



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Energy and Environmental Protection
Tuesday, March 16, 2021 at 9:00 a.m.

By
Richard Rocheleau, Director
Hawai'i Natural Energy Institute
University of Hawai'i at Mānoa

SB 243 SD2 – RELATING TO RENEWABLE ENERGY

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

The Hawai'i Natural Energy Institute (HNEI) supports the intent of this bill and provides the following comments.

SB 243 SD2 Requires the Hawai'i Natural Energy Institute to develop a strategic plan that outlines benchmarks to achieve a 100% renewable energy portfolio standard and to submit the strategic plan to the Legislature before the Regular Session of 2023.

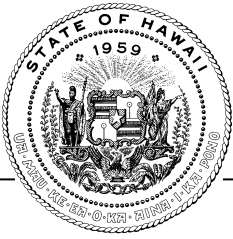
SB 243 SD2 also requires the Hawai'i Natural Energy Institute to conduct a feasibility study on the State's ability to achieve its renewable energy goals by 2045 and to submit its findings and recommendations to the Legislature no later than twenty days prior to the convening of the regular session of 2023

Firstly, while achieving a 100% renewable energy portfolio is an important component of Hawaii's energy economy, HNEI believes that efforts to develop a strategic plan should encompass the broader decarbonization goals such as those set forth in section 225P-5, Hawai'i Revised Statutes, that establishes goals for a zero emissions economy.

Secondly, while HNEI welcomes the opportunity to contribute to the development of the proposed effort, we feel that development of a strategic plan by the Hawai'i State Energy Office (HSEO) with HNEI conducting studies to validate the feasibility of the plan, and analysis of the cost savings and benefits to ratepayers and citizens is an appropriate sharing of responsibility.

HNEI looks forward to supporting this important effort and, if tasked by the legislature to lead the development of a strategic plan, in accordance with the current language, HNEI will of course work to fulfill this request.

Thank you for the opportunity to provide this written testimony on SB 243 SD2.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, March 16, 2021
9:00 AM
State Capitol, Conference Room 325 and Videoconference

In support of
SB 243, SD2
RELATING TO RENEWABLE ENERGY.

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawai'i State Energy Office (HSEO) supports with comments and proposed amendments SB 243, SD2, provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget. SB 243, SD2 has as its stated purpose (page 2, lines 4-8):

The purpose of this Act is to require the Hawaii natural energy institute to develop a strategic plan that outlines benchmarks to meet the requirements of section 269-92, Hawaii Revised Statutes, in establishing a one hundred per cent renewable energy portfolio standard.

HSEO agrees that an updated energy strategy is needed. HSEO notes that SB 243, SD2 omits the HSEO from the list of stakeholders with which HNEI would be tasked to collaborate. HSEO appreciates the need for a lead entity to synthesize, envision, explain, and hear how Hawai'i's several related statutes regarding energy and the zero emissions clean economy target will be achieved. HSEO believes it is the agency best suited to undertake this work with the support and collaboration of HNEI, which is well-suited to analyze and validate the feasibility of suggested strategies. HSEO notes that HNEI already conducts a feasibility analysis every five years on the

ability of the utilities to meet the State's renewable portfolio standards (RPS) and various technical studies on barriers to achieving the RPS.

Directing the HSEO to prepare this strategy is consistent with HSEO's established mission under Act 122, and codified in Section 196-71, Hawai'i Revised Statutes (HRS), which states:

...The purpose of the Hawaii state energy office shall be to promote energy efficiency, renewable energy, and clean transportation to help achieve **a resilient clean energy economy**.

(b) The Hawaii state energy office shall:

- (1) Provide analysis and planning to actively develop and inform policies to achieve energy efficiency, renewable energy, energy resiliency, and clean transportation goals with the legislature, public utilities commission, state agencies, and other relevant stakeholders;

[emphasis added]

While achieving a 100% renewable energy portfolio is an important component of Hawaii's energy economy, HSEO believes efforts to develop a strategic plan should encompass the broader decarbonization goals such as those set forth in section 225P-5, Hawaii Revised Statutes, that establishes goals for a zero emissions economy and set forth in section 196-71, Hawaii Revised Statutes, that tasks HSEO to help achieve a resilient, clean energy economy.

