



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

SCOTT J. GLENN  
CHIEF ENERGY OFFICER

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Testimony of  
**SCOTT J. GLENN, Chief Energy Officer**

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

Tuesday, February 2, 2021  
8:30 AM  
State Capitol, Conference Room #325

Comments in consideration of  
**HB 860**  
**RELATING TO ROOFTOP SOLAR INSTALLATION.**

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawaii State Energy Office (HSEO) offers comments on HB 860, which would assign to HSEO the responsibility for granting variances for “a new single-family dwelling that is part of a development of twenty or more dwellings and does not include a rooftop solar 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.

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

In last year’s hearing on this measure, several testifiers alluded to California’s solar mandate law. HSEO observes that the structure, effectiveness, modifications, staffing requirements, and other relevant aspects of California’s experience could be very informative to this discussion, and recommends that further discussion and

Hawaii State Energy Office Testimony  
HB 860 - Relating to Rooftop Solar Installation - Comment  
February 2, 2021

development of this concept be informed by recommendations and lessons learned in California.

HSEO does not have an estimate of the staffing and funding resources that would be required for HSEO or others to carry out the variance tasks associated with this bill. HB 860 provides that fees, if any, imposed and collected to cover the costs of administering the variances are to be deposited into the Energy Security Special Fund (ESSF). However, the ESSF would require an appropriation ceiling in order for HSEO to expend any monies from such fees.

HSEO looks forward to a continuing discussion on this topic.

Thank you for the opportunity to testify.

**HB-860**

Submitted on: 1/31/2021 7:39:11 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Daniel Boren	Skyline Hawaii	Support	No

Comments:

On behalf of myself, my family, and the more than 40 individuals and their families who work at Skyline Hawai'i we strongly support HB860 and urge you to pass it.

HB860 will allow more of us to help with the Climate Crisis, and to save significantly on long-term energy costs.

-Requiring rooftop solar for single-family dwelling developments of twenty 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.

-Rooftop solar is one of the most potent tools Hawaii has for reducing our greenhouse gas emissions. It's one of the few ways individuals can contribute significantly to meeting our clean energy goals.

-Rooftop PV pays for itself in a few years, and then saves a great deal of money in the long term.

Thank you for for your strong consideration of HB860 and for your work protecting our environment for all of us and our children.

Aloha,

Daniel Boren



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COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION  
Rep. Nicole E. Lowen, Chair  
Rep. Lisa Marten, Vice Chair

DATE: Tuesday, February 2, 2021  
TIME: 08:30 am  
PLACE: VIA VIDEO CONFERENCE

HB 860 RELATING TO ROOFTOP SOLAR INSTALLATION

SUPPORT

Aloha Chair Lowen, Vice Chair Marten, and Members of the Committee

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 51 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

Proposed amendment: a development of ~~twenty~~ **five** or more dwellings

Mahalo  
Henry Curtis  
Executive Director

February 2, 2021

**The Honorable Nicole E. Lowen, Chair**

House Committee on Energy and Environmental Protection

Via Videoconference

Aloha Chair Lowen, Vice Chair Marten, and Members of the Committee,

I am Ken Hiraki, Director of Government Affairs, testifying on behalf of the Hawai'i Association of REALTORS® (“HAR”), the voice of real estate in Hawai'i, and its over 10,000 members. HAR **opposes** House Bill 860 which prohibits the issuance of building permits beginning on January 1, 2022, for new single-family dwellings that are part of a development of twenty or more dwellings and do not include a rooftop solar energy generation system, unless a variance is granted.

Hawai'i REALTORS® believe that rooftop solar energy generation systems provide great benefits to a homeowner. However, installation of solar energy generation systems can average \$15,000 to \$30,000 or more depending on the single-family home. This expense will be added into the already high cost of housing in Hawai'i, placing homeownership even further out of reach for many of Hawaii's residents.

As such, HAR believes that homeowners should be encouraged to install rooftop solar energy generation systems, but it should not be mandated.

