

STATE OF HAWAII
HAWAII CLIMATE CHANGE MITIGATION & ADAPTATION
COMMISSION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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Director, Hawaii DP
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The Adjutant General
Manager, CZM

**Testimony of
Leah Laramée
Coordinator, Hawai'i Climate Change Mitigation and Adaptation Commission**

**Before the House Committee on
ENERGY AND ENVIRONMENTAL PROTECTION**

**Tuesday January 30, 2024
9:00 AM**

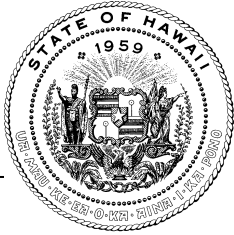
State Capitol, Via Videoconference, Conference Room 325

**In support of
HOUSE BILL 1970 HOUSE DRAFT 1
RELATING TO ENERGY**

House Bill 1970 requires solar conduit and electrical panel readiness for new residential construction offered for sale at fair market value and electric vehicle readiness when an electrical panel and parking area are installed. **The Hawai'i Climate Change Mitigation and Adaptation Commission (Commission) supports this measure.**

The Commission is a multi-jurisdictional effort between 20 different State and county departments, and Legislative committees. Electrification of our homes and transportation sector is a key component of becoming climate ready. New construction with solar and electric vehicle readiness is less expensive than retrofitting and allows residents to seamlessly convert when they are ready to install the infrastructure. By doing the work now we are reducing energy costs for residents in the long run and creating pathways for a more resilient future.

Mahalo for the opportunity to testify in support of this measure.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Tuesday, January 30, 2024
9:00 AM
State Capitol, Conference Room 325 and Videoconference

Providing Comments on
HB 1970

RELATING TO ENERGY.

Chair Lowen, Vice Chair Cochran, and members of the Committee, the Hawai'i State Energy Office (HSEO) provides comments on HB 1970 which requires solar conduit and electric panel readiness for new residential construction offered for sale at fair market value and electric vehicle readiness when an electrical panel and parking area are installed.

HSEO has made clear that a significant increase in availability and use of electric vehicles and photovoltaic panels are necessary for Hawai'i to attain its clean energy and decarbonization statutory targets. HSEO's [Hawai'i Pathways to Decarbonization Report](#),¹ to the 2024 Hawai'i State Legislature advised that promoting the transition to battery electric vehicles (BEVs) can significantly reduce emissions from vehicle operation while acknowledging that distributed solar and storage will continue to play an important role in meeting Hawai'i's decarbonization goals.

The intent of this measure is economically sound, as the cost of installing electric-vehicle-ready, solar conduit, and electrical panel ready systems is considerably lower than retrofit installations. When EV and PV supportive infrastructure is installed during construction, homeowners benefit from the greater ease and cost-effectiveness of incorporating electric vehicles and photovoltaic power systems into their homes.

¹ Hawaii State Energy Office. *Hawai'i Pathways to Decarbonization*. 2023. https://energy.hawaii.gov/wp-content/uploads/2024/01/Act-238_HSEO_Decarbonization_Report.pdf¹

The counties of Maui and Honolulu have already amended versions of the 2018 International Energy Conservation Code, including the requirement for electric vehicle and solar conduit and electric panel readiness which address the intent of this measure. The counties of Kaua'i and Hawai'i are expected to adopt similar measures, which HSEO supports.

HSEO is concerned, however, about unintended consequences of incorporating an energy-code level of detail into the state "energy resources" statute as building codes necessarily and regularly change with advancements in technology, cost, materials, and conformity with other building codes. This could potentially result in later difficulties reconciling State and County requirements. Therefore, HSEO respectfully recommends against incorporating any requirements into Chapter 196 of the Hawaii Revised Statutes that would most appropriately be contained in county-level codes and enforced at the county level.

Thank you for the opportunity to testify.