Moreover, the Legislature is contemplating proposed bills that would amend HSEO's enabling statute to direct HSEO to "Create and execute a state strategic energy plan with milestones and key performance indicator metrics based on this section."

HSEO acknowledges and thanks the Committee on Energy, Economic Development, and Tourism for the additional time in SB 243, SD1, which would allow all involved in this effort to make use of at least a portion of the significant work that is currently underway. According to the most recent Integrated Grid Planning update, a new integrated system plan is expected by January 2023. Extending the deadline in SB

243 allows for the opportunity to include the proceedings and draft results of the Integrated Grid Planning process in such a strategy, although the final results would not be ready in time for the deadline as set in SB 243, SD1.

Finally, HSEO recommends that the bill's preamble, purpose statement, and scope be revised for consistency. Although the statement of purpose on page 2, lines 4-8, relates specifically to renewable portfolio standards applicable to the regulated electricity sector, other sections of the bill are not consistent with that scope, and some of the scopes include terms that are not defined in statute or in the bill. An attachment highlighting the scope of each section may be useful in developing consistency between the preamble, purpose statement, and strategic plan required by the bill, because having clearly defined terms will avoid potential delays due to the need to develop definitions.

HSEO's comments are guided by its mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy.

Thank you for the opportunity to testify.

THE SENATE
THIRTY-FIRST LEGISLATURE, 2021
STATE OF HAWAII

S.B. NO. 243
S.D. 2

A BILL FOR AN ACT

RELATING TO RENEWABLE ENERGY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

Page	Lines	Text of bill	Scope	Defined in Statute
1	1-5	SECTION 1. The legislature finds that section 269-92, Hawaii Revised Statutes, requires each utility company that sells electricity for consumption in the State to establish a renewable energy portfolio standard of one hundred per cent of its net electricity sales by December 31, 2045.	Electricity	269-92
1	6-10	The legislature also finds that section 225P-5, Hawaii Revised Statutes, establishes a zero emissions clean economy target to sequester more atmospheric carbon and greenhouse gases than emitted within the State as quickly as practicable, but no later than 2045.	Economy-wide emissions	225P-5
1	11-12	The legislature finds that no strategic plan currently exists for the attainment of either of these goals.	Electricity and Economy-wide emissions	269-92; 225P-5
1 to 2	13-17 1-3	The legislature further finds that the Hawaii natural energy institute has stated its willingness to take on the task of working with the legislature; office of the governor; department of business, economic development, and tourism; and Hawaii's energy and broader stakeholders to envision and explain how Hawaii's several related statutes regarding renewable energy, energy efficiency, and zero emissions clean economy target will be synthesized and achieved.		

*Check of consistency between
bill preamble / purpose / content / definitions*

Attachment to Testimony
Hawaii State Energy Office
SB 243, SD2

Page	Lines	Text of bill	Scope	Defined in Statute
2	4-8	The purpose of this Act is to require the Hawaii natural energy institute to develop a strategic plan that outlines benchmarks to meet the requirements of section 269-92, Hawaii Revised Statutes, in establishing a one hundred per cent renewable energy portfolio standard.	Electricity	269-92
2	9-11	SECTION 2. (a) The Hawaii natural energy institute of the university of Hawaii shall establish a strategic plan that identifies clear benchmarks to:	100% energy self-sufficiency	Not in statute
2	12-15	(1) Attain the goal of one hundred per cent energy self-sufficiency by December 31, 2045, including the temporary use of alternative fuels that may be used as bridge fuels; and	Includes electricity May include utility gas	
2	16-18	(2) Provide clarity for utilities, utility-scale developers, and energy distributors for achieving the benchmarks described in paragraph (1).	May include unregulated sectors May include transportation	
2 to 3	19-20 1-2	(b) The strategic plan shall identify benchmarks that are quantitatively and qualitatively measurable and metrics to determine progress toward attaining the goal of one hundred per cent energy self-sufficiency by December 31, 2045.	Not defined in statute	
3	3-7	(c) The Hawaii natural energy institute shall submit its strategic plan, including proposed strategies, benchmarks, and metrics, and any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2023.		

