JOSH GREEN, M.D.
GOVERNOR

SYLVIA LUKE
LT. GOVERNOR

JAMES KUNANE TOKIOKA
DIRECTOR

DANE K. WICKER
DEPUTY DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
KA ʻOIHANA HOʻOMOHALA PĀʻOIHANA, ʻIMI WAIWAI A HOʻOMĀKAʻIKAʻI

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
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Statement of
JAMES KUNANE TOKIOKA
Director
Department of Business, Economic Development, and Tourism
before the
HOUSE COMMITTEE ON FINANCE

Tuesday, April 1, 2025
2:00 PM
State Capitol, Conference Room 308

In consideration of
SB 1269, SD1, HD2
RELATING TO GEOTHERMAL RESOURCES.

Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee:

DBEDT submits comments on SB 1269, SD1, HD2 and prefers the SD1 version of the bill as it best aligns with the state's long-term strategic direction for geothermal development. The amendments made in HD2—which restrict the use of funds for certain exploratory and drilling activities within a defined proximity of existing geothermal facilities—could hinder the advancement of key areas needed to evaluate and expand Hawaii's geothermal potential. These limitations may delay critical assessments and slow the development of projects that are essential to meeting the state's 100% clean energy mandate by 2045. If we are to take this legislative mandate seriously, it is vital that we maintain flexibility in exploring all viable pathways to achieving it.

Hawaii's reliance on imported fossil fuels has resulted in some of the highest energy costs in the nation, limiting economic diversification efforts, particularly in manufacturing. The development of geothermal energy is not only vital for achieving energy independence but is also a necessary component in stabilizing energy costs. Without reliable and affordable energy, industries such as advanced manufacturing, data centers, and agribusiness will not be able to scale, resulting in lost opportunities for economic growth and job creation.

DBEDT's roadmap outlines a structured three-phase approach to achieving utility-scale geothermal power production. These phases are essential to validating the commercial viability of geothermal energy in Hawaii. By imposing restrictions on exploration as outlined in HD2, the ability to conduct these assessments in a timely manner will be

severely hindered, leading to prolonged delays in achieving the state's clean energy goals.

The Legislature has made a clear commitment to achieving a 100% Renewable Portfolio Standard by 2045. Geothermal energy is one of the few renewable energy sources that provides firm power, ensuring grid stability while complementing intermittent sources like solar and wind. To meet the 2045 mandate, it is imperative that geothermal exploration and feasibility assessments continue unimpeded.

Without stable energy costs, Hawaii will struggle to attract and retain manufacturing and technology industries that are necessary to diversify the economy. The high cost of electricity has been a major deterrent for potential investors, making it critical to advance geothermal development as a means to provide affordable, reliable, and clean energy.

DBEDT urges the Committee to pass SB 1269, SD1 and reconsider the amendments made in HD2, as these restrictions will result in unnecessary delays that hinder Hawaii's ability to achieve energy independence and economic resilience.

Mahalo for your time and consideration.

LATE *Testimony submitted late may not be considered by the Committee for decision making purposes.

JOSH GREEN, M.D.
GOVERNOR
STATE OF HAWAII
Ke Kia'āina o ka Moku'āina 'o Hawai'i

SYLVIA J. LUKE
LT. GOVERNOR
STATE OF HAWAII
Ka Hope Kia'āina o ka Moku'āina 'o Hawai'i

KALI WATSON
CHAIRPERSON, HHC
Ka Luna Ho'okele

KATIE L. LAMBERT
DEPUTY TO THE CHAIR
Ka Hope Luna Ho'okele

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
Ka 'Oihana 'Āina Ho'opulapula Hawai'i
P. O. BOX 1879
HONOLULU, HAWAII 96805

TESTIMONY OF KALI WATSON, CHAIR
HAWAIIAN HOMES COMMISSION
BEFORE THE HOUSE COMMITTEE ON FINANCE
HEARING ON APRIL 1, 2025 AT 2:00PM IN CR 308

SB 1269, SD 1, HD 2, RELATING TO GEOTHERMAL RESOURCES

April 1, 2025

Aloha Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee:

The Department of Hawaiian Home Lands (DHHL) **supports** this bill which appropriates funds to the Department of Business, Economic Development, and Tourism (DBEDT) for continued exploration and identification of geothermal resources and commercial viability for utility-scale geothermal production in counties with a population of less than 300,000 with certain limitations.

The Hawaiian Homes Commission (HHC) requested that a permitted interaction group (P.I.G.) be established to study, evaluate, and recommend strategies related to geothermal exploration, feasibility, extraction, and/or use on Hawaiian Home Lands. Please see attachment. The P.I.G. continues to work with the University of Hawai'i's – Hawaii Groundwater and Geothermal Resource Center, including Dr. Nicole Lautze who also serves at the University of Hawai'i's - Hawai'i Institute of Geophysics and Planetology. DHHL is open to opportunities for collaboration with DBEDT and other stakeholders.

