



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
KA 'OIHANA PILI KĀLEPA
335 MERCHANT STREET, ROOM 310
P.O. BOX 541
HONOLULU, HAWAII 96809
Phone Number: (808) 586-2850
Fax Number: (808) 586-2856
cca.hawaii.gov

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

NADINE Y. ANDO
DIRECTOR | KA LUNA HO'OKELE

DEAN I HAZAMA
DEPUTY DIRECTOR | KA HOPE LUNA HO'OKELE

Testimony of the Department of Commerce and Consumer Affairs

**Before the
Senate Committee on Commerce and Consumer Protection
Wednesday, March 27, 2024
9:30 a.m.
Conference Room 229**

**On the following measure:
H.B. 2390, H.D. 2, RELATING TO RENEWABLE ENERGY**

WRITTEN TESTIMONY ONLY

Chair Keohokalole 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 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.

Hawaii Revised Statutes (HRS) § 269-6(b) requires the Commission to consider the State's reliance on fossil fuels on, among other factors, GHG emissions when determining the reasonableness of the costs of capital improvements and operations. The Department appreciates the bill's specification that GHG emissions analyses use a

lifecycle analytical framework because it provides the most accurate representation of a project's impact on GHG emissions over its lifetime.

The Department understands the intent of the bill to be to enable a new discretionary category for non-combusting electrical energy generation projects, such as wind and solar, because their net lifecycle GHG emissions are often minimal and enable the Commission to exercise discretion on whether GHG emissions analysis is required on those types of projects which decrease system emissions.

The Department has noted that the bill's current language may have unintended consequences, however, such as opening a potential loophole for GHG emissions analyses to be deemed discretionary for gas utility projects. (To explain, a gas utility could potentially make a case under the current version's language that a project should qualify for the Commission's discretion about performing a GHG analysis or not because such a proposed project will not involve combustion on its side of the meter, arguing that its customers would be the entities combusting the fuel.) The Department hopes that the bill's intent is to continue to maintain the mandatory requirement that gas utility projects must undergo GHG analyses.

For this and other concerns, the Department worked with the Commission and the Hawaii State Energy Office on several further amendments to improve and clarify the bill's language describing lifecycle analyses and the new discretionary category of non-combusting projects. The Department, the Commission, and the Hawaii State Energy Office were able to agree on the following recommended amendments to H.B. 2390, H.D.2:

Section 269-1, Hawaii Revised Statutes

"Lifecycle greenhouse gas emissions assessment" means the evaluation of potential greenhouse gas emissions over the course of a product, program, or project's lifetime or stages of the production, construction, operations and decommissioning ~~use of a fuel,~~ which includes but is not limited to, as applicable, upstream stages such as extraction and processing of raw materials, manufacturing and processing of materials, and transportation; operations stages such as the use of any fuels or feedstocks and production of any materials;

and downstream stages such as transportation, decommissioning, recycling, and the final disposal.

Section 269-6, Hawaii Revised Statutes

(b) The public utilities commission shall consider the need to reduce the State's reliance on fossil fuels through energy efficiency and increased renewable energy generation in exercising its authority and duties under this chapter. In making determinations of the reasonableness of the costs pertaining to electric or gas utility system capital improvements and operations, the commission shall explicitly consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on:

- (1) Price volatility;
- (2) Export of funds for fuel imports;
- (3) Fuel supply reliability risk; and

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

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

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

TO THE
SENATE COMMITTEE ON
COMMERCE AND CONSUMER PROTECTION

Wednesday March 27, 2024
9:30 a.m.

Chair Keohokalole, Vice Chair Fukunaga, and Members of the Committee:

MEASURE: HB 2390, HD 2

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. Effective 7/1/3000. (HD2)

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 waive requirement for a lifecycle greenhouse gas emissions assessment for energy projects that do not involve combustion. 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 (gCO₂e/MJ) for different biofuels,

which include solid, liquid, and gaseous fuels, is wide-ranging and is highly dependent on how feedstock is grown, fertilized, harvested, processed, transported, stored, and combusted.¹

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 and appreciates the discretionary authority over GHG analyses for these types of projects.²

The Commission has conferred with the Division of Consumer Advocacy and the State Energy Office and recommends the following amendments to the measure:

Page 2, Lines 15-20:

(4) "Lifecycle greenhouse gas emissions assessment" means the evaluation of potential greenhouse gas emissions over the course of a product, program, or project's lifetime or stages of the production, construction, operations and decommissioning ~~use of a fuel~~, which includes but is not limited to, as applicable, upstream stages such as extraction and processing of raw materials, manufacturing and processing of materials, and transportation; operations stages such as the use of any fuels or feedstocks and production of any materials; and downstream stages such as transportation, decommissioning, recycling, and the final disposal."

Page 4, Lines 4-9:

In making determinations of the reasonableness of the costs pertaining to electric or gas utility system capital improvements and operations, the commission shall explicitly

¹ See U.S. EPA. "Framework for Assessing Biogenic CO2 Emissions from Stationary Sources, November 2014 ("EPA Biogenic Emissions Framework"), available at: [snapshot.epa.gov](https://www.epa.gov/snapshots/epa-biogenic-emissions-framework).

See also U.S. EPA Office of the Administrator Science Advisory Board (SAB). "SAB Review of EPA's Accounting Framework for Biogenic CO2 Emissions from Stationary Sources (2014)," March 2019. available at: [sab.epa.gov](https://www.epa.gov/sab/sab-review-of-epa-s-accounting-framework-for-biogenic-co2-emissions-from-stationary-sources).

