

HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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GOVERNOR

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

Wednesday, February 3, 2021
3:00 PM
State Capitol, Conference Room #224

Comments in support of
SB 243
RELATING TO RENEWABLE ENERGY.

Chair Wakai, Vice Chair Misalucha, and Members of the Committee, the Hawaii State Energy Office (HSEO) offers comments in support of SB 243 provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget. Our comments in support pertain to the three sections in Part I of the bill, in which:

Section 1 identifies requirements in the Hawai'i Revised Statutes (HRS) for:

- Electric utilities in Hawai'i to establish Renewable Portfolio Standards of one hundred percent by 2045, in accordance with HRS Section 269-92; and
- Hawai'i to achieve the Zero Emission Clean Economy Target as soon as practicable, but no later than 2045, in accordance with HRS Section 225P-5.

Section 2, supported by an appropriation in Section 3, directs HSEO, through the Department of Business, Economic Development, and Tourism (DBEDT) and in cooperation with the Office of the Governor, to establish a strategic plan ("Strategy") to meet both of the objectives above, including strategies, benchmarks, metrics, and any proposed legislation, and to submit the strategic plan to the Legislature before 2023.

HSEO agrees that an updated energy strategy is needed, and would work with the Legislature, the Office of the Governor, DBEDT, and Hawai'i's communities and energy stakeholders to develop the necessary strategies and benchmarks. HSEO appreciates the

need for a lead entity to synthesize, envision, explain, and hear how Hawai'i's several related statutes regarding renewable energy, energy efficiency, and the zero emissions clean economy target will be achieved. Directing the HSEO to prepare this Strategy is consistent with HRS Section 196-71, 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;

HSEO recommends the Strategy focus on statutory goals, including the renewable portfolio standard goal and the zero emissions clean energy economy target contained in Section 225-P of the Hawaii Revised Statutes (HRS), which applies to all energy, including gas utility services, unregulated energy services, transportation, and other sectors of the economy such as agriculture. HSEO suggests that the goal stated in SB243, "one hundred percent energy self-sufficiency by 2045," which is not currently defined in statute, be replaced by a reference to statutory goals, to reduce ambiguity and potential debate over interpretation or scope.

HSEO also observes that Hawai'i's many statutes and objectives in the areas of energy, including the zero emissions clean economy target, are consistent with, but not yet fully incorporated into, HRS Section 226-18 of the Hawaii State Planning Act. HRS 226-18 could be revised to provide an integrated and updated approach to Hawai'i's current objectives and policies for energy, decarbonization, and climate change mitigation, providing lasting relevance and guidance. The purpose of the Hawaii State Planning Act is, as described in Chapter 226, "to increase the effectiveness of government and private actions, to improve coordination among different agencies and levels of government, to

provide for wise use of Hawaii's resources and to guide the future development of the State.”

HSEO also recommends, to avoid duplication of effort and to make use of the significant work that is currently underway and would be useful in the Strategy, adjusting the timing so that the results of the Integrated Grid Planning work underway in Docket No. 2018-0165 may be incorporated into the Strategy. According to the most recent Integrated Grid Planning update, a new integrated system plan is expected by January 2023.¹ Extending the deadline in SB243 would at least not foreclose the opportunity to include the results of the Integrated Grid Planning process in the Strategy.

The timing of the Strategy may also be impacted by situations caused by COVID-19, including potential opportunities to access Federal support that align with Hawai'i's emerging needs and objectives. The timing is also impacted by the timing of the release of the funds and the subsequent required procurement and contracting processes before actual work can begin. Therefore, a completion date no sooner than the end of 2023 is requested.