Mahalo for the opportunity to testify.

**HB-860**

Submitted on: 1/31/2021 8:45:39 PM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
David Mulinix	Our Revolution Hawaii	Support	No

Comments:

Aloha Kakou,

On behalf of Our Revolution Hawaii's 7,000 members and supporters statewide, we are fully in support of this legislation.

Dave Mulinix, Organizer

Our Revolution Hawaii



To: The House Committee on Energy & Environmental Protection  
From: Sherry Pollack, 350Hawaii.org  
Date: Tuesday, February 2, 2021, 8:30 am

**In support of HB860**

Aloha Chair Lowen, Vice Chair Marten, and members of the EEP committee,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. On behalf of our 6,000 members and supporters, 350Hawaii.org **strongly supports HB860** and offers 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. Developers who care about our communities should have the long-term interests of new home buyers in mind.

Requiring rooftop solar for single-family dwelling developments of twenty 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.

Moreover, 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 20 or more dwellings will significantly reduce the positive impacts intended and critically needed.

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. And if our current grid is not capable, we need to change our model. No more excuses.

For these reasons, 350Hawaii recommends this bill be amended to require the installation of rooftop solar energy generation systems on *all* new single-family homes beginning on January 1, 2023, 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



## HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

February 2, 2021, 8:30 A.M.

Video Conference

### TESTIMONY IN SUPPORT OF HB 860, SUGGESTED AMENDMENT

Aloha Chair Lowen, Vice Chair Marten, and members of the Committee:

Blue Planet Foundation **supports HB 860**, which requires that solar photovoltaic be a standard feature on new homes in developments with 20 or more houses. This common-sense measure will help us achieve our critical climate goals while keeping the cost of living (mortgage or rent plus monthly utility costs) low.

Residential rooftop solar is a proven tool to help homeowners and renters save money. Over 85,000 homes in Hawai'i have already been retrofitted with rooftop solar at significant savings to their homeowners. Solar is even more cost-effective when it is installed during the construction phase of the home (instead of retrofitting later), and production developers can take advantage of economies of scale in purchasing and installing solar across numerous homes simultaneously (HB 860 targets developments with 20 or more houses). What's more, homeowners can include the cost of the solar installation in their home mortgage.

California—the world's fifth largest economy—adopted a similar requirement for solar on all new homes which took effect January 2020. The solar requirement was motivated by California's high cost of living as well as the worsening climate crisis.

The California Clean Energy Commission (CEC) 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 approximately \$8,400 to a new home, equivalent to roughly \$40 extra per month in mortgage payments. However, the CEC also predicted that the energy savings benefits will outweigh the additional monthly mortgage costs. Assuming an average electricity rate of approximately 18 cents per kilowatt-hour (kWh), the state estimated that single-family homeowners will save about \$80 per month on electricity costs (California homebuyers have the option of either paying for solar panels outright, leasing them, or entering a power purchase agreement with developers). These monthly electricity bill savings, combined with paying an extra \$40 each month in mortgage payments for the solar panel system, means new homeowners will come out with \$40 net savings each month. Annually, this comes out to \$500 per year in savings. Should electricity

[info@blueplanetfoundation.org](mailto:info@blueplanetfoundation.org)

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prices continue to rise and the cost of solar continue to fall, these savings numbers will improve further.

With Hawai'i's high utility rates, rooftop solar is even more cost-effective (again, particularly when it is built into the home and the mortgage). But it may not work in every case. House Bill 860 allows for a variance from the solar requirement if it doesn't pencil out for the homeowner. If an analysis shows that including solar upfront for new homes is not economically beneficially, the developer can seek a variance from the requirement.