DHHL also received an appropriation of $500,000 through Act 205, Session Laws of Hawaii 2022, to conduct the initial research necessary for geothermal exploration on Hawaiian Home Lands. The appropriation was successfully expended by DHHL. DHHL requests that language be included in the Committee Report for this measure of the prior appropriation from the State Legislature and DHHL's ongoing efforts and willingness to continue to work collaboratively on the exploration and identification of geothermal resources and commercial viability for utility-scale geothermal production in counties with a population of less than 300,000 including Hawaiian Home Lands.

Thank you for your consideration of our testimony.

WAIKĀ
CONSULTING

Testimony of Ryan Matsumoto on behalf of Waikā Consulting
Before the House FIN Committee
Tuesday, April 01, 2025 Conference Room 308

SB 1269 SD1 HD2: RELATING TO GEOTHERMAL RESOURCES.

Chair Yamashita and the members of the Committee,

Waikā Consulting, LLC submits this testimony in strong support of SB1269 SD1 HD1 and would like to state for the record that we prefer the bill language in the SD1 version.

The best location for the Power Station is dictated by the science and resource characteristics. There is a huge range of things that need to be project specific e.g. the community setting involved itself, the geography of the land (hills, valleys, sight lines etc) the terrain and technology choices.

The answer to how to understand and eliminate, mitigate or manage development impact is to do proper, science and community-based environment, noise, visual, cultural and community impact studies linked to a specific project and its inputs and outs, size and technology type etc. These should determine any limits and exclusion zones etc for a development. These studies should feed into the permitting process and will assess and include the range of technologies and their visual and emissions profiles based on the site and reservoir etc and these reports outputs should be negotiated with the developer for inclusion in the final permits issued for the plant. This can and should be done in conjunction with County & Community input."

Sincerely,

Ryan Matsumoto
President, Waikā Consulting

EST. LIFE OF THE LAND 1970
P.O. Box 37158, Honolulu, Hawai`i 96837-0158
Phone: 927-0709 henry.lifeoftheland@gmail.com

COMMITTEE ON FINANCE
Rep. Kyle T. Yamashita, Chair
Rep. Jenna Takenouchi, Vice Chair

Tuesday, April 1, 2025
2:00 p.m.
RE: SB 1269 SD1 Geothermal **Support**

Aloha Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 55 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

The bill proposes to continue a partnership to develop an integrated geothermal development plan to be administered by the Hawaii technology development corporation under the department of business, economic development, and tourism.

Life of the Land supports planning and roadmaps designed to add additional energy storage facilities and geothermal and biofuels research and pilot projects that are respectful of community values and the environment. We are aware of geothermal and biofuel pitfalls and have opposed bad geothermal and biofuel commercial-scale projects.

Proposed solutions must be evaluated by considering numerous criteria: will electric bills increase or decrease, and by how much, how will it impact the grid, will it play well with

other renewable resources, how will it impact reliability and resilience, is it community friendly, what are the cummulative impacts, and what is a worse case scenario involving extreme weather events including wildfires?

Life of the Land asserts that people and communities must be at the table where decisions are made about where and if renewable infrastructure is being considered. It's not just a box you check off. The process is important. There must be open and transparent discussions that encourage diversity, equity, and inclusion of all people including those of different economic strata. Communities consent is of paramount importance. Communties have a right to say no.

There are alternatives. All have proponents and opponents. The alternatives are chemical storage, pumped storage hydro, fossil fuels, biofuels, biomass, nuclear, and geothermal.

A reasonable solution is based on technology, finance, community, and impacts. It is not when one person says, I know this answer, trust me, I have no data or analysis to back up my position, but I am right.

The solution for Hawai`i will not be the solution for continents.

Hawai`i is different. Continental transmission and distribution electric grids are fundamentally different in multiple ways from isolated island transmission and distribution grids. New York City`s electric grid is part of a supergrid that provides electricity for 240,000,000 people.

Local solutions are needed that meet the needs of residents.

Mahalo

Henry Curtis,

Environmental Caucus of
The Democratic Party of Hawai‘i

March 30, 2025

TESTIMONY IN OPPOSITION TO SB1269, SD1, HD2: RELATING TO GEOTHERMAL RESOURCES

TO: Chair Kyle T. Yamashita, Vice Chair Jenna Takenouchi, Members of the Committee on Finance

DATE: Tuesday, April 1, 2025 TIME: 2:00 p.m. PLACE: Conference Room 308, via videoconference

FROM: Environmental Caucus of the Democratic Party

Aloha Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee,

We respectfully oppose SB1269, SD1, HD2, which appropriates funds to the Department of Business, Economic Development, and Tourism (DBEDT) for further exploration of geothermal resources and assessment of utility-scale geothermal production in counties with a population of less than 300,000. While we recognize the importance of diversifying Hawaii's energy portfolio, this measure raises significant concerns regarding environmental, social, and economic impacts, as well as the health risks experienced by communities near existing geothermal facilities.