*Check of consistency between
bill preamble / purpose / content / definitions*

Attachment to Testimony
Hawaii State Energy Office
SB 243, SD2

Page	Lines	Text of bill	Scope	Defined in Statute
3	8-15	SECTION 3. (a) The Hawaii natural energy institute of the university of Hawaii shall conduct a feasibility study on the State's ability to achieve its goal of producing one hundred per cent of the State's electricity from renewable energy sources by December 31, 2045; provided that if the current renewable energy standards are not achievable, the study shall estimate the percentage that is realistically achievable by December 31, 2045.	Electricity	269-92
3	16-19	(b) The Hawaii natural energy institute shall submit a report of its findings and recommendations, including any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2023.	Electricity	269-92
3	20	SECTION 4. This Act shall take effect on July 1, 2050.		



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COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Nicole E. Lowen, Chair

Rep. Lisa Marten, Vice Chair

DATE: Tuesday, March 16, 2021

TIME: 9:00 am

SB 243, SD2 RELATING TO RENEWABLE ENERGY

COMMENTS

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

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

SB 243 SD2 proposes that the Hawaii Natural Energy Institute (HNEI) duplicate the work being done by Hawaiian Electric Company. The HECO analysis is a public proceeding involving multiple stakeholders under the guidance of the Public Utilities Commission.

By contrast, the HNEI study would be classified until it is released.

The bill then implies that CLARITY should NOT be provided to the community or to ratepayers but rather given to “utilities, utility-scale developers, and energy distributors.”

The HNEI “strategic plan shall identify benchmarks that are quantitatively and qualitatively measurable and metrics to determine progress toward attaining the goal of one hundred per cent energy self-sufficiency by December 31, 2045.”

It would be nice if Hawai`i law actually has “a 100% energy self-sufficiency” mandate, though preferably earlier than 24 years from now.

Hawaiian Electric Company is presently engaged in long-term strategic planning in the Integrated Grid Planning (IGP) docket. The proceeding includes a diverse group of stakeholders. The Hawaii Natural Energy Institute (HNEI) chairs the IGP’s Technical Advisory Panel (TAP). The diverse stakeholders include the Public Utilities Commission, the Consumer Advocate, environmental and community groups, businesses, renewable energy developers and the counties.

We agree with Hawaiian Electric Company’s testimony February 26 testimony. If this bill advances, “The strategic plan should take a `systems` approach and consider the entire energy ecosystem (i.e., electrification of transportation, the gas sector, among others).”

We would go a step further and say that the plan should be mindful that rural and agricultural communities and lands should not be the depository for all large-scale

renewable energy projects and that energy systems need to work in conjunction with the need to expand food production in Hawai'i.

One major problem is that the bill does not address is the reality of change.

At the start of the telecom revolution no one could have predicted the internet companies, internet services, and smart phones we currently have.

Yet, peering the same distance into the future, legislators would like to know how the exploding energy revolution will transform the State in a quarter century. The study would be conducted by one entity without public input.

One alternative to this bill is to have the Hawaii Research Center for Futures Studies, established by the Hawaii State Legislature in 1971, develop alternative 2045 societal scenarios, to determine where we might be heading.

Mahalo,

Henry Curtis
Executive Director



Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Tuesday, March 16, 2021 — 9:00 a.m.

Ulupono Initiative supports the intent of SB 243 SD 2, Relating to Renewable 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 quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food; renewable energy and clean transportation; and better management of freshwater and waste.

