



EXECUTIVE CHAMBERS
HONOLULU

DAVID Y. IGE
GOVERNOR

Testimony of **Ford Fuchigami**
Administrative Director, Office of the Governor

Before the
House Committee on Energy & Environmental Protection
January 29, 2019
8:30 a.m., Conference Room 325

In consideration of
House Bill No. 563
RELATING TO A COAL-FREE HAWAII

Chair Lowen, Vice Chair Wildberger, and committee members:

Thank you for the opportunity to provide comments in **support of the intent of House Bill 563, Relating to a Coal-Free Hawai'i** which prohibits the issuance of covered source air permits for coal-burning electricity generation facilities after 2022 or approval of any power purchase agreement for electricity generated from coal.

We defer specific comments to testimony submitted separately by the Department of Commerce and Consumer Affairs' Division of Consumer Advocacy.

We appreciate your attention and will be available to answer your questions, should you have any at this time.

TESTIMONY OF
JAMES P. GRIFFIN, Ph.D.
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII

TO THE
HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION

January 29, 2019
8:30 a.m.

Chair Lowen and Members of the Committee:

MEASURE: H.B. No. 563

TITLE: RELATING TO A COAL-FREE HAWAII.

DESCRIPTION: Prohibits the issuance of covered source air permits for coal-burning electricity generation facilities after 2022. Prohibits the approval of a new, modified, or renewed power purchase agreement for electricity generated from coal.

POSITION:

The Public Utilities Commission offers the following comments for consideration.

COMMENTS:

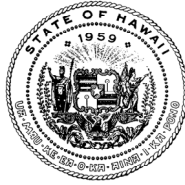
The Hawaiian Electric Companies' current Power Supply Improvement Plan ("PSIP") was filed with the Public Utilities Commission ("Commission") on December 23, 2016 in Docket No. 2014-0183. The Commission subsequently accepted the PSIP, with conditions, by Decision and Order No. 34696 on July 14, 2017.

In the PSIP, the HECO Companies state their intention to allow the existing power purchase agreement for electricity generated from coal on Oahu to "expire without renewal" when it ends 2022 (see PSIP at pages M-6 and M-34).

In addition, the Commission has opened a proceeding to conduct a competitive bidding process for new renewable and dispatchable generation for the HECO Companies (see Docket No. 2017-0352). Phase 1 of this competitive process has resulted in record-low prices for proposed renewable energy projects paired with long-duration energy storage.

Power purchase agreements for these proposed projects are currently under review by the Commission. The Commission expects Phase 2 of this ongoing competitive bidding process for new renewable and dispatchable generation to begin shortly. The competitive process is intended to identify additional renewable projects capable of providing energy and capacity similar to that of the existing coal plant on Oahu.

Thank you for the opportunity to testify on this measure.



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

Testimony COMMENTING on HB0563
RELATING TO A COAL-FREE HAWAII

REPRESENTATIVE NICOLE LOWEN, CHAIR
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Hearing Date: January 29, 2019 Room Number: 325

1 **Fiscal Implications:** Economic and operational impacts on the sole coal-burning facility in the
2 State of Hawaii and potential effects on Oahu electricity costs.

3 **Department Testimony:** The Department of Health (Department) offers the following comments
4 on this bill that proposes to prohibit the issuance or renewal of an air pollution control permit to a
5 coal-fired, electricity generating source beyond December 31, 2022.

6 The Department supports the bill's goals to reduce mercury and greenhouse gas (GHG)
7 emissions in striving for clean and renewable energy for Hawaii. The bill aligns with long term
8 power supply improvement plans for Oahu to convert to cleaner/renewable sources of energy such
9 as photovoltaic and wind energy, and supports Hawaii's 100 percent Renewable Portfolio Standard
10 and 2045 carbon neutrality goals. Coal naturally contains mercury, a neurotoxin which can make
11 its way into the soil and water. The GHG emissions from burning coal contribute to climate change
12 and sea level rise. Fugitive dust and particulate matter concerns related to the handling and
13 processing of coal would also be eliminated with the passing of this bill.

14 The primary goal of the bill is to reduce emissions of mercury and greenhouse gas (GHG)
15 emissions by preventing the use of coal. The one affected facility in Hawaii burns coal with low
16 mercury levels and uses particulate collection air pollution control systems to minimize mercury
17 emissions to the atmosphere. As a result, the level of mercury emissions from the facility falls
18 mid-range among the largest power generating plants statewide. The facility generates GHG
19 emissions at a rate per Megawatt-hour of electricity production that is the third highest among
20 Hawaii's largest power producers.

1 CAB's regulatory review of any air permit application is based on a source meeting state
2 and federal air standards and regulations. The review compares the proposed source emissions
3 to a set of limits or requirements that set an objective standard (e.g., state and federal air quality
4 standards) for approving or denying the permit. All facilities are required to demonstrate
5 compliance with these standards before an air permit is approved. This bill would modify this
6 approach and restrict permitting based on fuel type.

7 The Department supports replacement of Oahu's coal and other fossil fuel generated
8 electrical power with cleaner sources of energy, and the Hawaiian Electric Power Supply
9 Improvement Plan shows numerous additional clean energy sources (e.g., photovoltaic, wind, etc.)
10 will be added to Oahu's power supply in the future. However, the Department cautions that should
11 the energy shortfall from elimination of coal fueled power generation have to be met by other
12 existing power plants on Oahu, there may be little or no reduction realized, as other large electric
13 generating stations may emit comparable or even greater emissions.

14 **Offered Amendments:** None

15 Thank you for the opportunity to testify on this measure.



DAVID Y. IGE
GOVERNOR

MIKE MCCARTNEY
DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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Statement of
MIKE MCCARTNEY
Director

Department of Business, Economic Development, and Tourism
before the

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, January 29, 2019
8:30 AM
State Capitol, Conference Room 325

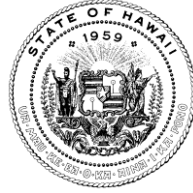
In consideration of
HB 563
RELATING TO A COAL-FREE HAWAII

Chair Lowen, Vice Chair Wildberger, and members of the Committee. The Department of Business, Economic Development, and Tourism (DBEDT) provides comment on HB 563 which prohibits the issuance of covered source air permits for coal-burning electricity generation facilities after 2022 and prohibits the approval of a new, modified, or renewed power purchase agreement for electricity generated from coal.

