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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
**SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM
and
COMMITTEE ON WATER AND LAND**

Friday, February 11, 2022
3:10 PM
State Capitol, Conference Room Number 224 & Videoconference

**COMMENTS
SB 2535
RELATING TO ENERGY.**

Chairs Wakai and Inouye, Vice Chairs Misalucha and Keith-Agaran, and Members of the Committees, the Hawai'i State Energy Office (HSEO) offers comments on SB 2535, which requires offshore wind turbines to be sited no closer than twelve miles from the shore of a main Hawaiian island.

HSEO believes offshore wind could play an important role in helping the island of O'ahu and the State of Hawai'i achieve 100% renewable energy generation. O'ahu's limited land mass and high energy demand make it challenging to achieve electricity independence without off-island resources, based on what we currently know about O'ahu's renewable energy resource potential.

HSEO believes much more discussion and analysis are needed before establishing an offshore wind setback by law. Establishing a minimum setback for offshore wind requires analysis to identify all the impacts, potential mitigations and their effectiveness based on distances from the shore and turbine sizes. HSEO initiated actions to inform this discussion including:

- Requesting the U.S. Bureau of Ocean Energy Management (BOEM) to work with the National Renewable Energy Laboratory to publish a

report to inform the cost and feasibility of developing a floating offshore wind project in Hawai'i at various locations off O'ahu. This report was published in October 2021.¹

- Requesting BOEM to work with the Pacific Northwest National Laboratory to deploy a lidar buoy off O'ahu in the summer of 2022 for one year to gather ocean environment data to inform offshore wind potential. Data from this buoy would be published through PNNL's webpage.²
- Developing offshore wind visualization simulations from the shores of O'ahu and Molokai

It would be appropriate to also consider the benefits and tradeoffs at various locations, distances, and depths at the time the energy is anticipated to be needed, based on the costs, energy needs, technologies, and mitigation measures available at the time.

Thank you for the opportunity to testify.

¹ [The Cost and Feasibility of Floating Offshore Wind Energy in the O'ahu Region \(boem.gov\)](https://www.boem.gov/energy-renewables/2021-10-28-cost-feasibility-floating-offshore-wind-energy-oahu-region)

² [Lidar Buoy Program | PNNL](https://www.pnnl.gov/energy-renewables/lidar-buoy-program)

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

TO THE
SENATE COMMITTEES ON
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM
AND
WATER AND LAND

February 11, 2022
3:10 p.m.

Chair Wakai, Chair Inouye, and Members of the Committees:

MEASURE: S.B. No. 2535

TITLE: RELATING TO ENERGY.

DESCRIPTION: Requires offshore wind turbines to be sited no closer than twelve miles from the shore of a main Hawaiian island.

POSITION:

The Public Utilities Commission (“Commission”) offers the following comments for consideration.

COMMENTS:

The Commission appreciates the stated intent of this measure to promote the transition to cheaper, cleaner energy, reduce the impact of fossil fuel generation on communities currently hosting fossil fuel plants, and ensure the protection of coastal and nearshore areas. The Commission finds it important to maximize the benefits of the clean energy transition for Hawaii’s communities, ratepayers, and environment.

The Commission also believes that future projects should go through all appropriate government approval and community engagement processes. The Commission notes that the twelve-mile boundary may exclude potential proposals prior to these processes running their course. For example, the Commission is aware of at least one potential project that may be eliminated as a result of a twelve-mile setback.

S.B. No. 2535
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Should this measure be adopted, the Commission will ensure that the state's electric utilities comply with its provisions.

Thank you for the opportunity to testify on this measure.



**Hawaiian
Electric**

**TESTIMONY BEFORE THE SENATE COMMITTEES ON
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM
AND WATER AND LAND**

S.B. 2535

Relating to Renewable Energy

February 11, 2022

3:10 p.m., Agenda Item #3

State Capitol, Conference Room 224 & Video Conference

Rebecca Dayhuff Matsushima
Vice President, Resource Procurement
Hawaiian Electric Company, Inc.

Chairs Wakai and Inouye, Vice Chairs Misalucha and Keith-Agaran, and Members of the Committees,

My name is Rebecca Dayhuff Matsushima and I am testifying on behalf of Hawaiian Electric Company, Inc. (“Hawaiian Electric”) with comments on S.B. 2535, Relating to Energy.

S.B. 2535 proposes to amend Chapter 269, HRS, by adding a new section to part IX that (1) no user, owner, or operator shall connect to an island electric grid an offshore wind turbine sited closer than twelve miles from the shoreline of any main Hawaiian Island, (2) the State of Hawaii Public Utilities Commission shall not approve the connection to an island electric grid of an offshore wind turbine sited closer than twelve miles from the shoreline of any main Hawaiian Island, and (3) as used in the section, “offshore wind turbine” means any project in which electricity is generated from a wind turbine sited seaward of a state shoreline.

