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Testimony of the Department of Commerce and Consumer Affairs

Before the
Senate Committee on Commerce and Consumer Protection
Wednesday, February 23, 2022
9:30 AM
Via Videoconference

On the following measure:
S.B. 2584, SD1, RELATING TO ENERGY INTERCONNECTION

Chair Baker 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 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.

Thank you for the opportunity to testify on this bill.

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

TO THE
SENATE COMMITTEE ON
COMMERCE AND CONSUMER PROTECTION

February 23, 2022
9:30 a.m.

Chair Baker and Members of the Committee:

MEASURE: S.B. No. 2584, SD1
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. Effective 7/1/2050. (SD1)

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.

TESTIMONY BEFORE THE SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

SB 2584, SD1

Relating to Energy Interconnection

Wednesday, February 23, 2022
9:30 a.m., Agenda Item #5
State Capitol, Conference Room 229 & Videoconference

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

Chair Baker, Vice Chair Chang, 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, SD 1, 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, SD 1 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, SD1.

SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
State Capitol, Via Videoconference
415 South Beretania Street
9:30 AM

February 23, 2022

RE: SB 2584 SD1 - RELATING TO ENERGY INTERCONNECTION

Chair Baker, Vice Chair Chang, 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 2584 SD1. 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.

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Hawaii Solar Energy Association
Serving Hawaii Since 1977

Testimony of The Hawaii Solar Energy Association Regarding SB 2584 SD1, Relating to Energy Interconnection, Before the Senate Committee on Commerce and Consumer Protection

Wednesday, February 23, 2022

Chair Baker, Vice-Chair Chang, 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 with one comment 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.

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. ***We offer one comment and suggested modification: We concur with HSEA member Tesla Energy's prior***

[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").

testimony and support an amendment to exempt or exclude electric vehicle charging applications. Managed EV charging is a powerful load management tool. It can provide grid services and maximize the use of Hawaii's abundant, low-cost solar resource to "fuel" EV's in the future. This will be highly supportive of numerous public policy goals such as grid reliability, resilience, affordability, and de-carbonization.

HSEA **supports SB 2584 SD1** with the one suggested amendment to exempt or exclude EV charging applications and respectfully asks the committee to advance the measure as modified.

Thank you for the opportunity to testify.

LAND USE RESEARCH
FOUNDATION OF HAWAII
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(808) 521-4717
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February 22, 2022

Senator Rosalyn H. Baker, Chair
Senator Stanley Chang, Vice Chair
Senate Committee on Commerce and Consumer Protection

Testimony in Opposition to SB 2584, SD1 RELATING TO ENERGY INTERCONNECTION. (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. Effective 7/1/2050. [SD1])

Wednesday, February 23, 2022, 9:30 a.m.; Conference Room 229 and Videoconference

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers, and utility companies. LURF's mission is to advocate for reasonable, rational, and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

LURF **strongly opposes** the current version of SB 2584, SD1, because it is **redundant, duplicative, unnecessary**, and will have **potential negative impacts,** including, among other things, **increased costs and additional delays for affordable housing and other multi-use housing developments**.

SB 2584, SD1. This measure directs the 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.

LURF's Position. LURF and its members support renewable energy and the state's renewable energy goals, and LURF members lead the state with respect to renewable energy research, development and installation of renewable energy technology and implementation energy efficiency alternatives, as our statewide membership includes the two largest energy utilities, major landowners, home-building, commercial and industrial developers, and hotels.

LURF appreciates and supports the general intent of SB 2584, SD1, however, we must **oppose** the current version of this bill, based on the information from LURF members, and the prior testimonies and renewable energy expertise of Hawaiian Electric Company (Hawaiian Electric), the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs (Consumer Advocate), and Tesla.

The reasons for LURF's opposition are as follows:

- According to Hawaiian Electric Company (Hawaiian Electric), SB 2584, SD1 is **redundant, duplicative, and unnecessary**, because already has a long-term planning process with early planning for new residential, commercial, or industrial developments that incorporate distributed energy resources (DER) measures, additional energy efficiency (EE) and non-wire alternatives (NWA).

- SB 2584, SD1 is also **redundant, duplicative, and unnecessary**, because we understand that the Commission's existing regulatory framework already requires Hawaiian Electric to seek **pre-approval** from the Commission for new developments that require additional transmission and distribution upgrades larger than $2.5 million. Hawaiian Electric has explained that the Commission review process requires detailed calculations, documentation and other evidence relating to DER, EE, NWA, demand response, and a demonstration that the proposed projects are in the best interests of the ratepayers.

- This measure is also **redundant, duplicative, and unnecessary** because Commission's General Order 7 already requires a similar in-depth analysis and requires consideration of NWA.

- The portion of SB 2584, SD1 that relates to cost recovery for NWA is also **redundant, duplicative, and unnecessary** because we understand that the Commission has recently adopted a proposed Exceptional Project Recovery Mechanism, which requires the electric utility to justify cost recovery for NWA and other exceptional projects.

- This measure is further **redundant, duplicative, and unnecessary** because we believe that Hawaiian Electric Company's Annual Adequacy of Supply studies may already address much or all the issues and information in HB 1807, HD1.

- Additionally, this bill may also be **redundant, duplicative, and unnecessary**, as noted in the testimony of the Consumer Advocate, which notes that the Commission is continuing to investigate the growth of DER in Docket No. 2019-323 and is applying the insights from that docket to utility grid planning in Docket No. 2019-327.

- Based on discussions between Hawaiian Electric and affordable housing homebuilders, **the requirements of this measure will add substantial costs that may make some affordable housing projects infeasible**.

- Finally, affordable, and other housing developments face challenges like those argued by Tesla in their testimony for this measure (SB 2584) and their prior testimony for companion bill HB 1807 - - that the mandates of both bills would have **potential negative impacts on the speed and scale of the deployment of projects** involving electric vehicle (EV) chargers and **could result in significant delays.** Based on Tesla's compelling **"delay" argument**, the House Committee on Energy and Environmental Protection **excluded and exempted Tesla's EV charging infrastructure** from the provisions of HB 1807. If this bill moves forward, the homebuilding industry would respectfully request the **same exclusion and exemption as Tesla**.

For the reasons stated above, LURF **opposes** SB 2584, SD1 and respectfully requests that this Committee **hold this bill**, and allow the Commission, electric utilities, and new residential, commercial, and industrial developments to continue to use the existing Commission requirements and processes to address the matters that are the subject of this bill.

Thank you for the opportunity to present testimony regarding this matter.

SB-2584-SD-1
Submitted on: 2/21/2022 3:12:11 PM
Testimony for CPN on 2/23/2022 9:30:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Keith Neal	Individual	Support	No

Comments:

I support SB2584.

This legislation/regulation must:

-Allow/permit independent 'clean' (appropriately defined) power producers to the grid generally or to a given user/customer.

-Set appropriate Transmission and Distribution (i.e.T&D) charges for utility owned grid services.

An interconnected energy market requires thoughtfulness and attention. The wheeling energy market in the Atlantic NE performs effectively/efficiently. However, the Texas energy market has had several catastrophic failures.

This measure’s intent to encourage the production of clean energy and reduce Hawaii’s dependence on fossil fuels. Rules of such an interconnected energy market must be established. Incentives should be given to producers that have additional storage capability.

Respectfully submitted

Keith Neal