



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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Testimony of
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before the
SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

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9:30 AM

State Capitol, Conference Room 229 and Videoconference

Providing Comments on
SENATE BILL NO. 133 SD1

RELATING TO ENERGY.

Chair Keohokalole, Vice Chair Fukunaga, and members of the Committee, Hawai'i State Energy Office (HSEO) respectfully offers comments on Senate Bill 133 SD1, which authorizes State facilities to wheel electricity that is produced by their own facility from renewable energy sources to another State facility pursuant to administrative rules established by the Public Utilities Commission (PUC) and requires the PUC submit a report to the Legislature.

HSEO supports the concept of intragovernmental wheeling but emphasizes the need to approach wheeling with care, primarily to avoid unintended impacts on the overall electricity grid.

HSEO wishes to inform the Committee that unintended consequences of electricity wheeling may result under certain design parameters. Such consequences include inequities from additional costs associated with generation not benefitting all utility customers, costs associated with necessary transmission and distribution measures proposed by the utility for grid stability, and costs associated with overdesign of mitigation measures and methods to attain efficient means of managing and accounting for wheeling transactions. Assessing these impacts in advance of deploying wheeling is prudent and consistent with the intent of interconnection studies required by the electric utility to understand potential increased load or loss of load circumstances. Among the specific issues for assessment and consideration of prevention measures are overabundance of load that overwhelms and congests the transmission lines and can lead to overheating and sagging of the transmission lines which can eventually lead to failure of the lines, system imbalances, unanticipated power flows, and instability. The additional loads from electricity wheeling could lead to higher stress on the transmission and distribution system and that an increased frequency of transmission system maintenance, updates, and replacements may be required.

With those caveats in mind, HSEO supports the exploration of intragovernmental wheeling since it has the potential to equitably improve the affordability of electricity and integrate more renewable energy into each of Hawai‘i’s six independent electricity grids. HSEO also supports the concept of sharing bill credits between government agencies to explore intragovernmental wheeling.

HSEO also cautions that exploring intragovernmental wheeling may not necessarily answer the fundamental question of whether wheeling, deployed broadly in Hawai‘i, would be in the public interest. Intragovernmental wheeling and wholesale wheeling in Hawai‘i could likely diverge and have very different impacts from broader island-wide deployment of wholesale wheeling. The mechanisms used in intragovernmental wheeling may not be scalable to use in wholesale wheeling. HSEO suspects that further investigation would have to occur post-intragovernmental wheeling before wholesale wheeling could be initiated and before answering the question of whether intragovernmental wheeling in Hawai‘i is in the public interest.

Given HSEO’s support of increasing electricity affordability and increasing renewable energy generation, HSEO supports intragovernmental wheeling through SB133 SD1 but cautions the Legislature to ensure the design parameters prevent inequity and ensure grid and cost stability.

Thank you for the opportunity to testify.