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Testimony of the Department of Commerce and Consumer Affairs

**Before the
Senate Committee on Energy, Economic Development, and Tourism
Wednesday, February 16, 2022
3:10 PM
Via Videoconference**

**On the following measure:
S.B. 2584, RELATING TO ENERGY INTERCONNECTION**

Chair 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 direct the Public Utilities Commission (Commission) to adopt guidelines for interconnection applications that would trigger distribution, transmission, or other utility infrastructure upgrade costs for new developments in excess of a threshold determined by the commission.

The Department appreciates the intent of this bill to take energy efficiency and distributed energy resources into consideration for any new load center transmission and distribution interconnection above a certain dollar threshold. However, the Department respectfully offers that this measure may not be necessary at this time because of two already existing Commission requirements.

First, there are existing and ongoing procedures outlined in General Order No. 7, which are triggered by electric utility capital expenditures above \$2.5 million net of

contributions in aid of construction. Thus, any capital expenditure, including any transmission and distribution projects to serve new load would require an application for approval to commit funds to any such project, wherein an in-depth analysis of the need for the proposed project, which would include an analysis of the load forecast justifying the proposed distribution, sub-transmission, and/or transmission project.

In addition, the Commission already requires the electric utility companies to include consideration of non-wire alternatives in those General Order No. 7 applications, wherein the electric utility is required to detail how they considered distributed energy resources, energy efficiency measures, and other non-wire alternatives to obviate or minimize the scope and cost of any proposed distribution, sub-transmission, and/or transmission project

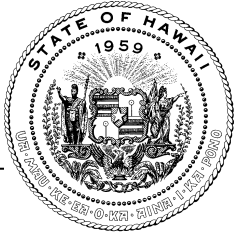
Furthermore, the need for the proposed language allowing the Commission to consider cost recovery through a mechanism that elects to develop and implement non-wire alternatives is unnecessary. In the recently approved performance-based regulation framework, the Commission adopted a proposed Exceptional Project Recovery Mechanism, which, if justified, allows the electric utility to recover the costs associated with transformational-types of projects, such as a non-wire alternative that could obviate the need for transmission, sub-transmission, and/or distribution facilities.

On a broader level, the Hawaiian Electric Companies file annual Adequacy of Supply studies, which have been for many years estimating and taking into account distributed energy resources' effects, among other things, on future load as well as engaging in Integrated Grid Planning (IGP) processes. These Adequacy of Supply studies and IGP processes may already serve much or all of the functions envisioned for this bill's proposed load management plans. Also, the Commission is continuing to investigate the growth of distributed energy resources in Docket No. 2019-0323 and is applying the insights from the former to utility grid planning in Docket No. 2019-0327.

If this committee intends to pass the proposed measure, however, the Department notes that it appears that two typographical corrections should be made to the proposed section 269-142(d)(2)(B), where the word "loan" should be replaced with "load" to read, "...when approving or denying a proposed load management plan, ..."

and the word “local” should be replaced with “load” to read, “...the potential for the load management plan to defer or avoid...”

Thank you for the opportunity to testify on this bill.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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SCOTT J. GLENN
CHIEF ENERGY OFFICER

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

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

Wednesday, February 16, 2022
3:10 PM
State Capitol, Conference Room 224 & Videoconference

**COMMENTS
SB 2584
RELATING TO ENERGY INTERCONNECTION.**

Chair Wakai, Vice Chair Misalucha, and Members of the Committee, the Hawai'i State Energy Office (HSEO) offers comments on SB 2584, which directs the Public Utilities Commission (PUC) to adopt guidelines for interconnection applications that would trigger distribution, transmission, or other utility infrastructure upgrade costs in excess of a threshold determined by the Commission.

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 notes that the use of non-wires alternatives is frequently discussed and included in proceedings of the Hawai'i PUC, and is required of Hawai'i's electric utilities. Non-wires alternatives are acknowledged components of cost control strategies, and Hawai'i continues to receive recognition for progress in this area.

