



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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Testimony of  
**MARK B. GLICK, Chief Energy Officer**

before the  
**HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE**

Wednesday, February 28, 2024  
2:00 PM  
State Capitol, Conference Room 329 and Videoconference

In Support of  
**HB 2390, HD1**

## **RELATING TO RENEWABLE ENERGY.**

Chair Nakashima, Vice Chair Sayama, and members of the Committee, the Hawai'i State Energy Office (HSEO) supports HB 2390, HD1, which amends Hawai'i Revised Statutes §269-6 to clarify that the Public Utilities Commission (PUC) shall explicitly consider the effect of the State's reliance on fossil fuels on lifecycle greenhouse gas emissions and gives the PUC the discretion to require a lifecycle greenhouse gas emissions assessment for energy projects that do not involve the combustion of fuel.

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 pursuant to HRS §196-71 and HRS §196-72 and by findings and recommendations of the HSEO report, *Hawai'i Pathways to Decarbonization*, (Act 238 Sessions Laws of Hawai'i - 2022).

HSEO supports the revised language of HB 2390, HD1; the clarifications and new language in HB 2390, HD1, amending HRS §269-6 removes the ambiguity currently in statute and ensures lifecycle analysis is appropriately considered for energy projects that involve the combustion of fuel. The bill's current revised language is

consistent with findings and recommendations from Chapter 5 of the *Hawai'i Pathways to Decarbonization* report.<sup>1</sup>

HSEO notes that lifecycle greenhouse gas analysis, also known as lifecycle assessment, quantifies or evaluates the environmental and climate warming impact of specific products or activities throughout their entire lifecycle – including extraction, distribution, use, and disposal.<sup>2</sup> Lifecycle assessment provides an appropriate methodological framework for the PUC to consider the greenhouse gas implications of projects seeking PUC approval, facilitating informed decision-making and the PUC's requirement to protect the public interest,<sup>3</sup>

Evaluation of the lifecycle emissions of biofuel-powered projects and biofuel contracts before the Commission is critical because the lifecycle carbon intensity for different biofuels is wide-ranging and is highly dependent on feedstock characteristics, fertilizer application, growth characteristics, and processing methods. In certain circumstance, it is possible that the lifecycle GHG emissions from bioenergy may not always exhibit emissions lower than that of fossil fuel.<sup>4</sup> Providing the PUC flexibility to require GHG analysis for non-combustion projects offers the potential for lowering the administrative burden for certain technologies which do not have such wide-ranging lifecycle emissions.

Furthermore, the PUC is required to “consider the need to reduce the State’s reliance on fossil fuels through energy efficiency and increased renewable energy generation in exercising its duties” and is required to “explicitly consider” greenhouse gas emissions when making determinations on the reasonableness of the costs pertaining to the electric or gas utility system (HRS §269-96).

The proposed language in HB 2390, HD1, ensures that lifecycle emissions are appropriately considered.

Thank you for the opportunity to testify.

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<sup>1</sup> Act 238 Report (Pages 214-233)

<sup>2</sup> Hawai'i State Energy Office (2023). *Hawai'i Pathways to Decarbonization*, Act 238 Report to the 2024 Hawai'i State Legislature (Act 238 Report). (Page 218)

<sup>3</sup> Supreme Court of the State of Hawai'i. (March 13, 2023) Appeal from the Public Utilities Commission (Docket 2017-0122). Opinion of the Court by Eddin's.

<sup>4</sup> Id (Pages 219-224)

TESTIMONY OF  
LEODOLOFF R. ASUNCION, JR.  
CHAIR, PUBLIC UTILITIES COMMISSION  
STATE OF HAWAII

TO THE  
HOUSE COMMITTEE ON  
CONSUMER PROTECTION & COMMERCE

Wednesday, February 28, 2024  
2:00 p.m.

Chair Nakashima, Vice Chair Sayama, and Members of the Committee:

**MEASURE:** HB 2390, HD 1

**TITLE:** RELATING TO RENEWABLE ENERGY.

**DESCRIPTION:** Requires the PUC to explicitly consider the effect of the State's reliance on fossil fuels on lifecycle greenhouse gas emissions and gives the PUC the discretion to require a lifecycle greenhouse gas emissions assessment for energy projects that do not involve the combustion of fuel.

