



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

JOSH GREEN, M.D.
GOVERNOR

MARK B. GLICK
CHIEF ENERGY OFFICER

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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
AND
HOUSE COMMITTEE ON HOUSING**

Friday, February 3, 2023
10:30 AM
State Capitol, Conference Room 325 and Videoconference

Comments in consideration of
HB 327

RELATING TO ROOFTOP SOLAR INSTALLATION.

Chairs Lowen and Hashimoto, Vice Chairs Cochran and Aiu, and Members of the Committees, the Hawaii State Energy Office (HSEO) supports the intent and offers comments on HB 327, which would assign HSEO the responsibility for granting variances for “a new single family dwelling that is part of a development of ten or more dwellings and does not include a rooftop photovoltaic energy generation system” and states that a variance application shall be accepted “if submitted by an architect or electrical engineer... who attests that...” and lists two possible attestations.

Our comments are guided by our mission to promote energy efficiency, renewable energy, energy resiliency, and clean transportation to help achieve a decarbonized economy. We appreciate the intent of the proposal to make better use of the energy that is delivered to rooftops in Hawaii on a daily basis to help us reach the goal of 100% renewable electricity.

Over the summer, HSEO staff reached out to the California Energy Commission (CEC) staff involved in California's program. CEC personnel shared that, in their view, the following elements were important to the success of the PV mandate in California:

1. Full support of all California counties through approved ordinances, specifically the Building Energy Efficiency Standards.
2. Endorsement and support from the building industries and associations.
3. Enforcement of the mandate is with the building industry and associations.
4. Diligent updates to California's building codes every three years.
5. Creation of four full-time positions within the CEC with a budget of \$800,000 to administer the program statewide.

HSEO does not have an estimate of the resources (staffing or funding) that would be required for HSEO or others to carry out the "variance application" tasks associated with this bill. A source of funding to provide staff is the Energy Security Special Fund, but it should also be noted that those funds are not available to the Hawaii State Energy Office unless appropriated to HSEO by the Legislature.

Another issue to consider in the proposed legislation is how it will interact with the existing solar water heater mandate and other measures proposed during this session, including the "PV-ready" and "EV-ready" mandates.

HSEO looks forward to working with the Committees and others on these important topics.

Thank you for the opportunity to testify.

HB-327

Submitted on: 2/1/2023 9:17:56 AM

Testimony for EEP on 2/3/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Dave Mulinix	Our Revolution Hawaii	Support	Remotely Via Zoom

Comments:

Aloha Chair Lowen & Chair Hashimoto & Members of the Committees,

On behalf of Our Revolution Hawaii's 5,000 members and supporters statewide, we Stronly Support passage of HB327 that prohibits the issuance of building permits for new single-family dwellings that are part of a development of ten or more dwellings and do not include a rooftop photovoltaic energy generating system, unless a variance is granted.

There are multiple excellent reasons to pass HB327 including:

- With the abundant sun will are blessed with in Hawaii, the move to solar-ready homes is a no-brainer. Consumers with rooftop solar slash their energy use and enjoy substantial savings on their energy bills.
- Solar-ready homes are the future for Hawaii, a future we must begin now to mitigate the devastating effects of global warming. HB327 will move Hawaii to a clean, renewable energy economy and future. Science tells us we must transition *now*. Our grandchildren and great-grandchildren are counting on us!
- Consumers with rooftop solar slash their energy use and enjoy substantial savings on their energy bills. With the highest electrical rates in the country and the impacts of Climate Change already being felt, every home in Hawaii should be using the sun. This is a common-sense policy.
- Rooftop solar is one of the most potent tools Hawaii has for reducing our greenhouse gas emissions. As stated in the preamble of this proposed legislation, available rooftop space for rooftop solar photovoltaics will be an important part of meeting Hawaii's one hundred percent renewable energy target, as the State is unlikely to meet its renewable energy target with utility—scale resources alone.
- Requiring rooftop solar for single-family dwelling developments of ten or more is a good start but Hawaii can do better. In 2018, California passed a law requiring rooftop PV on *every new home*. Hawaii should do the same. Extensive studies in California showed that all homeowners would see lower costs if their house had rooftop solar. With Hawaii's climate being even more favorable for solar and electric rates even higher, it is virtually certain the same or better results would happen in Hawaii.

Please pass HB327.