² 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>.

consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on:

- (1) Price volatility;
- (2) Export of funds for fuel imports;
- (3) Fuel supply reliability risk; and
- (4) Lifecycle greenhouse gas emissions ~~for projects involving the combustion of fuel~~; provided that the public utilities commission may waive the requirement for ~~require~~ a lifecycle greenhouse gas emissions assessment for energy projects that do not involve ~~the combustion of fuel~~.

Thank you for the opportunity to testify on this measure.



STATE OF HAWAII
HAWAII CLIMATE CHANGE MITIGATION & ADAPTATION
COMMISSION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
Leah Laramee
Coordinator, Hawai'i Climate Change Mitigation and Adaptation Commission

Co-Chairs:
Chair, DLNR
Director, OPSD

Commissioners:
Chair, Senate AEN
Chair, Senate WTL
Chair, House EEP
Chair, House WAL
Chairperson, HTA
Chairperson, DOA
CEO, OHA
Chairperson, DHHL
Director, DBEDT
Director, DOT
Director, DOH
Chairperson, DOE
Director, C+C DPP
Director, Maui DP
Director, Hawai'i DP
Director, Kaua'i DP
The Adjutant General
Manager, CZM

Before the Senate Committee on
Commerce and Consumer Protection

Wednesday March 27, 2024
9:30 AM

State Capitol, Via Videoconference, Conference Room 415

In support of
House Bill 2390 House Draft 2
RELATING TO RENEWABLE ENERGY

House Bill 2390 HD2 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. **The Hawai'i Climate Change Mitigation and Adaptation Commission (Commission) supports this measure.**

The Commission is a multi-jurisdictional effort between 20 different State and county departments, and Legislative committees. The state has mandated goals to be carbon net negative by 2045 and the HD2 version of this bill supports efforts to achieve that goal. 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.¹ Lifecycle assessment provides a framework for the PUC to consider the environmental and greenhouse gas implications of projects seeking PUC approval, facilitating informed decision-making and the PUC's requirement to protect the public interest.² Carbon intensity for different biofuels is wide-ranging and is highly dependent on feedstock characteristics, fertilizer application, growth characteristics, and processing methods the lifecycle GHG emissions from bioenergy may not always exhibit emissions lower than that of fossil fuel.

¹ Hawai'i State Energy Office (2023). Hawai'i Pathways to Decarbonization, Act 238 Report to the 2024 Hawai'i State Legislature (Act 238 Report) at p. 218.

² See In re Haw. Electric Light Co, Inc., SCOT-22-0000418 (2023).

This bill aligns with the 2023 HSEO Decarbonization Report, Chapter 5 and the state's efforts to be carbon net negative by 2045. The 2024 Priority Climate Action Plan³ recently released by the Commission identifies numerous projects that support these goals by looking at and reducing lifecycle carbon emission. By giving the PUC flexibility to require GHG analysis for non-combustion projects this bill will ensure we are taking the correct steps to achieve these goals.

Mahalo for the opportunity to testify in support of this measure.

³ Climate Change Mitigation and Adaptation Commission (2024) Hawai'i Priority Climate Action Plan <https://climate.hawaii.gov/wp-content/uploads/2024/03/Hawaii-PCAP-FINAL-March-1-2024-1-3.pdf>



**Hawaiian
Electric**

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

**HB 2390, HD2
Relating to Renewable Energy**

Wednesday, March 27, 2024
9:30 AM
State Capitol, Conference Room 229

James Abraham
Associate General Counsel
Hawaiian Electric

Dear Chair Keohokalole, Vice Chair Fukunaga, and Members of the Committee,

My name is James Abraham and I am offering written testimony on behalf of Hawaiian Electric in **strong support** of HB 2390, HD2, Relating to Renewable Energy.

This bill aims to clarify the types of proceedings before the Public Utilities Commission (“PUC”) that require greenhouse gas (“GHG”) analyses and limit the required analysis to projects that concern combustion of fuel while providing the PUC discretion to order such analysis for other projects as needed. This additional analysis should generally be limited to generation projects that include operational fuel combustion 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.

This bill requires lifecycle GHG analyses for combustion projects to ensure the PUC is fully informed in its decision-making, which aligns with the intent of HRS § 269-6(b). The emissions of a proposed combustion project will be analyzed by examining the three main stages of potential direct and indirect GHG emissions: upstream,

operations, and downstream. Recognizing that not all projects include the same level of emissions at these various stages, the stages will be assessed as applicable to the particular project at issue. For all projects that do not involve the combustion of fuel, the PUC would retain discretion to require a GHG analysis on a case-by-case basis.

We support 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.

Hawaiian Electric appreciates the opportunity to testify in strong support of HB 2390, HD2. Thank you.

HB-2390-HD-2

Submitted on: 3/26/2024 4:35:00 AM

Testimony for CPN on 3/27/2024 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Noel Morin	Individual	Support	Written Testimony Only

Comments:

Dear Chair Keohokalole, Vice-Chair Fukunaga, and Committee members,

I am in support of HB 2390 HD2.

Assessing the full lifecycle emissions of the energy solutions we adopt allows us to understand better and manage our decisions' long-term systemic impact. This means understanding the cradle-to-cradle cycle for each solution—what's required to source and extract the raw minerals, manufacture equipment, transport, operate, sunset, and recycle/dispose.

This understanding allows us to assess each specific project better and avoid blanket conclusions based on generalizations about each solution. It also encourages a more circular approach and will help us avoid unintended, undesirable consequences.

HB 2390 HD2 enables this understanding. Please support this measure.

Noel Morin

Climate, Sustainability, and Resilience Advocate

Hilo, Hawaii