Hawaiian Electric's current plan for achieving Hawai'i's 100% renewable energy goal includes power generation from the rooftop of nearly every home across the islands. We need to plan for that future today. Further, maximizing solar on rooftops reduces our need to develop other lands for renewable energy projects. On-site rooftop solar also provides additional benefits. Rooftop solar reduces the need for utility investments in the power grid, which are paid for by ratepayers. When paired with batteries, as HB 860 envisions, rooftop solar panels can also increase resiliency in neighborhoods, helping homes keep the lights on and communication powered during a blackout.

The State of Hawai'i has committed to a decisive and irreversible transition away from fossil fuels, and a swift transition to a clean energy economy powered by 100% renewable energy. The legislature has passed aggressive carbon reduction goals, including the goal to be net carbon neutral by 2045 (Act 15 of 2018) and strive to achieve the objectives of the Paris Climate Agreement (Act 32 of 2017). Setting these bold targets is important, but alone it is insufficient. Hawai'i needs decisive leadership and bold, implementation-focused policies, such as HB 860, if we hope to achieve our clean energy and climate goals.

Hawai'i faces myriad challenges: a poor economy, high unemployment, a high cost of living, and an increasingly serious climate crisis. By reducing imports of fossil fuel, creating new clean energy jobs, decreasing the monthly cost of living, and reducing carbon emissions, HB 860 is a smart policy response for Hawai'i's future.

## **SUGGESTED AMENDMENT**

Blue Planet appreciates the inclusion of a minimum system size for the solar requirement. We believe that the battery requirement should also specify a minimum capacity. We suggest the following addition on page 6, line 3, of HB 860:

“...shall include an energy storage device, such as a battery, that can store not less than five kilowatt-hours of electricity.”

Thank you for the opportunity to provide testimony.



**TESTIMONY TO THE HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL  
PROTECTION  
Hawaii State Capitol, Via Videoconference  
February 2, 2021  
8:30 am**

RE: HB 860, RELATING TO ROOFTOP SOLAR INSTALLATION

Chair Lowen, Vice Chair Marten, and members of the committee:

My name is Beau Nobmann, 2021 President 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 is **strongly opposed** to HB 860, which would, beginning 1/1/2022, prohibit 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.

Previously, the Legislature mandated the installation of solar water heaters on all new single family residential dwellings in Hawaii. Prior to the mandate, the state had provided tax credits to homeowners who purchased a solar water heating system. The utility companies had lists of solar water heater installation companies who were familiar with the tax credit program. This was the incentive to attract existing homeowners to install solar water heating systems. Once the mandate law was passed, the tax credits were eliminated and there was no incentive for existing homeowners to install a solar water heating system.

If the goal is to move the state to be less dependent on fossil fuels, we should learn from past mistakes and use incentives rather than mandates, letting consumers make their own choices.

We strongly oppose HB 860, and appreciate the opportunity to express our views on the matter.



**Testimony to the Committee on Energy and Environment Protection**

**Tuesday, February 2, 2021**

**8:30 AM**

**VIA Video Conference**

**Conference Room 325, Hawaii State Capitol**

**HB 860**

Chair Lowen, Vice Chair Marten, and members of the committee,

Hawaii Gas **provides comments** on HB 860, which, effective 1/1/2022, 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 issued.

While rooftop photovoltaic systems have played and will continue to play an important role in our renewable energy efforts, a broad statutory mandate as proposed here sets the state up to declare winners and losers in the development of renewable resources technology, codifying a single renewable system technology at the expense of future clean technologies. It also ignores the growing benefits of utility scale renewables like solar and wind, which create much greater benefit to the ratepayers without the homeowners and renters having to incur and bear the additional investment cost of tens of thousands of dollars.

Rooftop solar is a valuable benefit for those who can afford it. It is not, however, feasible for all homes, all developments, and all residents. Affordable housing remains one of the state's greatest needs, and developers looking to meet that need cannot accomplish that goal with these additional expenses, which will increase the cost of housing.

Even providing variances is impractical due to many variable inputs that are necessary to determine whether rooftop solar is effective in specific situations — including costs, location, interconnection availability, and other issues.

