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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
HOUSE COMMITTEE ON FINANCE

Tuesday, April 2, 2024
4:00 PM
State Capitol, Conference Room 308 and Videoconference

Providing Comments on
SB 2518, SD2, HD1

RELATING TO GEOTHERMAL ENERGY EXPLORATION.

Chair Yamashita, Vice Chair Kitagawa, and members of the Committee, the Hawai'i State Energy Office (HSEO) offers comments supporting the intent of SB 2518, SD2, HD1, which provides resources for the Hawai'i State Energy Office to conduct and administer a statewide environmental assessment for a geothermal resource characterization program under the direction of the Hawai'i Groundwater and Geothermal Resources Center of the University of Hawai'i.

HSEO affirms the noble purpose of this measure as an essential first step to inform the location and value of potential water, geothermal, and geological resources. However, HSEO respectfully suggests removing 'environment' to all references of 'environmental assessment' to avoid confusion with Hawai'i's environmental review process.

Because geothermal exploration and identification requires a significant investment by developers of upfront capital, it is appropriate for the State to provide underlying research to confirm the viability of geothermal, an important dispatchable renewable energy resource. The measure appropriately identifies University of Hawai'i's Groundwater and Geothermal Resources Center as the appropriate research organization to work with HSEO to stimulate the private sector investment for

geothermal electricity power generation. Such exploratory activities can also indicate the existence of geothermal for other uses such as direct use of steam from the ground. Data and knowledge gained from exploration can also provide information about resources such as groundwater and about soil composition for potential locations for carbon sequestration.

In 2023, HESO analyzed market gaps in firm renewable resources and long duration storage, especially geothermal and pumped hydro, and developed policies and pursued funding opportunities to fill those gaps. Geothermal energy is heat that was generated during the planet's formation and stored in rock and fluids and brought as steam to the earth's surface using deep wells. The steam drives turbines to generate electricity. Geothermal was identified as both a near-term and mid-term decarbonization opportunity in the *Hawai'i Pathways to Decarbonization Report*, submitted to the 2024 Hawai'i Legislature.¹

Accordingly, HSEO believes geothermal energy has the potential to play an extremely significant role in meeting Hawai'i's energy objectives of reliability, affordability, and diversification. That is why geothermal resources are a key part of Hawai'i's energy strategy as an indigenous source of dispatchable renewable energy for electricity production, with the potential for any excess to be used for the production of green hydrogen.

HSEO defers to the appropriate agencies for comment on the fiscal, administrative, and regulatory impacts of this bill.

Thank you for the opportunity to testify.

¹ Hawai'i State Energy Office. *Hawai'i Pathways to Decarbonization*. 2023. https://energy.hawaii.gov/wp-content/uploads/2022/10/Act-238_HSEO_Decarbonization_FinalReport_2023.pdf