



DAVID Y. IGE
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JOSH GREEN
LT. GOVERNOR

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

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Testimony of the Department of Commerce and Consumer Affairs

**Before the
Senate Committee on Commerce and Consumer Protection
and
Senate Committee on Energy, Economic Development, and Tourism
Tuesday, February 8, 2022
10:00 a.m.
Via Videoconference**

**On the following measure:
S.B. 2513, RELATING TO RENEWABLE ENERGY**

Chair Baker and Wakai and Members of the Committee:

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

The purpose of this bill is to require the Public Utilities Commission to have electric utilities separately issue requests for proposals for firm renewable energy generation and requests for proposals for intermittent renewable energy generation; to prohibit the Public Utilities Commission from approving any new or renewed utility-owned generation project by a public utility or any new or renewed power purchase agreement for electricity generation with affiliated interests with a public utility; and, to appropriate moneys.

The Department appreciates the intent to simplify and expedite procurement processes, potential concerns with reliability, and the concerns with a utility taking

improper actions when an electric utility may be proposing a self-build option for resources. The Department believes that the proposed measure may have unintended consequences that may adversely affect Hawaii's ability to evolve the electric industry, the evolving regulation of the electric industry, and the ability to meet customer and grid needs.

Regarding the first proposal in Section 2 of the bill, evidence supports having all-source RFPs for resources. Consistent with the evolution of technology and available solutions in the electric industry, there has been an observed need to modify how resources are procured by the electric utility companies. Rather than simply relying on RFPs that request one type of generation resource, by clearly stating the objectives and allowing the market to respond with solutions that facilitates new investment in technologies, this encourages more interest from a broader range of market participants as opposed to limiting it to the fewer sources of more traditional generation resources. As further evidence of this evolution in the electric industry, there are various studies that support consideration of all resource RFPs, such as Rocky Mountain Institute's How to Build Clean Energy Portfolios, A Practical Guide to Next-Generation Procurement Practices (2021) and Energy Innovation and Cleanenergy.org's Making the Most of the Power Plant Market: Best practices for All-Source Electric Generation Procurement (2020). Consistent with this evolution, the Hawaii Public Utilities Commission has been working on disaggregating the various grid services associated with "firm" energy for several years. The Public Utilities Commission's actions are consistent with the recommendation in the Energy Innovation study that offers "Regulators should require utilities to conduct a competitive, all-source procurement process, with robust bid evaluation. (Energy Innovation study, at 3). Therefore, codifying in statute that "firm" or "intermittent" RFPs will be required may be perceived as a step backwards, instead of forwards, with respect to Hawaii's energy industry evolution. It is noteworthy that, in the RMI study, there is a recommendation that, in order to support having rules that encourage or require competitive procurement (and a commission that can support them), the RMI study recommends that legislatures should consider statutes that require utilities to issue all-source solicitations (RMI study, at 12),

and points to Colorado and Washington as states that have requirements for all-source procurement in state statute or administrative code (RMI study, at 29). Again, the Department believes that it would be best if the legislature allows flexibility to the Commission to determine what type of RFP best meets the needs that give rise to those future RFPs.

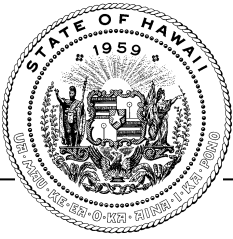
The fact that recent proposals have only netted projects powered by photovoltaic generation plus battery energy storage systems is due to the specifications of the RFPs and the value offered by those systems. If RFPs make clear that the desired resource is available for, as an example, dispatch 100% of the time at the committed capacity, except for maintenance and outages (both forced and unforced), then the proposals in response to an RFP will likely change. The Department acknowledges that there may be isolated future occasions where it may make sense to have a simplified and expedited procurement to address an urgent, critical need but the Department respectfully offers that there should be flexibility allowed to accommodate situations where an all-resource RFP or a more traditional and structured RFP could be optimally used for the situation.

The second proposal in Section 2 of the bill will not allow electric utilities to bid or build on any new or renewed generation project or enter into a new or renewed power purchase agreement with an affiliate for a generation project. The Department shares the concern that if an electric utility engages or appear to engage in practices that might be anticompetitive, this could discourage interest from third parties in responding to future RFPs for generation resources. It is for this reason that rules and guidelines have been adopted to address this concern as well as modifying procurement practices to ensure that enhanced oversight by an independent observer during the procurement process. The recent examples referred to in the preamble to this bill support the need to revisit those guidelines, consideration of possible penalties as part of the guidelines or in the performance based regulations incentive mechanisms, and/or evaluating whether additional resources may be required to further enhance the independent observer and commission's ability to further mitigate, if not eliminate, similar undesirable events in the future.

The Department is concerned, however, that an outright prohibition of electric utility companies building or owning new or renewed resources could have undesirable and unintended consequences to customers, especially vulnerable and low-income customers and communities. In support of this concern, the Department offers that, from an economic perspective, removing any competitor, even the utility, results in less robust competition and could deny customers the potential benefit of more robust competition. If the electric utility could respond with a solution that is the least-cost option and other respondents could not beat that solution in terms of price and/or value to customers, prohibiting the electric utility from participating would deny customer the benefit from that possibility. Furthermore, there will be a likely need for solutions to meet certain system needs or vulnerable and/or low-income customer needs that competitors will not view as profitable or favorable to their portfolios unless they are paid a premium. In fact, there have already been an instance when there has been less than robust and competitive responses to an RFP seeking new renewable generation in a smaller Hawaii market. In those instances, if the utility can provide the necessary solutions and other competitors are unwilling and/or uninterested in responding to an RFP, the proposed prohibition of the electric utility to build and/or own generation would not be in the public interest.