We ask the committee to consider these concerns should this bill move forward.

Thank you for the opportunity to testify.



January 31, 2021

Representative Nicole E. Lowen, Chair  
Representative Lisa Marten, Vice Chair  
House Committee on Energy & Environmental Protection

**Comments in Opposition to HB 860 Relating to Rooftop Solar Installation (Beginning 1/1/22, 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.)**

**Tuesday, February 2, 2021, at 8:30 a.m., Conference Room 325, via Videoconference.**

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers, and utility companies. LURF's mission is to advocate for reasonable, rational, and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

LURF appreciates the opportunity to express comments in **opposition to HB 860**, which could increase the costs of a home by up to \$40,000 and deny many Hawaii families of the opportunity for home ownership.

**HB 860.** This bill mandates the prohibition of the issuance of building permits for new single-family dwellings that are part of a development of twenty or more dwellings that do not include a rooftop photovoltaic energy generating system (PV system), unless a variance is granted. The mandated PV system shall have no less than five kilowatts of generating capacity and shall include an energy storage device, such as a battery.

**LURF's Position.** LURF strongly supports the use of all forms of renewable energy, as LURF members lead Hawaii in renewable energy research, development, production and implementation. While mandates such as this measure may be intended to help Hawaii achieve its renewable energy goals, it could have significant negative impacts on Hawaii's housing problems. Thus, LURF would respectfully propose this bill be held in this Committee to allow for Stakeholders to collaboratively discuss, reach a consensus, and implement initiatives that could lead to PV systems on as many homes as possible, without negatively impacting the ability of Hawaii's families to purchase homes.

Under the circumstances, LURF must oppose HB 860, as it believes the mandate as drafted is one-sided and fails to take into consideration the substantial increased costs for homes and other unintended consequences of, and burdens placed upon homebuilders and new homebuyers, which will exacerbate Hawaii's housing problems and likely hinder, rather than facilitate Hawaii's economic recovery and resiliency. LURF's position is based on the following:

- According to homebuilders, this mandate would substantially increase the cost of a new home by up to \$40,000 and would have a detrimental impact on qualifying new homeowners for the purchase of a home.
- A \$40,000 increase in the cost of a home would exacerbate Hawaii's housing problems. According to HHFDC's latest Hawaii Housing Planning Study (2019), statewide, approximately 50,156 housing units are estimated to be needed during the 2020-2025 period, of which approximately 36,305 units will be needed by Hawaii's workforce and lower income households (i.e., those earning 140% and below the area median income (AMI) as established by the U.S. Department of Housing and Urban Development. Of the total units, approximately 26,239 units (52%) are estimated to be needed for households earning 80% and below the AMI. These are typically rental housing units. Another 10,066 units (20%) are estimated to be needed for households earning from 80-140% AMI. These are typically for-sale units primarily for first-time homebuyers.
- Mandates like HB 860 are *regressive* and create equity issues and hardships for residents who can least afford it. Millionaires who live in affluent neighborhoods will not be required to install PV, however, this mandate will add up to \$40,000 to the cost of certain affordable housing for low-income and working families and will mean that they cannot qualify for a home loan.
- This increased costs and impact on low-income and middle-class families is even more harmful during this pandemic. Now is not the time to make housing more expensive. This is the time for everyone to work together to find solutions to find create as many homes as possible so families can protect themselves by safely distancing themselves from doubled-up living arrangements with their family and friends.
- Last year, in Honolulu, LURF, homebuilders and Hawaiian Electric worked together on consensus county provisions that require new homes to be built PV-ready, allows alternatives for more EV charging opportunities for homeowners of all income levels, etc.
- That being said, the solution in Honolulu may not work on the neighbor Islands, so there should not be a statewide mandate, until there is Stakeholder input and discussion statewide.