Key Points of Concern:

1. **Environmental Risks:** Geothermal resource exploration and production can pose risks to Hawaii's delicate ecosystems. Drilling activities may disrupt natural habitats, and geothermal production has the potential to release harmful gases, including hydrogen sulfide, into the environment. Counties with populations below 300,000 often encompass Hawaii's most pristine and ecologically sensitive areas, which demand stronger protective measures.
2. **Health Risks:** Communities near the Puna Geothermal Venture (PGV) have reported significant health concerns related to hydrogen sulfide emissions. Exposure to this gas, even at low concentrations, has been linked to nausea, dizziness, respiratory issues, and eye irritation. Chronic exposure can lead to more severe effects, including depression, fatigue, and difficulty breathing. Additionally, geothermal fluids may contain heavy metals and other harmful compounds, further exacerbating health risks for nearby residents.
3. **Impact on Local Communities:** Beyond health concerns, residents near PGV have expressed frustration over industrial noise, land use conflicts, and inadequate monitoring

of emissions. Cultural impacts on sacred sites and traditions have also been a source of distress for Native Hawaiian communities. These experiences highlight the need for greater community engagement and safeguards before expanding geothermal activities.

4. **Economic Viability:** Utility-scale geothermal production remains unproven in many of Hawaii's regions, and the funding proposed in this measure may not yield the expected returns. Investments in geothermal exploration could divert resources from more promising renewable energy technologies, such as solar, wind, and ocean energy, which align better with Hawaii's geographic and demographic characteristics.
5. **Equity Concerns:** Energy policy should prioritize equitable outcomes for all residents of Hawaii. This measure risks disproportionately affecting rural communities in smaller counties, which may bear the burdens of geothermal production without receiving commensurate benefits.
6. **Climate Goals Alignment:** While geothermal energy can contribute to Hawaii's renewable energy targets, a measured and cautious approach is necessary. Comprehensive impact assessments and stakeholder consultations are essential before allocating funds for projects with such wide-ranging implications.

Hawaii's approach to renewable energy must consider the unique environmental, social, and economic landscape of our islands. While geothermal energy holds potential, SB1269, SD1, HD2, does not adequately address the risks and concerns associated with its exploration and development. We urge the Committee to consider alternative measures that more effectively balance innovation, environmental stewardship, and community well-being.

Thank you for the opportunity to testify in opposition to this measure.

Respectfully submitted,

Melodie Aduja and Alan Burdick
Co-Chairs, Environmental Caucus of the Democratic Party

Comments before
April 1, 2025
House Committee on Finance

OPPOSING
Senate Bill 1269
Relating to Geothermal Expansion

Mike Ewall, Esq.
Founder & Executive Director
Energy Justice Network
215-436-9511
mike@energyjustice.net
www.EnergyJustice.net

Aloha Honorable Committee members. Energy Justice Network is a national organization supporting grassroots groups working to transition their communities from polluting and harmful energy and waste management practices to clean energy and zero waste solutions. In Hawai'i, we've been working with residents who first sought our support in 2015. Since mid-2022, we have supported residents in forming the Hawai'i Clean Power Task Force and Kokua na Aina to address numerous energy and waste issues in the state.

Please oppose SB 1269.

Geothermal has consistently ranked among the most expensive forms of electric power production, right up there with trash and tree burning and nuclear power. This is based on the latest data from the U.S. Energy Information Administration.[1] Capital cost and fixed operations and maintenance costs (O&M) are among the most expensive options – far more expensive than using solar with storage to meet firm energy needs.

Case No.	Technology	Description	Net Nominal Capacity (kW)	Net Nominal Heat Rate (Btu/kWh)	Capital Cost ($/kW)	Fixed O&M Cost ($/kW-year)	Variable O&M Cost ($/MWh)	Nitrogen Oxide (NOx) (lb/MMBtu)	Sulfur Dioxide (SO_2) (lb/MMBtu)	Carbon Dioxide (CO_2) (lb/MMBtu)
1	USC Coal without Carbon Capture – Greenfield	1 x 735 MW Gross	650	8,638	$4,103	$61.60	$6.40	0.06	0.09	206
2	USC Coal 95% Carbon Capture	1 x 819 MW Gross	650	12,293	$7,346	$86.70	$13.73	0.06	0.09	10.3
3	Aeroderivative CTs – Simple Cycle	4 x 54 MW Gross	211	9,447	$1,606	$9.56	$5.70	0.0075	0.00	117
4	CTs – Simple Cycle	1 x H-Class	419	9,142	$836	$6.87	$1.24/ MWh, $23,100/ Start	0.0075	0.00	117
5	CC 2x2x1	2 x 1 H Class	1,227	6,266	$868	$12.12	$3.41	0.0075	0.00	117
6	CC 1x1x1, Single Shaft	1 x 1 H Class SS	627	6,226	$921	$15.51	$3.33	0.0075	0.00	117
7	CC 1x1x1, Single Shaft, with 95% Carbon Capture	1 x 1 H Class SS	543	7,239	$2,365	$24.78	$5.05	0.0075	0.00	6
8	Biomass Plant with 95% Carbon Capture	1 x BFB	50	19,965	$12,631	$261.18	$9.65	0.08	<0.03	10.3
9	Advanced Nuclear (Brownfield)	2 x AP1000	2,156	10,608	$7,861	$156.20	$2.52	0	0	0
10	Small Modular Reactor Nuclear Power Plant	6 x 80 MW Small Modular Reactor	480	10,046	$8,936	$121.99	$3.19	0	0	0
11	Geothermal	Binary Cycle	50	N/A	$3,963	$150.60	$0.00	0	0	0
12	Hydroelectric Power Plant	New Stream Reach Development	100	N/A	$7,073	$33.54	$0.00	0	0	0
13	Onshore Wind – Large Plant Footprint: Great Plains Region	200 MW | 2.8 MW WTG	200	N/A	$1,489	$33.06	$0.00	0	0	0
14	Onshore Wind – Repowering/Retrofit	150 MW | 1.5 - 1.62 MW WTG	150	N/A	$1,386	$38.55	$0.00	0	0	0
15	Fixed-bottom Offshore Wind: Monopile Foundations	900 MW | 15 MW WTG	900	N/A	$3,689	$154.00	$0.00	0	0	0
16	Solar PV with Single-Axis Tracking	150 MW_{AC}	150	N/A	$1,502	$20.23	$0.00	0	0	0
17	Solar PV with Single-Axis Tracking and AC-Coupled Battery Storage	150 MW_{AC} Solar 50 MW | 200 MWh Storage	150	N/A	$2,175	$38.39	$0.00	0	0	0
18	Solar PV with Single-Axis Tracking and DC-Coupled Battery Storage	150 MW_{AC} Solar 50 MW | 200 MWh Storage	150	N/A	$2,561	$39.24	$0.00	0	0	0
19	BESS	Lithium Ion, 150 MW | 600 MWh	150	N/A	$1,744, ($436/kWh)	$40.00	$0.00	0	0	0