As Governor Ige noted in 2018 upon declaring the State's intention of joining the Powering Past Coal Alliance, the State of Hawai'i is committed to supporting clean power through our public policies in order to protect our environment and public health, and to combatting the acceleration of climate change.

Our commitment includes the elimination of unabated coal power production from our State. However, electricity generation from coal sources will be in direct opposition to the renewable portfolio standards and therefore this bill may not be necessary.

Thank you for the opportunity to testify.



DAVID Y. IGE
GOVERNOR

JOSH GREEN
LT. GOVERNOR

**STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS**

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CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

Testimony of the Department of Commerce and Consumer Affairs

**Before the
House Committee on Energy and Environmental Protection
Tuesday, January 29, 2019
8:30 a.m.
State Capitol, Conference Room 325**

**On the following measure:
H.B. 563, RELATING TO COAL-FREE HAWAII**

Chair Lowen and Members of the Committee:

My name is Dean Nishina, and I am the Executive Director for the Department of Commerce and Consumer Affairs' (Department) Division of Consumer Advocacy. The Department offers comments on this bill.

The purpose of this bill is to prohibit the: (1) issuance of covered source air permits for coal-burning electricity generation facilities after 2022; and (2) approval of a new, modified, or renewed power purchase agreement for electricity generated from coal.

This bill may not be necessary because, as recognized in section 1, the term of Hawaiian Electric Company's power purchase agreement with the AES Hawaii Power Plant will conclude in 2022, and Hawaiian Electric Company has initiated plans, pursuant to the O`ahu Power Supply Improvement Plan accepted by the Public Utilities Commission in Docket No. 2014-0183, to replace that generation capacity through other cleaner sources. Thereafter, according to the accepted plan, and limited by the

renewable portfolio standards interim milestones, it is exceedingly unlikely that Hawaiian Electric Company or any other regulated electric utility company would pursue a new, modified, or renewed power purchase agreement with a coal facility of which the Consumer Advocate would recommend approval.

If, however, the Legislature wishes to pursue this measure to indicate Hawaii's commitment to clean energy, the Consumer Advocate suggests modifying the language to make clear that the Public Utilities Commission should not: (1) approve any power purchase agreement for a facility that relies entirely or partly on coal as a fuel source; or (2) the construction or purchase of any such facility. The Legislature should also consider whether any housekeeping measures would be appropriate, such as the provision in Hawaii Revised Statutes section 243.35 that allows an independent power producer to pass on the coal tax to a purchasing utility company, to eliminate other statutory provisions that might facilitate a coal-burning electricity generating facility.

Thank you for the opportunity to testify on this bill.

Testimony before House Committee on Energy & Environmental Protection

H.B. No. 563

Relating to a Coal-Free Hawaii

January 29, 2019
8:30am, Agenda Item #2
State Capitol, Conference Room 325

Lisa Giang
Director, Advanced Planning
Hawaiian Electric Company, Inc.

Chair Lowen, Vice Chair Wildberger, and Members of the Committee:

My name is Lisa Giang and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and Hawai'i Electric Light Company (collectively, the "Companies") in **opposition** to H.B. No. 563 in its current form.

The Companies are committed to the State's transition from fossil fuels to 100 percent renewable energy by 2045. In fact, our Power Supply Improvement Plan (PSIP), filed with and accepted by the Hawaii PUC in July 2017 calls for the discontinuation of coal generation on O'ahu when the current AES contract expires in September 2022. Our PSIP added renewable energy ahead of the mandated Renewable Portfolio Standards (RPS) which also reduces emissions ahead of the greenhouse gas reduction mandates. The Companies support the intent of the bill to lower carbon dioxide and mercury emissions through the discontinuation of coal use. However, we do not support the bill as currently proposed and offer the following considerations.

As mentioned, the Companies are in the process of enabling the state's complete transition from coal when the related purchase power agreement terminates in

2022. This successful transition requires that there be sufficient generation capacity and grid services on the Oahu electric grid to replace the largest generating unit on the island while implementing many other clean energy transitions in our entire generation portfolio. Many parties and external factors across the end-to-end resource development value chain can impact our schedule for this transition. For example, our plans through 2022 call for 250 MW of new renewable generation and 426 MW of storage to be in service in parallel with the termination of the coal PPA. We recently executed 262 MW of solar plus storage contracts that are subject to PUC approval. In addition to construction risks, these projects remain exposed to regulatory, community, permitting and supplier risks to name a few. Following the Request for Proposal (RFP) that was recently completed with signed and filed contracts in December 2018, the Companies are now in the process of preparing for the launch of additional RFPs to round out our 2022 needs. In addition, the utilities have other open dockets before the PUC to make the grid upgrades needed to support the jump in renewables expected by 2022 while maintaining a reliable grid for the island.

While the utilities intend to not renew the AES contract when it expires at the end of 2022, should the aforementioned renewable projects not come to fruition by then due to any of these exogenous factors, the utilities need to have flexible operating options that can serve as stop gaps/contingency plans to ensure continuous and reliable electric service until such issues can be resolved. The consequences of not having this option could be grave.

In addition, as an island community, Hawaii is vulnerable to effects of weather and storms. The need to be flexible to deal with the immediate after-effects of such events is very critical for the safety of our public and the health of the State's economy.

And with our isolated electric grids, we are not able to rely on neighboring states to provide such flexibility to respond. We are concerned that the proposed language is too restrictive and limits operational flexibility for such future uncertainties.

Prohibiting approval of any modifications to the current power purchase agreement could be too restrictive as there may be circumstances where modifying the terms of the existing contract could be warranted. For example, if a catastrophic event such as a hurricane was to occur and the island is without power for an extended period of time, continuing the operation of the coal plant, or bringing the coal plant back online to help with restoring electricity to customers would not be possible without a power purchase contract or a covered source permit. The Companies are making tremendous progress in achieving our renewable goals, but is still in the midst of modernizing the grid for 100 percent renewable energy. Limiting options in the near-term would not be prudent in order to protect our island's residents and economy.

We believe that current laws and policies already in place and the actions by the Companies to comply and exceed them will achieve the intent of this bill. With the RPS, Energy Efficiency Portfolio Standards, and greenhouse gas reduction mandates, the Company's plans will reduce and eliminate production from fossil sources, such as coal. Giving the PUC and utility flexibility to achieve the RPS rather than a specific constraint for coal allows for a more successful achievement of the end result – reduction in carbon emissions and mercury toxins.