Mahalo for your kind attention,

Dave Mulnix, Cofounder & Hawaii State Organizer

Our Revolution Hawaii



February 2, 2023

Representative Nicole Lowen, Chair
Representative Elle Cochran, Vice Chair
Members of the Committee on Environmental Protection

Representative Troy Hashimoto, Chair
Representative Micah Aiu, Vice Chair
Members of the Committee on Housing

RE: **HB327 – RELATING TO SOLAR ROOFTOP INSTALLATIONS**
Hearing date – February 3, 2023 at 1:30 p.m.

Aloha Chair Lowen, Chair Hashimoto and members of the committees,

Thank you for allowing NAIOP Hawaii to submit testimony in **STRONG OPPOSITION** to HB327 – RELATING TO ROOFTOP SOLAR INSTALLATIONS. NAIOP Hawaii is the Hawaii chapter of the nation's leading organization for office, industrial, retail, residential and mixed-use real estate. NAIOP Hawaii has over 200 members in the State including local developers, owners, investors, asset managers, lenders and other professionals. NAIOP Hawaii is generally supportive of efforts to promote sustainability. We are, however, concerned with the tremendous burden an additional mandate places on the cost of building homes in Hawaii, especially affordable housing.

HB 327 prohibits the issuance of building permits for new single-family dwellings that are part of a development of twenty or more dwellings and do not include a rooftop photovoltaic energy generating system unless a variance is granted. Despite the legislature's efforts to address Hawaii's critical affordable housing shortage, it appears that bills requiring additional housing mandates that drastically increase the cost of housing are continuously introduced.

Hawaii's residents and businesses are already among the most heavily taxed in the entire country. There are already significant development mandates which increase the cost of building residential units, which has significantly exacerbated the lack of affordable housing in Hawaii. Requiring rooftop solar systems could easily increase the cost of housing. At a time when even minor increases to the cost of housing place home prices beyond the affordability measure, such a substantial increase would clearly put

Representative Nicole Lowen, Chair
Representative Elle Cochran, Vice Chair
Members of the Committee on Environmental Protection
February 2, 2023
Page 2

homeownership out of reach for most local families. This is especially concerning during a time period in which high interest rates and negatively impact a buyer's purchasing power. This mandate would be inconsistent with Hawaii's current housing goals.

Further, new homeowners will only be able to recoup a portion of the increased cost for installation. Again, this is drastically contradictory to the legislatures stated efforts to support affordable housing. In addition, there is no indication that the electrical infrastructure could support rooftop solar generation systems on every new home, thus slowing down the pace of homebuilders.

Moreover, HB 327 increases approval time for projects with the addition of the variance process. As it stands the pre-development process in Hawaii is already lengthy and creates additional costs that burden housing projects. The legislature should develop ways to shorten and not add to the pre-development process.

Hawaii is in a major housing crisis, which has only worsened over time. The prohibition on the issuance of building permits and the rising costs associated with installing the required solar will prevent projects from being constructed. Ultimately, for projects to be constructed developers will need to pass on the costs to buyers. In conjunction with the rising interest rates, an increase in price of affordable housing will result in less residents that can afford to buy a house or unit. Accordingly, this bill would be inconsistent with addressing the need to create more affordable housing for Hawaii residents which is a priority of the legislature.

In order to keep the cost of housing from spiraling out of control, the Legislature should resist the urge to place additional costs on development. For these reasons, we urge the committee to defer HB 327. Alternatively, the committees should: 1) develop ways to incentivize the installation of rooftop solar as opposed to a mandate; or 2) reduce the mandate to only require photovoltaic ready infrastructure, which would allow those families who choose to install solar to do so, as opposed to mandating the full rooftop solar systems. Thank you for the opportunity to testify on this measure.

Mahalo for your consideration,

A handwritten signature in black ink, appearing to read 'Jennifer Camp', is centered on the page.

Jennifer Camp, President
NAIOP Hawaii



Environmental Caucus of The Democratic Party of Hawai'i

Feb 1, 2023

TO: The House Committees on Housing and on Energy and Environmental Protection

Concerning HB 327

Position: FULL SUPPORT

Aloha Chairs, Vice Chairs and Committee Members

Please forgive the informality of this testimony as there was an issue of time.

The Environmental Caucus supports all legislation which promotes increasing the use of solar panels to create electricity. We hope that all new housing will include solar panels AND storage batteries so that equipped buildings can use the power 24 hours a day.

The other option of selling excess power back to Hawaiian Electric is also a great option. And we hope the committees concerned will look into making this option more available to home owners.