On top of the high cost to ratepayers are the costs to our environment and the community.

[1] U.S. Energy Information Administration, "Capital Cost and Performance Characteristics for Utility-Scale Electric Power Generating Technologies," January 2024, Table 1-2 (page 24). https://www.eia.gov/analysis/studies/powerplants/capitalcost/pdf/capital_cost_AEO2025.pdf

Geothermal is only used in the state in Puna by Puna Geothermal Ventures (PGV), an Israeli company (Ormat) that has run an inconsistent and harmful operation in Puna with numerous environmental violations. While many support it as a renewable energy source, the lived experience of those living near the facility raises many concerns.

Puna residents have been speaking up for many years with concerns about air releases of hydrogen sulfide and other chemicals brought up in the process (toxic metals, radon...), health impacts when the community has been exposed to these gases, drilling impacts (noise, well blowouts, underground fracturing, not plugging wells), reinjection of toxic chemicals into the group (PGV claims they're "closed loop" but that is not true), cultural concerns, and the challenges when a lava flow risked igniting 60,000 gallons of pentane stored on-site, which needed help from the governor's emergency order to evacuate the chemicals from the danger zone.

If geothermal can be done in a closed-loop fashion, and further from residents, that would alleviate some concerns, but would make it even more expensive and it is likely that solar with energy storage can meet energy needs more safely and at least four times cheaper.

The bill would have the Department of Business, Economic Development and Tourism explore and identify geothermal resources and commercial viability for utility scale geothermal production in Hawai'i, Maui, and Kaua'i Counties, but not within 15 miles of PGV. This Department lacks the expertise in this, as one commenter pointed out, and would have to do this exploration without actually drilling. We're glad for the lack of exploratory drilling, but this seems inappropriate, hiring the wrong people for the wrong job.

Sustainable Energy Hawai‘i

sustainableenergyhawaii.org
info@sustainableenergyhawaii.org

March 31, 2025

TESTIMONY FOR SB1269 SD1 HD2 - RELATING TO GEOTHERMAL RESOURCES
Tuesday, April 1, 2025

Dear Chair Yamashita, Vice Chair Takenouchi, and members of the committee,

Testifying on behalf of **Sustainable Energy Hawai‘i (SEH)**, a 501(c)3 non-profit dedicated to improving the quality of life for Hawai‘i Island residents. Our mission is to enable an economic, social, and environmental revival in Hawai‘i through a just transition to sustainable, 100% locally sourced renewable energy and the creation of a thriving clean economy.

We appreciate the intention of SB1269 SD1, which *“appropriates funds to the Department of Business, Economic Development, and Tourism for continued exploration and identification of geothermal resources and commercial viability for utility-scale geothermal production in counties with a population of less than 300,000.”* Efforts to enable the exploration and identification of geothermal resources for commercialization will help establish geothermal power generation across Hawai’i and help the state achieve energy resilience.

We recommend amendments to ensure the intentions are met.

Hawai’i has geothermal resources available statewide. According to the Hawai’i Groundwater and Geothermal Resource Center (HGGRC) at UH Manoa, the subsurface geology characterization remains virtually unknown outside of the East Riff Zone on Hawai’i Island due to a chronic lack of funding. Our state must expedite the acquisition of this data to enable the development of this much-needed resource.