In July 2007, the State Legislature passed Act 234, which requires a statewide reduction of GHG emissions by January 1, 2020 to levels at or below the statewide GHG emission levels in 1990. On June 20, 2014, the Governor signed the final rules required to implement Act 234 and these rules went into effect on June 30, 2014. In

general, Act 234 and the GHG rule require affected sources that have the potential to emit GHGs in excess of established thresholds to reduce their GHG emissions by 16% below 2010 emission levels by 2020. In general, Act 234 and the GHG rule require affected sources that have the potential to emit GHGs in excess of established thresholds to reduce their GHG emissions by 16% below 2010 emission levels by 2020.

In accordance with State requirements, the Companies submitted an Emissions Reduction Plan to the Department of Health on June 30, 2015. The Utilities submitted a revised Emissions Reduction Plan on October 15, 2018, to reflect the partnership established between the Hawaiian Electric Companies and several Independent Power Producers. In this plan, the Partnership has committed to a 16% reduction in GHG emissions in accordance with the rule.

Therefore, we can conclude that we are already working with laws and policies in place to reduce carbon emissions and mercury toxins to meet the intent of this bill, and although we support the intent, this bill is not needed. Accordingly, the Hawaiian Electric Companies oppose H.B. No. 563 in its current form. Thank you for this opportunity to testify.



Hawaii Solar Energy Association
Serving Hawaii Since 1977

**TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION
IN REGARD TO HB 563, RELATING TO COAL-FREE HAWAII
BEFORE THE
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
ON
TUESDAY, JANUARY 29TH, 2019**

Chair Lowen, Vice-Chair Wildberger, and members of the committee, my name is Will Giese, and I represent the Hawaii Solar Energy Association, Inc. (HSEA)

HSEA **strongly supports HB 563**. This bill prevents the Hawaii Public Utilities Commission from renewing or approving a power purchase agreement (“PPA”) that burns or utilizes coal on or after June 30th, 2019 and prevents any type of coal burning by December 31, 2022.

Put simply, this bill makes sense and is well within Hawaii’s renewable and sustainability goals. There is no reason that coal PPAs should be renewed given 2045 RPS energy deployment goals or the amount of cost and pollution borne by the people of Hawaii. In addition, the same company that currently operates AES Hawaii Power Plant is also the company that recently announced sub \$0.10/kWh prices on utility scale solar plus storage projects on Big Island and Maui¹:

Project name	Island	Developer	Size	Storage	Cost per KWh
Waikoloa Solar	Hawai'i	AES	30 MW	120 MWh	\$0.08
Hale Kuawehi	Hawai'i	Innergex	30 MW	120 MWh	\$0.09
Kuihelani Solar	Maui	AES	60 MW	240 MWh	\$0.08
Paeahu Solar	Maui	Innergex	15 MW	60 MWh	\$0.12
Hooohana	O'ahu	174 Power Global	52 MW	208 MWh	\$0.10
Mililani I Solar	O'ahu	Clearway	39 MW	156 MWh	\$0.09
Waiawa Solar	O'ahu	Clearway	36 MW	144 MWh	\$0.10

Source: Hawaiian Electric Industries

Clearly there is no need for additional or extended burning of 180MWe of coal-fired generation. 2018 utility scale renewable pricing even in Hawaii, a state with notoriously high electric costs, currently meets at or below cost parity with traditional fossil fuel sources. This also does not account for the significant environmental benefits that will result from banning coal and can be quantified in a variety of ways, such as health and economic cost benefits.

We **support** HB 563 and we urge this committee to pass this measure. Thank you for the opportunity to testify.

¹ <https://www.greentechmedia.com/articles/read/hawaiian-electric-industries-announces-mind-blowing-solar-plus-storage-cont#gs.w4wd1b2j>



SIERRA CLUB OF HAWAII

MĀLAMA I KA HONUA. *Cherish the Earth.*

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Tuesday Jan 29, 2019 8:30 AM Room 325

In **SUPPORT** of **HB 563** Relating to a coal-free Hawai'i

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

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **strongly supports HB 563**, which prohibits the issuance of covered source air permits for coal-burning electricity generation facilities after 2022 and prohibits the approval of a new, modified, or renewed power purchase agreement for electricity generated from coal.

Not only is burning coal responsible for one third of US carbon emissions, but it is also leading to as many as 13,000 premature deaths every year and more than \$100 billion in annual health costs.¹ Several principal emissions result from coal combustion, including²:

- Sulfur dioxide (SO₂), which contributes to acid rain and respiratory illnesses
- Nitrogen oxides (NO_x), which contribute to smog and respiratory illnesses
- Particulates, which contribute to smog, haze, and respiratory illnesses and lung disease
- Carbon dioxide (CO₂), which is the primary greenhouse gas produced from burning fossil fuels (coal, oil, and natural gas)
- Mercury and other heavy metals, which have been linked to both neurological and developmental damage in humans and other animals
- Fly ash and bottom ash, which are residues created when power plants burn coal

Hawai'i has only one coal-fired power plant remaining in service, it is the AES plant on O'ahu which has a power purchase agreement that is already set to expire in 2022. Passage of this bill ensures that Hawai'i will be "coal-free by 2023", solidifying plans to transition Hawai'i from dirty energy and encouraging AES and Hawaiian Electric Company to redirect its focus to clean energy and battery storage projects. AES and the Kauai Island Utility Cooperative recently broke ground on Hawai'i's largest hybrid solar and battery storage system on Kaua'i's south shore, so we know that this company has great potential to also make the transition away from coal on the island of O'ahu.

¹ <https://content.sierraclub.org/coal/about-the-campaign>

² https://www.eia.gov/energyexplained/index.php?page=coal_environment

HB 563 furthers Hawai'i's commitment to 100% clean energy by 2045 and sets another example of the legislature's ambitious leadership to mitigate the harmful effects of climate change.

Thank you very much for this opportunity to provide testimony in **strong support of HB 563**.

Mahalo,

A handwritten signature in cursive script that reads "Jodi Malinoski".

Jodi Malinoski, Policy Advocate



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COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

TUESDAY, 1/29/19, 8:30 am, Room 325
HB563, Relating To A Coal-free Hawaii

TESTIMONY

Beppie Shapiro, Legislative Committee, League of Women Voters of Hawaii

Chair Lowen, Vice-Chair Wildberger, and Committee Members:

The League of Women Voters of Hawaii **supports HB563 that sets clear timelines beyond which coal will not be used as an energy source in Hawaii.**

The United Nations Intergovernmental Panel on Climate Change, a group of climate scientists in fall of 2018 describes a world of worsening food shortages, wildfires, inundated coastlines, intensifying droughts and poverty, and a mass die-off of coral reefs as soon as 2040 — a period well within the lifetime of many Hawaii residents. The panel warned there is only a dozen years for global warming to be kept to a maximum of 2.7F degrees to avoid truly catastrophic impacts.

The Panel's report states that by 2050, use of coal as an electricity source would have to drop from nearly 40 percent today to between 1 and 7 percent. This report makes it clear: There is no way to mitigate climate change without getting rid of coal," said Drew Shindell, a climate scientist at Duke University and an author of the report. (Source: New York Times, Oct. 7, 2018)

HB563 moves Hawaii forward toward a coal-free future. Eliminating the use of coal will reduce its adverse effects on health as well as helping the state to reach its goal of getting to 100% renewable energy by 2045.

The League of Women Voters of Hawaii requests that you support HB563.

Thank you for the opportunity to submit testimony.



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Phone: 927-0709 henry.lifeoftheland@gmail.com

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Nicole E. Lowen, Chair

Rep. Tina Wildberger, Vice Chair

DATE: Tuesday, January 29, 2019

TIME: 8:30 AM

PLACE: Conference Room 325

HB 563 RELATING TO A COAL-FREE HAWAII.

SUPPORT

Aloha Chair Lowen, Vice Chair Wildberger, 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 47 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.

Life of the Land has two active climate change appeals before the Hawai`i Supreme Court. The court heard oral arguments on the first one in October 2018. We also have a climate change complaint before the Public Utilities Commission.

The proposed bill would make sure the AES coal-to-electricity plant in Campbell Industrial Park ceases using coal by 2022.

Coal use is one of the most dangerous greenhouse gas emitter. HECO's proposal in 2007 to raze tropical rainforests in Borneo and Indonesia to grow palm oil for biodiesel would have been very harmful. The U.S. taxpayer subsidy of converting food and animal crops to biocrops to produce ethanol in the Midwest, and exporting the food and animal crop production to the Amazon, where rainforst destruction doesn't count as American emissions, is equally stupid.

All Uses

The bill would not stop all coal uses and therefore its passage would not result in achievement of the title of the bill.

Hawai'i imports and produces biochar used in research and as a soil amendment. PBS: The Coal That's Good for the Climate. Locking carbon away for decades could be as simple as spreading biochar on farm fields.¹

Hawai'i also imports and produces charcoal briquettes and lump charcoals for outdoor cooking.

¹ <https://www.pbs.org/wgbh/nova/article/biochar/>

Hawaiian Coal History

Ladd & Company (1833-46) advertised coal for sale in 1840.² The Company was behind the first commercial sugarcane plantation and first international land speculation in the Hawaiian Islands.³

A small, 1,000-ton coaling station was built in Honolulu for the U.S. Navy in 1860.⁴ The Reciprocity Treaty of 1887 permitted a U.S. Navy Coaling Station in Pearl Harbor. Coal was used commercial in Hawai`i until petroleum became dominant in the early twentieth century.

A 1981 tax court case involved Kaiser Cement Corporation which was located in Nanakuli.⁵ “The Taxpayer’s plant was originally equipped with oil burning furnace but has since been converted to a coal burning furnace. The conversion was made principally because of the high cost of oil as a fuel.”⁶

Hawaiian Electric Company filed an application with the Public Utilities Commission (PUC) in early 2018, docket no. 2018-0090. The AES plant would exceed its Greenhouse Gas (GHG) emission limit in 2020, but HECO had spare room in its cap. So HECO

² The Polynesian. (Honolulu (Oahu), Hawaii) 1840-1841, June 06, 1840, Image 4
Image and text provided by University of Hawaii at Manoa; Honolulu, HI
Persistent link: <http://chroniclingamerica.loc.gov/lccn/sn82015413/1840-06-06/ed-1/seq-4/>
<https://chroniclingamerica.loc.gov/lccn/sn82015413/1840-06-06/ed-1/seq-4/ocr/>

³ https://en.wikipedia.org/wiki/Ladd_%26_Co.

⁴ Development of the Naval Establishment in Hawaii
<https://www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/u/the-us-navy-and-hawaii-a-historical-summary/development-of-the-naval-establishment-in-hawaii.html>; Oahu's Narrow-Gauge Navy Rail by Jeff Livingston. <https://books.google.com/books?isbn=1439647275>

⁵ http://tax.hawaii.gov/legal/a4_5crtcases/

⁶ In the Matter of Appeal of APPEAL COURT OF THE STATE OF HAWAII the Tax CASE NO. 1895 DECISION AND ORDER KAISER CEMENT CORPORATION.
http://files.hawaii.gov/tax/legal/crtcases/1968_97/KAICEM.PDF

proposed combining the emissions of about a dozen utility and third-party generators whereby the total GHG emissions would be less than the combined cap.

Life of the Land, 350 Hawai'i, and Sierra Club filed motions to intervene in the PUC docket.

The PUC suspended the docket pending Hawai'i Department of Health (DOH) review of the combined filing.

The DOH intent was to have public review in the fall of 2018 and a decision by last December. The package is so complex the DOH is still reviewing it in the pre-public-hearing phase.

Mahalo

Henry Curtis
Executive Director



To: The House Committee on Energy & Environmental Protection
From: Sherry Pollack, Co-Founder, 350Hawaii.org
Date: Tuesday, 1/29/19

In strong support of HB 563

Aloha Chair Lowen, Vice Chair Wildberger, and Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org strongly supports **HB563**. Coal has led the planet to the brink of climate catastrophe. The age of coal is over. We now know it has been the primary contributor to our current climate crisis. With so many local sources of zero-emission energy, Hawaii is long overdue to be rid of this dirty, dangerous fuel.

Stopping coal use will be a sizable, welcome step toward our 100% zero-emissions energy goals, as will eliminating the emissions caused by shipping it here.

Please support this bill and take coal off the list of emission sources Hawaii has to worry about.

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

Sherry Pollack
Co-Founder, 350Hawaii.org



To: The House Committee on Energy & Environmental Protection
From: Brodie Lockard, Hawaii State Climate Lead, Organizing for Action
Date: Tuesday, January 29, 2019, 8:30 am

In strong support of HB 563

Dear EEP Chair Lowen, Vice Chair Wildberger and Committee Members—

Organizing for Action strongly supports HB 563.