**POSITION:** The Public Utilities Commission ("Commission") supports this measure and offers the following comments for consideration.

**COMMENTS:** The Commission supports this Administration Bill to clarify that the Commission may require a lifecycle greenhouse gas emissions assessment for energy projects that do not involve the combustion of fuel. The Commission believes that this bill would reduce costs to ratepayers and would support more timely review of projects.

The Commission observes that section 269-6 (b), Hawaii Revised Statutes, currently requires that the Commission "explicitly consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on . . . greenhouse gas emissions." The Commission has worked diligently to examine lifecycle greenhouse gas ("GHG") emissions in its review of power purchase agreements, utility-owned renewable energy projects, and fuel contracts. Considering lifecycle emissions is going to become more critical as more power purchase agreements for new firm renewable generation and new biofuel contracts come before the Commission. This is because the lifecycle carbon intensity (gCO<sub>2</sub>e/MJ) for

different biofuels is wide-ranging and is highly dependent on how feedstock is grown, fertilized, harvested, processed, transported, stored, and combusted.<sup>1</sup>

The Commission observes that unlike the wide range of lifecycle GHG emissions intensities associated with fuel combustion, other renewable technologies have demonstrated a narrower, more predictable range of lifecycle GHG emissions intensities.<sup>2</sup>

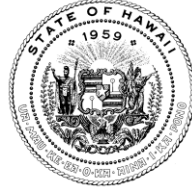
Thank you for the opportunity to testify on this measure.

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<sup>1</sup> See U.S. EPA. "Framework for Assessing Biogenic CO<sub>2</sub> Emissions from Stationary Sources, November 2014 ("EPA Biogenic Emissions Framework"), available at: [snapshot.epa.gov](https://www.epa.gov/snapshots).

See also U.S. EPA Office of the Administrator Science Advisory Board (SAB). "SAB Review of EPA's Accounting Framework for Biogenic CO<sub>2</sub> Emissions from Stationary Sources (2014)," March 2019. available at: [sab.epa.gov](https://www.epa.gov/sab).

<sup>2</sup> See National Renewable Energy Laboratory (NREL), "Life Cycle Greenhouse Gas Emissions from Electricity Generation: Update," September 2021, available at: <https://www.nrel.gov/docs/fy21osti/80580.pdf>.



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DEPUTY DIRECTOR | KA HOPE LUNA HO'OKELE

**Testimony of the Department of Commerce and Consumer Affairs**

**Before the  
House Committee on Consumer Protection & Commerce  
Wednesday, February 28, 2024  
2:00 p.m.  
Conference Room 329**

**On the following measure:  
H.B. 2390, H.D. 1, RELATING TO RENEWABLE ENERGY**

Chair Nakashima and Members of the Committee:

My name is Michael Angelo, and I am the Executive Director of the Department of Commerce and Consumer Affairs (Department) Division of Consumer Advocacy. The Department supports this administration bill.

The purpose of this bill is to require the Public Utilities Commission (Commission) to explicitly consider the effect of the State's reliance on fossil fuels on lifecycle greenhouse gas (GHG) emissions and gives the Commission the discretion to require a lifecycle greenhouse gas emissions assessment for energy projects that do not involve the combustion of fuel.

Currently, under Hawaii Revised Statutes (HRS) § 269-6(b) the Commission, in making a determination of the reasonableness of the costs regarding energy projects of electric and gas systems, is required to consider the State's reliance on fossil fuels on, among other matters, GHG emissions. In 2021, the Legislature clarified that this analysis, including GHG emissions, is not required for a utility's routine system replacements, such

as for overhauls and overhead or underground line determinations, or determinations that do not pertain to capital improvements or operations, including but not limited to financing requests (see HRS § 269-6(c)).

This bill revises the current provisions of HRS § 269-6(b) to clarify that while the Commission is still required to consider the effect of the State's reliance on fossil fuels on lifecycle GHG emissions, the Commission may or may not require lifecycle GHG emission assessments for energy projects that do not involve the combustion of fuel. The Department understands that this bill will give the Commission discretion to conduct lifecycle GHG emission assessments for energy projects that do not combust fuel.