HB-1970

Submitted on: 1/27/2024 4:27:54 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Christopher Dean	Clean the Pacific, Recycle Hawaii	Support	Remotely Via Zoom

Comments:

I Support HB1970 100% I'm a contractor and I can tell you, this is exactly what is needed to streamline and expedite the transition to a solar powered economy.

HB-1970

Submitted on: 1/28/2024 1:20:22 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

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

Comments:

The legislature passed a climate emergency some years ago with a promise to decarbonize. We need meaningful action now and a basic step in the right direction and low hanging fruit is to take steps to decarbonize our building and support electric vehicles as well. Decarbonization must be the forethought of all our planning. Honolulu has demonstrated that this measure proposed is very doable and an economic benefit to the residents. These benefits should be available to all residents and we will all benefit from reducing our GHG. Strong support.

HB-1970

Submitted on: 1/28/2024 1:49:00 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
robert brower	Surfrider Foundation Kauai chapter	Support	Written Testimony Only

Comments:

strong support



Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Tuesday, January 30, 2024 — 9:00 a.m.

Ulupono Initiative supports HB 1970, Relating to Energy.

Dear Chair Lowen and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food, renewable energy, clean transportation choices, and better management of freshwater resources.

Ulupono supports HB 1970, which requires solar conduit and electrical panel readiness for new residential construction offered for sale at fair market value and electric vehicle readiness when an electrical panel and parking area are installed.

Ulupono supports the State's efforts to meet its renewable energy and sustainability goals with the infrastructure readiness approach. Solar conduit, electrical panel, and electric vehicle readiness are less expensive and much easier to build when homes or buildings are originally being built rather than being retrofitted to accommodate these updates, as discussed in these studies:

- A 2022 study conducted by the National Renewable Energy Labs (NREL) found that the “new construction solar and storage systems cost for AC-coupled systems . . . is 22% less than the price of the retrofitted solar and storage system.”¹
- In some cases, EV-ready costs were an estimated 0.13%-0.17% of total construction costs.² Other examples from California demonstrate that retrofits easily cost 2-8x as much as making new developments EV-ready.³

The State and all four counties have committed to a clean transportation future, and measures such as this will accelerate the transition while also making it less costly for homeowners to opt in to cleaner energy and transportation choices.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

¹ <https://www.nrel.gov/docs/fy22osti/82511.pdf>.

² <https://www.cleanenergy.org/blog/ev-readiness-and-why-we-need-it-now/#:~:text=As%20a%20percentage%20of%20total,about%20%24920%20per%20parking%20spot.>

³ https://www.energy.wsu.edu/documents/Regional%20Code%20Collab_EV%20Research%20Summary_7-20.pdf



HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

January 30, 2024, 9:00 AM

Room 325

TESTIMONY IN SUPPORT OF HB 1970

Aloha Chair Lowen, Vice Chair Cochran, and Committee members:

Blue Planet Foundation **supports HB 1970**, which requires solar conduit and electrical panel readiness for new residential construction and electric vehicle (EV) readiness when an electrical panel and parking area are installed.

The State of Hawai'i has committed to a decisive transition away from fossil fuels. The legislature has passed aggressive carbon reduction goals, including a mandate to achieve 100% renewable electricity by 2045 (Act 97 of 2015), and a goal to be carbon-negative by 2045 (Act 15 of 2018), with an interim goal to achieve a 50% reduction from 2005 levels by 2030 (Act 238 of 2022). Setting these bold targets is important, but alone it is insufficient. Hawai'i needs decisive leadership and bold, implementation-focused policies, such as HB 1970, if we hope to achieve our clean energy and climate goals.

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 by ensuring that new homes are solar-ready. 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 electricity costs for homeowners, as well as the need for utility investments in the power grid, which are paid for by all ratepayers. When paired with batteries, rooftop solar panels can also increase resiliency in neighborhoods, helping homes keep the lights on and communication powered during a blackout.

