	Support	Remotely Via Zoom

Comments:

Aloha Chair Todd, Vice Chair Takenouchi, and members of the House Committee on Finance:

Some states are already leading the way in making heat pump water heaters the standard. California is phasing them into new homes, Washington mandates them in many new builds, and New York will require all-electric systems, including heat pumps, by 2026. Instead of treating heat pumps as an exception in Hawai‘i, we should follow suit. A 110V heat pump keeps grid demands low, avoids on-demand gas, and even offers hybrid solar-heat pump options.

The barrier should be removed. When heat pumps are standard, we shift naturally toward efficiency, affordability, and easier installs—leaving costly solar-only or gas backup solutions as exceptions, not the rule.

In fact, the numbers back this up. Solar water heaters in Hawai‘i often cost $12,000 upfront, while heat pumps are around $3,000. Even at similar efficiency (90%), that $9,000 gap makes the heat pump pay for itself in a few years, while solar might take over a decade. With lower upfront costs, fewer roof penetrations, and stable efficiency, heat pumps offer a clear, cost-effective path. Hawai‘i should join those other states and make heat pumps the norm just like HP 350 was written last yr.

Mahalo,

steve Parsons, Kauai Climate Coalition, Lead!

March 1, 2026

Representatives Todd and Takenouchi
House Committee on Finance

RE: HB2608
Hearing: Monday March 2, 2026
Position: **COMMENTS**

Chairs Todd, Vice Chair Takenouchi, and members of the committee:

My name is Will Giese. I am the Senior Director of Government Affairs for Solaray Corporation. Solaray was founded in 1975 in Hawai'i and does business in Hawai'i as Inter-Island Solar Supply. Solaray also wholly owns Pacific Panel Cleaners ("PPC"), Generator & Power Systems ("GPS"), both Hawai'i Corporations, SunEarth, Inc., a California Corporation, and Alternate Energy Technologies (AET), a Florida Corporation. SunEarth & AET are domestic manufacturing companies producing American made clean energy products, much of which is installed and operated throughout Hawaii for 50 years. GPS is the Generac Industrial generator distributor for Hawai'i. Solaray Corp., and its wholly owned subsidiaries, are proudly 100% employee owned.

Solaray is offering **COMMENTS** to HB2608 relating to water heating systems, but are generally in support of the intent of this legislation.

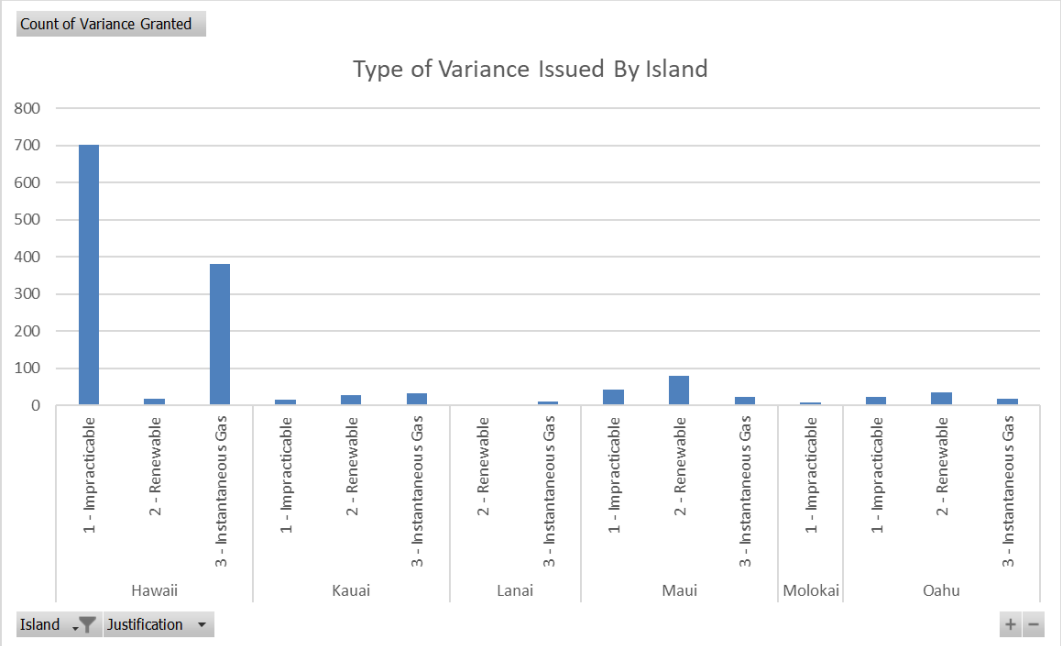
This bill authorizes building permit variances for certain high-efficiency electric water heating systems utilizing heat pump technology, rather than solar water heater systems. It expands the renewable energy technologies income tax credit to include high-efficiency electric water heating systems.