Geothermal developments in the Philippines, New Zealand, and Taiwan have required several exploratory wells and other subsurface data collection techniques to confirm viable development sites. With each exploratory well costing over $1M, limited funding impact must be maximized and directed to local experts who have been researching this opportunity but have been constrained by the lack of funding.

The State has experts in the field of geophysics at the HGGRC. They own their geophysical exploration equipment and have the expertise to conduct focused, efficient, data-driven exploratory activities.

We recommend that SB1269 SD1 HD2 be amended as follows:

1) Direct the appropriated funds to the HGGRC so that we can expedite the necessary exploration, discovery, and identification of commercially viable geothermal sites across
2)
3) the state, building upon the body of knowledge they have collected and leveraging their resources (expertise and infrastructure).
4) Remove the population constraint ("… geothermal production in counties with a population of less than three hundred thousand."). As stated, the measure excludes Oahu. We believe this is unnecessarily limiting as it precludes the discovery of the energy resource on the island with the most significant energy demand.

In summary, the ability to generate firm, clean, self-generated power is a critical bulwark against both natural and man made calamities. Energy self-sufficiency is an urgent and important goal that benefits all who call Hawai'i home. SEH supports the funding of qualified geophysical and geothermal research entities to sufficiently document our geothermal resources so as to effectively enable development efforts.

Thank you for this opportunity to testify.

Respectfully,

Keith Neal
Policy Lead,
Sustainable Energy Hawai'i

Email: communications@ulupono.com

HOUSE COMMITTEE ON FINANCE
Tuesday, April 1, 2025 — 2:00 p.m.

Ulupono Initiative supports the intent of SB 1269 SD 1 HD 2, Relating to Geothermal Resources.

Dear Chair Yamashita and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food, renewable energy and clean transportation choices, and better management of freshwater resources.

Ulupono supports the intent of SB 1269 SD 1 HD 2 and offers comments. This bill appropriates funds to the Department of Business, Economic Development, and Tourism (DBEDT) for continued exploration and identification of geothermal resources and commercial viability for utility-scale geothermal production in counties with a population of less than 300,000.

We commend legislators for recognizing, through this bill, that geothermal energy has great, mostly untapped potential to have a beneficial impact on the daily lives of residents and cost of living issues. However, the current limitation to counties with populations under a certain limit could inadvertently restrict Hawai'i's ability to identify valuable geothermal resources that might exist on multiple islands. A broader scope would align with the state's clean energy goals while still maintaining the bill's strong emphasis on these communities. We believe the bill's core strengths are recognizing DBEDT's crucial leadership role together with comprehensive community engagement, and a statewide scope at this exploration phase would offer more thorough evaluation of geothermal potential across all islands. In addition, such undertakings require significant resources to be successful and, accordingly, should include a budget allocation that addresses this need.

To align with the intent of this bill for geothermal energy exploration, we recommend removing all distance restrictions attached to this draft. Without currently knowing where any potential commercially viable project sites exist across our state, restrictions such as those proposed in the HD2 draft may inadvertently delay progress or create unforseen challenges for Hawai'i's geothermal future. We maintain that any geothermal project must be grounded in robust and ongoing community engagement. As geothermal development progresses and reaches key milestones, there will be multiple formal opportunities for public

input and comment. We further advocate for the continuation and expansion of these public engagement opportunities to ensure that community voices are meaningfully included throughout the process

Hawai‘i needs all viable forms of renewable energy to meet the 100% renewable portfolio standard by 2045. New data underscores the widespread support among residents for this transition. Between October 2023 and January 2024, Ulupono Initiative partnered with Anthology Research to conduct a statewide public opinion survey on energy in Hawai‘i involving 1,985 surveys across all four counties. With a margin of error +/- 2.21%, this is arguably the most extensive and comprehensive study on the topic to date. The findings are compelling.

A staggering 91% of respondents expressed their support for the expansion of renewable energy resources throughout the islands. Moreover, the importance of developing Hawai‘i’s own energy resources was emphasized across all counties by the residents. This resounding endorsement from the community validates the strong support for continued investment and advancement in renewable energy solutions to meet our collective energy goals.

Collaboration with counties, individuals, and civic organizations allows for the incorporation of valuable insights, ensuring the program aligns with community needs and aspirations. This commitment to collaboration can foster trust, create opportunities for education about renewable energy and carbon sequestration, and pave the way for sustainable resource management. Effective community engagement has been shown to enhance the success of similar initiatives by promoting transparency and inclusivity.

Lastly, the proposed funding represents a positive first step, but we recommend a larger allocation to ensure the program can fully achieve its potential. Robust funding is essential to make certain that the program is adequately supported, enabling Hawai‘i to advance its renewable energy and sustainability goals effectively for the benefit of its residents.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

Hawaiian Electric

TESTIMONY BEFORE THE HOUSE COMMITTEE ON FINANCE

SB 1269, SD1, HD2
Relating to Geothermal Resources

Tuesday, April 1, 2025
2:00 PM
State Capitol, Conference Room 308

Greg Shimokawa
Director of Renewable Acquisition
Hawaiian Electric

Dear Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee,

My name is Greg Shimokawa and I am submitting written testimony on behalf of Hawaiian Electric in support of SB 1269, SD1, HD2, which appropriates funds for the exploration and identification of geothermal resources and commercial viability for utility-scale geothermal production.