Finally, for Section 3 of the bill, the Department respectfully suggests that additional clarity on the desired objectives of the study may help to achieve the stated intent of the bill. There is already available information on the generation resources – both fossil fueled and renewable as well as whether such resources are firm or intermittent – on each island. Thus, further clarity on the desired outcome would help to ensure that the State Energy Office provides the legislature with the information that it is seeking.

Thank you for the opportunity to testify on this bill.



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
**SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
AND
COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

Tuesday, February 8, 2022
10:00 AM
State Capitol, Conference Room 229 & Videoconference

**COMMENTS
SB 2513
RELATING TO RENEWABLE ENERGY.**

Chairs Baker and Wakai, Vice Chairs Chang and Misalucha, and members of the Committees, the Hawaii State Energy Office (HSEO) offers comments on SB 2513 which requires the Public Utilities Commission to have electric utilities separately issue requests for proposals for firm renewable energy generation and requests for proposals for intermittent renewable energy generation; prohibits the Public Utilities Commission from approving any new or renewed utility-owned generation project by a public utility or any new or renewed power purchase agreement for electricity generation with affiliated interests with a public utility; and appropriates moneys.

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.

HSEO appreciates the intent of the bill to improve reliability and resilience when fossil-fuel power plants are retired and to simplify the evaluation process for their replacement. HSEO believes that establishing operational parameters based on the needs of the grid at the time of the procurement offers the greatest opportunity for managing electricity costs and affordability, as bids will reflect the technologies and costs that are available and complementary to the existing grid and projected resources.

Prohibiting either firm or intermittent resources from a solicitation may disallow cost-effective hybrids and new or timely technologies.

Regarding the definition of “Firm renewable energy” in Section 2 of the bill (page 6, lines 15-19), HSEO notes that a strict or narrow reading of the language (“subject only to..”) may be interpreted to exclude those that are subject to the availability and receipt of certain inputs (fuels) for their operation. Including the availability of fuel would broaden the definition to clearly include those resources, if that is the Legislature’s intent.

"Firm renewable energy" means renewable energy that is always available and capable of being continuously produced at its contracted capacity twenty-four hours per day, three hundred sixty-five days per year, subject only to routine maintenance [~~and~~], availability of fuel, or emergency repairs.

Regarding the assignment in Section 3 of the bill , HSEO concurs with the need for and value of this type of study within the overall analysis of the pathways to reaching the states renewable energy and net negative carbon emissions goals. HSEO requests that, due to the time required for the procurement process, any report to the Legislature be submitted prior to the convening of the 2024 regular session.

HSEO defers to the appropriate agencies on the topic of utility power procurements.

Thank you for the opportunity to testify.

Testimony of the
PRACTICAL POLICY INSTITUTE OF HAWAII
Tuesday, February 8, 2022
The Committee on Commerce and Consumer Protection
The Committee on Energy, Economic Development, and Tourism
10:00 AM State Capitol, Conference Room 229

Testimony in SUPPORT of SB2513 with amendments, RELATING TO RENEWABLE ENERGY

Good morning Chairs Baker and Wakai, Vice Chairs Chang and Misalucha, and Committee members. My name is Brian Barbata, with the Practical Policy Institute of Hawaii.

We support the intent of SB2513, but are concerned that it is too general as it relates to firm power requirements. Section 2, amending Chapter 269 HRS defines “firm renewable energy” as energy that is always available, 24/7/365, subject only to routine maintenance. This is the same mandate that the electric utilities are under for fossil fuel generation, so it is critical that renewable sources, which replace fossil fuels, meet the same standard.

However, Section 2 of this bill does not go far enough. The ability of an intermittent renewable source, like wind or solar, to meet this standard is determined by integrated battery storage. The battery storage, and its capacity, that has been attached to existing projects, has been done in various capacities, without guidance as to the minimum needed to be considered “firm power” for PUC approval, based on projected unavailability of sun or wind.. One existing project that purports to have battery backup for its production provides only a few hours of capacity. There must be a requirement to install a minimum level of storage capacity for each intermittent renewable supplier.

It is not enough to say "24/7/365", because that is an impossible metric to meet. In the case of solar, days that are overcast are going to shut down that supply. Recently, Oahu experienced over 4 days of such weather, which is not unusual. Periods without enough wind to start the turbines turning are even more common, year around. For all future renewable projects to be considered “firm renewable energy” suppliers to the utility, we propose the following language be added to the proposed amendments in SB2513:

“Each request for proposals for renewable energy that is intermittent, shall include the capability to be off line for a period of 96 hours because of weather, and still deliver the average kilowatt hours it delivered over the prior 96 hours. Responses to renewable energy proposals which do not demonstrate that they meet or exceed this requirement will not be considered by the public utilities commission for approval.”

The addition of this language to Chapter 269 will ensure that intermittent sources become true “firm” sources, able to supply Hawaii rate payers with electricity on the same secure basis as fossil fuel generation does .

Thank you for your attention to this critical element of renewable power supply when approving SB2513.



