



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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Testimony of  
**MARK B. GLICK, Chief Energy Officer**

before the  
**SENATE COMMITTEES ON  
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM  
AND  
GOVERNMENT OPERATIONS**

Thursday, February 15, 2024  
1:10 PM  
State Capitol, Conference Room 229 and Videoconference

In Support of  
**SB 2677**

**RELATING TO ENERGY EFFICIENCY.**

Chairs DeCoite and McKelvey, Vice Chairs Wakai and Gabbard, and members of the Committees, the Hawai'i State Energy Office (HSEO) supports SB 2677 which amends Section 196-6.5, Hawai'i Revised Statutes, by transferring the authority over solar water heater variances from the state to the counties. This strategic shift recognizes the benefits of decentralizing decision-making processes, allowing counties to tailor solutions to their unique circumstances and fostering increased community engagement.

Transferring solar water heater variance decision-making to the counties capitalizes on the localized expertise present in each jurisdiction. County departments possess an in-depth understanding of the unique environmental, economic, and infrastructural characteristics that define their regions. This localized knowledge is invaluable in assessing the feasibility and impact of solar water heater installations, ensuring that decisions are informed by on-the-ground insights.

Counties, when granted the authority over solar water heater variances, gain the flexibility to design and implement tailored solutions that align with their specific energy

goals and priorities. This flexibility allows for the development of policies that address the varying challenges and opportunities that are present and unique in the different counties, promoting a more effective and targeted approach to processing solar water heater variances.

Empowering counties with the responsibility of managing solar water heater variances enhances community engagement and representation. Local governments are often more accessible to residents, facilitating meaningful public input and discourse. This inclusive approach ensures that decisions regarding variances are made with a thorough understanding of the concerns and preferences of the communities directly affected.

County-level management of solar water heater variances has the potential to streamline decision-making processes and will decentralize and reduce the bureaucratic complexities as well as promote a more agile and responsive system. The shift in management will benefit both applicants and local communities.

Counties that have control over solar water heater variances can adapt more swiftly to evolving technologies and changing circumstances. This adaptability is crucial in the dynamic field of energy efficiency, where innovations and advancements may occur rapidly. Local control enables counties to stay at the forefront of developments and update policies to reflect the latest technological, economic, and environmental considerations.

The bill also gives the counties the ability to assess a processing fee which will help recoup some of the costs associated with implementing the solar water heater variance program.

HSEO would like to recommend two amendments to SB 2677:

The first amendment would be to replace all references to "county planning department" with "county authority having jurisdiction over building permits" since each county operates differently when it comes to building permits.

The second amendment would be to add the following to Section 196-6.5, Hawai'i Revised Statutes:

(f) A solar water heater variance request shall be submitted concurrently with the building permit application. If

the building permit application indicates the installation of a solar water heater and a different water heating technology is installed after the building permit is issued, any solar water heater variance request submitted prior to or after the completion of the new single-family dwelling's construction shall be automatically denied.

The proposed amendment aims to streamline the solar water heater variance process by requiring applicants to submit variance requests at the same time as their building permit applications. This proactive approach ensures transparency and adherence to the initially stated intention of utilizing solar water heating technology in the construction project.

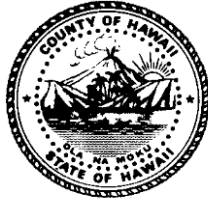
HSEO urges the committee to support the transfer of authority over solar water heater variances from the state to the counties as proposed in SB 2677. This shift promotes efficiency, community engagement, and the ability to craft policies that are better suited to the diverse needs of individual counties.

Thank you for the opportunity to testify.

Mitchell D. Roth  
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## County of Hawai'i PLANNING DEPARTMENT

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February 13, 2024

Testimony of  
Zendo Kern

Director, County of Hawai'i, Department of Planning  
before the

### **SENATE COMMITTEE ON GOVERNMENT OPERATIONS & COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

Thursday, February 15, 2024

1:10 p.m.

State Capitol, Conference Room 229

In consideration of

### **SENATE BILL NO. 2677 RELATING TO ENERGY EFFICIENCY**

Chair Mckelvey, Vice Chair Gabbard, and Members of the Senate Committee on Government Operations

Chair DeCoite, Vice Chair Wakai, and Members of the Senate Committee on Energy, Economic Development, and Tourism

On behalf of the County of Hawai'i Planning Department, I am expressing our **support** for **SB2677** which will amend the entity responsible for approving a variance for the installation of solar water heater systems from the Chief Energy to the appropriate county planning department.