Hawaiian Electric supports the exploration of geothermal resources as a means to help accelerate the development of renewable energy projects, achieve the State's Renewable Portfolio Standards requirements, reduce reliance on imported fossil fuels, help stabilize customers' bills, and reduce greenhouse gas emissions.

Hawaiian Electric supports the intent of identifying and developing the State's geothermal resources and renewable energy potential, but defers to policy makers on the appropriateness of funding allocations stipulated in the bill.

Thank you for this opportunity to submit written testimony in support of SB 1269, SD1, HD2.

SB-1269-HD-2
Submitted on: 3/31/2025 2:03:11 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Kaylan Bray	The Students for Justice in Palestine at the University of Hawaii i	Oppose	In Person

Comments:

Aloha Chair, Vice Chair, and Committee members,

The Students for Justice in Palestine (SJP) chapter at the University of Hawaii strongly OPPOSES SB 1269, SD1, HD2

SJP at UH is driven by the belief that all colonized and oppressed people have the right to take back their land, to realize self-determination, and to obtain their liberation. We believe this measure poses significant risks to our environment, native culture, and economic future.

This bill fails to adequately address the profound concerns surrounding geothermal energy development. We are disappointed that all the legislation passed thus far has ignored and excluded the perspectives of Kānaka Maoli. This closed-door, one-sided approach limits public discourse and risks prioritizing federal funding over the voices of our community.

Geothermal energy has shown itself to be an exorbitant, dangerous, toxic, and unstable source of electricity. In the 1980s the projected cost of $4 billion to develop these resources by means that only federal or foreign investors could finance such projects, further distancing local communities from decision-making. That cost has largely increased since then. Moreover, this energy source places an unreasonable burden on native Hawaiians by threatening the last living deity, Pele, and undermining traditional practices, beliefs, and customs tied to her. The development threatens our sacred lands and the rainforest that provides vital resources for traditional healing and cultural practices.

The measure's emphasis on commercial viability may prioritize profit over genuine scientific inquiry, stifling innovation and leading to duplicative research efforts. Furthermore, the bill limits its scope to counties with populations under 300,000, excluding larger areas that could also benefit from geothermal resources and failing to consider the broader implications of geothermal energy on our state.

The reliability of geothermal steam as an energy source is questionable, as it can be disrupted by volcanic eruptions and earthquakes, which we have witnessed in the Puna region. Moreover, the lack of transparency in permitting processes, as geothermal permits are exempt from informative contested case hearings, raises serious concerns about the potential consequences of geothermal development.

We have seen past failures in safety commitments from geothermal developers like Puna Geothermal Venture (PGV), which failed to notify neighbors of excessive hydrogen sulfide emissions. This record of negligence highlights the risks to public safety that accompany geothermal projects. If geothermal energy development continues, it must prioritize safety standards that genuinely protect residents, rather than merely relocating impacted individuals.

We strongly oppose the destruction of our rainforest and emphasize that stopping this development is a top priority. We must ensure that all points of view are considered before committing any more funds to geothermal research and development. Our state leaders should closely examine existing studies that document the negative impacts of geothermal energy on our environment, economy, and native customs.

In light of these concerns and the lack of urgency indicated by the bill's effective date of July 1, 3000, I urge you to HOLD SB 1269, SD1, HD2

LEPO ʻULA
South Kaʻū Rural Enterprise & Innovation Hive

Z. Kaʻapana ʻAki
Chief Hive Strategist
lepoulahawaii@gmail.com

SB1269 SD1 HD2
RELATING TO GEOTHERMAL RESOURCES

HOUSE COMMITTEE ON FINANCE
April 1, 2025 – 2:00 PM

Aloha e Chair Yamashita, Vice Chair Takenouchi, and Esteemed Members of the Committee,

My name is Zuri Kaʻapana ʻAki, and I am the founder and Chief Executive Officer of Lepo ʻUla South Kaʻū Rural Enterprise & Innovation Hive, a Hawaiʻi-based and Native Hawaiian-led non-profit organization championing sustainable and responsible rural development to uplift and empower historically underserved and socially disadvantaged communities, while safeguarding and perpetuating Native Hawaiian identity and our inseparable connection to place.

As a resident of Kaʻū with generational roots in this moku (district) reaching deep into time immemorial, I feel compelled to offer this testimony in **STRONG SUPPORT** of SB1269 SD1 HD2, which would further the work of the State Department of Business, Economic Development, & Tourism (DBEDT) in its partnership with community-vetted organizations like Waikā Consulting LLC to bring commercially viable geothermal development.

This measure has the potential to usher in an age of meaningful prosperity in these islands, where the oppressive cost of living is mitigated by the absence of having to pay triple the national average in energy rates, which in turn, would facilitate the growth of economic opportunities, thereby slowing the brain drain (forced economic outmigration), and keeping these islands home for those of us who have called it home for generations. Geothermal energy is the future for Hawaiʻi's growth.