What's more, the "EV-readiness" elements of this bill would help residents save money on future EV charger installation, reduce the barriers to EV adoption, and address the urgent challenge of reducing carbon emissions from ground transportation. Electric vehicles are the fastest growing segment of new cars in Hawai'i. In 2023, the number of registered electric vehicles in Hawai'i increased more than 31%, compared to only a 1.5% increase in registered gasoline-powered vehicles.¹ There are currently over 29,000 electric vehicles registered in the

¹ "Monthly Energy Trends", *DBEDT*, December 2023 (https://dbedt.hawaii.gov/economic/files/2024/01/Energy_Trend.pdf/).

state, a number that is expected to rise exponentially as more electric vehicles come to market, vehicle ranges increase, and the cost of electric vehicles decreases.

In part due to falling costs and increasing consumer demand, and in part due to government policies encouraging the transition towards EVs, nearly all of the world's leading automakers have announced aggressive strategies and investments in electric and plug-in hybrid vehicles over the past two years.² This bill helps to prepare Hawai'i for the future demand for electric vehicles in our state. By choosing not to plan for EV charging infrastructure in new construction, residents would be forced to pay expensive retrofit costs to upgrade power capacity later when ground transportation has shifted to electric vehicles—a transition that is already well underway.

Blue Planet supports HB 1970. This is an important bill aimed at future proofing new construction and encouraging developers to be proactive in installing the power capacity and wiring needed for our clean energy and clean transportation future.

Thank you for the opportunity to provide testimony.

² Motavalli, Jim. "Every Automaker's EV Plans Through 2035 and Beyond." *Forbes*, October 2021. (<https://www.forbes.com/wheels/news/automaker-ev-plans/>).



To: The Honorable Representative Nicole Lowen, Chair, the Honorable Elle Cochran, Vice Chair, and Members of the Committee on Energy and Environmental Protection.

From: Climate Protectors Hawai'i (by Ted Bohlen)

Re: Hearing **HB1970 RELATING TO ENERGY**

Hearing: Tuesday January 30, 2024 9:00 a.m.

Aloha Chair Lowen, Vice Chair Cochran, and Energy and Environmental Protection Committee Members:

The mission of the Climate Protectors Hawai'i is to educate and engage the local community in climate change action, to help Hawai'i show the world the way back to a safe and stable climate.

The Climate Protectors Hawai'i STRONGLY SUPPORTS HB1970!

Hawaii has an excellent opportunity to save people money and meet its carbon negative target by transitioning to solar energy with storage systems and electric vehicles. It is far less expensive to install the needed infrastructure when a building is being constructed than to retrofit later.

This bill would require solar conduit and electrical panel readiness for new residential construction and electric vehicle readiness when an electrical panel and parking area are installed.

The development of residential solar and electric vehicle charging would save customers money and help Hawaii reach its carbon negative target.

Please pass this bill.

Mahalo!

Climate Protectors Hawai'i (by Ted Bohlen)



To: The House Committee on Energy and Environmental Protection
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, January 30, 2024, 9am

In strong support of HB1970

Aloha Chair Lowen, Vice Chair Cochran, and Energy and Environmental Protection Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **supports HB1970** that would require solar conduit and electrical panel readiness for new residential construction and electric vehicle readiness when an electrical panel and parking area are installed.

In 2020, the city and county of Honolulu smartly enacted a measure to require solar conduit and electrical panel readiness for new construction, and a measure to require electric vehicle readiness when an electrical panel and parking area are installed. By doing so, these actions helped lower the energy costs and carbon footprint of new houses, a big win-win for residents in the city and county of Honolulu. However, families from communities from all counties across the state deserve to be afforded these same benefits, and thus these same actions should be adopted on a statewide basis.

Requiring “solar-ready” roofs and some “EV-ready” parking are low-cost measures that expand access to solar panels and chargers for electric vehicles (EVs), and unlock big additional savings that residents can get by installing these technologies. Without a doubt, the cost of retrofitting buildings and parking infrastructure for EVs is far higher than designing it in from the start.