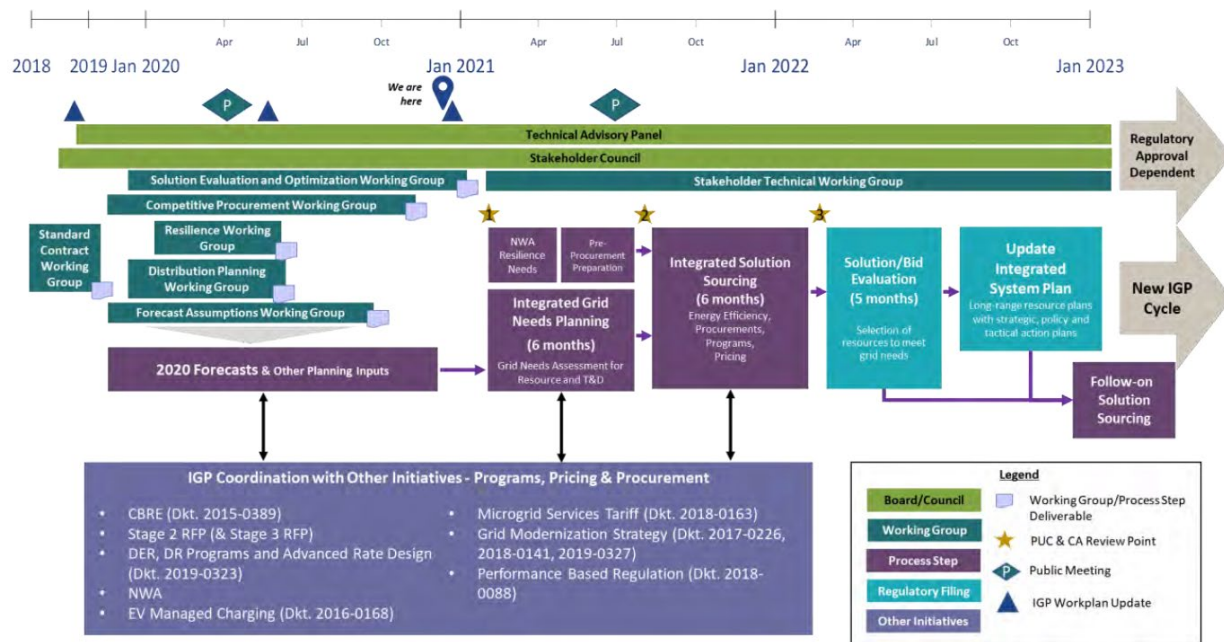
Thank you for the opportunity to testify.

¹ *Updated Integrated Grid Planning Workplan* dated January 19, 2021.

https://www.hawaiielectric.com/documents/clean_energy_hawaii/integrated_grid_planning/dkt_20180165_20210119_HECO_IGP_updated_workplan_review_point.pdf

Hawaii State Energy Office Testimony
 SB 243 - Relating to Renewable Energy - Support
 February 3, 2021

Figure 2 – Updated IGP Status and Workplan





UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Energy, Economic Development, and Tourism
Wednesday, February 3, 2021 at 3:00 p.m.

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

SB 243 – RELATING TO RENEWABLE ENERGY

Chair Wakai, Vice Chair Misalucha, 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 directs HNEI to conduct a feasibility study to determine the State's ability to achieve the goal of providing 100% of electricity from renewable energy sources by December 31st, 2045. SB243 further directs that if HNEI determines the State cannot meet this goal, HNEI shall provide an estimate on what it believes is realistic.

The report of HNEI's findings and recommendations, including any proposed legislation, is due to the legislature no later than twenty days prior to the convening of the regular session of 2022.

Firstly, HNEI welcomes the opportunity to work with the Hawai'i State Energy Office (HSEO) to evaluate the feasibility of the State achieving its 100% renewable electricity goal by 2045 but believes that a one-time study focused on 2045 is not likely to provide adequate information for decision making by the Legislature. Renewable generation and other related enabling technologies continue to evolve rapidly. Similarly, related issues such as advanced controls and communications, methodologies to provide grid services, inverter technologies, and new grid architectures are also evolving rapidly. Based on this continually evolving energy environment, HNEI believes the evaluation of the feasibility of achieving the State's goals should be conducted and reported to the Hawai'i Public Utilities Commission (HPUC) and legislature at regular intervals, biannually or even annually. Additionally, this study should include an assessment, not only of the 2045 goals but key intermediate dates aligned with the HSEO strategic plan, including an assessment of the impact on resilience and greenhouse gas emissions. In order to more effectively align HNEI's analyses with the development of HSEO's strategic plan, it would be of value for HNEI to have a representative on the development team.

Secondly, HNEI currently conducts, at five year intervals, an assessment of the likelihood of the utility to meet the State's RPS goals that, as required by prior legislation, is reported to the HPUC. Additionally, HNEI conducts ongoing studies to identify the major barriers to continued progress toward the State's goals that are included in HNEI's Annual Report to the legislature. While this legislation expands and formalizes that effort, HNEI currently has adequate funding from the Energy Systems Development Special Fund (ESDSF) to complete this task.

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



Email: communications@ulupono.com

SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, & TOURISM
Wednesday, February 3, 2021 — 3:00 p.m.

Ulupono Initiative supports the intent of SB 243, Relating to Renewable Energy.

Dear Chair Wakai 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, which requires the Governor; Department of Business, Economic Development, and Tourism (DBEDT); and the Hawai'i State Energy Office (HSEO) to develop a strategic plan that outlines benchmarks to achieve a 100% renewable energy portfolio standard. 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.

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 DBEDT and 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 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

Investing in a Sustainable Hawai'i



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



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COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM
Senator Glenn Wakai, Chair
Senator Bennette E. Misalucha, Vice Chair

DATE: Wednesday, February 3, 2021
TIME: 3:00 p.m.
PLACE: Conference Room 224

Re: SB 243 Strategic Planning

Comments

Aloha Chair Wakai, Vice Chair Misalucha, 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 proposes that the Governor, DBEDT, and the State Energy Office develop a strategic plan that identifies clear benchmarks to attain one hundred per cent energy self-sufficiency by 2045.