The County of Hawai'i Planning Department recommends amendments to (a) through (c) proposed and added to Hawai'i Revised Statutes §196-6.5 (a) through (c) as follows:

"(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 [~~chief energy officer of the Hawaii state energy office~~] appropriate county department having jurisdiction over building permits approves a variance. A variance application shall only be accepted if submitted by an architect or mechanical engineer licensed under chapter 464, who attests 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;
- (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) A request for a variance shall be submitted to the ~~[chief energy officer of the Hawaii state energy office]~~ appropriate county department having jurisdiction over building permits on an application prescribed by the ~~[chief energy officer of the Hawaii state energy office]~~ appropriate county department having jurisdiction over building permits and shall include a description of the location of the property and justification for the approval of a variance using the criteria established in subsection (a). A variance shall be deemed approved if not denied within thirty working days after receipt of the variance application. The ~~[chief energy officer of the Hawaii state energy office]~~ appropriate county department having jurisdiction over building permits 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.

(c) The ~~[director of business, economic development, and tourism]~~ appropriate county department having jurisdiction over building permits may ~~[adopt rules pursuant to chapter 91 to]~~ impose and collect fees to cover the costs of administering variances under this section. The fees, if any, shall be deposited into the ~~[energy security special fund established under section 201-12.8.]~~ appropriate county department operating fund."

Thank you for the opportunity to testify on this measure.

**RICHARD T. BISSEN, JR.**  
Mayor

**JOSIAH K. NISHITA**  
Managing Director



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February 14, 2024

TO: Senator Lynn DeCoite, Chair  
Senator Glenn Wakai, Vice Chair  
Committee on Energy, Economic Development, and Tourism

Senator Angus L.K. McKelvey, Chair  
Senator Mike Gabbard, Vice Chair  
Committee on Government Operations

FROM: Richard T. Bissen, Jr., Mayor  
Kate Blystone, Acting Planning Director

DATE: February 14, 2024

SUBJECT: **OPPOSITION OF SB2677, RELATING TO ENERGY EFFICIENCY**

Thank you for the opportunity to testify in **OPPOSITION** of this important measure. This Act amends the entity responsible for approving a variance for the installation of solar water heater systems from the Chief Energy Officer to the appropriate county planning department and requires the fees collected by each county planning department to be deposited into the appropriate county planning department operating fund.

We **OPPOSE** this measure for the following reasons:

1. County planning departments typically do not have the expertise to evaluate the acceptance of variance application based upon the standards identified under section (a), (1) through (4).
2. The processing timeframes established in section (b) are not sufficient for the County of Maui's Planning Department to provide public notification and conduct a public hearing before its Board of Variances and Appeals.

3. While it should be the responsibility of the local county planning department to process variance applications for projects governed by its own ordinances, in this case, variance applications would be processed by the county planning departments utilizing standards established in Hawaii Revised Statutes. The Planning Department believes that the responsibility for the issuance of a variance against state standards should reside with the state.

For the foregoing reasons, we **OPPOSE** this measure.



**Testimony to the Committee on Energy, Economic Development, and Tourism and  
The Committee on Government Operations  
February 14, 2024, 1:10 PM  
Conference Room 229 & VIA videoconference  
Hawaii State Capitol**

**SB 2677**

Chairs DeCoite, McKelvey, Vice Chairs Wakai, Gabbard, and members of the committee,

Hawaii Gas **offers comments on SB 2677**, which amends the entity responsible for approving a variance for the installation of solar water heater systems from the Chief Energy Officer to the appropriate county planning department. Requires the fees collected by each county planning department to be deposited into the appropriate county planning department operating fund.

Since 1904, Hawaii Gas has been a pioneer in the gas industry and continues as an industry leader integrating both renewable natural gas (RNG) and hydrogen into our fuel supply and distribution system. Hawaii Gas plays a vital role in Hawaii's energy portfolio by providing clean, reliable, and cost-effective energy to over 70,000 customers on all islands, all of whom depend on the company for health and safety uses such as sanitation, water heating, cooking, drying, showers, and other economy driving commercial and industrial applications. Hawaii Gas continues to look towards new, innovative, and economic ways to incorporate renewable energy sources while also reducing our greenhouse gas emissions.

Hawaii Gas appreciates the original intent of §196-6.5 to require installation of solar water heating systems in new single-family dwellings and the ability for homeowners to apply for a variance that provides other water heating options where it is impractical, cost prohibitive or provided at least one other gas appliance is installed. Currently, §196-6.5 only allows this variance if it is submitted by an architect or mechanical engineer licensed under Chapter 464. The process of obtaining a variance is costly, cumbersome, and time consuming for both the homeowner and the approving agency and can cause untimely delays. Notably, there is no mechanism for a homeowner to apply, or to allow delegation to homebuilders, both of whom can more cost efficiently apply for a variance.

Much has changed since §196-6.5 was amended in 2010. Solar water heating and rooftop solar, nascent technologies in 2010, needed policy supports such as these mandates and tax credits. However, these energy sources are now a common choice by homeowners.