In addition, requiring “solar-ready” roofs and some “EV-ready” parking will help Hawaii build its way out of the climate crisis instead of making it worse. Hawaii has committed to meeting its energy needs with 100 percent renewable energy by 2045. With rising seas, a worsening hurricane season, struggling coral reefs, and varying supplies of drinking water, the state is already feeling the effects of climate change. Given that new housing and building infrastructure lasts over 50 years, the best time for Hawaii to start setting more ambitious guidelines towards decarbonization for new construction should have started decades ago. The second-best time is now.

Bottomline, HB1970 gives residents access to clean, affordable energy, helping people save money on their monthly bills at a time when so many are struggling, and at the same time helping to save the planet from climate-destroying greenhouse gases. This is an important step to help Hawaii meet its climate goals, reduce costs for residents, and become more resilient.

Mahalo for the opportunity to testify in **support** of this important legislation.

Sherry Pollack
Co-Founder, 350Hawaii.org



**Hawaiian
Electric**

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

HB 1970

RELATING TO ENERGY

JANUARY 30, 2024

9:00AM AGENDA ITEM #9

Conference Room 325

Terea Macomber

Policy Strategy & Community Manager

Electrification of Transportation

Hawaiian Electric

Aloha Chair Lowen, Vice Chair Cochran, and Members of the Committee:

My name is Terea Macomber and I am testifying on behalf of Hawaiian Electric in support of HB1970. This measure requires solar conduit and electrical panel readiness for new residential construction offered for sale at fair market value and electric vehicle readiness when an electrical panel and parking area are installed.

In 2020, the City & County of Honolulu adopted similar requirements in Bill 25 that Hawaiian Electric Company supported. The preamble to the bill notes that the County approved these measures and that they should be adopted statewide, effective January 1, 2025. Hawaiian Electric Company commends the legislature's proposal to ensure that new residential developments include readiness for these complimentary technologies, solar and electric vehicle charging. Typically, over eighty percent of charging is done at home; requiring new buildings to be prepared for residential EV charging will reduce the cost of future retrofits which, according to the EV Charging for All Model Codes Toolkit,

are nationally, four to 12 times higher than new construction. This forward-thinking policy can reduce the tax or ratepayer burden of our communities by allowing EV charging programs, like rebates and incentives, to focus on supporting underserved communities, and retrofitting existing homes, businesses and multi-unit dwellings. Hawaiian Electric supports this bill. Thank you for the opportunity to testify in support of HB1970.

HB-1970

Submitted on: 1/29/2024 8:46:57 AM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Dave Mulinix	Greenpeace Hawaii	Support	Written Testimony Only

Comments:

Aloha Chair, Vice Chair & Committee Members,

Greenpeace Hawaii stands in STRONG SUPPORT of HB1970.

Mahalo for putting this important bill forward. We are in a growing Climate Crisis, and it is essential that we do everything we can do to expand our use of clean renewable energy to get us off of planet killing fossil fuels.

Here are just a few reasons this bill is important:

- Requiring “solar-ready” roofs and some “EV-ready” parking are low-cost measures that expand access to solar panels and chargers for electric vehicles (EVs), and unlock big additional savings that residents can get by installing these technologies. Without a doubt, the cost of retrofitting buildings and parking infrastructure for EVs is far higher than designing it in from the start.
- HB1970 gives residents access to clean, affordable energy, helping people save money on their monthly bills at a time when so many are struggling, and at the same time helping to save the planet from climate-destroying greenhouse gases. This is an important step to help Hawaii meet its climate goals, reduce costs for residents, and become more resilient.
- The city and county of Honolulu smartly enacted a measure to require solar conduit and electrical panel readiness for new construction, and a measure to require electric vehicle readiness when an electrical panel and parking area are installed. By doing so, these actions helped lower the energy costs and carbon footprint of new houses, a big win-win for residents in the city and county of Honolulu. However, **families from communities from all counties across the state deserve to be afforded these same benefits**, and thus these same actions should be adopted on a statewide basis.

Mahalo Nui Loa for hearing this bill and for your efforts to effectively deal with the growing Climate Crisis.