For Kaʻū, responsible geothermal development is a beacon of hope that can level the greater disparities this community has long endured. It presents an opportunity to break cycles of economic hardship, insecurities, and systemic neglect – challenges that have contributed to the erasure of community character and identity. By harnessing a resource as powerful as geothermal, we have a unique and urgent chance to build a self-sustaining energy future that lowers costs, creates lasting economic opportunities, and reinvests directly into the well-being of our ʻāina and our people. Deep beneath the surface potential for geothermal is a brilliant pathway for economic resilience, community empowerment,

Z. Kaʻapana ʻAki
Chief Hive Strategist
lepoulahawaii@gmail.com

and the responsible development of our communities – shaped by those who call this place home.

That future, however, must be built with deep respect for the cultural and spiritual significance of geothermal resources, particularly as they relate to Pelehonuamea (and the multitudes of other interconnected kupua, akua, and ʻaumakua) and the natural-cultural interests of Native Hawaiians who familial connections to this ʻāina.

Geothermal is a controversial natural-cultural resource here in these islands due to its sacred connection to tūtū Pele – geothermal and its associated phenomenon are kinolau (manifestations) of her and her mana (spiritual power). As ʻohana to Pele, I can personally attest to the fierce, fiery, and unwavering devotion with which we protect and cherish her – no less than we would any beloved elder. She is our family. How she is treated matters to us.

In the absence of our ability to freely exercise our own self-determination, Native Hawaiians have had to endure forced change and suffer the external abuses of those things that matter most to our way of life. We haven't had the chance to come together as a community, to engage in meaningful discourse, and to develop the framework for what is and what is not acceptable development. As a result, the community is often divided between the ebb and flow of a hands-on or hands-off approach to natural-cultural resource use. **We, Native Hawaiians, still need these opportunities to come together as a people and it would be nothing less than a grave injustice to deprive us of that.**

I emphasize the need to treat geothermal with the utmost sensitivity in my support of this measure because Waikā, in its partnership with DBEDT, has spent the better part of a decade engaging communities that will bear the burden of any direct impact from geothermal, and they have painstakingly worked to ensure that responsible development occurs. The foundation for this work has already been laid, and we now eagerly await the construction of the house, for which the model has already been made.

Mahalo nui loa for your time, consideration, and commitment to this vital work. I respectfully ask that this Committee pass SB1269 SD1 HD2.

HOUSE COMMITTEE ON FINANCE

APRIL 1, 2025

SB 1269, SD1, HD2, RELATING TO GEOTHERMAL RESOURCES

POSITION: SUPPORT

Coalition Earth **supports** SB 1269, SD1, HD2, relating to geothermal resources, which appropriates funds to the Department of Business, Economic Development, and Tourism for continued exploration and identification of geothermal resources and commercial viability for utility-scale geothermal production in counties with a population of less than 300,000.

According to a report produced by the Hawai'i Climate Change Mitigation and Adaptation Commission, global sea levels could rise more than three feet by 2100, with more recent projections showing this occurring as early as 2060. In turn, over the next 30 to 70 years, approximately 6,500 structures and 19,800 people statewide will be exposed to chronic flooding. Additionally, an estimated $19 billion in economic loss would result from chronic flooding of land and structures located in exposure areas. Finally, approximately 38 miles of coastal roads and 550 cultural sites would be chronically flooded, on top of the 13 miles of beaches that have already been lost on Kaua'i, O'ahu, and Maui to erosion fronting shoreline armoring.

As we work to reduce carbon emissions and stave off the worst consequences of climate change, we must begin preparing for the adverse impact of sea level rise on our shores. We are now quantifying the speed at which we must act. We cannot continue to develop the 25,800- acre statewide sea level rise exposure area–one-third of which is designated for urban use– without risking massive structural damage and, potentially, great loss of life.

Just two years ago, we witnessed the impact of the climate emergency on our shores. On August 8, 2023, wildfires swept across Maui and killed at least 100 people, making it one of the nation's deadliest natural disasters. The spread of the fires has been attributed to climate change conditions, such as unusually dry landscapes and the confluence of a strong high-pressure system to the north and Hurricane Dora to the south. The wildfires destroyed over 2,200 structures, including numerous residential buildings, historic landmarks, and school facilities. In September 2023, a report from the United States Department of Commerce estimated the total economic damage of the wildfires to be roughly $5.5 billion. Investing in renewable energy generation could not be more urgent, given the growing threat of climate catastrophes to our island home.

Therefore, **our state should take steps to hasten our transition to a clean energy economy and continue our fight against climate change, including by investing in the potential of geothermal resources, a nearly unlimited source of renewable energy.** The Earth's inner core is as hot as the surface of the sun. As that heat radiates, it heats the rocks and water just beneath the Earth's surface and the steam that process generates can be used to generate heat and electricity. Harnessing geothermal energy can be accomplished at any time, since geothermal resources are reliably available 24 hours a day, 365 days a year.