Ulupono supports the intent of SB 243 SD 2, which requires the Hawai'i Natural Energy Institute to develop a strategic plan that outlines benchmarks to achieve a 100% renewable energy portfolio standard and to submit the strategic plan to the Legislature before the Regular Session of 2023. This bill also requires the Hawai'i Natural Energy Institute (HNEI) to conduct a feasibility study on the State's ability to achieve its renewable energy goals by 2045 and to submit its findings and recommendations to the Legislature no later than twenty days prior to the convening of the regular session of 2023.

We note that Hawaiian Electric along with a diverse group of stakeholders is presently engaged in long-term strategic planning in the Integrated Grid Planning docket (IGP). The intent of this proceeding is to identify pathways to 100 percent renewable energy that provide an optimized portfolio of resources that meet the needs of customers and Hawai'i's electric system. As Hawai'i is the first state to take this approach to electric system planning, the participation and commitment from interested stakeholders, especially Department of Business, Economic Development and Tourism (DBEDT) and the Hawai'i State Energy Office (HSEO), is most welcomed. A central feature of the IGP proceeding is the high level of stakeholder involvement and participation, which consists of technical experts, community organizations, and a number of state entities, including the Consumer Advocate and the Public Utilities Commission. It would be in the State's interest if DBEDT and HSEO contributed to this proceeding to ensure the planning process is aligned with their needs and expectations. We further note that HNEI is already involved in the IGP proceeding, serving as one of the members of the IGP's Technical Advisory Panel (TAP). The purpose of the TAP is to provide an independent technical assessment of the process, methods, and results of the IGP. However, as Hawai'i's energy issues become increasingly

Investing in a Sustainable Hawai'i



complex and challenging, we appreciate this committee's efforts to look at policies that reduce the State's overall energy demand. It is important for the State to develop a plan with benchmarks, and determine ways in which the State can facilitate the achievement of this critical goal. Therefore, it may still be of value for DBEDT and HSEO to also conduct an independent strategic plan if the department/agency does not find the outcome of the IGP effort to be satisfactory.

UluPono supports this bill as it attempts to identify the way in which the State will achieve its renewable energy goals by 2045. We would like to note that the State should consider having the Hawai'i State Energy Office oversee HNEI's work on the study to ensure the expected connection between the research entity and the agency responsible for that sector.

Thank you for this opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

SB-243-SD-2

Submitted on: 3/14/2021 10:14:09 PM

Testimony for EEP on 3/16/2021 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Ted Bohlen	Climate Protectors Hawaii	Support	No

Comments:

To: The Honorable Nicole Lowen, Chair,

The Honorable Lisa Marten, Vice Chair, and Members of the

House Committee on Energy and Environmental Protection

From: Climate Protectors Hawaii (by Ted Bohlen)

Re: Hearing **SB243 SD2– RELATING TO RENEWABLE ENERGY.**

Tuesday March 16, 2021, 9:00 a.m., by videoconference

Aloha Chair Lowen, Vice Chair Marten, and Energy and Environmental Protection Committee members:

Position: **SUPPORT SB243 SD1 BUT PROPOSE AMENDMENTS**

The Climate Protectors Hawaii is a group focused on reversing the climate crisis. As a tropical island State, Hawaii will be among the first places harmed by the global climate crisis, with more intense storms, loss of protective coral reefs, food insecurity, and rising sea levels destroying our shorelines. We must do all we can to reduce our carbon footprint and become carbon negative as soon as possible.

SB243 SD1 assigns to the Hawai'i Natural Energy Institute (HNEI) the tasks of developing a strategic plan for the electricity sector, conducting a feasibility study of producing 100% of the State's electricity from renewable sources by 2045. Both the strategic plan and the renewable energy feasibility study shall be submitted to the Legislature prior to the legislative session of 2023. HNEI is well-suited to analyze and validate the feasibility of such strategies. HNEI already conducts a feasibility analysis every five years on the ability of the utilities to meet the State's renewable portfolio standards (RPS) and various technical studies on barriers to achieving the RPS.