Dave Mulinix, Cofounder Greenpeace Hawaii



DATE: 01/30/2024

TO: Representative Nicole E. Lowen
Chair, Committee on Energy & Environmental Protection
Submitted Via Capitol Website

FROM: Tiffany Yajima

RE: **HB 1970 – Relating to Energy**
Hearing Date: Tuesday, January 30, 2024 at 9:00 a.m.
Conference Room: 325

Dear Chair Lowen, Vice-Chair Cochran, and Members of the Committee on Energy & Environmental Protection:

The Alliance for Automotive Innovation (“Auto Innovators”) submits this testimony in **support** of H.B. 1970 as it pertains to electric vehicle readiness for new residential construction.

The Alliance for Automotive Innovation represents the full auto industry, a sector supporting 10 million American jobs and five percent of the economy. From the manufacturers producing most vehicles sold in the U.S. to autonomous vehicle innovators to equipment suppliers, battery producers and semiconductor makers – the association is committed to a cleaner, safer and smarter personal transportation future.

Charging infrastructure is a key component to any comprehensive vision and strategy for electric vehicles. By 2025, the auto industry will have invested more than \$330 billion to reach the goal of an electrified future. **In addition, the auto industry is ramping up by delivering a new generation of ZEVs that includes 130 models for sale in the U.S. market by 2026, up from over 70 models today.**

In support of the transition to a zero-emission transportation future, automakers support federal and state policies such as what is proposed in this bill to ensure that residences are equipped to support charging capabilities for electric vehicles. In addition, because the installation of EV chargers in new construction can be five times as cost effective as retrofitting existing facilities to add chargers after the fact, this measure makes good financial sense.

For these reasons, Auto Innovators are in support of this measure as it pertains to EV readiness. Thank you for the opportunity to submit this testimony.



January 30, 2024

Representative Nicole Lowen, Chair
Representative Elle Cochran, Vice Chair
Committee on Energy & Environmental Protection

RE: **HB 1970 HD1 – RELATING TO ENERGY**
Hearing date – January 30, 2024 at 9:00 AM

Aloha Chair Lowen, Vice Chair Cochran and members of the committee,

Thank you for allowing NAIOP Hawaii to submit testimony in **OPPOSITION** to HB 1970 – RELATING TO ENERGY. 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.

HB 1970 requires solar conduit and electrical panel readiness for new residential construction offered for sale at fair market value and electric vehicle readiness when an electrical panel and parking area are installed. These proposed requirements would specifically impact all market and affordable residential units which include single-family and two-family residences.

NAIOP opposes the requirement that new multi-family residential building be EV charger ready as it is unnecessary and would increase the cost of affordable housing projects or prohibit the development of a housing project. Most developers are required to build 30% of their development to be affordable housing. The increased cost associated with installation of the EV charger readiness in new construction will be reflected in the cost of affordable housing units for our residents or prevent a project from penciling out altogether.

Furthermore, as Hawaii is experiencing higher construction costs due to inflation, the additional costs of ensuring that new residential units are EV ready will prevent affordable housing units from being constructed. In conjunction, interest rates have significantly risen in the past year making affordable housing projects nearly infeasible due to rising costs and lower eligible affordable unit sales prices due to AMI restrictions. Accordingly, affordable housing is becoming increasingly more difficult to construct, and requiring EV and Solar readiness will prevent much needed housing units from being constructed for our residents.

Representative Nicole Lowen, Chair
Representative Elle Cochran, Vice Chair
Committee on Energy & Environmental Protection
January 30, 2024
Page 2

NAIOP Hawaii understands the need for zero-emission transportation infrastructure, however, we disagree that the cost should be placed upon the developers of affordable housing, and future homeowners. The financial and housing inventory impacts needs to be analyzed and addressed before mandating further cost onto homebuilding in our state.

Furthermore, most residential properties are privately owned and maintained by an association. Therefore, mandating installation of EV readiness may significantly raise the monthly maintenance costs for each homeowner. This will be especially problematic if an association's maintenance fees are increased for the affordable unit owners in each market rate project.