The United States leads the world in geothermal electricity capacity and generation. Yet, the U.S. has tapped less than 0.6 percent of its available geothermal electricity resources. The National Renewable Energy Laboratory estimates that there is enough geothermal potential under our nation's grounds to constantly produce 4,248,879 megawatts of energy. Notably, geothermal energy presents an opening for an almost seamless transition of investment, technology, and personnel away from fossil fuels. While the needed capital investment for geothermal ranges from $3,000 to $6,000 per kilowatt–as compared to solar and terrestrial wind, which run just $1,700 to $2,100 per kilowatt–this cost is declining as investments in new technology are being made. In terms of both economic and clean energy generation, we cannot afford to miss out on these opportunities.

Analysts have found that geothermal power plants have life-cycle emissions six to twenty times lower than natural gas. Relatedly, an article by researchers from the University of Kayseri published in the journal *Geothermics* in January of 2025, entitled "Comparative analysis of hybrid geothermal-solar systems and solar PV with battery storage: Site suitability, emissions, and economic performance," stated, "In terms of environmental impact, hybrid geothermal-solar systems exhibit significantly lower carbon

emissions, averaging 44.6 kg CO_2/MWh, compared to 123.8 kg CO_2/MWh for solar PV systems with battery storage."

This bill establishes a mandate for expanding geothermal exploration and the development of utility-scale geothermal initiatives, goals that can be further accelerated through partnerships with research institutions like the University of Hawai'i's Groundwater and Geothermal Resources Center. This can, in turn, stimulate further possibilities for public funding and private sector investment for geothermal power generation. Geothermal energy was also identified as both a near-term and mid-term decarbonization pathway in the Hawai'i State Energy Office's *Hawai'i Pathways to Decarbonization Report*, released in 2024.

We must take steps to avoid environmental risks when exploring geothermal energy. Relatedly, we should not engage in any geothermal expansion on Hawaiian homelands without beneficiary support. This measure would allow DBEDT to explore geothermal potential in any space outside of Honolulu. As the World Resources Institute has stated, "Next-generation geothermal as a promising path to a zero-carbon power grid. It's a clean, cost-effective way to fill supply gaps when solar and wind aren't available." In that way, geothermal has the capacity to play a major role in strengthening energy independence and resilience for our island home.

Coalition Earth is a nongovernmental organization that works to preserve the well-being of people and our planet. We champion policies that advance climate resilience, clean energy, public health, and economic fairness for working families. ***Contact us at info@coalitionearth.org.***

SB-1269-HD-2
Submitted on: 4/1/2025 11:59:26 AM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Terri Napeahi	PELE DEFENSE FUND	Oppose	Remotely Via Zoom

Comments:

Terri Napeahi Member of Pele Defense Fund is testifying in OPPOSITION OF SB1269

Finance Committee of the State of Hawaii Legislators,

Please take heed of our plea not to appropriate funding for EXPLORATORY DRILLING ON MOKU O KEAWE!. The State of Hawaii who initiated a push to have their own utilities company to hall 500 megawatts via undersea cable to OAHU, failed! Even with the help of Congressman Senator Inouye, it failed. THE STATE LOST 80 MILLION DOLLARS TRYING TO DO 20 GEOTHERMAL FACILITIES ON THE RIFT OF TUTU PELE.

There is historical record of the resistence to the development of Geothermal on Moku 'o Keawe.

WE WILL CONTINUE TO RESIST THE DESECRATION OF PELE, WHOSE HOME IS MOKU 'O KEAWE!

80 million dollars of tax payers dollars was lost, it will happen again!

Terri L. Napeahi

PDF

SB-1269-HD-2
Submitted on: 3/28/2025 6:17:14 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Douglas Perrine	Individual	Support	Written Testimony Only

Comments:

Geothermal is Hawaii's best resource to supply our future energy needs. It can be deployed faster and at lower cost than nuclear, and without producing radioactive waste. Unlike LNG it releases no greenhouse gases. New Enhanced Geothermal and Advanced Geothermal processes have made the process much more efficient and less expensive than earlier technologies. I strongly support SB1269 to continue the creation of an integrated geothermal development plan.

SB-1269-HD-2
Submitted on: 3/28/2025 10:25:32 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Dawn Morais Webster Ph.D.	Individual	Support	Written Testimony Only

Comments:

At a time when the deadline for Neighbor Islands to be on 100% renewable energy has been brought forward a decade earlier to 2035, it is very encouraging to see this bill continue to move forward. I wish to express my **strong support for this bill and the request for $6million in funding** because it promises to be key to lowering energy prices, making life more affordable and spurring economic development on Hawai‘i island. We are all aware of the exodus of families as they look for places where they can afford to raise their families. This could help stem the exodus.

Thank you for supporting an approach to geothermal exploration and development that is based on science and potential impact studies and permitting rather than an approach that sets pre-determined geographic limits that could preclude the sites best suited for commercial development of a power plant. Geothermal development on Hawai‘i island could be a real game-changer and a stimulus for economic growth for people and businesses that have suffered for too long under the burden of the highest prices for electricity in the nation. Let science guide this critically importat endeavor.

Please move this bill forward and help the people of Hawai‘i island thrive. