DAVID Y. IGE GOVERNOR

(808) 587-3807

SCOTT J. GLENN CHIEF ENERGY OFFICER

Testimony of SCOTT J. GLENN, Chief Energy Officer

before the SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH

Thursday, February 20, 2020 10:00 AM State Capitol, Conference Room 229

In SUPPORT of SB 2805, SD1
RELATING TO THE OFFICE OF PLANNING.

Chair Baker, Vice Chair Chang, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports SB 2805, SD1, which requires the office of planning to prepare a comprehensive renewable energy siting plan, in consultation with the office of energy, land use commission, planning departments of each county, electric utilities, and with public input and requires the office of planning to submit a report on the utility-scale renewable energy siting plan to the legislature no later than twenty days prior to the convening of the regular session of 2022.

With the issues in the energy sector becoming increasingly complicated, interdependent across energy consuming sectors, impacting land use decisions, and affecting customers; it is critical that stakeholders are engaged and informed on the impacts of significant decisions that must be made to transform the sector.

An inventory of suitable land for each of the renewable energy technologies on each of the islands and understanding how much of the suitable land will be required for renewable energy development to achieve various pathways to meet the renewable portfolio standards is a critical step in achieving the 100 percent renewable portfolio standard by 2045. While the utilities develop scenarios under the regulatory oversight of the PUC to meet the benchmarks of the renewable portfolio standard, those resource scenarios should be translated into land requirements that reflect renewable energy in amounts sufficient to achieve the energy modeled. This illustration will allow engagement with state agencies, local government, and community stakeholders to better understand the potential impacts various energy resource scenarios will have on the land use on each island.

The HSEO has developed tools to better understand land use impacts and technical requirements of moving Hawaii toward its clean energy goals. Hawaii Revised Statutes (HRS) §196-71(b)(1) directs the HSEO to, "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". Given this direction, the HSEO feels it is well positioned to lead the study in consultation with the office of planning, land use commission, planning departments of each county, electric utilities, and with public input.

The Hawaii Advanced Visualization Environment Nexus (HAVEN) utilizes 'storytelling' in a new, interactive, high-resolution medium; a three-dimensional topographical map that is hands-on, allowing users to explore and compare the plans for large-scale renewable energy deployment. Users are able to engage with various energy planning scenarios; add and remove map layers, such as the technical potential for solar and wind resources, agricultural lands, government-owned lands, and existing transmission infrastructure; control chart views; and scroll through time to visually represent the land use requirements of renewable energy resource buildout for each scenario. The better energy plans and policies are understood, the better decisions can be made towards achieving the State's energy goals.

HSEO notes that the study, including the necessary stakeholder engagement, will require an appropriation to accomplish. The objectives of this bill align directly with the stated objectives for the use of the Energy Security Special Fund, (HRS) §201-12.8(b)(1), "To support the Hawaii clean energy initiative program and projects that promote and advance dependable and affordable energy, renewable energy, energy efficiency, energy self-sufficiency, and greater energy security and resiliency for the State and public facilities" and (HRS) §201-12.8(b)(3), "To support achieving the zero emissions clean economy target set forth in (HRS) §225P-5."

HSEO has been discussing the possibility of incorporating this effort with funding and planning efforts provided in another measure (i.e. SB 2072, SD1¹), and encourages the Committee to support and pass this measure to enable continued discussion and possible funding.

Thank you for the opportunity to testify on this bill.

¹ HSEO's testimony on SB 2072, SD1, states: "We have also discussed with the Office of Planning our willingness to take the lead on, and include in this study, a related effort from SB 2805, SD1, the purpose of which is 'to create a renewable energy siting plan...' [that] could be added to SB 2072, SD1, as a new section."

DAVID Y. IGE GOVERNOR

MARY ALICE EVANS

DIRECTOR OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846 (808) 587-2824 Web: http://planning.hawaii.gov/

Statement of MARY ALICE EVANS

Director, Office of Planning before the

SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH

Thursday, February 20, 2020 10:00 AM State Capitol, Conference Room 229

in consideration of SB 2805 SD1 RELATING TO THE OFFICE OF PLANNING.

Chair Baker, Vice Chair Chang, and Members of the Senate Committee on Commerce, Consumer Protection, and Health.