- LURF understands that Hawaiian Electric may have initiatives which can reduce the up-front costs of installation of PV systems and it would be informative to examine the facts and data relating to California's experience with PV and homebuilding.
- Rather than a one-size fits all mandate, LURF would recommend forming a Stakeholders working group to develop a strategy, which could include rebates and incentives for homebuilders and new homeowners as well as solutions that would allow families to add-on PV when they can afford it.

**Conclusion.** For all of the above reasons, LURF supports initiatives that foster mutually beneficial, collaborative solutions relating to renewable energy and housing, rather than broad, restrictive, one-sided mandates, especially during this economically challenging and sensitive time. Instead of this measure, LURF proposes that policymakers and the Stakeholders first meet to understand and address the impacts and consequences of the proposed mandate – the substantial increase in the costs of homes and the ability of the State Energy Office (SEO) and electric utilities to implement the mandate; consider the impact on Hawaii's severe housing shortage as well as the overall economy based on facts and data; and work on a consensus of solutions and initiatives to address initiatives to encourage and facilitate the installation of more PV systems for homes.

LURF thus **respectfully recommends that HB 860 be held in this Committee** to allow for Stakeholders to collaboratively discuss, reach a consensus, and implement initiatives that could lead to PV systems on as many homes as possible, without negatively impacting the ability to families to purchase homes.

Thank you for the opportunity to present testimony regarding this matter.

LATE



## HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

February 2, 2021, 8:30 a.m.  
(*Testimony is 2 pages long*)

### TESTIMONY IN SUPPORT OF HB 860

Aloha Chair Lowen and members of the Committee:

Hawaii PV Coalition (“HPVC”) supports HB 860. This bill advances Hawaii’s ambitious renewable energy goals by requiring new homes to have rooftop solar and batteries. This bill would result in (1) lowered home construction costs, (2) reduced electricity costs and added resilience for new homeowners, and (3) significantly lowered costs circuit and transmission costs to all ratepayers.

This bill is smart policy, and is a potential unicorn “win-win-win” situation. California already requires new homes to be built with rooftop solar. In many situations, ***solar installers pay home developers for the opportunity to install.*** Solar installers see lowered costs of acquiring customers, and are able to pass these savings back to the homebuilders and new homeowners. This can be thousands of dollars per install or, for a larger home construction project, millions of dollars in reduced construction costs.

New homeowners will have the option of either (1) purchasing the solar system through a home mortgage, or (2) leasing the system with no additional upfront cost to the customer, and savings demonstrated on their electric bill each month. California determined the average homeowner would see approximately \$40 savings each month on their electric bill, a number that is likely to be greater in Hawaii.

Further, by developing a series of homes together (new subdivisions), the cost of distribution and transmission infrastructure can be significantly reduced. For example, current plans for the Ho’opili subdivision involve millions of dollars of new utility infrastructure (costs borne by all ratepayers) and millions of dollars of local infrastructure (costs borne by new homeowners). The smart approach, instead, is to build rooftop solar and energy efficiency efforts first, and avoid millions of dollars of unnecessary new infrastructure.

Finally, it is necessary to note that Hawaii will not achieve its 100% RPS goal without solar on all roofs. This goal cannot be achieved unless new buildings are designed and built with rooftop solar at the start.

HPVC respectfully asks this Committee to move this measure forward. It makes sense for Hawaii's economy and it is critically needed if Hawaii is going to address the growing climate change crisis.

*The Hawaii PV Coalition was formed in 2005 to support the greater use and more rapid diffusion of solar electric applications across the state. Working with business owners, homeowners and local and national stakeholders in the PV industry, the Coalition has been active during the state legislative sessions supporting pro-PV and renewable energy bills and helping inform elected representatives about the benefits of Hawaii-based solar electric applications.*





# SIERRA CLUB OF HAWAI'I

LATE

## HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

February 2, 2021 8:30 AM

In **SUPPORT** of **HB 860**: Relating to Rooftop Solar Installation

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Aloha Chair Lowen, Vice Chair Marten, and members of the committees,

On behalf of our 27,000 members and supporters, the Sierra Club of Hawai'i **strongly supports HB 860**, which requires single-family homes that are a part of a development of twenty or more dwellings to be constructed with rooftop solar if they are not granted a variance beginning on 1/1/2022.