Hawaiian Electric believes that in order to reach Hawaii’s 100% renewable portfolio standard and ensure energy resilience, all viable renewable options, including

offshore resources, should be considered in long-term planning efforts, and has identified offshore wind as a potential resource in its long-term plans. Hawaiian Electric notes that the Bureau of Ocean Management (“BOEM”) is currently reviewing three lease requests from two different developers for offshore wind projects in Hawai‘i. From the publicly available data made available by BOEM, two of the proposed projects appear to either meet or exceed the 12-mile setback established by this bill (one project is proposed to be sited 12 miles from the coast and another 17 miles from the coast). The developer of a third proposed project appears to be requesting a lease for a project that would begin approximately 9 miles from the shore. Under the requirements of this bill, the project would be potentially eliminated, as it would be in violation of the proposed 12-mile setback.

Allowing for the potential incorporation of offshore windfarms would help diversify and increase Hawaiian Electric’s renewable portfolio as we move toward 100% renewable energy sources and reducing Hawaii’s carbon footprint and emissions.

Thank you for this opportunity to comment on S.B. 2535.

Hawai'i State Senate
Committee on Energy, Economic Development, and Tourism
Committee on Water and Land
Hearing on February 11, 2022
3:10 pm
Conference Room 224

TESTIMONY ON S.B. 2535, RELATING TO ENERGY

Aloha Chair Wakai, Chair Inouye, Vice-Chair Misaluch, Vice-Chair Keith Agaran, and Honorable Members of the Committees on Energy, Economic Development, and Tourism and Water and Land. I am writing in support of the intent of S.B.2535, which would establish a 12-mile buffer zone between the coast of O'ahu and any wind turbine for any proposed floating offshore wind projects.

My name is D. Noelani Kalipi, and I serve as the Chief Strategy Officer for Progression Energy, a renewable energy company specializing in floating offshore wind. Progression Energy is pursuing the development of a floating offshore wind farm off the coast of O'ahu. Our Progression Energy team consists of Hawai'i residents who have been actively involved in the Hawai'i Clean Energy Initiative and Hawai'i's efforts to reach its goal of 100% renewable energy generation.

Floating offshore wind is an important clean energy resource for achieving the 100% renewable energy and decarbonization mandates while meeting the electricity needs of O'ahu. This island cannot reach 100% with solar and battery projects alone and will need other technology like offshore wind to achieve that goal. The recent study published by the National Renewable Energy Lab in October 2021 found that floating offshore wind is feasible for Hawai'i and can be one of the most economical sources of energy in the next ten years. The study also found that 2030 is likely the earliest that an offshore wind project could be constructed in Hawai'i. We are excited to see stakeholders discussing floating offshore wind for Hawai'i and welcome these discussions. Our development model focuses on collaboration with community members and stakeholders throughout the life of the project, including the planning, construction, and operation phases to ensure that this energy solution works well for the people and the 'āina of Hawai'i.

Several factors determine the location of a successful floating offshore wind project. These include but are not limited to: wind resource, ocean depth, ocean bottom (bathymetry), vessel traffic (surface vessels and submarines), ecosystems (marine mammal habitats, fish habitats, coral reefs, avian species, etc.), cultural considerations, viewshed analysis, stakeholder input, and transmission distance. For that reason, selecting a site for a project requires a detailed multi-factored planning process that overlays all of these important elements to determine the best location. A wind energy project needs to be close enough to shore to benefit from the more robust wind resource, reasonable water depth, and transmission distance. We believe

that 12 miles is a reasonable distance to establish a buffer zone from shore in the case of O'ahu because of the factors noted above. Many siting factors will determine the final location of an offshore wind project. We are pleased to support the intent of this bill and continue the dialogue about offshore wind energy for Hawai'i.

SB-2535

Submitted on: 2/8/2022 2:50:57 PM

Testimony for EET on 2/11/2022 3:10:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Gerard Silva	Individual	Oppose	No

Comments:

I oppose the Whole Project!!

Cynthia K.L. Rezendes

Email: rezentesc@aol.com

Chair Wakai and members of the Committee on Energy, Economic Development, and Tourism &
Chair Inouye and members of the Committee on Water and Land
Friday, February 11, 2022, 3:10 p.m.
Timeslot: EET

Re: SB 2535 RELATING TO ENERGY

Aloha!

Thank you for the opportunity to provide written testimony regarding this bill which seeks to set a proximity limit to the shores of any of the islands within the “main” Hawaiian Islands.

I am in cautious SUPPORT of this bill but would also provide COMMENTS to clarify the distance being identified within the bill. I would suggest that the 12 miles noted in the bill be identified as “12 nautical miles” which provides a distance of 13.8 land miles from the shore. While this difference may seem to be a small iteration, it does provide a greater level of protection to our near shore waters from impacts that could be created by either fixed or floating wind farms.