The Office of Planning (OP) appreciates the intent of SB2805 SD1, with comments, which requires the Office of Planning to prepare a comprehensive renewable energy siting plan, in consultation with the Hawaii State Office of Energy (HSEO), and other stakeholders; and submit a report on the utility-scale renewable energy siting plan no later than 20 days prior to the convening of the regular session of 2022.

OP agrees that an inventory of suitable land for each for each of the renewable energy technologies on each of the islands is a critical step in engaging communities to provide input on sensitive siting issues in order to reach Hawaii's clean energy goals.

HSEO has developed HAVEN, an interactive tool to understand the land use impacts and technical requirements of moving Hawaii toward its clean energy goals.

Since the measure title is, "Relating to the Office of Planning", OP recommends that the Committees consider moving the contents of this bill into SB 2072 Relating to Renewable Energy and replacing OP with HSEO as the lead. OP is happy to provide support to HSEO with land use data from the Statewide GIS System and engaging communities.

Thank you for the opportunity to testify on this measure.



Testimony in support of SB2805

Senate Committee on Commerce, and Consumer Protection and Health

Hearing Thursday February 20, 2020, 10:00am

Dear Chair Baker, Vice Chair Chang and members of the Committee,

I am writing in support of SB2805.

We need wide spread public support for renewable energy projects in order to transition to 100% renewable energy for both electricity and transportation. The Na Pua Makani wind energy project has created antagonism and distrust between communities and renewable energy initiatives. Going forward, early public input should be gathered and considered to avoid similar problems.

Given the limited space on O'ahu on which to site renewable energy projects, a comprehensive inventory will allow policy makers and communities to consider tradeoffs and prepare for our clean energy future.

Mahalo,

Dr. Lisa Marten

Live Mat.

Executive Director HealthyClimateCommunities.org healthyclimate@hawaii.rr.com



183 Pinana St., Kailua, HI 96734 • 808-262-1285 • info@350Hawaii.org

To: The Senate Committees on Commerce, Consumer Protection, and Health

From: Brodie Lockard, Founder, 350Hawaii.org Date: Thursday, February 20, 2020, 10:00 am

In strong support of SB 2805 SD1

Dear Chair Baker and members:

350Hawaii's 6,000 members strongly support SB 2805 SD1.

A comprehensive renewable energy siting plan is an indispensable part of reaching Hawaii's clean energy goals. Siting without proper coordination and consideration of the public and the many issues involved in wind farms and solar farms can result in inefficiencies, conflicts among contractors, wasted time and money, and avoidable hardships in communities. The Na Pua Makani wind farm in Kahuku is only the most recent example of poorly planned renewable energy siting.

Please pass this bill and help Hawaii reach its clean energy goals with less waste and harm to residents.

Brodie Lockard Founder, 350Hawaii.org

Submitted on: 2/18/2020 9:34:08 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
katherine kazlauskas	Testifying for 350Hawaii	Support	No

Comments:

To: The Senate Committees on Commerce, Consumer Protection, and Health

From: Katherine Kazlauskas

Date: Thursday, February 20, 2020, 10:00 am

In strong support of SB 2805 SD1

Dear Chair Baker and members:

I strongly support SB 2805 SD1.

Communities must be considered. All Communities.

A comprehensive renewable energy siting plan is an indispensable part of reaching Hawaii's clean energy goals. Siting without proper coordination and consideration of the public and the many issues involved in wind farms and solar farms can result in inefficiencies, conflicts among contractors, wasted time and money, and avoidable hardships in communities. The Na Pua Makani wind farm in Kahuku is only the most recent example of poorly planned renewable energy siting.

Please pass this bill and help Hawaii reach its clean energy goals with less waste and harm to residents.

Katherine Kazlauskas

<u>SB-2805-SD-1</u> Submitted on: 2/15/2020 1:35:54 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Gerard Silva	Individual	Oppose	No

Submitted on: 2/17/2020 3:33:41 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Elif Beall	Individual	Support	No

Comments:

- * This need was painfully obvious as we watched 200 people get arrested in Kahuku objecting to AES's poorly placed wind farm. The farm will cause distress, annoyance, health problems, and severe distraction to the entire Kahuku community every minute it's running.
- *This negligence will create resistance and bad feelings towards every future renewable energy project, unless it is much more carefully placed. Good placement doesn't just mean optimizing wind speeds or sun exposure. These projects need to leave people at peace in the neighborhoods they've lived in for many years.
- * Community input for a project of any scale needs to be gathered, thoroughly reviewed, and most importantly, *used* to pick the right site. The carelessness shown in Kahuku is just one more example of marginalizing those with little money or influence. Have we seen any wind farms in Kahala or Kailua?

