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

before the  
**SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT**

Wednesday, February 7, 2024  
1:00 PM  
State Capitol, Conference Room 224 and Videoconference

Providing Comments on  
**SB 3079**

## **RELATING TO RENEWABLE ENERGY.**

Chair Gabbard and Vice Chair Richards, and Members of the Committee, the Hawai'i State Energy Office (HSEO) appreciates the opportunity to provide comments on SB 3079, which amends Hawai'i Revised Statutes §269-6 to clarify that the Public Utilities Commission (PUC) shall consider the effect of the State's reliance on fossil fuels on generation-based greenhouse gas emissions and may require a greenhouse gas emissions analysis for energy projects that do not result in generation-based greenhouse gas emissions.

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, and comments on this bill are guided by findings and recommendations of the Hawai'i Pathways to Decarbonization Report to the 2024 Hawai'i State Legislature submitted by Act 238 Sessions Laws of Hawai'i, 2022.

While HSEO supports the intent of SB 3079 and agrees HSEO is concerned that the language amending HRS §269-6 currently proposed in this bill is ambiguous and may preclude appropriate lifecycle assessment, by only calling out "generation-based greenhouse gas emissions", which is not defined and could be open to interpretation. If the "generation-based emissions" are interpreted as "stack emissions" or emissions that

occur during the combustion or generation process, upstream emissions would not be appropriately considered.

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>1</sup> 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.<sup>2</sup>

The bill's language is also inconsistent with findings and recommendations from the recent HSEO Act 238 Report, Chapter 5.<sup>3</sup> The importance of considering lifecycle emissions is going to become more critical as more biofuel-powered projects and biofuel contracts come before the Commission. This is 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. Thus, the lifecycle GHG emissions from bioenergy may not always exhibit emissions lower than that of fossil fuel.<sup>4</sup>

Currently, 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). Omitting lifecycle GHG emissions would not be consistent with the intent of this bill, and the PUC's requirement to protect public interest.

Therefore, HSEO recommends the suggested language be modified to ensure project- and fuel-specific lifecycle assessment is included within the PUC's approval

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<sup>1</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>2</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>3</sup> Act 238 Report (Pages 214-233)

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

process. Further HSEO recommends lifecycle greenhouse gas emissions be defined in HRS §269-1.

Accordingly, HSEO recommends the following changes to amend HRS §269-6 – General powers and duties:

(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 fuel combustion; 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.

HSEO also recommends the bill include the definition of lifecycle emissions in HRS §269-1.

"Lifecycle greenhouse gas emissions assessment" - means the method used to estimate the environmental impact of a product or fuel based on a set of established system boundaries for the product, project, or fuel's value chain - which shall include extraction and processing of raw materials, manufacturing and processing of materials, transportation and distribution, lifetime use, recycling, and the final disposal.

Thank you for the opportunity to testify.