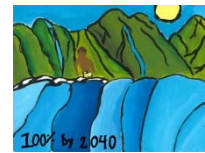
Coal is dying, and for good reason. On Sunday, Germany announced it would close all 84 of its coal-fired power plants, and rely primarily on renewable energy. Hawaii has only one coal-fired power plant and it's high time it went away.

The end of coal in Hawaii is an important step toward our 100% zero-emissions energy goals. It has been the primary contributor to greenhouse gases worldwide, and we need to do our part to eliminate it. Some places still depend on coal for their energy, but Hawaii has no such need. Hawaii has so many local sources of zero-emission energy! We have no need for this dirty fuel. And ending its shipments here will reduce emissions further.

Please pass HB 563 and let Hawaii's abundant clean energy sources take the place of coal.

Thank you for the opportunity to testify.

Brodie Lockard
Hawaii State Climate Lead, Organizing for Action



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

January 29, 2019, 8:30 A.M.

Room 325

(Testimony is 2 pages long)

TESTIMONY IN STRONG SUPPORT OF HB 563

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

Blue Planet Foundation **strongly supports** HB 563, committing Hawai'i to a future free of climate-changing coal burning by prohibiting the permitting of coal power plants after 2022. This is a critical measure to ensure that Hawai'i stays on track to achieve a 100% clean energy future while signaling to the globe that Hawai'i is serious about its carbon pollution.

COAL IS A CLIMATE AND HEALTH DISASTER

Coal is the single largest contributor to the human-made increase of carbon dioxide in the atmosphere. The burning of coal, which is primary carbon, is responsible for 46% of carbon dioxide emissions worldwide and accounts for 72% of total carbon dioxide emissions from the electricity sector. In Hawai'i, the coal-fired power plant on O'ahu (the only coal power plant in the state) is the second largest point source of the state's carbon dioxide emissions. **In 2016, the coal power plant released nearly 3.5 billion pounds of carbon dioxide into the atmosphere.**

According to the International Energy Agency, to have a 50% chance of staying within 2 degrees Celsius of global warming (the high end of the temperature target set by the Paris Climate Agreement), only zero carbon utilities and infrastructure should be developed going forward, and coal should be completely eliminated. The burning of coal is simply incompatible with a stable climate and continued civilization.

When coal is burned it releases a number of airborne toxins and pollutants. These include mercury, lead, sulfur dioxide, nitrogen oxides, particulates, and various other heavy metals. Although limits set by the Environmental Protection Agency (EPA) have helped prevent some of these toxic emissions, the future of these protections remains unclear under the current White House administration. Health impacts from coal emissions include asthma and breathing difficulties, brain damage, heart problems, cancer, neurological disorders, and premature death. **Globally, coal is estimated to cause 800,000 premature deaths every year.**

THE GLOBE IS WAKING UP TO THE DANGERS OF COAL

Given the extreme dangers of coal to climate and health, other nations are taking action.

Twenty countries have pledged to phase out coal power before 2030, including Angola, Austria, Belgium, Britain, Canada, Costa Rica, Denmark, El Salvador, Fiji, Finland, France, Italy, Luxembourg, the Marshall Islands, Mexico, the Netherlands, New Zealand, Niue, Portugal, and Switzerland. In 2013, the head of the UN climate agency advised that most of the world's coal reserves should be left in the ground to avoid catastrophic global warming.

COAL PLAYS NO ROLE IN HAWAI'I'S CLEAN ENERGY FUTURE

Carbon-intensive coal power is antithetical to Hawai'i's 100% clean energy future. Burning coal is at odds with Hawai'i's pledge to achieve the Paris Climate Agreement objectives and to achieve carbon neutrality by 2045. None of the current utility plans to achieve Hawai'i's 100% renewable portfolio standard include coal-fired electricity. Further, the large coal-burning power plant is slow to start and difficult to ramp its electricity production up and down, making it challenging to pair with a small and increasingly variable island electricity grid.

The current power purchase agreement between the coal power plant's owner, AES, and Hawaiian Electric is set to expire in 2022. The utility currently has no plans to extend or renew the contract. What's more, AES has committed to transitioning to low-carbon sources, pledging to reduce the carbon intensity of its power plants 70% by 2030.

Hawai'i's renewable energy transition is happening at lower costs than previously anticipated. Hawaiian Electric recently submitted power purchase contracts to the Public Utilities Commission for solar plus storage projects that will provide electricity at nearly half the cost of traditional fossil fuel power plants. **The two lowest cost energy projects—both providing stored solar energy at 8 cents per kilowatt-hour—are owned by coal-plant owner AES.**

OTHERS ARE FOLLOWING HAWAI'I'S LEAD ON CLEAN ENERGY

Hawai'i has emerged as a leader on clean energy policy, adopting a number of bold, first-in-the-nation targets that have helped inspire other states to take similar action. Hawai'i was the first state in the country to adopt a 100% renewable energy requirement for electricity by 2045 (Act 97 of 2015), and California adopted a similar law in 2018. Hawai'i has also pledged to achieve carbon neutrality by 2045 (Act 15 of 2018), another first in the nation.

Despite the clear threat that coal-powered electricity presents to the climate, no state has prohibited its use. **Hawai'i has the opportunity to be a national leader by setting an expiration date on coal in Hawai'i.** Thank you for the opportunity to testify.



ELEMENTAL EXCELERATOR

**Written Statement of Elemental Excelerator
before the House Committee on Energy and Environmental Protection
In consideration of HB 563
Tuesday, January 28, 2019
8:30 AM**

**Aloha Chair Lowen, Vice Chair Wildberger, and Members of the House Committee
on Energy and Environmental Protection:**

Elemental Excelerator respectfully submits our support of HB563, which prohibits 1) the issuance of covered source air permits for coal-burning electricity generation facilities after 2022; and 2) the approval of a new, modified, or renewed power purchase agreement for electricity generated from coal.

Elemental Excelerator is a Honolulu-based growth accelerator program founded and operating in Hawai'i. We have awarded over \$30 million to 82 companies resulting in 35 demonstration projects in Hawai'i & Asia Pacific. Each year, we select 15-20 companies that best fit our mission and fund each company up to \$1 million. We recruit innovative entrepreneurs from around the world to come to Hawai'i and find transformative solutions to help us achieve our 100% clean energy goals.