Allowing the PUC to continue to incorporate these requirements in all appropriate situations would provide flexibility as needs, conditions, and technologies change.

Thank you for the opportunity to testify.

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

TO THE
SENATE COMMITTEE ON
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

February 16, 2022
3:10 p.m.

Chair Wakai and Members of the Committee:

MEASURE: S.B. No. 2584

TITLE: RELATING TO ENERGY INTERCONNECTION.

DESCRIPTION: Directs the public utilities commission to adopt guidelines for interconnection applications that would trigger distribution, transmission, or other utility infrastructure upgrade costs in excess of a threshold determined by the commission.

POSITION:

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

COMMENTS:

The Commission supports the intent of this measure to further incorporate non-wires alternatives into utility planning, in order to reduce the need for utility expenditures on distribution, transmission, and other utility infrastructure when interconnecting certain new developments. The Commission also appreciates the language that would allow the Commission to implement the provisions of this measure either by rule or order.

Thank you for the opportunity to testify on this measure.



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Testimony of The Hawaii Solar Energy Association Regarding SB 2584, Relating to Energy Interconnection, Before the Senate Committee on Energy, Economic Development, and Tourism

Wednesday, February 16, 2022

Chair Wakai, Vice-Chair Misalucha, and members of the Committee, my name is Rocky Mould and I am the Executive Director of the Hawaii Solar Energy Association (HSEA). We **support SB 2584** which directs the Public Utilities Commission to adopt guidelines for interconnection applications that trigger distribution, transmission, or other utility infrastructure upgrade costs in excess of a threshold determined by the Commission.

HSEA members include the majority of locally owned and operated renewable energy companies in the State of Hawaii, employing thousands of local individuals in a diverse set of well-paying jobs including, but not limited to, contractors, designers, electricians, engineers, financiers, installers, salespeople, and service technicians.

HSEA advocates for policies that provide cost-effective, equitable, and impactful solutions to achieving Hawaii's climate and resilience goals by enabling residents and businesses to invest in and benefit from the transition to clean energy. Distributed energy resources (DERs) are the leading contributor to Hawaii's clean energy transition with 45.7% of Hawaii's renewable energy coming from customer-sited, grid-connected solar PV.¹ And now, Hawaii leads the nation, by far, in pairing solar PV with energy storage at 79% of all residential and 38% of all small-scale commercial installations.² These investments in resilient power systems not only save energy costs for residents and businesses, but also provide energy security and reliability for the entire electricity system as we retire fossil fuel power plants such the AES coal plant.

¹ See Hawaiian Electric's "Key Performance Metrics, Renewable Portfolio Standard compliance" available at <https://www.hawaiianelectric.com/about-us/key-performance-metrics/renewable-energy>.

² See Lawrence Berkeley National Laboratory, *Tracking the Sun, Pricing and Design Trends for Distributed Photovoltaic Systems in the United States* (2021 Edition) at Slide 14 (finding that "Hawaii has, by far, the highest storage attachment rates of any state").



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Requiring large new developments, the utility, and other stakeholders to include DERs and other non-wires alternatives in their planning at an early stage will lower the overall costs to achieve the state's urgent 100% renewable energy and carbon neutrality mandates.

HSEA **supports SB 2584** and respectfully asks the committee to advance this measure.

Thank you for the opportunity to testify.



SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, & TOURISM
State Capitol, Via Videoconference
415 South Beretania Street
3:10 PM

February 16, 2022

RE: SB 2583 - RELATING TO ENERGY INTERCONNECTION

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

My name is Daryl Takamiya, 2022 President of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii. Our members build the communities we all call home.

BIA-Hawaii is in opposition to SB 2583. This bill would direct the public utilities commission to adopt guidelines for interconnection applications that would trigger distribution, transmission, or other utility infrastructure upgrade costs in excess of a threshold determined by the commission.

While we support renewable energy, this bill would further raise the cost of housing. With respect to energy interconnectivity, Hawaiian Electric Company already has a process during planning for housing developments, so this bill would be redundant. Housing developers already work closely with all utilities in the planning process, taking into account infrastructure, energy efficiency, and cost.