Hawai'i has been a leader in clean energy and climate change policy. Encouraging the adoption of solar photovoltaic for all new home construction helps transform Hawai'i's energy economy and makes progress towards our 100% renewable portfolio standards and 100% carbon neutrality goals.

HB 860 encourages solar on new home construction to provide long-term cost savings to buyers, but would still allow a variance process for when rooftop solar is impractical or cost-prohibitive. If the architect or engineer who signs the variance attests that the home has poor solar resources or solar is cost-prohibitive, and the chief energy officer agrees, then rooftop solar will not be required. We appreciate the "life-cycle analysis" considering the costs of the system over a twenty-five period, as the average warranty for most rooftop solar energy generation systems installed today is 20-25 years long.

Thank you very much for this opportunity to provide testimony in **support of HB 860**.

LATE

**HB-860**

Submitted on: 2/1/2021 12:21:26 PM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
laurel brier	Kauai Climate Action Coalition	Support	No

Comments:

To make progress in battling the Climate Crisis as well as benefitting families economically solar rooftop should be required on every new home in Hawaii. It is easy to install from the beginning and will pay for itself in a few years. We should take advantage of one of our greatest resources, sunshine, that is clean and abundant. Thank you.

**HB-860**

Submitted on: 1/30/2021 7:53:40 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Roy Skaggs	Individual	Support	No

Comments:

Mahalo for bringing this bill and I fully support it. This will be good for Hawaii customers and our environment.

- California adopted a solar roof mandate on all new homes, based on an extensive study that found all new homeowners significant amounts of money. Those findings would likely be even more true in Hawaii, with our substantially higher electrical rates.
- Installing solar at the time of construction can lower the cost of housing, by lowering the overall amount of electrical infrastructure that needs to be installed for the subdevelopment.
- For example, tens of millions of dollars of electrical infrastructure has been or will be installed to support the Ho'opili development, costs that could have been avoided if rooftop solar had been installed.

Aloha,

Roy

**HB-860**

Submitted on: 1/30/2021 8:00:49 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jeff	Individual	Support	No

Comments:

I am in full support of Bill HB860. Thank you.

**HB-860**

Submitted on: 1/31/2021 1:29:10 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Janet Pappas	Individual	Support	No

Comments:

I am strongly in favor of this bill which requires rooftop solar on single-family dwelling developments of twenty or more. This ensures lower energy bills for the homeowner; plus, having solar panels makes owning an electric vehicle easier (an EV charger can be installed at home).

Some day soon ALL new homes in Hawaii should be required to have solar panels. Our family home has had solar panels since 2008. They are long since paid for and we own an EV which we charge at home. It is both convenient and money-saving. What's not to like?

Thank you for supporting HB860 and other bills that make home ownership in Hawaii cheaper.

Mahalo

**HB-860**

Submitted on: 1/31/2021 8:36:56 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Stacy K. Tang	Individual	Support	No

Comments:

This bill will allow more of us, to reduce greenhouse gas emissions. Solar is our most powerful tool in reducing fossil fuel use, in the long run. However, ONLY single family dwellings of 20, or more? Come on...Why not every new build? Requiring new construction to meet the needs of our future without fossil fuels NOW, will save us landfill space down the road. If California could pass laws back in 2018 that require solar on EVERY NEW HOME, Hawai'i should be doing equal, if not better.

**HB-860**

Submitted on: 1/31/2021 9:17:39 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nanea Lo	Individual	Support	No

Comments:

Hello,

My name is Nanea Lo and I'm a Kanaka Maoli (Native Hawaiian) who's lived in my ancestral lands for 31 years now - all my life.

I am writing to say that I fully support HB860.

HB860 will allow more of us to help with the Climate Crisis, and to save significantly on long-term energy costs.