To: The Senate Committees on Commerce, Consumer Protection, and Health

From: Elif Beall

Date: Thursday, February 20, 2020, 10:00 am

In strong support of SB 2805 SD1

Dear Chair Baker and members:

I strongly support SB 2805 SD1. Please pass this bill and help Hawaii reach its clean energy goals with less waste and harm to residents.

A comprehensive renewable energy siting plan is an indispensable part of reaching Hawaii's clean energy goals.

Community input for a project of any scale needs to be gathered, thoroughly reviewed, and most importantly, *used* to pick the right site. The Na Pua Makani wind farm in Kahuku is a recent example of poorly planned renewable energy siting. Siting without proper coordination and consideration of the public and the many issues involved in

wind farms and solar farms can result in inefficiencies, conflicts among contractors, wasted time and money, and avoidable hardships in communities.

SB 2805 SD1 will help with that.

Thank you for considering my testimony.

Elif Beall

Kilauea, HI

<u>SB-2805-SD-1</u> Submitted on: 2/17/2020 2:30:23 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Katherine Pomeroy	Individual	Support	No

<u>SB-2805-SD-1</u> Submitted on: 2/17/2020 1:48:22 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
william metzger	Individual	Support	No	

Comments:

Important to have a siting plan

<u>SB-2805-SD-1</u> Submitted on: 2/17/2020 12:52:04 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Laura Gray	Individual	Support	No

<u>SB-2805-SD-1</u> Submitted on: 2/16/2020 9:49:38 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

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

Submitted on: 2/17/2020 8:16:45 AM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Debbie Millikan	Individual	Support	No

Comments:

To: The Senate Committees on Commerce, Consumer Protection, and Health

From: Debbie Millikan

Date: Thursday, February 20, 2020, 10:00 am

In strong support of SB 2805 SD1

Dear Chair Baker and members:

I strongly support SB 2805 SD1.

A comprehensive renewable energy siting plan is an indispensable part of reaching Hawaii's clean energy goals. Siting without proper coordination and consideration of the public and the many issues involved in wind farms and solar farms can result in inefficiencies, conflicts among contractors, wasted time and money, and avoidable hardships in communities. The Na Pua Makani wind farm in Kahuku is only the most recent example of poorly planned renewable energy siting.

Please pass this bill and help Hawaii reach its clean energy goals with less waste and no harm to residents.

Mahalo for considering my testimony.

Debbie Millikan

Submitted on: 2/17/2020 9:26:36 AM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	d By Organization	Testifier Position	Present at Hearing	
ryan christopher	Individual	Support	No	

Comments:

Dear Chair Baker and members:

I strongly support SB 2805 SD1.

A comprehensive renewable energy siting plan is an indispensable part of reaching Hawaii's clean energy goals. Siting without proper coordination and consideration of the public and the many issues involved in wind farms and solar farms can result in inefficiencies, conflicts among contractors, wasted time and money, and avoidable hardships in communities. The Na Pua Makani wind farm in Kahuku is only the most recent example of poorly planned renewable energy siting.

Please pass this bill and help Hawaii reach its clean energy goals with less waste and harm to residents.

Ryan Christopher

Honokaa HI

Submitted on: 2/17/2020 12:26:48 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

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

Comments:

Dear Chair Baker and members:

I strongly support SB 2805 SD1.

A comprehensive renewable energy siting plan is an indispensable part of reaching Hawaii's clean energy goals. Siting without proper coordination and consideration of the public and the many issues involved in wind farms and solar farms can result in inefficiencies, conflicts among contractors, wasted time and money, and avoidable hardships in communities. The Na Pua Makani wind farm in Kahuku is only the most recent example of poorly planned renewable energy siting.

Please pass this bill and help Hawaii reach its clean energy goals with less waste and harm to residents.

me ke aloha 'Ä• ina.

Nanea Lo

Submitted on: 2/16/2020 9:43:29 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
tlaloc tokuda	Individual	Support	No

Comments:

To: The Senate Committees on Commerce, Consumer Protection, and Health

From: Tlaloc Tokuda 350Hl volunteer

Date: Thursday, February 20, 2020, 10:00 am

In strong support of SB 2805 SD1

Dear Chair Baker and members:

I strongly support SB 2805 SD1.

