

UNIVERSITY OF HAWAI'I SYSTEM 'ÕNAEHANA KULANUI O HAWAI'I

Legislative Testimony Hōʻike Manaʻo I Mua O Ka ʻAhaʻōlelo

Testimony Presented Before the Senate Committee on Energy, Economic Development, and Tourism Senate Committee on Agriculture and Environment Tuesday, January 30, 2024 at 1:01 p.m. By Richard Rocheleau, Director Hawai'i Natural Energy Institute School of Ocean and Earth Science and Technology And Michael Bruno, PhD Provost University of Hawai'i at Mānoa

SB 2102 - RELATING TO RENEWABLE ENERGY

Chairs DeCoite and Gabbard, Vice Chairs Wakai and Richards, and members of the Committees:

The Hawai'i Natural Energy Institute (HNEI), offers comments on SB 2102 that proposes to eliminate biomass from the renewable portfolio standard definition of "renewable energy". The Hawai'i State Energy Office (HSEO) has submitted testimony referencing their recently completed Hawai'i Pathways to Decarbonization Report, submitted to the Hawai'i Legislature in December of 2023 and calling attention to one of the recommendations of that report to "consider lifecycle carbon intensity for biomass, biofuels, and certain hydrogen produced from renewable resources" and suggesting that it "may be more appropriate to set carbon intensity standards to incentivize low carbon energy resources and to penalize higher carbon energy resources rather than to completely eliminate a renewable resource".

HNEI has reviewed dozens of references analyzing LCA emissions for various energy technologies and conducted its own in-house analysis of these reports. The GHG emissions associated with the bioenergy sources, including biomass and biofuels were found to be highly dependent on the feedstock, the agricultural or forestry practices, and the processing to produce energy or fuel. Depending upon these conditions, LCA emissions from these bioenergy resources ranged from very beneficial compared to fossil fuels to similar or even worse than the combustion of oil. For these reasons HNEI agrees with the comments and recommendations made by HSEO.

Thank you for the opportunity to provide this testimony on SB 2102