This will require rooftop solar for single-family dwelling developments of twenty 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.

Rooftop solar is one of the most potent tools Hawaii has for reducing our greenhouse gas emissions. It's one of the few ways individuals can contribute significantly to meeting our clean energy goals.

Rooftop PV pays for itself in a few years, and then saves a great deal of money in the long term.

Support this bill.

me ke aloha 'Ä• ina,

Nanea Lo

**HB-860**

Submitted on: 1/31/2021 9:25:57 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
P Noel Bobilin	Individual	Support	No

Comments:

Aloha, I am writing in support of HB860. I can tell you from personal experience how beneficial roof top solar is. Not only do I save on my electricy bill ( from\$200 down to \$40) I also still have electricy when the grid goes down due to bad weather - something that is likely to increase due to the climate crisis. It builds resiliency into the grid - being able to draw from different locations as well as being less suseptable to man made failures in the grid. It will also make people more resilliant and have more autonomy.

Mahalo

PN Bobilin, Fern Forest



**HB-860**

Submitted on: 1/31/2021 12:27:24 PM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Laura Gray	Individual	Support	No

Comments:

We really need this bill. If we do not move on solar, we will be left behing with more and more expensive fossil fuel out dated and obsolete old ways of getting energy. We can be ahead of the curve instead of behind. If we do not work to ensure solar on every roof, then mainland companies will come here and gobble up all our Ag land for solar fields and then sell it back to us for way too much money. We should be using our own roof space for our own power. The sun is for all of us.

Laura Gray R.N.

**HB-860**

Submitted on: 1/31/2021 2:45:53 PM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Mark Hixon	Individual	Support	No

Comments:

Aloha-- HB860 will allow more of us to help fight the climate crisis, and to save significantly on long-term energy costs. Requiring rooftop solar for single-family dwelling developments of twenty or more is a good start but Hawaii can do even better. In 2018, California passed a law requiring rooftop PV on **every new home**. Hawaii should do the same. Rooftop solar is one of the most potent tools Hawaii has for reducing our greenhouse gas emissions, and is one of the few ways individuals can contribute significantly to meeting our clean energy goals. Rooftop solar also pays for itself in a few years, and then saves a great deal of money in the long term. Mahlo.

**HB-860**

Submitted on: 1/31/2021 9:49:37 PM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Feena Bonoan	Individual	Support	No

Comments:

Please pass this bill.

**HB-860**

Submitted on: 2/1/2021 6:38:07 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Richard Camp	Individual	Support	No

Comments:

I support HB860. The long-term benefits far outweigh the immediate costs.

**HB-860**

Submitted on: 2/1/2021 7:12:04 AM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Kiana	Individual	Support	No

Comments:

- California adopted a solar roof mandate on all new homes, based on an extensive study that found all new homeowners significant amounts of money. Those findings would likely be even more true in Hawaii, with our substantially higher electrical rates.
- Installing solar at the time of construction can lower the cost of housing, by lowering the overall amount of electrical infrastructure that needs to be installed for the subdevelopment.
- For example, tens of millions of dollars of electrical infrastructure has been or will be installed to support the Ho'opili development, costs that could have been avoided if rooftop solar had been installed.

LATE

**HB-860**

Submitted on: 2/1/2021 9:18:40 PM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Koohan Paik	Individual	Support	No

Comments:

Please pass this important bill.

LATE

**HB-860**

Submitted on: 2/1/2021 10:41:15 PM

Testimony for EEP on 2/2/2021 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Caroline Kunitake	Individual	Support	No

Comments:

Dear Chair Lowen and Vice Chair Marten and the Committee on Energy and Environment Protection,

Please support HB860 to increase solar energy in Hawaii.

Rooftop PV pays for itself in a few years and then saves a great deal of money in the long term.

We need to do all that we can to mitigate the effects of the climate crisis.

Respectfully yours,

Caroline Kunitake