The Bureau of Ocean Energy Management (BOEM) has responded to a number of unsolicited requests, in the past and recently, to lease Federal near-shore waters for multiple wind farm projects off of the island of O’ahu. While it is commendable that we would support these particular projects as compared to comparable on-island wind farms there still is required numerous studies prior to implementation, if even allowed, to determine the effects on our near shore waters and resources, i.e. impacts on the Kaieiwaho Channel which hosts whales and other mammals (monk seals, porpoise), impacts of the antennae effect of transmission lines on migratory fish and mammals, impacts of lights on wind farms related to the Ka’ena Point NARS which hosts numerous albatross and shearwater breeding pairs, etc.

Currently, BOEM is not promoting or moving forward on these unsolicited responses due to the impacts and on no support by the DoD that could impact training readiness, the numerous shipping lanes within the Channel and the numerous concerns raised by various community individuals and organizations, e.g. Ka’ena Point potential siting elicited concerns from both Wai’anae Coast and North Shore residents and organizations which have not been answered.

The potential project identified to be located off of Waikiki was initially proposed to be 17 miles off-shore, a much greater distance than the 12 miles identified in this bill and should be recognized as a potential impact to the visitor industry if located nearer than the proposed 17 miles.

I wish to thank the committees for considering this bill but also request minor alterations to provide a better level of protection to our precious near-shore environment and ecological systems.

SB-2535

Submitted on: 2/9/2022 12:57:40 AM

Testimony for EET on 2/11/2022 3:10:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Kimeona Kane	Individual	Oppose	No

Comments:

Aloha kākou,

While I do believe that there may be a great value in wind energy, I want to raise the concerns of the marine environment. I feel like it is safe to say that the threats encountered on land can potentially exist in the ocean. I also do not think that 12 miles is sufficient. I think 16-20 miles off shore should be considered if any distance is looked at further. I strongly urge the committee to oppose this bill and hold public meetings that can help to educate people on the direction of wind energy, threats and benefits.

Mahalo nui,
Kimeona Kane

SB-2535

Submitted on: 2/10/2022 12:30:58 PM

Testimony for EET on 2/11/2022 3:10:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Michele-ann K Akana	Individual	Oppose	No

Comments:

Hello, my name is Michele Hōkū Akana and I am a life-time Native Hawaiian resident of Waimānalo community. SB2535 is a bill that requires offshore wind turbines to be sited no closer than twelve miles from the shore of a main Hawaiian island.

It is agreed that clean energy is a much-needed response to fossil fuel energies that our communities currently rely upon. However, I have some serious concerns about the idea of an offshore wind farm especially because they will be located in the communities that Native Hawaiians live and collect their resources from. While the Bill for Act suggests that such wind farms will be a positive impact on communities “wind projects around the world are now being built offshore where they have no impact on local communities” and having “no impact on coastal shorelines, but have added benefits to marine ecosystems as they become new\offshore gathering places for many marine species, decrease disruption for large vessel traffic, and create new fishing grounds for nearby communities”.

One question that comes to mind is: have studies been done in Hawai‘i to verify this claim? When the author of this bill is referring to “local communities” are those communities similar to Native Hawaiians in income, health, corrections, and social status? Yet the larger problem remains of our population increase especially during Covid, that has caused a spike to the rise of the cost of living, and the gentrification that is occurring which beckons visitors to our islands - many of whom purchase to stay thus adding to our need for such power needs which drives this bill.

Another question is: who will determine what constitutes a main Hawaiian island? All of our moku are important and part of our Native Hawaiian genealogy and thus should be treated as such.

My final question is: will these farms be located off tourist areas such as Waikīkī, Hawaii Kai, Portlock, or just in areas like Waimānalo and Wai‘anae coast? Eye sores such as what this will become and resemble to our communities are never placed in the tourist heavy locations yet the tourist hotels, resorts, golf courses, and other areas that depend on tourism will be using a lot of this power as well! It should not yet again be placed on the backs of the Native Hawaiian and local communities to bear the brunt of this power issue.

While this is a very complex issue that cannot be solved in this bill alone, I feel that these are worthwhile questions to consider before passing bills alluding to off-shore wind farms as our city planners move closer to this type of progress.

In closing, members of the committee, I do not agree that any offshore wind farms will not negatively impact our Native Hawaiian communities, cultural practices or natural and ocean resources. Progress is good but is it worth the cost of what we are losing? And if the projects are going to happen anyways because that is the way our government usually operates regardless of community input, offshore wind farms should be further out at sea than 12 miles. I strongly urge that any off-shore wind farms should be located no closer than 30 miles from the shore as not to obstruct Native Hawaiian ocean resources that include the reef systems, fishing areas, or impede any other cultural practices such as open-ocean voyaging, sailing and canoe use as well as to not impede on the fishing and resource gathering rights of Native Hawaiians.