To: The Senate Committee on Commerce and Consumer Protection (CPN)
and
The Senate Committee on Energy, Economic Development, and Tourism (EET)
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, February 8, 2022, 10am

In opposition to SB2513

Aloha Chair Baker, Chair Wakai, Vice Chair Chang, Vice Chair Misalucha, and members of the Senate CPN and EET committees,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **opposes SB2513**.

350Hawaii supports and encourages the efforts of the legislature to transition Hawaii to truly clean, non-climate harming renewable energy. However, “firm renewable energy” as currently defined in this measure would include burning trees and other wood products which would result in unintended negative consequences to our environment and climate.

Burning trees is more expensive than utility-scale wind and solar. Furthermore, burning wood for energy is disastrous for the climate. It destroys forests, and puts out more carbon dioxide into the air than coal. The period for regrowth and making up that carbon debt can take many decades or more, time that we no longer have the luxury of wasting. We are in a climate crisis and must make scientifically sound choices that will reduce greenhouse gas emissions as soon as possible if we are to stay below 1.5 degrees Celsius rise. Now is not the time to promote technologies that increase greenhouse gases simply because they are not derived from fossil fuels.

While this bill is well intentioned, SB2513 as written would undermine our progress towards 100% truly clean, renewable energy and take us in the wrong direction.

Mahalo for the opportunity to testify.

Sherry Pollack
Co-Founder, 350Hawaii.org

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

TO THE
SENATE COMMITTEES ON
COMMERCE AND CONSUMER PROTECTION
AND
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

February 8, 2022
10:00 a.m.

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

MEASURE: S.B. No. 2513

TITLE: RELATING TO RENEWABLE ENERGY.

DESCRIPTION: Requires the Public Utilities Commission to have electric utilities separately issue requests for proposals for firm renewable energy generation and requests for proposals for intermittent renewable energy generation. Prohibits the Public Utilities Commission from approving any new or renewed utility owned generation project by a public utility or any new or renewed power purchase agreement for electricity generation with affiliated interests with a public utility. Appropriates moneys.

POSITION:

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

COMMENTS:

The Commission notes that this measure would require the Commission to ensure that electric utilities separately issue requests for proposals (“RFPs”) for “firm” renewable energy generation and for “intermittent” renewable energy generation.

It is the Commission’s intention to advance the state’s electric utilities toward industry-leading practices and innovative regulatory structures that incentivize competitive pricing and efficient operations. The Commission believes that requiring separate RFPs for resources defined as “firm” and “intermittent” may have unintended consequences,

leading to sub-optimal procurements of generation and grid services, while increasing customer costs. For this reason, the Commission has repeatedly and consistently directed Hawaiian Electric to assess grid needs and conduct competitive, technology-agnostic solicitations to fulfill identified needs in the manner that is most beneficial to ratepayers, the economy, and the environment.

The Commission is committed to fostering an energy sector that keeps pace with rapidly evolving technology capabilities and costs, as well as industry best practices. A recent report by Rocky Mountain Institute (“RMI”) and Regulatory Assistance Project (“RAP”) outlined “a practical guide to next-generation procurement practices,”¹ which described industry best practices and recommendations for legislators, regulators, and utilities to consider. Among other findings, the report finds that legislatures “should consider statutes that require utilities to issue all-source solicitations,”² stating further:

Needs have become more dynamic with changing customer preferences, new public policies, declining resource costs, and rapidly changing resource mixes. Yet, common practices for procurement retain an antiquated representation of system needs that are tied to the characteristics of legacy technologies.

In contrast, an all-source approach to procurement can increase competition and enable utilities to select an optimal resource portfolio from a set of diverse and interactive resource options. Using a portfolio approach that enables multiple resources to participate concurrently can enable emerging energy technologies, especially renewables, batteries, and demand-side management (DSM), to reach their full market potential.³

In recent years, the Commission has shifted toward this type of needs-based, competitive approach. The Commission believes, as supported by industry best practices, that all-source solicitations are critical in meeting each island’s unique grid needs in an economical, environmentally positive, and ratepayer friendly manner. To the extent that

¹ Lauren Shwisberg, Mark Dyson, Grant Glazer, Carl Linvill, and Megan Anderson, How to Build Clean Energy Portfolios: A Practical Guide to Next-Generation Procurement Practices, RMI, 2020, <https://rmi.org/how-to-build-ceps/>.

² RMI, p. 12.

³ RMI, p. 22.

any firm resource is found to be the most competitive resource to meet any identified grid need, that resource will ultimately be selected through an all-source, competitive process. Circumventing or otherwise distorting the competitive process could lead to sub-optimal proposals being selected, at higher costs to ratepayers, often through power purchase agreements with costs that fall to ratepayers throughout their multi-decade terms.

Thus, the Commission believes that restricting the utility's ability to conduct solicitations according to industry best practices could negatively affect achievement of the State's energy goals. Should this measure be adopted, the Commission respectfully recommends that the Committee remove the proposed language from page 6, line 10, to page 7, line 3, which would require separate RFPs for resources defined as "firm" and "intermittent" resources.

