



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

SCOTT J. GLENN  
CHIEF ENERGY OFFICER

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Testimony of  
**SCOTT J. GLENN, Chief Energy Officer**

before the  
**SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM  
AND  
COMMITTEE ON GOVERNMENT OPERATIONS**

Wednesday, February 9, 2022  
3:00 PM  
State Capitol, Conference Room 224 & Videoconference

**COMMENTS  
SB 3229  
RELATING TO GEOTHERMAL ROYALTIES.**

Chairs Wakai and Moriwaki, Vice Chairs Misalucha and Dela Cruz, and Members of the Committees, the Hawaii State Energy Office (HSEO) offers comments on SB 3229, which increases the percentage of royalties received by the State from geothermal resources that are to be paid to the county in which the geothermal resources are located, requires the royalties paid to a county to be used for further geothermal resources discovery and development, and requires the county to submit an annual report to the Legislature.

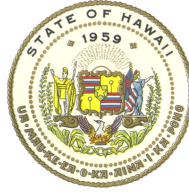
HSEO's comments are guided by its mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy.

HSEO believes geothermal energy can play a significant role in achieving 100% renewable energy generation statewide and supports incentives for its development. Royalties from geothermal development play an important role in its regulation and the administration of state and county programs related to geothermal.

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

Thank you for the opportunity to testify.

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**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

**Testimony of  
SUZANNE D. CASE  
Chairperson**

**Before the Senate Committees on  
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM  
and  
GOVERNMENT OPERATIONS**

**Wednesday, February 9, 2022  
3:00 PM**

**State Capitol Conference Room 224, Via Videoconference**

**In consideration of  
SENATE BILL 3229  
RELATING TO GEOTHERMAL ROYALTIES**

Senate Bill 3229 proposes to: (1) Increase the percentage of royalties received by the State from geothermal resources that are to be paid to the county in which the geothermal resources are located, (2) Require the royalties paid to a county to be used for further geothermal resources discovery and development, and (3) Require the county to submit an annual report to the Legislature. **While the Department of Land and Natural Resources (Department) acknowledges the overall intent of this bill, the Department respectfully opposes this measure.**

Currently, the Department is tasked with handling all of the leasing, lease management duties, and regulation of geothermal mining. In exchange, the State receives 50% of the geothermal royalties while the remaining proceeds are allocated as follows: 30% to the County of Hawaii, and 20% to the Office of Hawaiian Affairs. This measure proposes to increase in the county's share of royalties received by the State from geothermal resources from 30% to 60%, provided that the county's share be used for the purposes of further geothermal resources discovery and development, resulting in a corresponding decrease of the State's share of the royalties received from 50% to 20% without any reduction in the Department's regulatory obligations regarding geothermal mining and permitting.

Geothermal royalties received by the Department are deposited into its Special Land and Development Fund (SLDF) which is utilized to fund critical Departmental programs including the Mineral Resources Program. The Mineral Resources Program's role is to carry out the regulatory functions to oversee, permit, and manage our statewide mineral resources, including geothermal resources. Pursuant to Chapter 182, Hawaii Revised Statutes (HRS), the Department

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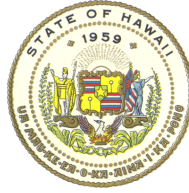
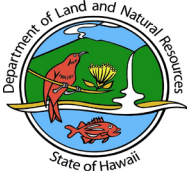
has a statutory obligation to protect and manage the exploration and use of the geothermal resource, as it is held in public trust. Cumulative Mineral Resources expenditures since the program was reestablished in Fiscal Year 2008 is roughly equal to the total royalties received by the State in the same period. Any reduction to the State's share of royalties would result in a shortfall of funding for the mineral resources program and a significant impact to the Department's ability to safely regulate and oversee well drilling operations and manage the mining and leasing of geothermal resources. Additionally, expanding geothermal development may require additional resources for the Department to ensure the protection of the resource, environment and public health and safety.

The revenues from public lands, including the geothermal royalties, are deposited into the SLDF and funds the entire annual operating budget for the Department's Land Division, the Office of Conservation and Coastal Lands, and the Dam Safety Program in addition to the Mineral Resources Programs as noted previously. These revenues also fund over 80 Department staff positions, including 5 positions within the Commission on Water Resource Management, and provide funding support to the Division of State Parks and various resource protection programs administered by the Division of Forestry and Wildlife such as the protection of threatened and endangered species, removal of invasive species, wildland firefighting and lifeguard services. Revenues collected by other divisions have supported watershed protection, preservation of cultural and historical sites and public recreational resources. In addition, the Department has provided lands to other agencies in support of a variety of agricultural, educational, transportation and affordable housing projects, often at the expense of generating revenue to support its own programs.