The cost of housing in Hawaii is extremely high, with Oahu's median price of homes being currently over \$1 million. Adding more mandates and time delays into the cost of building will only serve to further raise this price.

Thank you for the opportunity to share our concerns.



**Hawaiian
Electric**

**TESTIMONY BEFORE THE SENATE COMMITTEE
ON ENERGY, ECONOMIC DEVELOPMENT, AND
TOURISM**

SB 2584

Relating to Energy Interconnection

Wednesday, February 16, 2022
3:10 p.m., Agenda Item #3
State Capitol, Conference Room 224 & Videoconference

Ken Aramaki
Director, Transmission & Distribution and Interconnection Planning Division
Hawaiian Electric Company, Inc.

Chair Wakai, Vice Chair Misalucha, and Members of the Committee,

My name is Ken Aramaki and I am testifying on behalf of Hawaiian Electric Company, Inc. (“Hawaiian Electric” or the “Company”) respectfully in **opposition** to SB 2584, Relating to Energy Interconnection.

We strongly support the intent of creating additional opportunities to smartly and cost-effectively add additional energy efficiency (“EE”) and distributed energy resources (“DER”) measures in new construction, but we oppose the bill in its current form because the proposed guidelines are unnecessary and will add undue burden in the form of additional costs to the Company’s current practices and procedures.

SB 2584 starts with the assertion that Hawaiian Electric “currently invest in grid infrastructure based on the assumption that one hundred per cent of the estimated load from new home and construction developments will be served by the electric grid” – a statement which is just not true. In fact, the Company’s Integrated Grid Planning process, which plans for near- and long-term electrical needs incorporates DER and EE which result in decreases to forecasted electrical demand and peak loads (including

electric vehicles which increase demand). For example, the Company's forecasts in the year 2030, DER and EE account for reductions to the forecasted net demand (Megawatt-hours) by 35% and reductions of peak load (Megawatts) by close to 30%. The resultant net demand and peak forecasts are used to plan future generation, transmission, and distribution infrastructure.

When it comes to individual customer loads and services requests, the Company has already begun implementing a process to work with customers developing properties and buildings to identify EE, DER and other opportunities (such as demand response) to reduce the demand for electricity. This provides a process and additional opportunity for the developer to add additional EE, DER, or demand response opportunities beyond what they might have already been planning for in their initial design of the properties. Through this process, the Company is able to make more informed decisions on the energy requirements for particular service requests. The ultimate goal of these processes are to mitigate unnecessary infrastructure investments made by the Company, ratepayers, and developers. It should be noted that individual service requests may or may not have an impact on infrastructure upstream (i.e., at higher voltages) as they are designed to accommodate planned peak and demands coincident with other services or demands on the system. For service requests that do not fall in the category of large developments, requests are also reviewed and adjusted downward based on other services with similar characteristics – to mitigate unnecessary infrastructure.

The aforementioned processes, reviews, and collaboration with developers are used to proceed through the existing regulatory framework. In times where new developments require additional transmission and distribution upgrades larger than \$2.5M, the Company is required to seek pre-approval from the Public Utilities

Commission (“PUC”) in order to implement such a project. Within the application for these projects, the Company is required to demonstrate that the project is in the best interest of ratepayers. Justifications include calculations and documentation to show the need for the project, as well as the consideration of non-wires alternatives (e.g., energy efficiency, demand response, distributed energy resources, etc.) to meet the needs of the project.

This bill proposes to add another regulatory step to an already lengthy, comprehensive regulatory process – current regulatory review and approval typically takes upwards of 12 months or more, upon which if approved, construction of electrical infrastructure commences. This timeline already places pressure on Hawaiian Electric and the Customer to finalize plans even further ahead of project construction, increasing upfront investments, possibly years ahead of project construction, for submittal to the Public Utilities Commission in order to meet Customers’ development timelines. Adding another regulatory step earlier in the process assumes the Customer has finalized plans for their project and that the Customer and Hawaiian Electric have worked out solutions to manage the planned electrical demand and mitigate unnecessary infrastructure, which in reality, are complex issues that would not be solved at such a stage of development and an additional regulatory process would hinder progress towards such a solution.