In addition, this measure identifies and seeks to alleviate potential concerns related to the electric utilities putting forth self-build proposals for electricity generation. The Commission acknowledges that this is an ongoing issue, which requires extensive oversight with Independent Observers and Affiliate Transaction Requirements. The Commission raised this matter in 2014 in the *Commission's Inclinations on the Future of Hawaii's Electric Utilities*⁴, in which it stated:

The Commission will consider whether it is reasonable and in the public interest to preclude the HECO Companies, as a matter of regulatory and public policy, from ownership of new generation and incent accelerated retirement of old, inefficient fossil generation in order to further diminish inherent financial conflicts with utility ownership of generation.⁵

In recent years, the Commission has worked to mitigate these concerns through improved RFP processes and independent oversight, in order to maintain a level playing field between company-owned proposals and independent power producers. For example, the Commission has solicited public comments and contracted with Independent Observers to thoroughly vet draft RFPs, in addition to monitoring communications between RFP and

⁴ Commission's Inclinations on the Future of Hawaii's Electric Utilities: Aligning the Utility Business Model with Customer Interests and Public Policy Goals, Hawaii Public Utilities Commission, 2014, <https://puc.hawaii.gov/wp-content/uploads/2014/04/Commissions-Inclinations.pdf>.

⁵ Commission's Inclinations, p. 19.

self-build teams, implementing codes of conduct related to interactions between utility employees, and investigating and reporting on any potential breaches or alleged competitive concerns. In the example cited in the bill, the Commission directed the Independent Observer for the CBRE RFPs to investigate the allegations and provide regular updates to the Commission, so that these concerns could be thoroughly assessed and mitigated.

Noting the Commission's stated inclinations and recent actions on this matter, the Commission supports the intent of this portion of the measure to improve competition. However, the Commission does have concerns that precluding utility ownership of generation altogether could bring about unintended consequences in certain circumstances. It is for this reason that, to this point, the Commission has not taken the step of prohibiting utility ownership of generation outright.

One potential consequence of precluding utility ownership altogether is that doing so would complicate or potentially eliminate any options to re-power existing utility-owned generation with renewable fuels, should such an option be cost-effective in the future. It is unclear whether, and how, an independent power producer could take over ownership and operations from a utility for an existing utility-owned unit, particularly in cases of power plants with multiple generating units located in the same facility. It is possible that this issue could be addressed by limiting the prohibition on utility ownership to specific types of new projects, such as "greenfield" projects, not associated with any existing generation units, rather than prohibiting it regardless of the context.

With these concerns noted, the Commission is willing to work with the Committees and stakeholders on potential statutory changes that would offer improvements on the current status of utility-owned generation and reduce future challenges in this regard.

The Commission takes no position and defers to the Hawaii State Energy Office on the language in Section 3 of the measure, which would initiate a study of available firm and intermittent resources available on each island.

Thank you for the opportunity to testify on this measure.



**Hawaiian
Electric**

**TESTIMONY BEFORE THE SENATE COMMITTEES ON
COMMERCE AND CONSUMER PROTECTION AND ENERGY, ECONOMIC
DEVELOPMENT AND TOURISM**

S.B. 2513

Relating to Renewable Energy

Tuesday, February 8, 2022
10:00 a.m., Agenda Item #2
State Capitol, Conference Room 229 & Videoconference

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

Chairs Baker and Wakai, Vice Chairs Chang and Misalucha, and Members of the
Committees,

My name is Rebecca Dayhuff Matsushima and I am testifying on behalf of
Hawaiian Electric Company, Inc. (“Hawaiian Electric” or the “Company”) respectfully in
opposition to S.B. 2513, Relating to Renewable Energy.

S.B. 2513 proposes to amend Chapter 269, Hawaii Revised Statutes by, among
other things, prohibiting the Public Utilities Commission (“PUC”) from approving any
new or renewed utility-owned generation project by a public utility or any new or
renewed power purchase agreements for electricity generation with affiliated interests
with a public utility.

The preamble of this bill is not supported by facts. The filings cited in the bill,
including other PUC proceedings, and the results of Hawaiian Electric’s Stage 2
requests for proposals (“RFPs”) demonstrate that the PUC’s oversight of the process
and safeguards already in place are effective, and selection is in no way predetermined,

nor favors Hawaiian Electric's proposals. Hawaiian Electric's self-build team participated in the O'ahu Stage 2 RFP but its proposal was not selected. The Stage 2 O'ahu RFP Independent Observer's report noted that Hawaiian Electric showed no undue preference during the evaluation process and evaluation of the self-build team's proposal was consistent with the RFP's rules and Code of Conduct, which are described further below. The filings cited in the bill were largely self-reported by the utility, were found to not have provided any undue influence to the self-build team, and were remediated to the satisfaction of the Independent Observer overseeing the community based renewable energy RFP.

As currently written, this bill would have a negative impact on Hawaiian Electric's ability to meet its obligation to provide reliable electric service and would potentially have a chilling effect on the development of renewable energy projects and Hawaii's progress toward a 100% renewable portfolio standard ("RPS"). This would reduce opportunities to leverage existing utility infrastructure and facilities, which customers have already funded, to be re-purposed for new projects, which can in some circumstances reduce the cost of new resource proposals. This bill would effectively prohibit any repowering opportunities at existing Hawaiian Electric facilities. This would mean less options for the development of firm renewables, forcing more dependence upon greenfield projects that would add community impacts, compete for lands, and require additional transmission infrastructure. These impacts ultimately could lead to a slower and more expensive compliance with the RPS law. Additionally, not renewing existing Hawaiian Electric renewable energy projects would waste established resources already approved by the PUC, increase the likelihood of placing the burden of stranded asset costs on our customers, and eliminate the PUC's ability to consider the

value of potential residual energy of an existing project against the replacement cost of a new project.