The Climate Protectors Hawaii agrees that an updated energy strategy is vital in order to achieve our carbon negative and RPS goals. But, **the Climate Protectors propose two amendments to SB243 SD1:**

1. The bill should **appoint the Hawaii State Energy Office as the lead entity to collaborate in this effort with HNEI.** HSEO is the State agency best suited to work with HNEI to synthesize, envision, explain, and hear how Hawai'i's several related statutes regarding energy should be coordinated and how the zero emissions clean economy target should be achieved; and

2. The HNEI and HSEO should also consider and **recommend what additional strategies would be needed to achieve the zero emission and carbon negative goals earlier than 2045, because 2045 is too late!** Recent information from climate scientists on carbon feedback loops and other information released since the Legislature set the "as soon as possible and not later than 2045" deadline shows that the situation is more dire than was realized even a few years ago. To avoid a climate calamity here in Hawaii, **we must do more to achieve our goals sooner than 2045!** Recommending such additional strategies would not commit the State to those additional acts, but it would be prudent for the State to have those recommendations in light of the latest scientific information.

The Climate Protectors Hawaii SUPPORT passage of SB243 SD1 with these two proposed amendments.

Mahalo!

Climate Protectors Hawaii (by Ted Bohlen)



**Hawaiian
Electric**

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

S.B. 243 S.D. 2

Relating to Renewable Energy

Tuesday, March 16, 2021
9:00 am, Agenda Item #11
State Capitol, Conference Room 325

Marc Asano
Director, Integrated Grid Planning
Hawaiian Electric

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

My name is Marc Asano and I am testifying on behalf of Hawaiian Electric **in support of S.B. 243, S.D. 2**, Relating to Renewable Energy. The bill requires the Hawai'i Natural Energy Institute (HNEI) to develop a strategic plan that outlines benchmarks and feasibility in archiving Hawai'i's 100% renewable energy portfolio standard.

Hawaiian Electric offers the following comments and suggested amendments for consideration to S.B. 243, S.D. 2:

- The strategic plan should take a “systems” approach and consider the entire energy ecosystem (*i.e.*, electrification of transportation, the gas sector, among others). Section 2 and Section 3 of the bill should more directly include a feasibility study, and findings and recommendations for any decarbonization policies, including their social and economic impact on the 100 percent renewable portfolio standard for electricity. For example, the feasibility study could examine the economic and technical

tradeoffs between a strict 100 percent renewable electricity policy and a broader decarbonization policy that considers not only electricity but other sectors. The study should not be limited to achieving 100 percent renewable energy in the electricity sector; rather consider the benefits of electrifying the transportation sector, buildings, and the gas sector, among others.

- Hawaiian Electric also offers a suggestion to amend Section 2 (a) (1) of the bill on page 2, line 13 to read: “including the use of renewable fuels as defined by HRS 269-91 and/or the temporary use of alternative fuels that may be used as bridge fuels;”.
- The strategic plan should also consider cost, reliability, and resilience of achieving 100 percent renewable energy by 2045, and recommend alternatives if achieving 100 percent renewable energy by 2045 is found to negatively impact cost, reliability, or resilience for customers.

Hawaiian Electric supports S.B. 243, S.D. 2. Thank you for this opportunity to testify.



March 15, 2021

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

Support of SB 243, SD2, RELATING TO RENEWABLE ENERGY (Requires the Hawaii Natural Energy Institute of the University of Hawaii [HNEI] to develop a strategic plan that outlines benchmarks to achieve a 100% renewable energy portfolio standard and to submit the strategic plan to the Legislature no later than 20 days prior to the convening of the Regular Session of 2023. Requires the HNEI to conduct a feasibility study on the State's ability to achieve its renewable energy goals by 2045 and to submit its findings and recommendations to the Legislature no later than 20 days prior to the convening of the Regular Session of 2023. Effective 7/1/2050. [SD2])

**EEP Hearing: Tuesday, March 16, 2021, at 9:00 a.m.,
House conference room 325 Via Videoconference**

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

LURF members are Hawaii's leaders in clean, green, and renewable energy research, development, production, transmission, storage and implementation of such energy projects; have produced and used clean, green, and renewable energy resources for over 100 years, including the use of hydropower, biomass, the sun, wind, and biogas; were the first homebuilders to voluntarily install solar water heaters for homes (before the solar water heater mandate law); have developed award-winning clean, green, renewable energy, and LEED projects, and continue to work on and implement cost-effective initiatives to reach Hawaii's renewable energy, climate change, sustainability and resiliency goals.