Hawaiian Electric appreciates and recognizes the concern of overbuilding infrastructure that may be underutilized. Within the existing regulatory processes and procedures, Hawaiian Electric is already required to address these concerns. The additional regulatory process step contemplated in this bill will increase costs and impact customer timelines, but still result in the same outcome.

Thank you for this opportunity to comment on SB 2584.

TESTIMONY REGARDING SENATE BILL 2584**Senate Committee on Energy, Economic Development, and Tourism****Wednesday, February 16, 2022 at 3:10 PM**

Aloha Chair Wakai, Vice Chair Misalucha, and Members of the Committee:

Thank you for the opportunity to provide testimony regarding SB 2584, which would direct the public utilities commission to adopt guidelines that require electric utilities to develop electricity load management plans that integrate the capabilities of distributed energy resources and energy efficiency.

We appreciate the intent of the bill to encourage more coordinated planning and deployment of distributed energy resources, yet we are concerned by its potential negative impact on the speed and scale of electric vehicle charging station deployments. For electric vehicle charging station applications, the requirement for a completed utility load management plan prior to allowing an application to move forward could result in significant delays.

Electric vehicle charging stations, particularly commercial fast charging stations, can require distribution and other utility infrastructure upgrade costs. They may also include onsite distributed energy resources, such as solar or energy storage, depending on design and feasibility. Targeted rate structures, utility programs, and site design can help incentivize electric vehicle charging to support electricity grid conditions. Importantly, commercial electric vehicle charging stations already face long utility timelines of many months to over a year from project application to station energization. To require a utility load management plan for each electric vehicle charging station application could add further delays and slow the state's transportation electrification efforts. To avoid a potential slowdown of electric vehicle charging infrastructure build-out, we request that electric vehicle charging station applications be excluded from the requirements of Section 2(d). Please find attached our proposed amendment.

Thank you for the opportunity to submit this testimony.

ATTACHMENT 1

“SECTION 2: Section 269-142, Hawaii Revised Statutes, is amended to read as follows:

(d) The commission shall adopt, by rule or order, guidelines applicable to interconnection applications for new developments that would trigger distribution, transmission, or other utility infrastructure upgrade costs in excess of a threshold determined by the commission. In adopting these guidelines, the commission shall:

(1) Require that electric utilities implement an approved load management plan before interconnecting any new residential, commercial, or industrial development that an interconnection study or other applicable study indicates the interconnection application would trigger distribution, transmission, or other utility infrastructure upgrade costs in excess of a threshold determined by the commission; and

(2) Establish requirements for the development of load management plans by an electric utility for any interconnection application that would trigger grid infrastructure upgrade costs in excess of a threshold determined by the commission. The requirements shall include at a minimum:

- (A) Directives for studying and integrating customer— 4 sided distributed energy resources and energy efficiency into load management plans;
- (B) Criteria to be used by the commission when approving or denying a proposed load management plan, including but not limited to the potential for the local management plan to defer or avoid infrastructure upgrade costs;
- (C) A process for determining whether multiple interconnection applications should otherwise be deemed a single interconnection application for the purposes of this paragraph; and
- (D) A maximum amount of time within which the interconnecting electric utility shall be required to submit a load management plan to the commission and the time within which the commission shall review and issue a determination for the load management plan.

The commission may approve a request for cost recovery through a commission-approved mechanism by an electric utility that elects to develop and implement a load management plan in accordance with the guidance developed by the commission pursuant to this subsection for any costs expended to interconnect an applicant for which the interconnection or other applicable study indicates the interconnection application would trigger distribution, transmission, or other utility infrastructure upgrade costs in excess of a threshold determined by the commission.

(3) The requirements in subsection (d) shall not apply to electric vehicle charging infrastructure applications.”