This proposed amendment would have further negative impacts on the interests of Hawaii's workforce and economy. Projects by Hawaiian Electric or its affiliates ensure money stays in state, while simultaneously increasing the number of good union jobs in Hawai'i.

This bill would also hinder our State's ability to achieve its 100% RPS goal. In the past, a number of developers have had problems moving forward with their renewable projects, and in some cases, have dropped out of the process. Disallowing affiliate and utility-build proposals further reduces our options for viable renewable energy projects. Eliminating the possibility of an affiliate or Hawaiian Electric proposal would place the interests of developers above the best interests of our customers. Customers would no longer have access to the full range of options, as an established renewable energy developer would essentially be removed from the market, resulting in lost opportunities for a lowest cost/highest value proposal.

Hawaiian Electric notes that multiple protections are in place to safeguard against an unfair or biased bidding process. These include the Competitive Bidding Framework ("CBF") and associated Code of Conduct, which govern the competitive bidding process and impose various safeguards. The CBF was approved by the PUC and has been in place since December 2006. An updated CBF was submitted to the PUC in February 2021. This updated CBF was developed with input from the Integrated Grid Planning Competitive Procurement Working Group, which included members from the PUC, Consumer Advocate, developers, industry specialists, and community and environmental groups. Under the guidelines of these governing

documents, safeguards such as the inclusion of an Independent Observer to monitor all communications, code adherence, proposal evaluations, contract negotiations and the use of a third-party platform to receive bids from proposers are in place. This third-party platform does not allow the Hawaiian Electric energy procurement team to view any submitted bid until the proposal due date has passed, and does not allow the Hawaiian Electric proposal team or any affiliate access to any other bids. Additionally, Hawaiian Electric proposal team submission deadlines are set for one day prior to the due date for other bidders to further alleviate concerns that the Hawaiian Electric proposal team may modify bid information in response to developer bids.

These safeguards are further enforced by Hawaiian Electric's Code of Conduct Procedures Manual, which is also reviewed and approved by the PUC. Different teams and roles are clearly identified, and communications are strictly regulated through a designated process to reduce the likelihood of inadvertent sharing. This process includes a dedicated email box, carbon copies to the Independent Observer, and the utilization of communication logs and marked headers when appropriate. Hawaiian Electric also utilizes a third-party document management system and storage system to establish limited access to files and folders, restricting unauthorized access by certain individuals, groups, or teams. As noted above, this has been proven effective to ensure that there is no bias for Hawaiian Electric proposals.

Accordingly, Hawaiian Electric opposes S.B. 2513 and request that this bill be held. Thank you for this opportunity to testify.



TESTIMONY OF TAWHIRI POWER LLC
ON SB 2513 BEFORE THE SENATE COMMITTEES ON
COMMERCE AND CONSUMER PROTECTION AND
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM
TUESDAY, FEBRUARY 8, 2022 AT 10 a.m.

TO THE HONORABLE CHAIRS BAKER AND WAKAI, VICE CHAIRS CHANG AND
MISALUCHA AND MEMBERS OF THE COMMITTEES:

Tawhiri Power LLC (“TPL”)¹ submits the following testimony in opposition to the provisions calling for separation of firm vs. intermittent renewable generation in any utility Request For Proposal (RFP), but supports the provision prohibiting utility self-build or affiliated transactions in SB2513.

While we believe that Firm Renewable Generation should increase competition and lower customer prices and its acquisition should lead to the retirement of fossil fuel generators on the utilities’ system, having separately based RFP’s for firm versus intermittent renewable energy generation does a disservice to ratepayers. In order to have true competition, ALL renewable generation sources should be able to participate in any RFP. In other words, any renewable RFP should be “ALL SOURCE”, with the proposals that are best for the ratepayers and public interest being selected whether its firm or intermittent.

Tawhiri does support the provision prohibiting the Hawaii Public Utilities Commission from approving any new or renewed utility-owned generation project by a public utility or any new or renewed power purchase agreement for electricity generation with affiliated interest with a public utility. This provision will “ensure that the integrity of the competitive bidding process is increased, protected, and maintained and that the public

¹ TPL is an Independent Power Producer (“IPP”) that owns and operates Pakini Nui Wind Farm located in the South Point Area on the Island of Hawaii.

regain trust in the competitive bidding process.”²

Thank you for the opportunity to testify.

² SB2513, p. 5, lines 9-12.



SENATE COMMITTEES ON COMMERCE AND CONSUMER PROTECTION and ENERGY, ECONOMIC
DEVELOPMENT, AND TOURISM

Senator Rosalyn H. Baker, Chair

Senator Glenn Wakai, Chair

HEARING DATE: Tuesday, February 8, 2022

TIME: 10:00 a.m.

PLACE: Via Video Conference
Conference Room 229

RE: SB2513

IN OPPOSITION

This testimony is being submitted on behalf of the membership of the International Brotherhood of Electrical Workers Local 1260. The International Brotherhood of Electrical Workers Local 1260 (IBEW 1260), is comprised of nearly 3,000 hardworking union members. Our members are a diverse workforce that largely consist of highly skilled and trained individuals working 24/7 to generate and transmit electricity here in the State of Hawai'i.

IBEW 1260 is in **OPPOSITION** to this bill which seeks to prohibit the Public Utilities Commission from approving any new or renewed utility-owned generation project by a public utility or any new or renewed power purchase agreement for electricity generation with affiliated interests with a public utility.

