



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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

before the  
**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

Tuesday, March 19, 2024  
10:00 AM  
State Capitol, Conference Room 325 and Videoconference

Providing Comments on  
**SB 3360, SD1**

## **RELATING TO RENEWABLE FUEL.**

Chair Lowen, Vice Chair Cochran, and members of the Committee, the Hawai'i State Energy Office (HSEO) provides comments on SB 3360, SD1, which 1) updates the Renewable Fuels Production Tax Credit (RFPTC) to incentivize locally grown, produced, generated, or collected renewable fuel; 2) extends the credit period from ten to twenty consecutive years; and 3) increases the total amount of tax credits allowed in any calendar year.

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 appreciates the intent of the proposal to expand the RFPTC, which is a significant financial incentive for renewable fuel producers and contributes to achieving greater energy security for Hawai'i. HSEO recommended in the recent HSEO Act 238 Report the following actions to improve the efficacy of the RFPTC: 1) requiring renewable fuel to meet an established lifecycle carbon intensity threshold; 2) lowering the production minimum to allow for smaller renewable fuels producers to take advantage of the tax credit; and 3) removing or extending the 10-year eligibility limit as

desirable means to expand the RFPTC.<sup>1</sup> HSEO appreciates that the recommendations of the Act 238 report are reflected in this bill.

HSEO recommends the following changes to SB 3360, SD1, distinguished in **bold**. The rationale for each change is provided below each suggested change.

**Page 2, line 19**

For each taxpayer producing renewable fuels, the annual dollar amount of the renewable fuels production tax credit during the twenty-year credit period shall ~~[be]~~ include an amount equal to **20 ~~35~~** cents per seventy-six thousand British thermal units of renewable fuels using the lower heating value sold for distribution in the State;

**Page 3, lines 1-3**

... provided that the taxpayer's production of renewable fuels is not less than two billion five hundred million British thermal units lower heating value of renewable fuels per calendar year;

**Page 3, lines 7 through 12**

provided further that there shall be an additional credit value of ~~\$1.00 per gallon~~ 15 cents per seventy-six thousand British thermal units of renewable fuels using the lower heating value for renewable fuels, inclusive of sustainable aviation fuels, produced from renewable feedstock locally grown or recycled in the State; ~~provided further that there shall be an additional credit of \$1 per gallon for the production of sustainable aviation fuel;~~

HSEO supports extending the duration of the tax credit. However, while HSEO supports increasing the credit for renewable fuels producers, HSEO believes the current credit amount of 20 cents per 76,000 Btu using lower heating value (LHV) is adequate to incentivize the production of renewable fuels with imported feedstock and the additional credit of 15 cents per 76,000 Btu LHV may be best suited for fuels produced using local feedstock. While HSEO supports the production of aviation fuels and notes

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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 11)

the volume needed to meet our state's decarbonization goals is substantial, allowing an additional \$1 per gallon credit for the production of sustainable aviation fuel is excessive and may not be a prudent use of state funds.

Further, HSEO requests that British thermal units with lower heating values be specified to ensure appropriate calculations and energy conversions. HSEO recommends consistent units of energy be used for the tax credit, as gallons may not be the most appropriate for certain fuel types, such as natural gas which is more commonly measured in units of volume. Accordingly, the use of the British thermal unit (btu) derived using the lower heating value is an appropriate metric to compare energy sources, or fuels, on an equal basis, and consistency allows for easier accounting and verification.

HSEO understands that there will be substantial demand for sustainable aviation fuel; however, granting sustainable aviation fuel an additional credit of potentially two dollars per gallon is extensive, and could compete unfairly for the tax credit based on the volume of fuel needed for aviation and the tax credit cap, which is set-up to be allocated to each eligible taxpayers for each given year in proportion to the total amount of renewable fuels produced.

**Page 3, lines 13 through 14**

provided further that the tax credit shall only be claimed for fuels with lifecycle emissions at least seventy-five per cent below that of fossil fuels in which the renewable fuel is most likely to replace.

**The same edit should be carried through on Page 5, lines 2-3**

(3) Provide the taxpayer with a determination of whether the lifecycle greenhouse gas emissions for each type of qualified fuel produced is lower than that of fossil fuels[-] and whether the lifecycle greenhouse gas emissions for each type of qualified fuel produced is seventy-five per cent lower than that of the fossil fuel in which the renewable fuel is most likely to replace."

HSEO recommends specifying the comparison of fossil fuel be the fuel in which the renewable fuel receiving the tax credit is most likely to replace. Without this specification, it is difficult to compare, as all fuels have wide-ranging lifecycle emissions or carbon intensities. Further, HSEO recommends this is consistent with federal treasury tax credit guidance.<sup>2</sup>

**Page 6, Line item 1-6**

"Lifecycle greenhouse gas emissions" means the aggregate attributional core lifecycle greenhouse gas emissions values including upstream emissions, midstream emissions, transportation emissions, and generation or operational emissions. utilizing the most recent version of Argonne National Laboratory's Greenhouse Gases, Regulated Emissions, and Energy use in Technologies (GREET) Model, inclusive of agricultural practices and carbon capture sequestration.

Regarding requiring the use of the GREET model, HSEO advises that while HSEO uses the GREET model to verify the emissions analysis after submittal and has included reference to the model in its guidance documents for the credit, the GREET model may not be the best accounting tool to capture lifecycle emissions in certain circumstances. For example, there are occasions when renewable fuels producers may have completed a more individualized and comprehensive GHG analysis and submitted it to another regulatory agency for fuel contracts to the utility.

Finally, guidance from the Environmental Protection Agency (EPA) renewable fuels program suggests that sequestration activities, unrelated to the production of the fuels, not be included in the lifecycle analysis.<sup>3</sup> The lifecycle assessment of fuel production should not include activities that are unrelated to the fuel lifecycle (e.g.,

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<sup>2</sup> <https://www.catf.us/2023/12/new-treasury-tax-credit-guidance-sustainable-aviation-fuels-enhance-carbon-intensity-assessments-better-account-indirect-land-use-change-emissions/#:~:text=To%20qualify%20for%20the%20credit,conventional%20petroleum%2Dderived%20jet%20fuel>.

<sup>3</sup> US Environmental Protection Agency (2023). Lifecycle Analysis of Greenhouse Gas Emissions under the Renewable Fuel Standard. Available at: <https://www.epa.gov/renewable-fuel-standard-program/lifecycle-analysis-greenhouse-gas-emissions-under-renewable-fuel#:~:text=The%20EPA's%20assessment%20of%20fuel,employees%20commuting%20to%20the%20facility>).

offset projects) or emissions associated with physical and organizational infrastructure (e.g., facility construction, employees commuting to the facility). Accordingly, HSEO recommends only onsite sequestration activities directly related to the production of the fuels, e.g. soil amendments and climate-smart agricultural practices be included in the emissions analysis. These activities would automatically be included in the upstream emissions/feedstock analysis; therefore, HSEO recommends removing language referencing carbon capture sequestration to avoid potential misinterpretation.

Thank you for the opportunity to testify.