In addition, the proposed requirement is unnecessary since most counties already have EV infrastructure requirements on new construction. Requiring additional mandates of this nature is duplicative and may ultimately result in less housing units being constructed.

Hawaii is in a major housing crisis, which has only worsened over time. Requiring EV readiness may prevent projects from being constructed. Consequently, for projects to be constructed developers will need to pass on the costs to buyers. 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.

While NAIOP supports creative solutions to incentivize the installation of EV charging stations, it opposes mandating unnecessary and costly requirements that will ultimately have negative impacts on Hawaii's housing supply and local families. For these reasons we urge you to defer HB 1970. Thank you for the opportunity to testify on this measure.

Mahalo for your consideration,



Reyn Tanaka, President
NAIOP Hawaii



**HAWAII STATE HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Conference Room 325 & Videoconference
State Capitol
9:00 AM**

January 30, 2024

Subject: HB 1970 - RELATING TO ENERGY

Chair Lowen, Vice-Chair Cochran, and members of the Committee:

My name is Max Lindsey, 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 1970, Relating to Energy. This bill would require solar conduit and electrical panel readiness for new residential construction and electric vehicle readiness when an electrical panel and parking area are installed.

While we understand the need for zero-emission transportation and green energy infrastructure, we disagree that the cost should be placed 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.

Hawaii is in a major housing crisis, which continues to worsen.. Rather than placing more costly mandates on construction, perhaps the Legislature should look for creative ways to incentivize the market to move further in that direction, without negatively impacting local families. 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.

We appreciate the opportunity to share our comments on HB 1970.

HB-1970

Submitted on: 1/27/2024 12:03:04 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
ANDREW ISODA	Individual	Support	Written Testimony Only

Comments:

- Requiring “solar-ready” roofs and some “EV-ready” parking are low-cost measures that expand access to solar panels and chargers for electric vehicles (EVs), and unlock big additional savings that residents can get by installing these technologies. Without a doubt, the cost of retrofitting buildings and parking infrastructure for EVs is far higher than designing it in from the start.

- HB1970 gives residents access to clean, affordable energy, helping people save money on their monthly bills at a time when so many are struggling, and at the same time helping to save the planet from climate-destroying greenhouse gases. This is an important step to help Hawaii meet its climate goals, reduce costs for residents, and become more resilient.

- The city and county of Honolulu smartly enacted a measure to require solar conduit and electrical panel readiness for new construction, and a measure to require electric vehicle readiness when an electrical panel and parking area are installed. By doing so, these actions helped lower the energy costs and carbon footprint of new houses, a big win-win for residents in the city and county of Honolulu. However, **families from communities from all counties across the state deserve to be afforded these same benefits**, and thus these same actions should be adopted on a statewide basis.

HB-1970

Submitted on: 1/27/2024 4:52:52 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Judith A Mick	Individual	Support	Written Testimony Only

Comments:

Strongly support this bill

HB-1970

Submitted on: 1/27/2024 5:59:37 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
L. Osterer	Individual	Support	Written Testimony Only

Comments:

These actions helped lower the energy costs and carbon footprint of new houses in the city and county of Honolulu. However, **all counties across the state deserve to be afforded these same benefits**, and thus these same actions should be adopted on a statewide basis. This is an important step to help Hawaii meet its climate goals, reduce costs for residents, and become more resilient.

Thank you for consideration.

L. Osterer, long term resident and registered voter

HB-1970

Submitted on: 1/27/2024 7:23:32 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
brett gobar	Individual	Support	Written Testimony Only

Comments:

Overall, I support 350.org and similar organizations positions that renewable energy, particularly solar and wind and large scale Hydro storage, and hydrogenation systems acting as batteries need to be expedited, not restricted by the previous upsetting PUC approved, pro utility policies. Pull out all the stops to encourage solar on rooftops parking lots And in conjunction with agricultural projects, please call me to discuss these each of you my supposed leaders, Brett Gobar, BS Water resource management 808-633-6916. Aloha.