IBEW 1260 is concerned that this bill will gravely impact a large majority of our members that work daily to operate and maintain the aging plants. These members are highly skilled and are quite frankly – the best at what they do. Prohibiting the public utility from participating in new generation greatly hinders the ability to transition our current members, who are experts in the field, to the new jobs of the future.

IBEW 1260 wants to lead the change into a renewable future. We want to transition the current workforce by training for new skills and new technology. We believe in a renewable future – built with a local

workforce. Prohibiting generation by a public utility or any new or renewed power purchase agreement for electricity generation with affiliated interest would **negatively** impact the local workforce.

We sincerely thank both of the Committees for their time, consideration, and dedication to the future of renewable energy in Hawai'i.

Sincerely,



Leroy Chincio
Business Manager and Financial Secretary
International Brotherhood of Electrical Workers
Local 1260
700 Bishop Street #1600
Honolulu, HI 96813



**Testimony to the Committees on Energy, Economic Development, and Tourism
and Commerce and Consumer Protection
Tuesday, February 8, 2022
10:00 AM
VIA Video Conference
Conference Room 229, Hawaii State Capitol
SB 2513**

Chairs Wakai and Baker, Vice Chairs Misalucha and Chang, and members of the committees,

Hawaii Clean Power Alliance (HCPA) **supports** SB 2513, which requires the PUC to have electric utilities separately issue requests for proposals for firm energy generation and requests for proposals for intermittent renewable energy generation; prohibits the PUC from approving any new or renewed utility-owned generation project by a public utility or any new or renewed power purchase agreement for electricity generation with affiliated interest with a public utility; appropriates moneys.

Hawaii Clean Power Alliance is a nonprofit alliance organized to advance and sustain the development of clean energy in Hawaii. Our goal is to support the state's policy goal of 100 percent renewable energy by 2045. We advocate for utility-scale renewable energy, which is critical to meeting the state's clean energy and carbon reduction goals.

Hawaii leads the nation with its commitment to 100% clean energy by 2045. With just over twenty years to achieve that, the state, the clean energy developers, the utilities, and the ratepayers cannot afford long delays, stifled competition, perceptions of conflict-of-interest, or missteps in bringing proposed projects to fruition. In recent filings, the utility has recognized the benefits of issuing separate RFPs for firm versus all resource RFPs. This bill addresses and corrects the chilling effect in competition that exists due to the many unknowns and uncertainties in the current RFP process. By requiring the separate RFPs, the market can respond accordingly, providing the lowest cost to ratepayers and the highest value to the grid. The proposed separate RFPs create the transparency needed at the time the RFP is issued, identifying factors such as grid reliability requirements and capacity duration.

These criteria determine the technologies that are most needed to satisfy those requirements at a given point in time. For example, perhaps early in the acquisition of renewables, the grid could accept a high amount of input of renewables in intermittent surges (when the sun is up). This technology would have value on the grid. The process would also signal the markers when some technologies offered less value, i.e. the grid could not efficiently accept it and therefore

renewable resources would need to have different attributes, like firm and flexible technologies that operate all day long.

Under the current procedures, it is difficult for the market to clearly understand what technologies are most needed at what time points. Market bidders are left to put forth proposals without the clarity to understand what's most needed, what would bring the greatest value, and what was most lacking in the grid's supply. This lack of transparency also leaves the market facing the real possibility that the proposal put forth offers technology that the grid simply can't handle, thus making it an exercise in futility for all involved.

This bill recognizes the cost, delays, lack of clarity, and adverse impact on work to reach the 2045 RPS goal and creates a clear playing field that benefits the electric utility, and the ratepayers. A strong, competitive market is essential if we are to meet our 2045 obligations and ensure that ratepayers have the clean, affordable, renewable energy they've been promised. This bill is critical to our shared success.

We ask the committee to pass this bill.

Thank you for the opportunity to testify.

TESTIMONY IN OPPOSITION TO SB 2513

Chair Wakai, Chair Baker, Vice Chair Misalucha, Vice Chair Chang, and Committee Members:

My name is Richard Wallsgrove and I am a professor of law at the William S. Richardson School of Law, University of Hawai'i at Mānoa, where I teach energy law and policy along with various other business law and environmental law courses. Prior to joining the law school, I was a frequent participant in regulatory proceedings before the Hawai'i Public Utilities Commission (PUC). This testimony is submitted in my personal capacity.¹ I thank the Committee for allowing me this opportunity to participate in its consideration of this bill.

I am writing to respectfully **oppose** SB 2513, because the bill utilizes an **overly narrow** and **potentially costly** definition of “firm renewable energy.” Moreover, the bill’s attempt to mandate that the Public Utilities Commission (PUC) undertake processes to procure this ill-defined firm renewable energy—irrespective of the actual needs of the grid as determined on an island-by-island and community-by-community basis. The result is likely to be wasteful, and despite the bill’s good intentions, **may slow Hawai'i’s transition to clean energy**.

1. The bill mandates energy resources that are mismatched with actual needs.

As the bill’s preamble notes, the concept that firm energy is best described as energy when needed: “firm generation must be capable of delivering power when needed and for as long as needed.” The bill, however, mandating a less efficient “always on” energy system, by defining firm renewable energy to mean “renewable energy that is always available and capable of being continuously produced at its contracted capacity twenty-four hours per day, three hundred sixty—five days per year, subject only to routine maintenance and emergency repairs.”

