



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Ways and Means
Thursday, February 24, 2022 at 10:00 a.m.

By

Richard Rocheleau, Director
Hawai'i Natural Energy Institute

And

Michael Bruno, PhD
Provost

University of Hawai'i at Mānoa

SB 2510 SD1 – RELATING TO RENEWABLE ENERGY

Chair Dela Cruz, Vice Chair Keith-Agaran, and members of the committee:

SB 2510 SD1 proposes to establish specific mandates for the minimum percentages of annual firm renewable energy generation and maximum energy contribution of any individual technology on each of the island grids. Such mandates have the stated intention of achieving “greater diversification of renewable energy generation to include intermittent and firm renewable generation to improve reliability and achieve one hundred per cent renewable energy objectives.” These mandates also have the intention of providing “reliable replacement of fossil fuel generation with firm renewable generation.” SB 2510 also appropriates funds out of the energy systems development special fund for the Hawai'i Natural Energy Institute (HNEI) to conduct a study to update, on a regular basis, the minimum percentage of firm generation and the maximum proportion of any one renewable energy source on each island.

As stated in previous testimony, HNEI **supports the intent** of this bill, but we are concerned that a legally-binding fixed minimum percentage of renewable energy from firm generation is overly prescriptive at this time. While HNEI analysis to date shows that significant amounts of firm **capacity** will be required to reach our 100% goals and to ensure grid reliability, but the use of this capacity should be the most economic dispatch to ensure reliable grid operations and should not preclude the opportunity to integrate lower cost variable renewable energy.

Consistent with our statutory role, HNEI collaborates with and provides analysis and technical assistance to key energy stakeholders including the Hawai'i Public Utilities Commission, the Hawai'i State Energy Office, and the Hawaiian Electric Company (HECO) to help address these issues. If so directed, HNEI would enthusiastically work in collaboration with these and other stakeholders to develop a suite of energy options that addresses the issues identified in SB 2510 SD1.

In regard to timing and funding, HNEI also respectfully offers the following suggestions for consideration.

Section 7: Given the desire to include all islands and with the rapidly changing cost and availability of the various renewable energy sources we respectfully suggest amending Section 7 state “The Hawai’i Natural Energy Institute shall conduct an initial study followed by regular updates to identify the recommended percentages of firm renewable generation and diversity of the energy portfolio for each island necessary to ensure that the reliability of the electrical grid is equal to or better than that achieved during the 2021 calendar year. A preliminary report shall be submitted to the legislature twenty days prior to the convening of the regular session of 2023 with a final report to be submitted twenty days ahead of the 2024 legislature with updates to be submitted every two years after the 2024 submission.

Section 8: HNEI currently has sufficient funds from its Barrel Tax allocation to conduct this study and does not need a separate appropriation. We believe that a direct request for HNEI to utilize funds from its allocation of the barrel tax would be a more efficient process than a separate appropriation.

Thank you for the opportunity to provide this testimony on SB 2510 SD1.