In April 2018, Elemental Excelerator commissioned a study entitled *Transcending Oil: Hawai'i's Path to a Clean Energy Economy*. The study found that in Hawai'i, transitioning to renewable energy is cheaper than sticking with oil. The faster we go, the cheaper it will be.

We support HB 563 and its prohibition of covered source air permits for coal-burning electricity because it does the following:

1. **It aligns with Hawaii's commitment to the Paris Climate Accord:** While Hawaii is on track to meet its share of America's 2025 target under the Paris Agreement, the state needs to accelerate its clean energy transition and phase off its use of fossil fuels like coal and oil in order to maintain progress towards the Paris Agreement's long-term goals.
2. **It will increase investments in clean energy:** Accelerating clean energy deployment and transitioning off fossil fuels use can bring an additional \$2.9 billion in new investments for our state.
3. **It will provide thousands of new good-paying jobs:** By transitioning to clean energy, Hawaii can create as many as 3,500 additional jobs that pay \$3-7 more per hour than Hawaii's \$20 median wage.
4. **It provides an opportunity for innovation:** Robust policy alignment with clean energy attracts innovation and positions Hawaii to compete globally for talent and investment. To date, Elemental Excelsior has funded \$16.1 million towards projects in the state.

Mahalo for the opportunity to provide testimony on this legislation.

Sincerely,



Aki Marceau
Managing Director, Policy & Community



Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Tuesday, January 29, 2019 — 8:30 a.m. — Room 325

Ulupono Initiative Supports HB 563, Relating to a Coal-Free Hawaii

Dear Chair Lowen, Vice Chair Wildberger, and Members of the Committee:

My name is Murray Clay and I am Managing Partner of the Ulupono Initiative, a Hawai'i-based impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally produced food; increase affordable, clean, renewable energy; and better management of waste and fresh water. Ulupono believes that self-sufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

Ulupono supports HB 563, which prohibits the issuance of permits for coal-burning electricity generation facilities after 2022 and related power purchase agreement approval, because it aligns with our goal of increasing the production of clean, renewable energy in Hawai'i.

While coal has been an important baseload source of electricity for Hawai'i, cost-effective renewable electricity production from renewable sources is becoming the more economical and environmentally responsible option to provide power to the people of Hawai'i. Today, with issues such as sea level rise and greenhouse gas emissions, there are far better sources of energy for Hawai'i to tap into to meet our electricity demand.

Hawaiian Electric has already indicated in its power supply improvement plans, that its near-term plans include the aggressive deployment of low-cost renewables and a discontinuation of the use of coal. With the AES coal-fired power plant's PPA expiring in 2022, now is a natural and responsible time to decide that the use of coal in Hawai'i ends in 2022. Furthermore, any potential shifting of the plant to biomass should be conditioned on sourcing such fuel from sustainably managed forests.

As Hawai'i's energy issues become more complex and challenging, we appreciate this committee's efforts to look at policies that support renewable energy production.

Thank you for this opportunity to testify.

Investing in a Sustainable Hawai'i



Respectfully,

Murray Clay
Managing Partner



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

January 28, 2019, 8:30 a.m.
(*Testimony is 2 pages long*)

TESTIMONY IN SUPPORT OF HB 563

Aloha Chair Lowen and Members of the Committee:

The Alliance for Solar Choice (TASC) supports HB 563, relating to a coal-free Hawaii. This measure prohibits the approval of any power purchase agreement that proposes to burn or consume coal after June 30, 2019, and requires coal burning to be eliminated in Hawaii after December 31, 2022.

Coal has significant health impacts. Consider:

- **Toxic mercury.** Burning coal releases toxic mercury that gets into our waterways and the food that we eat. Mercury is especially dangerous to pregnant women and young children because it's a powerful neurotoxin that can damage the brain and nervous system — causing developmental problems and learning disabilities.
- **Smog and asthma.** In the U.S., 1 out of 10 children suffers from asthma. It is the number-one illness that causes kids to miss school. Each year, coal pollution causes 12,000 emergency room visits and \$100 billion in health costs. Pollution from coal-fired power plants creates smog, which can cause chest pain, coughing, and breathing difficulties. Smog can make conditions like bronchitis, emphysema, and asthma worse or even fatal.
- **Mountaintop removal mining.** Mountaintop removal is exactly what it sounds like: Mining companies clear-cut forests and then blow the tops off mountains to get the coal. They then dump millions of tons of waste into the valleys below — permanently burying streams, poisoning drinking water, and increasing the risk of flooding. In the past ten years, 500 of the biggest mountains in West Virginia have been destroyed.
- **Coal ash.** When coal is burned it leaves behind toxic waste ash. This waste is dumped in thousands of sites nationwide and often stored in open-air pits, where it can spill or seep into the ground and contaminate drinking water. Living near a coal-ash waste site can be worse for kids' health than smoking a pack of cigarettes a day.

Turning specifically to Hawaii, coal is one of the dirtiest forms of energy in our inventory. Coal produces approximately 10% of the carbon emissions in our state, despite being a rather small

source of energy (no transportation use, and now only found on Oahu). It produces over a pound of toxic mercury, which directly contaminates our fish supplies and the health of residents who consume them.

Coal is not a part of Hawai'i's sustainable future. We respectfully request that this bill be passed out of the Committees. Mahalo for the opportunity to testify.



O`ahu County Committee on Legislative Priorities (OCCLP)

January 28, 2019

TO: Honorable Chair Lowen & EEP Committee Members

RE: HB 563 Relating to a Coal Free Hawai`i

Support for hearing on Jan. 29

Aloha mai kakou:

The O`ahu County Committee on Legislative Priorities (OCCLP) of the Democratic Party of Hawai`i (DPH) hereby submits its testimony in **SUPPORT of HB 563 relating Coal Free Hawai`i.**

OCCLP supports HB 563 as it would prohibit the issuance of covered source air permits for coal-burning electricity generation facilities after 2022 and prohibits the approval of a new, modified, or renewed power purchase agreement for electricity generated from coal. Although there is not a lot of coal burned in our state, we should still support a no-coal policy as coal is both dirty and generates climate change carbon emissions.

Thank you for your favorable consideration.

Mahalo nui loa

Me ka `oia`i`o

/s/ Melodie Aduja

Melodie Aduja

Chair, O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i

Ph. (808) 258-8889

Email: legislativepriorities@gmail.com

HB-563

Submitted on: 1/28/2019 8:12:59 AM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
David Mulinix	Our Revolution Hawaii	Support	Yes

Comments:



AMERICANS FOR DEMOCRATIC ACTION

OFFICERS	DIRECTORS			MAILING ADDRESS
John Bickel, President	Melodie Aduja	Ken Farm	Stephen O'Harrow	P.O. Box 23404
Alan Burdick, Vice President	Guy Archer	Chuck Huxel	Doug Pyle	Honolulu
Marsha Schweitzer, Treasurer	Juliet Begley	Jan Lubin		Hawai'i 96823
Dylan Armstrong, Secretary	Gloria Borland	Jenny Nomura		

Jan 26, 2018

TO: Honorable Chair Lowen & EEP Committee Members

RE: HB 563 Relating to a Coal Free Hawaii

Support for hearing on Jan. 29

Americans for Democratic Action is an organization founded in the 1950s by leading supporters of the New Deal and led by Patsy Mink in the 1970s. We are devoted to the promotion of progressive public policies.

We support HB 563 as it would prohibit the issuance of covered source air permits for coal-burning electricity generation facilities after 2022 and prohibits the approval of a new, modified, or renewed power purchase agreement for electricity generated from coal. Although there is not a lot of coal burned in our state, we should still support a no-coal policy as coal is both dirty and generates climate change carbon emissions.

Thank you for your favorable consideration.

Sincerely,

John Bickel President



EEPttestimony

From: Jim Nicolow <jnicolow@sbcglobal.net>
Sent: Saturday, January 26, 2019 12:42 PM
To: EEPttestimony
Subject: Support for HB 563

I am writing in support of HB 563 calling for Hawaii to be Coal free by 2023. As an Oahu resident and an architect specializing sustainable design, I recognize the direct link between climate change and fossil fuel use, with electricity to power our buildings one of the primary contributors. It's time to transition to renewable energy sources.

Jim Nicolow, FAIA, LEED Fellow
522 Palawiki St.
Kailua, HI 96734



HB-563

Submitted on: 1/28/2019 11:39:47 AM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Joseph Kohn MD	We Are One, Inc. - www.WeAreOne.cc - WAO	Support	No

Comments:

Should be done immediately or sooner. There is no rational reason to pollute our own environment or destroy ecosystems.

www.WeAreOne.cc

HB-563

Submitted on: 1/26/2019 8:35:22 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
David Chee	Individual	Support	No

Comments:

I support solidifying our promise to become 100% renewable by 2045 by starting with weaning ourselves off of coal. Please pass this bill.

HB-563

Submitted on: 1/26/2019 8:37:39 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mio Chee	Individual	Support	No

Comments:

I am in support of HB563.

HB-563

Submitted on: 1/26/2019 8:40:20 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Micah Chee	Individual	Support	No

Comments:

I am a 7th grader who cares about the environment. Please pass this bill.

HB-563

Submitted on: 1/26/2019 8:42:53 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Dyson Chee	Individual	Support	No

Comments:

I am a high schooled junior who deeply cares about the environment and mankind's future. I strongly support HB563. I urge you to pass this bill as a sign of solidifying Hawaii's commitment to renewable energy. Mahalo.

HB-563

Submitted on: 1/27/2019 12:40:03 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Eliel Starbright	Individual	Support	No

Comments:

HB-563

Submitted on: 1/27/2019 6:01:29 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Koohan Paik	Individual	Support	No

Comments:

HB-563

Submitted on: 1/27/2019 7:00:13 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Emily Garland	Individual	Support	No

Comments:

HB-563

Submitted on: 1/27/2019 7:05:53 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Hershey	Individual	Support	No

Comments:

HB-563

Submitted on: 1/27/2019 7:48:36 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Noel Morin	Individual	Support	No

Comments:

Please support HB563. Burning coal for energy is an egregious act. It's contributing to our climate crisis and is being phased out across the globe. While our dependency should technically end in 2022 (not soon enough for us), we need to ensure that there is never another opportunity to rely on this fossil fuel for energy production.

Please support this bill and demonstrate our commitment to our environment and the well-being of our future generations.

HB-563

Submitted on: 1/27/2019 9:26:59 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
L.M. Holmes	Individual	Support	No

Comments:

Hawai'i needs to continue down the fossil-free path as quickly as possible. Please support this important bill which helps us do that. Mahalo,

Dr. Lorna Holmes

215 N King St. #910 Honolulu, HI 96817

HB-563

Submitted on: 1/27/2019 11:20:17 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Janet Pappas	Individual	Support	No

Comments:

Dear Legislators,

As the first state to set a 100% renewable energy goal, Hawaii should also be the first to ban the burning of coal (after a reasonable phase-out period). Please support HB563.

Thank you.

Sincerely,

Jan Pappas

Aiea, Hawaii

HB-563

Submitted on: 1/28/2019 7:10:05 AM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Harriet Burkholder	Individual	Support	No

Comments:

HB-563

Submitted on: 1/28/2019 9:14:53 AM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Malachy Grange	Individual	Support	No

Comments:

Dear Chair, Co-Chair and Committee Members

This bill is a no-brainer

Let's make sure Coal stays off our Islands. Future generations depend on us doing everything we can to stop and reverse Global Warming, which is our Global Warning.

Malachy Grange

1487 Hiikala Place #26

Honolulu, HI 96816

EEPttestimony

From: Laura Ramirez <lauraramirez87@hotmail.com>
Sent: Sunday, January 27, 2019 10:43 PM
To: EEPtestimony
Subject: IN SUPPORT of HB 563

Coal is the largest source of carbon dioxide emissions in the world. This bill would make Hawai'i the first in the nation to say "no" to burning coal—further advancing our 100% clean energy goals.

The AES coal plant in Kapolei has a contract that is set to expire in 2022. It is time to pass this bill and encourage AES to redirect its focus to clean energy and battery storage projects.

We must solidify our plans to transition Hawai'i away from dirty energy and back to clean air and water.

Mahalo,
Laura Ramirez
4510 Kawaihau Road
Kapa'a, HI 96746

RECEIVED
Date & Time
Jan 28, 2019, 9:26 am

HB-563

Submitted on: 1/28/2019 4:11:44 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
J Riverstone	Individual	Support	No

Comments:

Dear Legislators

Please support HB563 to stop burning coal in Hawai'i. Supporting HB563 is in alignment with our commitment to be carbon neutral by 2045.