The Environmental and Climate Change portions of the Democratic national Committee's Platform is clear concerning our Party's commitment to reducing Carbon Emissions and all climate warming gases as soon as possible. Refer to paragraphs 7 and 8 in the section on "Combatting the Climate Crisis and Pursuing Environmental Justice"

We support the environmental agenda of the national Democratic Party and we believe that Hawaii's best interests are served by that agenda.

Martha E Randolph
Precinct 2 Rep, District 27 Council
DPH Environmental Caucus SCC Representative
Member of Legislative Priorities Committee
Democratic Party of Hawaii



**Hawaiian
Electric**

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL
PROTECTION AND THE HOUSE COMMITTEE ON HOUSING**

HB 327

Relating to Rooftop Solar Installation

Friday, February 3, 2023
10:30 am, Agenda Item #1
VIA VIDEOCONFERENCE
Conference Room 325
State Capitol
415 South Beretania Street
State Capitol, Conference Room 325

Ka'iulani Shinsato
Director, Customer Energy Resources Programs
Hawaiian Electric

Aloha Chairs Lowen and Hashimoto, Vice Chairs Cochran and Aiu, and Committee Members,

My name is Ka'iulani Shinsato and I am testifying on behalf of Hawaiian Electric with comments on HB 327.

Hawaiian Electric supports the intent of HB 327 -- to encourage the adoption of rooftop solar in Hawai'i. The continued growth of customer-sited rooftop solar is critical to Hawaiian Electric's achievement of its decarbonization and renewable energy goals. Thus, Hawaiian Electric is continuously seeking ways to expand access of rooftop solar to customers in a way that is fair and sustainable to all customers.

However, Hawaiian Electric notes that the bill may incentivize exporting systems in areas (for example, on the West side of O'ahu) where there is already high solar saturation. Interconnection of additional exporting generation (i.e., rooftop solar without

the addition of energy storage) in these areas may result in costly upgrades and/or studies. In this regard, the bill is at odds with Hawaiian Electric's stakeholder-driven Integrated Grid Planning process that is centered on identifying grid needs and services first, and then obtaining them cost-effectively through procurements and/or programs that could be location specific. Energy and grid services from these systems should be taken and compensated based on grid needs, defined by the utility, vetted by stakeholders, and approved by the Public Utilities Commission so that it benefits, and does not hurt, all customers. In addition, to the extent the bill provides a blanket requirement for new rooftop solar for all new construction, it impedes customer choice to instead opt to enroll in Shared Solar (Community Based Renewable Energy) or similar programs.

Thank you for this opportunity to provide comments on HB 327.



To: The House Committee on Energy and Environmental Protection (EEP)
and
The House Committee on Housing (HSG)
From: Sherry Pollack, 350Hawaii.org
Date: Friday, February 3, 2023, 10:30am

In strong support of HB327

Aloha Chairs Lowen and Hashimoto, Vice Chairs Cochran and Aiu, and members of the EEP and HSG committees,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org is in **strong support of HB327** that requires rooftop solar for single-family dwelling developments of ten or more, and would like to offer an amendment.

Consumers with rooftop solar slash their energy use and enjoy substantial savings on their energy bills. With the highest electrical rates in the country and the impacts of climate change already being felt, every home in Hawaii should be using the sun. This is a common-sense policy. Hawaii is blessed with abundant sun and the move to solar-ready homes is really a no-brainer.

Moreover, Hawaii will not be able to reach its carbon reduction goals if we do not enact policies that support these outcomes. Without question, rooftop solar is one of the most potent tools Hawaii has for reducing our greenhouse gas emissions. As stated in the preamble of this proposed legislation, available rooftop space for rooftop solar photovoltaics will be an important part of meeting Hawaii's one hundred per cent renewable energy target, as the State is unlikely to meet its renewable energy target with utility—scale resources alone. Limiting this legislation to developments of 10 or more dwellings will significantly reduce the positive impacts intended and critically needed.

Bottom line, requiring rooftop solar for single-family dwelling developments of 10 or more is a good start, but Hawaii can do better. California already passed a law requiring rooftop PV on **every new home**. Hawaii should do the same. Extensive studies in California showed that all homeowners would see lower costs if their house had rooftop solar. With Hawaii's climate being even more favorable for solar and electric rates even higher, it is virtually certain the same or better results would happen in Hawaii.