LURF appreciates the opportunity to express its **strong support of SB 243, SD2.**

SB 243, SD2. The purpose of this bill is to require the HNEI to submit to the Legislature, prior to the Regular Session of 2023:

- (1) A Strategic Plan for achieving Hawaii's one hundred percent renewable energy portfolio standard; and
- (2) A Feasibility Study on the State's ability to achieve its renewable energy goals by 2045.

Background. HRS §269-92 requires each utility company that sells electricity for consumption in the State to establish a renewable energy portfolio standard (RPS) of one hundred per cent of its net electricity sales by December 31, 2045; and HRS §225P-5 establishes a zero emissions clean economy target to sequester more atmospheric carbon and greenhouse gases than emitted within the State as quickly as practicable, but no later than 2045. Notwithstanding the above, the State does not have a strategic plan or feasibility study for the attainment of either of these goals.

This measure requires that HNEI prepare a Feasibility Study that will examine the State's ability to achieve its energy goal of producing one hundred per cent of the State's electricity from renewable energy sources by 2045, provided that if the current renewable energy standards are not achievable, the study shall estimate the percentage that is realistically achievable by 2045.

HNEI is also required to prepare a Strategic Plan that (1) will include the temporary use of alternative fuels that may be used as bridge fuels; (2) will identify clear benchmarks which are quantitatively and qualitatively measurable, with metrics to determine progress toward attaining the goal of one hundred per cent energy self-sufficiency; and (3) will provide clarity for utilities, utility-scale developers, and energy distributors for achieving said benchmarks.

The HNEI has indicated its willingness to work with the Legislature, Governor's Office, Department of Business, Economic Development, and Tourism, and Hawaii's energy and broader stakeholders to prepare the Feasibility Study and Strategic Plan.

LURF's position. This measure will allow interested stakeholders to participate in the preparation of a Feasibility Study and Strategic Plan to identify benchmarks and determine ways to reduce the State's overall energy demand. LURF and its members look forward to working with HNEI and other Stakeholders to prepare the Strategic Plan and Feasibility Study.

For the reasons set forth above, LURF is **in strong support of SB 243, SD2**, and respectfully urges your favorable consideration of this bill.

SB-243-SD-2

Submitted on: 3/13/2021 1:59:50 PM

Testimony for EEP on 3/16/2021 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Will Caron	Individual	Support	No

Comments:

Aloha committee members,

I support this bill. We should be evaluating our renewable energy goals and determining if we are on the right track. Personally, I do not think we are moving quickly enough or aggressively enough to meet our goals. I think we need to devote far more attention, energy and revenue toward becoming climate-resilient, food-secure and carbon-neutral.

Mahalo.

SB-243-SD-2

Submitted on: 3/15/2021 2:01:22 AM

Testimony for EEP on 3/16/2021 9:00:00 AM

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

Comments:

Dear EEP Chair Lowen, EEP Vice Chair Marten and EEP Committee members,

In 2015 Hawaii became the first U.S. state to mandate a total transition to renewable energy. Now, six years later, we (the State) are going to develop a plan to reach this ambitious goal--finally!

Please garner all the help you can get, because scientists say we only have 9 years left to make a real difference in the earth's climate. I am happy to see the collaboration with the Hawaii State Energy Office, and I hope there will also be coordination with all the State offices and agencies; the Honolulu Climate Office whose first 5-year plan is nearly complete; and that we gather information from other states/countries with usable ideas for eliminating fossil fuels and sequestering greenhouse gases. All Hawaii government offices (at all levels), businesses, non-profits and the public will have to play a part to be successful in this existential endeavor. And I hope that one of the first tasks is to establish a full-blown climate public education office to keep us all informed of progress, fallbacks and what the public can do to help. Let's waste no more time. Pass Bill SB243 and build the plan and the benchmarks by the end of 2021.