This definition is mismatched with actual grid needs. For example, hydrogen energy systems have been discussed as one potential approach for seasonal balancing of a renewable energy grid. These systems would typically produce hydrogen during sunnier months, and then use the stored hydrogen to make electricity during less-sunny months. Such a system could firmly serve an actual need on the system, and add resilience, and yet would not be captured by the bill’s definition of firm. Rendering the bill even more problematic, it mandates that the PUC undertake efforts to procure the narrowly defined “firm” energy, irrespective of whether it is needed and whether it is the most efficient or effective resource for grid reliability. This could raise the cost of electricity without yielding concomitant benefits.

Because of the bill’s narrow focus, it derails the opportunity to fully utilize and balance many other parts of the complex energy system overseen by the PUC. For example, concepts such

¹ This testimony is submitted solely on my own behalf and not on behalf of the University of Hawai'i nor any other entity.

as energy efficiency and demand response play a critical role in grid reliability. Yet the bill focuses on only a single facet of the energy system—generation. This approach threatens to raise costs for consumers without a sufficient benefit in return.

2. The bill risks slowing Hawai‘i’s energy transition.

The bill’s narrow definition is most likely to apply to traditional thermal powerplants that burn biomass or biofuel, such as the proposed Hu Honua tree-burning generating plant in the community of Pepe‘ekeo on Hawai‘i Island.

If the bill is intended to mandate biopower, it will be extremely important to ensure that this does not inadvertently scuttle Hawai‘i’s decarbonization goals. According to the Intergovernmental Panel on Climate Change (IPCC) it is incorrect to “automatically consider or assume biomass used for energy as ‘carbon neutral’, even in cases where the biomass is thought to be produced sustainably.”² Instead, understanding the total lifecycle emissions of biomass energy requires additional analytical work to quantify things like emissions associated with growing bioenergy crop, land-use change, fertilization, transportation, etc.³ Depending on variables such as these, the National Renewable Energy Laboratory similarly found that biopower can have a wide range of emissions--as high as coal, or lower than solar and wind.⁴

To avoid mandating a false solution in place of real carbon reductions, if the bill is passed it should ensure that any firm energy requests must specify the maximum allowable lifecycle emissions. A maximum of 50g CO_{2eq}/kWh appears to match with other renewable energy options.⁵

Thank you to the Committee for considering how to best promote Hawai‘i’s 21st century energy system. And thank you for allowing me this opportunity to submit testimony.

² *IPCC Task Force on Greenhouse Gas Inventories*, Q2-10, <https://www.ipcc-nggip.iges.or.jp/faq/faq.html>. The IPCC is comprised of scientists all around the world, convened by the United Nations and charged with providing climate science information to policy makers.

³ *Id.*

⁴ NREL Fact Sheet, *Life Cycle Greenhouse Gas Emissions from Electricity Generation: Update (2021)*, available at <https://www.nrel.gov/docs/fy21osti/80580.pdf>.

⁵ According to NREL, the median estimated emissions for solar, wind, geothermal, pumped hydro, and other renewable energy sources are each under 50g CO_{2eq}/kWh. *See id.* Data from the proposed battery-backed Paeahu Solar project on Maui indicates emissions of approximately 35g CO_{2eq}/kWh. *See Paeahu Solar GHG Analysis*, prep’d for Maui Electric Co. Ltd. (September 2019) (reporting 35,733 MT CO_{2eq} lifecycle emissions, and 1,031,075 MWh total generation).

SB 2513 TESTIMONY

To: Senate Committee on Commerce and Consumer Protection
Senate Committee on energy, Economic Development, and Tourism
Hearing on Feb. 8, 2022 at 10:00 a.m.

From: John Kawamoto

Position: Oppose

The Public Utilities Commission (PUC) was established to protect the public interest by overseeing and regulating public utilities to ensure that they provide reliable service at just and reasonable rates. That has remained its overall purpose for more than a hundred years.

The purpose, authority, structure, and specific responsibilities of the PUC are set forth in Chapter 269, Hawaii Revised Statutes. Based on this obligation, the PUC adheres to the following:

VISION: The PUC delivers transparent, accessible, and timely regulatory oversight, while working collaboratively with customers, stakeholders, and the general public.

MISSION: To serve the public, by ensuring essential utility services are delivered to consumers in a safe, reliable, economical, and environmentally sound manner.

HOW THE PUC FULFILLS ITS MISSION: This mission is achieved through responsible and informed oversight of public utilities and a focus on economic, operational, environmental, and societal concerns associated with balanced regulation and future impacts of present-day decisions.

The PUC has been effective in protecting the public interest, and it should be allowed to continue to do so. This bill is well intentioned, but it impairs the ability of the PUC to perform its mission. The PUC already has the authority to do what this bill requires it to do. If what the bill mandates is in the public interest, the PUC would surely do it.

For the foregoing reasons, I oppose the bill.

SB-2513

Submitted on: 2/6/2022 8:56:08 PM

Testimony for CPN on 2/8/2022 10:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Tawn Keeney MD	Individual	Oppose	Yes

Comments:

The Bill SB2513 has two facets, each of which must be considered separately. First the bill suggests that RFPs for firm renewable power should be considered separately from what the authors characterize as ‘intermittent renewable power’ but is more commonly referred to as ‘variable renewable energy’. The Bill’s second facet is to deny Hawaiian Electric’s ability to participate as ‘self-build’ in it’s RFP process. This examiner fails to see a necessary or reasonable nexus joining these two facets and proposes that this bill be deferred pending separation into two or more proposals.