COMMENTS

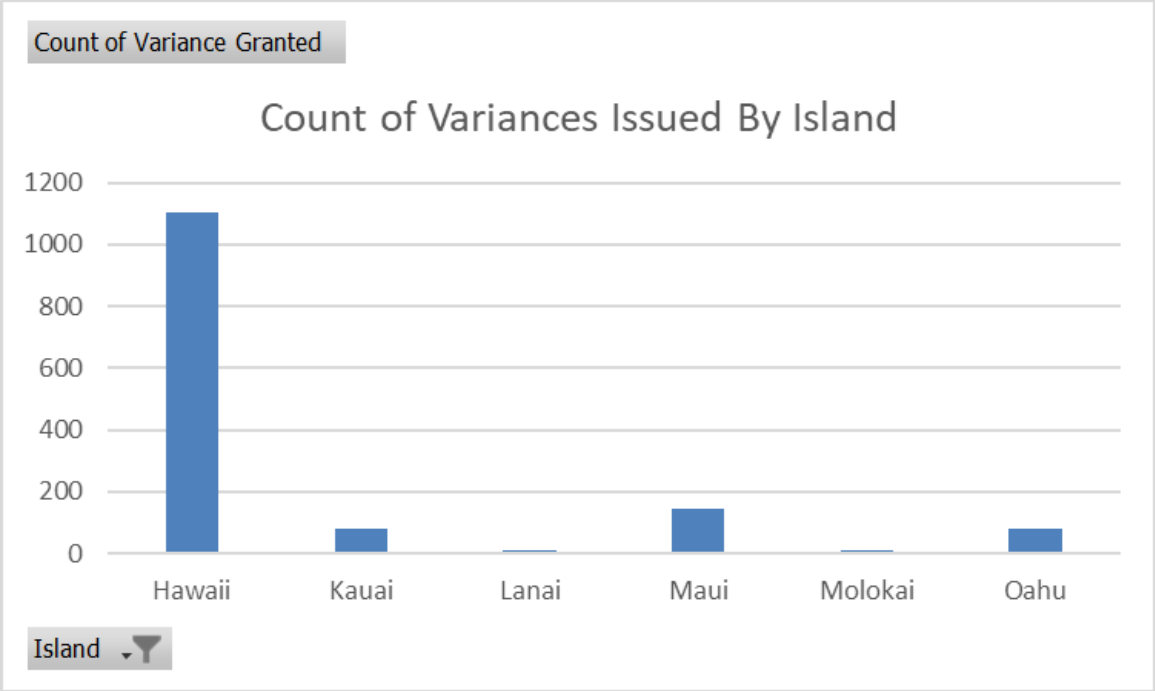
Solar water heaters are an essential part of Hawaii's energy landscape and provide millions of gallons of hot water heated by the sun to thousands of homes and businesses throughout Hawaii each year, while supporting a diverse local installer network. In fact, Hawaii has one of the most successful solar water heating industries in the United States, with almost 1 in 3 single family homes having installed solar water heaters for over 40 years. Because of the abundant solar resources available in the state, Hawaii rightly recognized over 15 years ago that the most cost effective and efficient way to heat water *and* reduce or almost entirely eliminate one of the largest single energy loads in a home was to require solar water heaters as part of all new home construction.

Solar water heaters are highly effective at heating water for residences throughout the state, because the state mandates that solar water heaters provide 90% or greater thermal energy to heat water directly from the sun. Current guidelines regarding the variance process requires that a majority of the energy used to heat water is offset by a renewable source, unless there are specific reasons that the home is incapable of installing a solar water heater, such as poor solar resources. In fact, the current variance process allows for heat pumps and solar PV water heaters to be selected as an alternative. Over half of all variances applied for and approved by the Hawaii State Energy Office were either PV or heat pumps.[1]

This legislation adds a variance that is functionally already being used. In 2025, of the 1436 variance request received by the HSEO 1225 of them were approved (85%). 370 of these approvals were for instantaneous gas (30%) and 707 were for heat pumps due to impractical solar resource (57%). If we assume similar construction rates for new single-family homes in 2025 as in 2024 (around 2500 homes), this is a little under 50% of all homes having approved variances for SHW, and around 26% have heat pumps. Interestingly, as has been the case for many years, half of all variances applied for and approved are by one architect/engineer on the Big Island.



