

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

TO THE
HOUSE COMMITTEE ON
ENERGY AND ENVIRONMENTAL PROTECTION

February 1, 2022
9:00 a.m.

Chair Lowen and Members of the Committee:

MEASURE: H.B. No. 1807

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.



DAVID Y. IGE
GOVERNOR

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
House Committee on Energy & Environmental Protection
Tuesday, February 1, 2022
9:00 AM
Via Videoconference**

**On the following measure:
H.B. 1807, RELATING TO ENERGY INTERCONNECTION**

Chair Lowen 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.

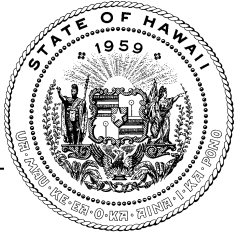
In addition, the Commission already requires the electric utility companies to include consideration of non-wire alternatives in those General Order No. 7 applications, wherein the electric utility is required to detail how they considered distributed energy resources, energy efficiency measures, and 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. These Adequacy of Supply studies 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 a typographical correction 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, ..."

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
HOUSE Committee on ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, February 1, 2022
9:00 AM
State Capitol, Conference Room 325

In CONSIDERATION of
HB 1807
RELATING TO ENERGY INTERCONNECTION.

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawaii State Energy Office (HSEO) offers comments on HB 1807, 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.



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COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Nicole E. Lowen, Chair

Rep. Lisa Marten, Vice Chair

DATE: Tuesday, February 1, 2022

TIME: 9:00AM

HB 1807 Relating to Energy Interconnection

Comments

Aloha Chair Lowen, Vice Chair Marten, and Members of the Committee

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 52 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

The bill states, "The legislature finds that Hawaii electric utilities currently invest in grid infrastructure based on the assumption that one hundred per cent of the estimated customer load from new home and commercial developments will be served by the electrical grid. Nonetheless, a significant portion of electrical demand from new developments will be addressed through onsite distributed energy resources, such as rooftop solar systems, or through energy efficiency and other similar measures. The failure to account for distributed energy resources or energy efficiency in utility planning

around new developments may result in ratepayers paying for unnecessarily large capital expenditures to build unnecessary or underutilized grid infrastructure.”

The above passage is both right and wrong.

“Non-Wires Alternative” (NWA) and “Non-Transmission Alternative” (NTA) are catchall terms advanced in the last five years or so to mean an electricity grid project that uses non-traditional transmission and distribution (T&D) solutions, such as distributed generation (DG), energy storage, energy efficiency (EE), demand response (DR) and grid software and controls, to defer or avoid the need for conventional transmission and/or distribution infrastructure investments.

The Hawai`i Public Utilities Commission stated in 2014: “New, replacement or upgrade high-voltage transmission projects generally represent significant, lumpy capital investments that will be given careful scrutiny. [NTAs] such as local peaking or back-up generators, energy storage, demand response and smart grid resources are technically and commercially viable alternatives and must be evaluated as part of any economic justification for new transmission system projects

The Hawai`i PUC is examining NWA in planning proceedings and in utility applications. Analogous to shifting the focus from the cloud to the edge or the fog in telecommunications, there is a growing emphasis in electricity planning to shift from centralized systems to distribution and on-site analysis.

One difficulty is pricing the value of NWAs to meet existing demand and anticipated future demand.

D.R. Horton Hawaii`s 12,000-home Ho'opili project relies on fossil fuel gas as a way to keep house prices low. The developer opposed rooftop solar as it would increase the sale price. Hawaiian Electric Company considered NWAs as alternatives to traditional electrical infrastructure. (PUC Docket No. 2020-0182).

HECO issued an RFP in 2019 for NTAs that would defer the investment needed for the Kulanihakoi Substation Project by mitigating the projected overloads in the Ho'opili area.

“HECO received one proposal in response to its RFP, but that proposal would be unable to meet the performance and operation requirements necessary to defer the investment needed for the Project. Moreover, even if the proposal could be scaled to meet the peak demand that would be served by the Kulanihakoi Substation and Kapolei

4 Circuit Extension, the proposal could cost 35 times the deferral value of the Kulanihakoī Substation and 18 times the deferral value of the Kapolei 4 Circuit Extension. The proposal was thus not selected.”

NWAs are in on-going discussion in the PUC’s Performance-Based Regulation proceeding.

Mahalo

Henry Curtis,
Executive Director



**Hawaiian
Electric**

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION**

HB 1807

Relating to Energy Interconnection

Tuesday, February 1, 2022

9:00 a.m., Agenda Item #5

State Capitol, Conference Room 325

Ken Aramaki

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

Chair Lowen, Vice Chair Marten, 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 HB 1807, 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.

HB 1807 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 long-term planning process incorporates DER and EE which result in decreases to the net demand and peak loads. 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.

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.

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 encouraged and required to do just that, and additional prescriptive requirements will increase costs and result in the same outcome.

Thank you for this opportunity to comment on HB 1807.



TESTIMONY REGARDING HOUSE BILL 1807

House Committee on Energy and Environment

Tuesday, February 1, 2022 at 9:00 AM

Aloha Chair Lowen and Members of the Committee:

Thank you for the opportunity to provide testimony regarding HB 1807, 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 stations 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).

Thank you for the opportunity to submit this testimony.

Noelani Derrickson

Tesla



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 sited 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.”