California's law took effect January 2020. The solar requirement was motivated by California's high cost of living as well as the worsening climate crisis Californians already face. The California Clean Energy Commission conducted a cost-effectiveness study to determine cost and savings implications for Californians purchasing a single-family home under these new building codes. They found that the new solar requirement would add between \$8,000 to \$10,000 to a new home, equivalent to roughly \$40

extra per monthly mortgage payment. But at the same time, they found that **new homeowners will save an average of \$80 a month on electricity costs.** Reports have found homeowners in California welcome the rooftop solar installation, calling it “the icing on the cake.”

Solar-ready homes are the future for Hawaii, a future we must begin now to mitigate the devastating effects of global warming. The UN IPCC report makes clear we have less than 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Requiring all new homes to be solar ready will make a significant difference in our efforts to achieve the reductions necessary. Our grandchildren and great-grandchildren are counting on us! **Developers who care about our communities should have the long-term interests of new home buyers in mind.** Others who don’t, will continue to use disingenuous excuses to thwart these efforts, making exaggerated claims to support their short-sighted special interests.

For the reasons stated, 350Hawaii recommends this bill be amended to require the installation of rooftop solar energy generation systems on *all* new single-family homes to make Hawaii less dependent on nonrenewable energy sources and increase solar energy use in the State.


Thank you for the opportunity to testify in **strong support** of this very important bill.

Sherry Pollack
Co-Founder, 350Hawaii.org



 808-733-7060

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 1259 A'ala Street, Suite 300
Honolulu, HI 96817

February 3, 2023

The Honorable Nicole E. Lowen, Chair

House Committee on Energy & Environmental Protection

The Honorable Troy N. Hashimoto, Chair

House Committee on Housing

State Capitol, Conference Room 325 & Videoconference

RE: House Bill 327, Relating to Rooftop Solar Installation

HEARING: Friday, February 3, 2023, at 10:30 a.m.

Aloha Chair Lowen, Chair Hashimoto, and Members of the Joint Committees:

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 Hawai'i and its over 11,000 members. HAR **opposes** House Bill 327, which beginning 1/1/2024, prohibits the issuance of building permits for new single-family dwellings that are part of a development of ten or more dwellings and do not include a rooftop photovoltaic energy generating system, unless a variance is granted.

Hawai'i REALTORS® believes that rooftop photovoltaic energy generating systems provide great benefits to a homeowner. However, homeowners should be encouraged to install rooftop solar energy generation systems through tax credits and other incentives, but it should not be mandated.

For the foregoing reasons, Hawai'i REALTORS® opposes this measure. Mahalo for the opportunity to testify.



HB-327

Submitted on: 2/2/2023 9:39:33 AM

Testimony for EEP on 2/3/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
laurel brier	Kauai Climate Action Coalition	Support	Written Testimony Only

Comments:

Roof top solar serves the resident both financially and in the long run in terms of energy security and a more stable climate and healthy environment. We are a state that should have rooftop solar on every home. It is more effecient and economical to install at time of construction. The benefits are being shown in other places, such as California, where it has been implemented.



The Honorable Nicole E. Lowen, Chair, and Members
House Committee on Energy & Environmental Protection
The Honorable Troy N. Hashimoto, Chair, and Members
House Committee on Housing
State House of Representatives
State Capitol
Honolulu, HI 96813

Dear Chairs Lowen and Hashimoto and Members of the House Committees on Energy & Environmental Protection and Housing:

RE: H.B. 327 RELATING TO ROOFTOP SOLAR INSTALLATION
Hearing: Friday, February 3, 2023; 10:30 am; Via Videoconference

My name is Debbie Luning, testifying on behalf of Gentry Homes, in **strong opposition** to the provisions of this bill, which would generally prohibit the issuance of building permits for new single-family dwellings in developments of ten or more units if they do not include a rooftop photovoltaic energy generating system ("PV system"). The bill's provisions would apply to permits issued after January 1, 2024.

Gentry Homes has been one of the premier developers of workforce housing in Hawaii for over 50 years and prides itself in the energy efficient features included in its homes. Since 2005, Gentry has been an Energy Star partner and has been building and selling homes with new energy-saving technology included in the sales price. Our efficient designs offer the consumer a value-added sustainable home which is more affordable to own and maintain because of lower monthly electrical bills.

Although Gentry has been a leader in green building and is certainly not opposed to the installation and use of PV systems, we cannot support this bill. We believe that the mandatory installation of rooftop PV systems is over-regulatory and onerous and will price certain buyers out of the market. Depending on a buyer's needs, the installation of a PV system may cost approximately \$34,000 to \$45,000 with battery back-up. Instead of mandating the installation of PV systems, we would encourage you to consider providing additional incentives to those who desire to install such systems and can afford to do so.