Although geothermal development may be a component of Hawaii's Clean Energy Goals, we defer to the Department of Business and Economic Development and Tourism's Energy Office and the County of Hawaii on their position to promote further geothermal exploration and development.

Thank you for the opportunity to testify on this measure.

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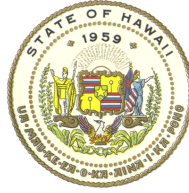
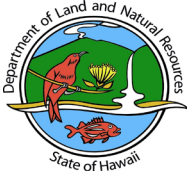
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**SB-3229**

Submitted on: 2/7/2022 11:53:23 PM

Testimony for EET on 2/9/2022 3:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Alice Kim	Individual	Support	No

Comments:

**Historically, Hawaii has had the highest electricity price in the nation. This price currently more than doubles the national average and adds to Hawaii’s high cost of living. With Hawaii’s volcanism, limited landmass, and fragile natural resources, geothermal can serve as Hawaii’s only cost-effective, base-load renewable energy source. Out of all power sources, geothermal uses the least amount of land and can help the state to reach its 100% renewable source mandate by 2045.**

**Geothermal will also help the state of Hawaii reduce carbon emissions. Compared to fossil-fuel power plants, geothermal power plants of similar size emit 97 percent less sulfur compounds that cause acid rain and about 99 percent less carbon dioxide. Recently, the Hawaiian Electric Company announced that its climate action plan to cut carbon emissions. Hence, HECO plans to expand geothermal resources.**

**Currently, the Kilauea East Rift Zone (KERZ) on Hawaii Island is the only geothermal system in the Hawaiian archipelago from which geothermal electric power is being produced. Preliminary research by the Hawaii Groundwater and Geothermal Resources Center (University of Hawaii at Manoa) shows that all of the major Hawaiian Islands hold geothermal potential and that much of Hawaii’s geothermal resources is unknown. Hence, funding is needed for further geothermal exploration.**



Personal Testimony Presented

February 8, 2022

by

Garrett Apuzen-Ito, Ph.D.

In consideration of Senate Bill 3229  
(and companion bill HB1808)

Before the Committee on Energy, Economic Development, and Tourism and the  
Committee on Government Operations

My name is Garrett Apuzen-Ito and I am a geophysicist in the Department of Earth Sciences, at the University of Hawai'i at Mānoa, but this testimony does not represent the position of Department of Earth Sciences or the University of Hawai'i.

I SUPPORT of SB 3229 because all of the evidence and information that I am aware of shows that meeting the State's goal of achieving 100% renewable electrical energy generation will require numerous diverse sources, that *must include geothermal*. As demonstrated by the Puna Geothermal Venture geothermal plant on the Big Island, geothermal provides the reliable base load, completely regardless of day versus night, sunny versus cloudy weather, and whether the wind is blowing or not. Geothermal comes at a large upfront cost, but data show that the lifetime costs are low, with minimal land footprint per kilowatt hour, and the resource is clean.

Increasing the royalties accrued to county in which the geothermal energy resides and ensuring that these royalties are used for further geothermal resource discovery and development is a strong action to support geothermal energy development in Hawai'i. This will provide incentives for counties to host geothermal energy production and to develop more geothermal energy.

Again, achieving 100% renewable electrical energy will absolutely require the clean, efficient, long-term cost effective, base load provided by geothermal energy. Please support SB3229 and companion HB1808.

Thank you for the opportunity to provide testimony.

**LATE**

**SB-3229**

Submitted on: 2/8/2022 8:51:00 PM

Testimony for EET on 2/9/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Richard Ha	Individual	Support	No

Comments:

Aloha Senators

i support SB3229.

the world has passed peak oil supplies. We will soon be going down the backside of the world oil supply curve. This will happen within 10 years.

Hawaii Island will be over the "hot spot" for 1-2 million years. The steam/heat is free for 1-2 million years.

I think dedicating 60% of the royalty money toward exploring and production research is the least we can do. Up to now none of the geothermal royalties have been used for assessing and exploring of the geothermal resource.

Mahalo

Richard Ha

President

Sustainable Energy Hawaii.