The Department offers that the proposed statutory language could be ambiguous in specifying which energy projects the Commission would have discretion on for requiring GHG analyses. The Department respectfully recommends that if the Legislature advances this measure, it should amend the proposed additional language in HRS § 269-6(b)(4) as follows: "provided that the public utilities commission may require a lifecycle greenhouse gas emissions assessment for ~~energy projects~~ to generate electrical energy that do not involve ~~the combustion of fuel.~~"

Thank you for the opportunity to testify on this administration bill.



**Hawaiian  
Electric**

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON  
CONSUMER PROTECTION & COMMERCE**

**HB 2390, HD1  
Relating to Renewable Energy**

Wednesday, February 28, 2024  
2:00 PM  
State Capitol, Conference Room 329

James Abraham  
Associate General Counsel  
Hawaiian Electric

Dear Chair Nakashima, Vice Chair Sayama, and Members of the Committee,

My name is James Abraham and I am testifying on behalf of Hawaiian Electric supporting the intent, but requesting amendments to HB 2390, HD1, Relating to Renewable Energy.

The original intent of this bill was to clarify the types of proceedings before the Public Utilities Commission (“PUC”) that require greenhouse gas (“GHG”) analyses, and limit the required analyses to projects that concern generation of energy. Projects that require this additional analysis should generally be limited to generation projects that include operational fuel combustion for electric generation as opposed to renewable generation projects, such as solar and wind, that do not combust fuel for electric generation and therefore do not entail such GHG emissions.

We support the original intent of this bill because it would reduce administrative inefficiency, save time and lessen costs not only for Hawaiian Electric and its customers, but also the PUC and the Consumer Advocate which spend significant resources on GHG analyses. However, the current language of this bill may be

ambiguous, potentially requiring GHG analyses for generation-related projects that do not involve the combustion of fuel. Accordingly, Hawaiian Electric respectfully proposes the below amendment on page 4, lines 2-6:

(4) Lifecycle greenhouse gas emissions **for projects involving the combustion of fuel**; provided that the public utilities commission may require a lifecycle greenhouse gas emissions assessment for energy projects that do not involve the combustion of fuel.

This aligns with the proposed language submitted by the PUC and the Hawaii State Energy Office in their testimonies for the Energy and Environmental Protection Committee hearing on February 1, 2024. As provided in the current language of the bill, the PUC would retain discretion to require a GHG analysis for non-combustion projects on a case-by-case basis.

In addition, the defined term “lifecycle greenhouse gas emissions assessment” as currently drafted appears overbroad, as it uses the vague term “environmental impact” which should instead be focused on an evaluation of lifecycle GHG emissions consistent with the language of § 269-6(b)(4). In order to appropriately tailor the definition, Hawaiian Electric requests the below amendment on page 2, lines 15-20:

“Lifecycle greenhouse gas emissions assessment” means the ~~[method used to estimate the environmental impact of a product, project, or fuel's value chain]~~ **evaluation of potential greenhouse gas emissions over the course of a project's lifetime or stages of the production and use**



of a fuel, which [~~shall~~] includes s, as applicable,  
upstream stages such as extraction and processing of raw  
materials, manufacturing and processing of materials,  
and transportation; operations; and downstream stages  
such as transportation [~~distribution, lifetime use~~],  
decommissioning, recycling, and the final disposal.

The above clarified definition will ensure that a project's three main stages of potential direct and indirect GHG emissions: upstream, operations, and downstream, are all captured. Recognizing that not all projects include the same level of emissions at these various stages, the stages should be assessed as applicable to the particular project at issue.

Hawaiian Electric appreciates the Committee's consideration of its comments on and proposed amendments to HB 2390, HD1. Thank you for this opportunity to testify.

**HB-2390-HD-1**

Submitted on: 2/23/2024 6:45:53 PM

Testimony for CPC on 2/28/2024 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Scott Kidd	Individual	Support	Written Testimony Only

Comments:

I support this measure and movement to a green/renewable energy system