Thank you for the opportunity to express our concerns.

Sincerely,

GENTRY HOMES, LTD.

A handwritten signature in blue ink, appearing to read 'Debra M.A. Luning'.

Debra M.A. Luning
Director of Governmental Affairs and Community Relations



**HOUSE COMMITTEES ON HOUSING, and ENERGY & ENVIRONMENTAL PROTECTION
State Capitol
415 South Beretania Street
10:30 AM**

February 3, 2023

RE: HB 327 - RELATING TO ROOFTOP SOLAR INSTALLATION

Chairs Hashimoto & Lowen, Vice Chair Aiu & Cochran, and members of the committees:

My name is Max Lindsey, 2023 Government Relations Committee Chair of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii. Our members build the communities we all call home.

BIA-Hawaii offers the following comments regarding HB 327, Relating to Energy. This bill would prohibit the issuance of building permits for new single-family dwellings that are part of a development of ten or more dwellings and do not include a rooftop photovoltaic energy generating system, unless a variance is granted.

While we understand the need for renewable energy, we disagree that the cost should be mandated upon builders of housing developments, and future homeowners. Financial impact needs to be analyzed and addressed when mandating further cost onto homebuilding in our state. Specifically, this bill requires not less than a 5kw system with a battery. Requiring the addition of this system to a new residence would represent a substantial increase in the price of the home.

Hawaii is in a major housing crisis, which continues to worsen. As the Legislature is aware, the cost of housing in Hawaii is extremely high, with Oahu's median price of homes being currently over \$1 million. Approximately 153,967 U.S. households are priced out of buying a home for every \$1000 increase in price, according to the National Association of Home Builders (NAHB). We are in support of legislation that would allow for the building of much-needed housing at every price point in Hawaii.

Thank you for the opportunity to share our concerns.

HB-327

Submitted on: 1/31/2023 5:22:33 PM

Testimony for EEP on 2/3/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
LIBRADO COBIAN	AAC	Oppose	Written Testimony Only

Comments:

We are a Environmental Professional Firm of 35 years in the field of Toxic Contamination of air soil and water .

We oppose this bill HB327 and the mandate of Solar Panels and Battery depent energy systems . The manufacturing of Solar panels and batteries entails the 2 most toxic industry on the planet . The mining of toxic mineral ore . These minerals currently come from the most corrupt and polluted countries in the world .

After 2023 a more profitable source of these minerals will be exploited and that is from the Sea beds of the Ocean floors . This is NOT a conspiracy theory, this has now been approved by the United Nation's International Seabed Authority (ISA) under the UN established under the United Nations Convention of the Law of the Sea (1982 LOSC) , and with a Presidential memorandum of approval by President Donald Trump in 2019 to begin the exploitation of minerals from the Ocean . The BOEM Bureau of Ocean Energy Management was established to extract a potential mineral value of 150 Trillion dollars in gold alone . The past 15 years of mapping and exploration has concluded that the greatest potential mineral source is the Central Pacific Ocean . This is the Oceans of Hawaii known by the BOEM as the Clarion-Cliperton ZONE that contains the most Poly Metallic Nodules (that contain Nickel, Copper,Manganese,Titanium, Tellurium , litium and other rare earth elements.

Please please look at the goals of the BOEM and educate your youth activists regarding the Federal BOEM <https://www.boem.gov/marine-minerals/offshore-critical-mineral-resources> . Our Firm is willing to make a presentation to the Legislative House and Senate Environmental committee regarding the planned exploitation of our Ocean floors.

You can contact us through State Rep Diamond Garcia. Li Cobian

HB-327

Submitted on: 1/31/2023 7:25:00 PM

Testimony for EEP on 2/3/2023 10:30:00 AM

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

Comments:

I support HB327 for all the reasons listed in the preamble.

HB-327

Submitted on: 2/1/2023 10:12:58 AM

Testimony for EEP on 2/3/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
marjorie erway	Individual	Support	Written Testimony Only

Comments:

I hope you will definitely support this bill. It makes complete sense to me.

Mahalo for your consideration.

Marjorie Erway

PO Box 2807

Kailua Kona, HI 96745

HB-327

Submitted on: 2/2/2023 12:25:38 AM

Testimony for EEP on 2/3/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Will Caron	Individual	Support	Written Testimony Only

Comments:

Please support HB327.