[1] See HSEA SHW Variance Data here: https://energy.hawaii.gov/what-we-do/energy-efficiency/solar-water-heat-variance/



If the intent of the legislature and the state is for this variance process and mandate to actually work as intended, it is failing to do so. The original intent of the solar water heating mandate was to issue variances "rarely, if ever" in lieu of solar water heating technology. This is in addition to a 2019 ruling that requires the HSEO to "rarely, if ever" issue variances and to exercise discretion on each variance that is submitted. In 2025, only 68 variances were issued that required the applicant to submit a life-cycle cost comparison analysis that requires the applicant to justify the cost of an alternative water heating method. For variances to be issued for over half of all new single-family homes in Hawaii almost certainly does not meet the standard of "rarely, if ever".

We also suggest that, as an amendment to this bill, the legislature consider directing the Public Utilities Commission to update the standard by which solar water heating is adopted in this state. Solar water heating technology has changed significantly since 2009, yet the standards surrounding their installation in Hawaii have remained the same. For instance, the average life of a solar water heater is at least 20-25 years yet Section 195-6.5 only allows the comparison of a solar water heater at 15 years. This oversight distorts the value of solar water heaters and makes a lifecycle cost analysis appear less affordable than the technology actually is. Updating the standards allows the state to account for these technological innovations and gives the state an opportunity to amend existing standards to lower the cost of solar water heating compared to other technology. That standard exists in HRS Section 269-44 (which is referenced in Section 196-6.5). We recommend the following amendments in red, at page 4, line 7 and as a new section:

PAGE 4, LINE 7 of HB2608

(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;~~

(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.]

(4) A high-efficiency electric water heating system utilizing heat pump technology, as defined in section 235-12.5, when installed in conjunction with a photovoltaic system, is substituted as the primary energy source for heating water."

NEW SECTION AMENDMENTS

[§269-44] Solar water heater system standards. Not later than July 1, 2009, or as soon as reasonably practicable, the public utilities commission shall adopt or establish by rule, tariff, or order, standards for solar water heater systems to include, but not be limited to, specifications for the performance, materials, components, durability, longevity, proper sizing, installation, and quality to promote the objectives of section 269-124. The commission shall update these rules, tariffs, or standards on or before July 1, 2027 and every five years after that date to account for advances and innovations in solar water heating technology. [L 2008, c 204, §3]

While there are limited cases in which solar water heaters do not make sense for the average new home build, in most cases solar water heating is the most cost-effective and resilient way for the average home in Hawaii to heat water. This is why there is a variance process, and also why variances should “rarely, if ever” be granted. The variance process, if properly implemented by HSEO, works as intended and residents are able to enjoy the most efficient water heating technology available to them on the market.

As a local, employee-owned solar business owned and operated in Hawaii for over 50 years, we **OFFER** COMMENTS FOR **HB2608 HD1** and urge the committee to consider our suggested amendments to this measure.

Thank you for your time and consideration,

Will Giese
Senior Director, Government Affairs
Solaray Corporation

HB-2608-HD-1
Submitted on: 2/28/2026 1:02:53 PM
Testimony for FIN on 3/2/2026 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Douglas Perrine	Individual	Support	Written Testimony Only

Comments:

I support the intention of HB2608 to allow the substitution of an electric heat pump water heating system for a solar water heating system where a solar system is not practical. However, I do believe that the wording of this bill needs a little extra cleanup, with attention to "and"s and "or"s to be sure its meaning is absolutely clear.

HB-2608-HD-1
Submitted on: 3/1/2026 2:19:56 PM
Testimony for FIN on 3/2/2026 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Paul Bernstein	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Todd and members of the FIN committee:

I'm writing in support of HB2608 HD1, which authorizes building permit variances for certain high-efficiency electric water heating systems utilizing heat pump technology.

This bill provides another pathway for homes to avoid using gas for hot water heating, namely heat pumps. The bill requires that the home also has a PV system as the primary power source for the heat pump. Therefore, this bill's amendment to Section 196-6.5 of the Hawaii Revised Statutes would provide builders with an additional option for building homes with lower carbon footprints and less dependence on fossil fuels.

Over the past few years, heat pumps have become less costly and more energy efficient, making them cost-effective options for hot water heating.

I urge you to pass HB2608 HD1 out of your committee as this bill is simply about providing more options for people to reduce their consumption of fossil fuels, which benefits all of us, as it is a small step in making our state less dependent on fossil fuel imports and helping our state to become cleaner.

Mahalo for the opportunity to testify.

Mahalo nui,

Paul Bernstein

Honolulu