The comments here address only the issue of separation of the RFP process for ‘firm renewable power’ from ‘intermittent renewable power’.

The authors of this bill understand ‘firm renewable power’ to be geothermal or ‘bioenergy’ (burning chipped green trees usually through ‘clear cut’ of forests) with other technologies emerging. For the next few years, geothermal will be confined to the Big Island. Thus, RFP’s for ‘firm renewable power’ will be primarily confined to burning wood.

The first contention is that the distinction between ‘firm’ and ‘variable’, by virtue of progress made in capabilities of Battery Storage is becoming blurred to the point of being almost indistinguishable. However let us presume that sole reliance on Battery power may fall short of supply adequate to avoid occasional ‘Brown-outs’. What is the appropriate solution?

The legislature has directed a conversion of fossil energy to ‘renewable’ generation. The motivation has been primarily to reduce greenhouse gas emission from ‘fossil fuels’. In the declared ‘Climate Crisis’ other motives are less important, however these secondary motives will be addressed also. This testimony demonstrates that substituting ‘tree burning’ as fuel for power generation is much worse for greenhouse gas emissions and climate change than continued use of the fossil fuels where necessary for generation of ‘firm’ power.

I will encapsulate the letter sent to each researcher at the Hawaii Natural Energy Institute examining the proposals for utilization of ‘bioenergy’ as fuel at the Big Island’s Hu Honua and conversion of Honolulu’s AES Coal plant to burn wood. I highly recommend reading this full document

here: <https://drive.google.com/file/d/1crF7GeGgNbDTcAGlUusrrtJSIw1dFdsqD/view?usp=sharing> (about 3 pages)

It is well known that burning wood to generate electricity emits 1.5X more greenhouse gas per KWh electricity produced than does burning Coal. Likewise burning wood generates 2.2X more GHG in CO₂(e) emissions than burning oil and 3x more GHG than burning natural gas per KWh electricity generated. These numbers include the diminished 'efficiency' of bioenergy in addition to emission concentrations 'in the smokestack'. Hu Honua, in its 2019 Greenhouse Gas Analysis presented to the PUC confirmed that it would generate 1.95 tonsCO₂(e) per MWh while the emissions from the fossil fuel stations that it would replace would generate 0.91 tons CO₂(e) per KWh. Hu Honua would be emitting more than 2x as much GHG per KWh than the fossil fuel stations that it would replace. Amazingly, testimony from the Public Advocate at the PUC stated that 58% of the electricity generation which Hu Honua would replace would be other zero-emissions renewable sources (geothermal, wind or solar) and 42% would be Fossil Fuels. The DCCA Consumer Advocate in testimony to the PUC on September 17, 2021 stated, "... approval of the (Hu Honua) A&R PPA (Power Purchase Agreement) does not seem reasonable or in the public interest at this time." "Without additional justification, there are GHG emissions, environmental, health, and customer impact concerns that do not support a favorable ruling by the Commission."

If the AES power Station is converted to burn wood, for generation of the same amount of electricity as currently, its CO₂(e) greenhouse gas emissions would rise from the current 1.7 million tons yearly to 2.7 million tons yearly.

The contention exists that regrowth of trees, once harvested, will re-sequester the carbon that was released by harvest. How long will this process take. A literature search finds only one source for these computations: the Government of Canada website, Bioenergy Greenhouse Gas Calculator: <https://apps-scf-cfs.rncan.gc.ca/calc/en/bioenergy-calculator>

(Exploration of this website is highly recommended)

Insertion of parameters for Hu Honua of 'fast growth trees', 50 kilometer average distance from forest to mill, comparison with burning coal shows that, **for the example of Hu Honua, the 'best case scenario' is that burning chipped green trees for power gives more accumulated Greenhouse Gasses than burning Coal for 70 years.** It is unlikely to ever gain carbon neutrality.

Some have advocated for renewable fuels for to achieve energy self sufficiency in the state.

The State of Hawaii has recently announced a plan to plant or protect 100 million trees by 2030 for the purposes of carbon sequestration, addressing climate change. DLNR will not want to give up the much needed lands or trees for this purpose to any plantings that propose a seven year harvest cycle. Also, any announcement of planting more trees, such as the Hamakua Eucalyptus grandis, on the Big Island for the purpose of burning (especially on Oahu) would certainly be met with widespread hostility. Kamehameha Schools has announced that they will not regrow the 12,000 acres of trees on their Big Island Properties once they are initially harvested for Hu Honua (and therefore it is presumed that Hu Honua will be importing wood pellets from the Continental Americas or Oceania, as no other Hawaii source has been identified). Given that AES' need is for 200,000 to 300,000 acres of trees (as opposed to Hu

Honua's 20,000 acres of trees) this will not be sourced in the islands. Thus, energy self sufficiency is not a reason to consider 'bioenergy.

For the above reasons the correct solution to the need for firm energy should it exist would be to continue the use of fossil fuels on a limited basis as necessary. It has been documented that Oahu's electricity supply will not be jeopardized by the closure of the AES station. It is when the oil fired plants are closed as anticipated in the several years following 2023 that the need for 'firm' power might become problematic. Battery technology is improving rapidly. Until that time when this storage or other technologies can provide the necessary reliance for the grid and provide 0 emissions energy, the best solution will be, not the 'firm renewable' of burning wood for power, but to continue our reliance on burning oil when necessary.

Mahalo for your consideration

Tawn Keeney MD