A comprehensive renewable energy siting plan is an indispensable part of reaching Hawaii's clean energy goals. Siting without proper coordination and consideration of the public and the many issues involved in wind farms and solar farms can result in inefficiencies, conflicts among contractors, wasted time and money, and avoidable hardships in communities. The Na Pua Makani wind farm in Kahuku is only the most recent example of poorly planned renewable energy siting.

Please pass this bill and help Hawaii reach its clean energy goals with less waste and harm to residents.

Tlaloc TOkuda

Kailua Kona HI 96740

<u>SB-2805-SD-1</u> Submitted on: 2/17/2020 7:17:35 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Sherry Pollack	Individual	Support	No

<u>SB-2805-SD-1</u> Submitted on: 2/18/2020 11:43:55 AM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
janice palma-glennie	Individual	Support	No	

Comments:

Aloha,

i ask that you please support this important bill to get the ball moving on sensible, futuristic land use planning.

mahalo and sincerely,

janice palma-glennie

kailua-kona

<u>SB-2805-SD-1</u> Submitted on: 2/18/2020 11:48:18 AM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Phaethon Keeney	Individual	Support	No

LARRY JEFTS FARMS, LLC PO BOX 27 KUNIA, HAWAII 96759 (808) 688-2892

SB2805sd1, Relating to Office of Planning Senate CPH Decision Making Hearing Thursday, February 20, 2020 10:00am Conference Room 229

Testimony by: Larry Jefts Position: Support

Chair Baker and Members of the Senate CPH Committee:

I am Larry Jefts, owner and operator of Larry Jefts Farms, LLC, which is part of our family-run business of farms on Oahu and Molokai, under the administrative umbrella of Sugarland Growers, Inc. We have more than 35 years of Hawaii farm experience on Molokai and Oahu. I am a volunteer director for the West Oahu Soil and Water Conservation District (SWCD).

Strong support is expressed for this proposal to have Office of State Planning prepare a comprehensive renewable energy siting plan. It appears that we have sophisticated tools, HAVEN and HEVI, already available that can lay out the best sites—on land and water—for renewable energy. As we move forward with our clean energy goals, policy makers must consider the benefits and unintended consequences of site selections.

Thank you for the opportunity to testify on this bill.

<u>SB-2805-SD-1</u> Submitted on: 2/18/2020 2:08:52 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
nicole tergeoglou	Individual	Support	No

<u>SB-2805-SD-1</u> Submitted on: 2/18/2020 6:46:55 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mark K.Wilson III	Individual	Support	No

Submitted on: 2/18/2020 6:52:05 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

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

Comments:

Dear Chair Baker and CCP members,

I strongly support SB2805 SD1.

We have learned several lessons (I hope) from the Ka Makani wind project. Without a plan, costly mistakes are made, and some mistakes cannot be undone. Much better to do the upfront work transparently with all affected parties. Otherwise, the costs may not only be in dollars but in irreparable ill will.

Please vote to have the State Office of Planning prepare a comprehensive renewable energy siting plan. We need one. Vote for SB2805 SD1.

Thank you,

Jan Pappas

Aiea, Hawaii

Submitted on: 2/18/2020 8:54:32 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

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

Comments:

Dear Chair Baker and Members of the Senate Committees on Commerce, Consumer Protection and Health,

I strongly support SB 2805 SD1.

A comprehensive renewable energy siting plan is an indispensable part of reaching Hawaii's clean energy goals. Siting without proper coordination and consideration of the public and the many issues involved in wind farms and solar farms can result in inefficiencies, conflicts among contractors, wasted time and money, and avoidable hardships in communities. The Na Pua Makani wind farm in Kahuku is only the most recent example of poorly planned renewable energy siting.

Please pass this bill and help Hawaii reach its clean energy goals with less waste and harm to residents.

Mahalo,

Caroline Kunitake

Submitted on: 2/18/2020 9:59:36 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Thorne Abbott	Individual	Oppose	No

Comments:

While the intent of the bill is laudable and should be supported, the title of the bill and the office charged with implementing the bill (i.e., State Office of Planning) should be changed to the State Energy Office. Their staff have the capacity to better implement the bill's intent - determining land requirements and necessary space to support renewable energy projects. Furthermore, the leadership of the State Energy Office has superior expertise in land use planning and environmental compliance, having led the Office of Environmental Quality Control through major changes in its rules to implement HRS 343. For this reason, I respectfully request you retitle the bill, redirect its laudable intentions to the State Energy Office, and fund it generously to get the work done in a proper, proactive, productive, timely and efficient manner. Mahalo!