What Hawai`i needs is 2021 legislation to fix the definition of Renewable Portfolio Standards (RPS), expand the RPS to include gas utilities, remove the gas variance for rooftop solar, fix the definition of net-zero carbon, eliminate the definition of biomass that includes fossil fuel-derived biomass, fund the greenhouse gas sequestration task force (HRS §225P-4), shift energy

self-sufficiency from 2045 to 2030, and develop holistic policies that address housing, farming, renewable energy, and jobs in a just and pono manner.

Advancing on a righteous path is great. Predicting distant solutions as costs, technologies, and techniques are being transformed is impossible. Energy planners have cut long-term planning from 15+ years to 5+ years to reflect the vast transformation energy revolution that is underway.

Imagine predicting the future!

In 1907 predicting the 1929 Stock Market Crash

In 1995 predicting the internet revolution

In 1999 predicting the U.S. Capitol insurrection

In 2023 predicting energy use in Hawai'i in 2045.

Should we spend taxpayer funds on another study to gather dust on a shelf?

Mahalo

Henry Curtis

Executive Director



John Usikawa, President
Dave Rolf, Executive Director



LATE

HADA Testimony in SUPPORT of SB243
RELATING TO RENEWABLE ENERGY

Presented to the Senate Committee on Energy Economic Development and Tourism
Public Hearing 3 p.m.. Wednesday, February 3, 2021 in Room 224
VIA VIDEO CONFERENCE

Hawaii State Capitol

by David H. Rolf for the members of the Hawaii Automobile Dealers Association,
Hawaii's franchised new car dealers, who provide sales, warranty work and other factory-certified maintenance service for Hawaii's privately-owned and fleet-owned cars and light trucks

Chairs Wakai, Vice Chair Misalucha and members of the committee:

HADA members are in support of SB243 which requires the Governor; Department of Business, Economic Development, and Tourism; and the Hawaii State Energy Office to develop a strategic plan that outlines benchmarks to achieve a 100% renewable energy portfolio standard, and requires the Department of Business, Economic Development, and Tourism to submit the strategic plan to the Legislature before the Regular Session of 2023. It also requires the Hawaii Natural Energy Institute to conduct a feasibility study on the State's ability to achieve its renewable energy goals by 2045 and appropriates funds.

The intersection of energy, jobs, quantum computing, driverless cars, homes, education, and the wellbeing of a society, is the focus of HADA's work on Hawaii's future.

A "Roadmap to the Future" relating to all of the above is something HADA members feel is of highest importance this year.

That has been the premise of HADA's Rosetta Stone graphic....which unlocks for the future what its namesake did for the past.

Our members offer the help of the Hawaii auto industry which, for years, has provided a reliable source of useful information. Renewable energy in transportation will play a fundamental role in this plan.

HADA respectfully asks that the committee pass SB243 forward for favorable consideration.

Respectfully submitted,

David H. Rolf, for the members of the Hawaii Automobile Dealers Association

LATE

SB-243

Submitted on: 2/2/2021 5:03:35 PM
Testimony for EET on 2/3/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Robert B Huber	Individual	Support	No

Comments:

Aloha Kakou ,

Please find from a reknown Enviornmental Engineer in Califfornia his feedback to the Stae of Hawaii below that might help in simple clarification on Enviornmental Classifications so not to confuse any issues in the future :

1) Zero Waste can be defined as recycle, reuse, and Conversion Technology(Gasification, Plasma Arch, and others).

Don't let someone tell you that these terms are confusing they are not.

***Zero Carbon Emissions and Zero Net Energy are not the same thing. Zero Net Energy is 100% plus renewable energy(solar,wind,etc.)

2) Zero Carbon Emissions would require getting rid of all fossil fuels emissions (fossil fuel vehicles, natural gas use in restaurants etc.)

3) If you do Zero Net Energy in the Hawaiian Island, you won't be at Zero Carbon Emissions unless you do all the other Technology changes, electric cars etc.

I hope this helped. I recommend you develop a Zero Net Energy Plan and that will get you closer to Zero Carbon Emissions.

Carbon Capture Technology will get you to Zero Carbon Emissions.

Stay safe!

Best, Terry Vernon EnergyExpert energyexpert77@gmail.com

(530)320-3049

Robert Huber testimony : I am in support of this testimony , hope Mr. Vernon's explanation on terms helps the legislation .

Me ke Aloha

LATE

SB-243

Submitted on: 2/3/2021 3:17:00 AM

Testimony for EET on 2/3/2021 3:00:00 PM

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

Comments:

Dear Legislators,

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. 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. Let's waste no more time. Pass Bill SB243 and build the plan by the end of 2021.

Thank you,

Jan Pappas

Aiea, Hawaii