Thank you for listening and for the opportunity to testify.

Sincerely,

Jan Pappas - Aiea, Hawaii

SB-243-SD-2

Submitted on: 3/15/2021 8:16:48 AM

Testimony for EEP on 3/16/2021 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Keith Neal	Individual	Support	No

Comments:

Me ke Aloha, Chair Nicole Lowen, Vice-Chair Lisa Marten, and Members of the Committee on Energy and Environmental Protection:

Position: Support, with additional recommendations

Senate Bill 243 acknowledges the need for a comprehensive strategic plan to achieve the state's energy goals of 100 % renewable energy by 2045. Far too little has been achieved in curtailing, and ultimately eliminating fossil fuel use in energy production and ground transportation. The Legislature is encouraged to set the strategic role of the Hawaii State Energy Office as a central partner in developing such a master strategy.

It is critical that Hawaii meet energy and climate goals, and to press for earlier achievements.

Respectfully submitted,

Keith Neal



Nicole Chatterson
Director, Zero Waste O'ahu
March 15, 2021

March 15, 2021

Aloha Chair Lowen and EEP Committee Members,

As the Executive Director of Zero Waste O'ahu, a local non-profit working to rebuild an equitable and waste-free Hawai'i, I am testifying in **comments on SB 243: Relating to Renewable Energy.**

Planning for renewable energy in Hawai'i is critical. Our team does not hold expertise on how that should be done and we defer to others more knowledgeable on the matter in this regard.

However, our team does hold expertise on MSW incineration, which is one mode of "renewable" energy designated in our state RPS. **We are concerned about the lack of critical engagement with the full GHG impacts of MSW incineration in goal setting, planning and RPS development to date.** Our request is that through the planning process, **MSW incineration be critically evaluated and presented for reconsideration as a component of our RPS.**

More waste incineration will not lead to a healthier and more stable climate and this is something our planning must reflect. Currently MSW incineration occurs at the C&C of Honolulu's H-POWER facility, although other islands have entertained the idea of a waste incineration facility.

An [analysis of the full GHG profile of H-POWER¹](#), including biogenic emissions, shows that:

- As a renewable energy source, H-POWER emits more than double the global warming pollution of Kahe (our largest oil plant) and about 40% more than the AES coal plant.
- H-POWER is the the #1 source of mercury and hydrochloric acid pollution on O'ahu, accounting for 37% and 77% of the total air emissions from industrial sources on the island.
- H-POWER is one of the top 5 sources of particulate matter on O'ahu (which is a carcinogen).
- These pollutants are present both in the ash and after the "pollution controls technology scrubs and "cleans" the smokestack emissions.

In addition, Honolulu county's contract with H-POWER requires 800,000 tons of waste to be incinerated annually. Due to this, **waste production is incentivized** which drives greenhouse gas emissions in the places that produce our products that become "trash fuel" for our renewable energy system. The U.S. EPA estimates 42% of US GHG footprint results from this production-disposal chain.²

¹ <http://www.energyjustice.net/incineration/HPOWERemissions.pdf>

² <https://www.epa.gov/smm/epa-sustainable-materials-management-program-strategic-plan-fiscal-years-2017-2022>



Nicole Chatterson
Director, Zero Waste O'ahu
March 15, 2021

MSW is not a viable alternative to oil or coal and the state should consider investing in other renewable energy alternatives. **Waste incineration for energy causes GHG emissions from the smokestack, at rates higher than oil or coal, and it causes upstream GHG emissions through the production process.**

We need less waste incineration in our plans and goals, not more of it.

Mahalo for your time and consideration,

A handwritten signature in black ink, appearing to read 'NCh', with a long horizontal line extending to the right.

Nicole Chatterson, Executive Director of Zero Waste O'ahu