<u>SB-2805-SD-1</u> Submitted on: 2/18/2020 10:33:19 PM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lori Nakamura-Higa	Individual	Support	No

Comments:

Aloha! Thank you for the opportunity to testify.

I strongly SB2805 SD1

Mahalo and kind regards



<u>SB-2805-SD-1</u> Submitted on: 2/19/2020 10:21:59 AM

Testimony for CPH on 2/20/2020 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Henri Etta Schmitz	Individual	Support	No





TESTIMONY BEFORE THE SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH

S.B. 2805, SD1

Relating to the Office of Planning

Thursday, February 20, 2020 10:00 a.m. State Capitol, Conference Room 229

Rebecca Dayhuff Matsushima Director, Renewable Acquisition Division Hawaiian Electric Company, Inc.

Dear Chair Baker, Vice Chair Chang, and Members of the Committee,

My name is Rebecca Dayhuff Matsushima and I am testifying on behalf of Hawaiian Electric Company, Inc. (Hawaiian Electric) in support of S.B. 2805, SD1, Relating to the Office of Planning and respectfully request amendments as detailed below.

S.B. 2805, SD1 requires the Office of Planning to (1) prepare a comprehensive renewable energy siting plan in consultation with the office of energy, land use commission, planning departments of each county, electric utilities, and with public input, and (2) submit a report on the plan to the Legislature no later than twenty days prior to the convening of the Regular Session of 2022; with non-substantive edits proposed in SD1.

Hawaiian Electric supports the intent in creating a renewable energy siting plan that identifies appropriate lands needed to achieve each benchmark of the renewable portfolio standard. Achieving 100 percent renewable energy will be challenging if we do not address issues surrounding energy policy, land use, and community concerns. In order to

meet this goal, legislative policies must all be aligned and the entire state of Hawaii must work together.

Meeting the Legislature's mandate of 100 percent renewable energy by 2045 will require a significant amount of land in addition to the optimization of rooftop and other resources. For example, on Oahu we have an active Request for Proposals (RFP) to procure 1,300,000 MWh of renewable, dispatchable energy. If translated to solar, this would, for example, equal 594 MW of solar capacity, with an estimated footprint of 3,000 acres. This translates roughly to 29 Aloha Stadiums of land. Similar footprints would be needed for a mix of resources including solar and wind. Realistically, this will require a significant amount of land, which is challenging on a 600-square mile island with more than 1 million people. Successfully meeting 100 percent renewable energy will require flexibility, rather than a strict adherence to a specific inventory of identified lands in order to account for the undetermined mix of energy resources to be procured. This is why it is important to make sure that our State's land-use policies, its economic development plans, and our renewable energy mandates are aligned.

We encourage lawmakers to seek alignment of key energy, land use, and other policies because, as noted in the preamble of this bill, communities have voiced concerns about siting of certain renewable energy projects. In addition to the stakeholders mentioned in the bill, Hawaiian Electric suggests that the Office of Planning also consult with the Department of Defense as it is a large landowner in the State. While we understand the concerns raised by some regarding the location and proximity of renewable energy projects, we will need to rely on all viable technologies to achieve the legislative renewable energy mandate.

Hawaiian Electric further notes that the findings of the proposed siting plan should not impact any current projects. Through a Public Utilities Commission-approved first phase of a request for proposals for variable renewable dispatchable generation, Hawaiian Electric has executed power purchase agreements for eight utility-scale renewable energy projects. Additionally, there are currently active RFPs for the islands of Oahu, Maui, Hawaii Island, Lanai and Molokai. It is imperative that renewable energy progress continue while this study is ongoing to ensure we will meet our 100% renewable energy goals.

To this end, we request an amendment to Section 2, subpart (b) to add an additional sentence to page 3, Line 2, which reads:

"The results of the study shall not impact any projects with an existing power purchase agreement executed with a utility or any projects selected out of a competitive process with a utility prior to or during the study."

Please consider our requested amendment. Thank you for this opportunity to testify.