While solar water heaters have their merits, gas water heaters offer several key advantages that can make them more beneficial, in some circumstances, to many residents in our communities. Recently, Hawaii has been repeatedly reminded of our communities' susceptibility to natural and manmade disasters from floods to lava flows, and most recently wildfires.

Gas water heaters and appliances are relied upon during disaster recoveries not only because they provide consistent and reliable hot water supply without interruption during emergencies, regardless of weather conditions or time of day, but because it can be quickly installed, takes little square footage, does not require electricity, and it can also be affordably installed and maintained for years. Additionally, in high occupancy homes, gas water heaters can instantly and efficiently heat large





volumes of water making them more suitable than limited capacity solar water heating tanks. Multigenerational housing is quite common in Hawaii, thus making that capacity vital.

In addition to their reliability and resilience, gas water heaters offer a cost-effective solution for meeting hot water needs post-disaster. For example, in Lahaina, Hawaii Gas was a resilient energy source for businesses, community hubs, and residents when fires devastated the community. In August and September, propane was used by the Lahaina community, providing approximately 9 million meals, over 100,000 showers, and almost 200,000 loads of laundry – all during a critical point in time when the community needed the services.

Hawaii Gas also provided gas for water heating, cooking, and drying for the state’s initiative of Kauhale Housing, whose mission is to “create deeply affordable spaces for housing and healing our people through intentional ‘kauhale’ design and operation.” These modest housing units for individual households include shared space for cooking, envisioned as prefabricated homes, or modest, low-cost individual units. Hawaii Gas has provided these reliable gas resources at Kahauike Village, Kumuhonua Transitional Living Center, Onemalu Transitional Center and the Onelau`ena Emergency Shelter Program.

Given the many benefits gas water heaters can provide to homeowners, and because current variances under §196-6.5 allowing gas water heaters for a homeowner may not provide an option for the residents of Lahaina when they are ready to rebuild, we ask that the committee consider creating additional variances that address current and future conditions, including:

Proposed Amendments:

Add: In Section (a) inserting that in addition to an architect or mechanical engineer, a homeowner or homebuilder on behalf of a future homeowner can submit and attest.

Add: After Section (a) (4)

- (5) A gas tankless water heater is necessary for resilience, reliability, or redundancy to prepare for natural or manmade disaster or emergency;
- (6) The electric grid is not available or cost prohibitive to provision to the home;
- (7) The home is located in a Low or Moderate Income (LMI) District; or
- (8) due to the location of the home in a community facing the highest risk of wildfires identified by the state.

Also, note that a demand hot water heater is not under the certification of Underwriters Laboratories, but rather certified by CSA International to ANSI Z21.10.3 Standard Gas Water Heaters.

Therefore, we ask consideration to revise:

Section (a)(4) A demand water heater device approved by ~~Underwriters Laboratories, Inc~~, is installed;  
Revise to: (a)(4) A demand water heater device is approved by a nationally recognized testing laboratory, is installed;

Additionally, we also ask that whatever entity is provided responsibility for accepting and approving variance applications, that the entity(ies) are consistent in their implementation of this process.



Thank you for the opportunity to testify.



**SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM  
SENATE COMMITTEE ON GOVERNMENT OPERATIONS**

February 15, 2024 at 1:10 PM  
Room 229

**TESTIMONY IN OPPOSITION OF SB 2677**

Aloha Chair DeCoite, Chair McKelvey, and members of the Committees:

Blue Planet Foundation **opposes SB 2677**, a measure to amend the Hawai'i solar water heater law and transfer the variance approval process from the Hawai'i State Energy Office to the respective county planning department.

Blue Planet Foundation is a Hawai'i-based nonprofit organization committed to help Hawai'i cut its carbon emissions and avoid the worst impacts of climate change. Through our advocacy for renewable energy, energy efficiency, and clean transportation, we seek to make our communities stronger, our energy more secure, our environment healthier, and our economy more robust.

In 2008, Hawai'i codified HRS § 196-6.5 to ensure that the vast majority of new single-family homes come equipped with a solar water heating system, which is a foundation block in building Hawaii's clean energy future. A solar water system is the most basic renewable energy device to harness the clean energy from the sun and provides the greatest energy savings per dollar for reducing residential energy demand.

Blue Planet believes that the application process for variances from the solar water heater law should remain under the management of the Hawai'i State Energy Office. The HSEO is the most appropriate reviewer for these variances and we note that this proposal would add administrative burden to our already backlogged county permitting offices. Additionally, if counties are allowed to approve variance applications and set their own county-specific procedures and standards for granting variances, this would further delay permitting and add confusion to the process.

Solar hot water systems have proven to be successful in increasing the efficiency and affordability of new homes built, reducing the high electricity burdens that residents endure, and assisting Hawai'i's transition to clean energy. The variance process has become effective in recent years under the Hawai'i State Energy Office and does not warrant an amendment via SB 2677. We respectfully request the committee hold this measure.