HB-1970

Submitted on: 1/28/2024 8:15:13 AM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ben Robinson	Individual	Support	Written Testimony Only

Comments:

I support this initiative.

HB-1970

Submitted on: 1/28/2024 8:41:43 AM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Maki Morinoue	Individual	Support	Written Testimony Only

Comments:

Aloha

I am in strong support of this bill.

In our recent global news, the climate shows us we are nearing a tipping point with global record-breaking floods, fires, geothermal activities, and land liquefaction during earthquakes. This planet is moving and shifting like a house does when it gets too cold or hot, and the extreme conditions create contraction and expansion in a heightened manner.

It is time for reform and support bills that ready our homes for independents, and moving away from relying on gas as little as possible.

Please support this bill.

Mahalo
Maki Morinoue
Hōluāloa, HI
96725

HB-1970

Submitted on: 1/28/2024 11:29:04 AM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Melissa Barker	Individual	Support	Written Testimony Only

Comments:

Honorable Members,

I respectfully ask that you support HB 1970 which requires solar conduit and electrical panel readiness for new residential construction. HB1970 gives residents access to clean, affordable energy, helping people save money on their monthly bills at a time when so many are struggling, and at the same time helping to save the planet from climate-destroying greenhouse gases. This is an important step to help Hawaii meet its climate goals, reduce costs for residents, and become more resilient.

Thank you for your attention and consideration.

Melissa Barker

Kapaa, HI

HB-1970

Submitted on: 1/28/2024 12:30:50 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Audrey Enseki-Tom	Individual	Support	Written Testimony Only

Comments:

I strongly support HB1970.

HB-1970

Submitted on: 1/28/2024 12:33:03 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Georgia L Hoopes	Individual	Support	Written Testimony Only

Comments:

Strong Support

HB-1970

Submitted on: 1/28/2024 2:39:22 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
John NAYLOR	Individual	Support	Written Testimony Only

Comments:

Aloha,

Strong support for solar & saving residents \$\$

JN Makawao

HB-1970

Submitted on: 1/28/2024 4:04:33 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Carol Hemington	Individual	Support	Written Testimony Only

Comments:

All measures such as this that support decarbonization of the economy need to be pursued. Installation of solar- and EV-ready infrastructure would be an important step to help Hawaii meet its climate goals, reduce costs for residents, and also become more resilient.

HB-1970

Submitted on: 1/28/2024 9:20:48 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Cory Harden	Individual	Support	Written Testimony Only

Comments:

Aloha legislators,

This bill will help people find relief from sky-high bills for household electricity and for gasoline. It will also help Hawai'i meet its climate goals. O'ahu has shown that readiness for solar electric and electric vehicles can be accomplished. Time for the rest of us to join!

mahalo,

Cory Harden

HB-1970

Submitted on: 1/28/2024 9:41:05 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ronald "Ron" Reilly	Individual	Support	Written Testimony Only

Comments:

Dear Chair Nicole E. Lowen, and Members of the Committee On Energy & Environmental Protection,

Thank you for hearing HB1970 relating to Relating To Energy. Many thanks also to the introducers of this measure which requires solar conduit and electrical panel readiness for new residential construction offered for sale at fair market value and electric vehicle readiness when an electrical panel and parking area are installed.

My partner and I are fortunate to have roof top solar with battery storage which provides the major portion of the power needed for our household and our electric car.

It is eminently sensible to require panel readiness and electric vehicle readiness on new residential construction where the installation cost will be less than an after market add on.