Thank you,

Jerry Riverstone

LATE

HB-563

Submitted on: 1/28/2019 8:01:12 PM

Testimony for EEP on 1/29/2019 8:30:00 AM

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

Comments:

To whom it may concern:

I am writing in strong support of this bill.

Thank you,

Nanea Lo

LATE

HB-563

Submitted on: 1/29/2019 6:47:17 AM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Caroline Kunitake	Individual	Support	No

Comments:

Please support HB563 to prohibit any permit for burning coal for electricity in Hawaii after 2022. I support this bill.

Mahalo,

Caroline Kunitake

HB-563

Submitted on: 1/29/2019 7:25:11 AM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Rene Umberger	Individual	Support	No

Comments:

LATE

LATE

HB-563

Submitted on: 1/29/2019 9:13:35 AM

Testimony for EEP on 1/29/2019 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Christopher Dean	Individual	Support	No

Comments:

We need to promote residential and commercial rooftop solar. Hawaii was doing great before HELCO stopped their net metering. People should be paid a fair market rate for the energy they make. Individuals and businesses should be encouraged not only to make enough energy to cover their own consumption, but to make an excess amount of energy. HECO and subsidiaries claim "grid saturation" for the reason they are inhibiting the public from installing solar. The truth is they don't want to spend capital for storage systems. They see their economic model of taking from the many and giving to the few changing to a system where wealth is being distributed to the public and they don't want that, but they should, because if they don't do that, we will all suffer unimaginable environmental and economic collapse.

Global warming is real, burning fossil fuel is the cause and 50% of our coral reefs world wide are already dead. 70% will be dead in ten years. If nothing is done, all coral reefs will be extinct in 20 years. That means a target date for 100% renewable of 2045 is too late. We've known about this problem for over 150 years. We've been studying it for 50 years here in the U.S. and Hawaii. If you're feeling this rapid transition isn't feasible, or is unjust in some way, I think you should listen to your mother's voice from when you were a child, "Don't procrastinate or it will be a lot harder later." It's later, we're out of time. This is a global emergency unlike any we've ever had.

I'm not in favor of wind farms, solar farms, and other capital ventures where a single entity gets rich off the working class. These capital schemes require the consumption of land for industrial purpose causing serious environmental impact and are visually unpleasant. Why not generate electricity on land we've already ruined through commercial and residential development? Why ruin more land so a few people can get rich? Why not make it so that you, the person reading this, can make money, while simultaneously helping to save all life on Earth and preserving the beauty of Hawaii? By allowing each individual person and business to make a little money by allowing them to generate an excess amount of electricity and selling it back to the grid, we will be able to provide clean renewable energy to those operations who use so much energy they can not meet their demands by themselves. Perhaps we can become a net exporter of energy. If we're able to generate a substantial excess amount of energy in this fashion, we can build a hydrogen processing facility that uses sea water as a feed stock. That can be sold for hydrogen fuel cell vehicles here and around the Pacific rim. It won't matter that it takes a lot of energy to compress hydrogen, because we'll

have more energy than we know what to do with. Imagine that, a world where we have more energy than we can use and its all clean, no oil spills, no fracturing the earth and injecting poison, no tar sands mining, no mountaintop removal, no wars for oil, no smog, no mercury, lead and other poisons making us sick.

I see that the Hu Honua biomass generation proposal is getting a 100 million dollar tax credit if they're allowed to build their global warming, polluting, nightmare. Why not give that money to HECO to invest in storage systems instead?



LATE

Testimony before House Committee on Energy & Environmental Protection

H.B. No. 563

Relating to a Coal-Free Hawaii

January 29, 2019

8:30am, Agenda Item #2

State Capitol, Conference Room 325

Steven Barnoski

Business Manager, AES Hawaii Inc

Chair Lowen, Vice Chair Wildberger and Members of the Committee:

Good morning. My name is Steve Barnoski and I am the Business Manager for AES Hawaii. I am here today to oppose H.B. No. 563 in its current form.

AES Hawaii is part of the AES Corporation (NYSE: AES), a Fortune 500 global power company that provides affordable, sustainable energy to 15 countries through our diverse portfolio of distribution, and thermal and renewable generation businesses. Our global workforce of approximately 9,000 people is committed to operational excellence and meeting the world's changing power needs. In Hawaii we have maintained a significant presence for more than 25 years, providing approximately 20% of Oahu's electricity needs with our 180 MW coal-fired facility. The

facility has been a reliable, low-cost electricity supplier, providing significant benefits to HECO and its customers.

The state of Hawaii has demonstrated a strong willingness to lead the US in the push for renewable energy. And like Hawaii, AES is committed to the state's transition from fossil fuels to 100% renewable energy by 2045. AES' mission is to improve lives by accelerating a safer and greener energy future and at AES we have taken significant steps to accelerate the deployment of renewable technology and reduce our CO2 footprint. AES is the first US-based energy company to disclose its portfolio's resilience consistent with the Task Force on Climate-related Financial Disclosures' (TCFD) recommendations and just recently improved our goal to reduce our carbon intensity by 70% by 2030. We are actively growing our renewable portfolio and added over 2,000 MW in 2018 and have active plans for another 2,500 MW in 2019. With our green blend and extend offering, we also are working with our customers to systematically turn down coal burn in our fleet and replace it with renewable energy because it helps them to achieve sustainable growth. The win-win offering accelerates access to low-cost solar and wind for existing customers, while maintaining the reliability offered by the thermal assets.

In Hawaii, AES has demonstrated its commitment to actively work to achieve the state's 100% Renewable Portfolio Standards (RPS) targets by providing solutions that enable the state to achieve its goals by 2045. However, like HECO, we are also concerned about the successful transition to 100% renewables without the opportunity and flexibility for an adequate transition period to successfully address reliability risks to HECO's customers. There are numerous factors that could delay progress toward meeting Hawaii's environmental goals and it is important to keep a full range of generation options open to adequately address a potential shortfall. Because the future is unpredictable, it is important to have contingency plans in place.

The proposed legislation contained within HB 563 and SB700 needlessly limits the flexibility needed to successfully manage the transition to 100% renewables and the ability of AES Hawaii to support the transitional needs of the system if progress does not occur at the intended pace. As a result, AES Hawaii opposes HB No 563 in its current form.

Thank you for the opportunity to testify.