



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
Senate Committee on Energy, Economic Development, and Tourism
Senate Committee on Agriculture and Environment
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By

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SB 2451 – RELATING TO AN ATMOSPHERIC CARBON CAPTURE PLANT

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

The Hawaii Natural Energy Institute (HNEI), offers comments on SB 2451 that directs the Hawaii State Energy Office (HSEO), in conjunction with HNEI, to develop and submit a strategy report for the construction of at least one atmospheric carbon capture plant in the State by 2029. HSEO, in their testimony, provides definitions of a number of carbon capture strategies each involving some methodology for the removal and concentration of CO₂ from its source, and some method for utilization or long term storage. HSEO also discusses the significant energy inputs required for current Direct Air Capture (DAC) technology.

While carbon capture may eventually be a critical component of any carbon reduction scheme it is not, at this time, as effective or as cost effective for Hawai'i as continued efforts to reduce our use of fossil fuels and to increase efficiency in all the energy sectors. Reports regarding carbon capture, and in particular, Direct Air Capture indicate significant energy consumption for operation. To have a significant impact these plants will need to have very high capacity (i.e. be large), and be located where low-cost renewable energy is plentiful. We believe this may be a significant barrier for deployment in Hawai'i. Additionally, overall success of any strategy for CO₂ removal from the air will require local solutions for long-term sequestration. While geologic or ocean sequestration may be possible in HI, neither the technology, the cost nor the assurance of success exists today.

In summary, HNEI believes that it is premature to develop a strategy for development of a carbon removal plant in the timeframe proposed for both technical and cost reasons.

However, given the local interest and ongoing global effort to improve these technologies, HNEI would willingly participate in developing a more detailed assessment of current removal technologies including, state-of-readiness for commercial deployment, energy requirements, and full life-cycle emissions (or reductions); and working with a consortium of relevant partners to identify and assess the various opportunities for long-term sequestration in Hawai'i .

Thank you for the opportunity to provide this testimony on SB 2451