I respectfully urge your support of this measure,

Sincerely Ron Reilly and Roberta Baker
Volcano Village, Hawaii

HB-1970

Submitted on: 1/29/2024 7:34:14 AM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Virginia Tincher	Individual	Support	Written Testimony Only

Comments:

Mahalo for this opportunity to testify in strong support of HB1970

- Requiring “solar-ready” roofs and some “EV-ready” parking are low-cost measures that expand access to solar panels and chargers for electric vehicles (EVs), and unlock big additional savings that residents can get by installing these technologies. Without a doubt, the cost of retrofitting buildings and parking infrastructure for EVs is far higher than designing it in from the start.
- HB1970 gives residents access to clean, affordable energy, helping people save money on their monthly bills at a time when so many are struggling, and at the same time helping to save the planet from climate-destroying greenhouse gases. This is an important step to help Hawaii meet its climate goals, reduce costs for residents, and become more resilient.
- The city and county of Honolulu smartly enacted a measure to require solar conduit and electrical panel readiness for new construction, and a measure to require electric vehicle readiness when an electrical panel and parking area are installed. By doing so, these actions helped lower the energy costs and carbon footprint of new houses, a big win-win for residents in the city and county of Honolulu. However, **families from communities from all counties across the state deserve to be afforded these same benefits**, and thus these same actions should be adopted on a statewide basis.

HB-1970

Submitted on: 1/29/2024 7:47:55 AM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Cailey Etherington	Individual	Support	Remotely Via Zoom

Comments:

I am in support of HB1970. Cleaner energy, I step in tha direction, a greener furtute. We can't keep talking about being carbon reduction, we have to **BE** about it. Take action.

HB-1970

Submitted on: 1/29/2024 7:52:12 AM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ruth Robison	Individual	Support	Written Testimony Only

Comments:

Requiring “solar-ready” roofs and some “EV-ready” parking are low-cost measures that expand access to solar panels and chargers for electric vehicles (EVs), and unlock big additional savings that residents can get by installing these technologies. Without a doubt, the cost of retrofitting buildings and parking infrastructure for EVs is far higher than designing it in from the start. Thank you.

HB-1970

Submitted on: 1/29/2024 10:28:42 AM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Keith Neal	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Lowen and committee members,

I strongly support HB1970.

This is an important step to help Hawaii meet its climate goals, reduce costs for residents, and become more resilient. Hawaii's infrastructure must EV ready and electrical provisioning the most efficient way to accomplish energy and mobility resilient.

Mahalo

Keith Neal

Waimea

HB-1970

Submitted on: 1/29/2024 12:22:40 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Zoe Malia Ozoa Loos	Individual	Support	Written Testimony Only

Comments:

Hi! I know y'all don't really read these, and I totally get it. Y'all have lots of important things to do and not a lot of time. I could list all the reasons this bill should be supported, but come on, y'all, the planet is dying, and if the planet goes, we go. There's no arguing around that. This bill helps normal people get renewable energy in an easier way; thus, it must be passed. Anything to speed along the decarbonization of our economy should be done.

Thanks for your time!

HB-1970

Submitted on: 1/29/2024 3:06:29 PM

Testimony for EEP on 1/30/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ian McMahon	Individual	Support	Written Testimony Only

Comments:

I am a supporter of solar power, especially solar with battery backup.

Requiring a 30 or 50 Amp 240V plug in the garage at new construction is a great idea. It is far easier to run the wires when there is no drywall or siding in place. I would have loved having an outlet in my old house to run a welder.

I disagree though with item (e) Conduits of no less than one and one-half inches that provide a pathway from the electrical panel to the inverter location and from the inverter location to the underside of the roof sufficient to allow future installation of solar equipment shall be installed for all newly constructed residences.

My reasoning is that the conduit cost is not significant in the total cost of adding solar. It is primarily on the exterior of the building so is easy to add. Open ended conduit is also a path for insects and vermin to enter the main panel. The screws into the siding are a location for water entry.

Requiring pre-installed conduit reduces the ability to install different systems. For instance, an Enphase system with microinverters has different box arrangement than a string inverter system. Enphase sends 240 volt AC power from microinverters on the roof to either a combiner box or directly to the main panel. A string inverter system sends DC between 150 and 600 volts to a DC disconnect, then to a string inverter, then to the panel.

The contractors are likely to install the conduit wherever it is cheapest and easiest to do rather than where it is best located for solar.

Save conduit installation for the installation of the solar system phase. It should not be done at new construction.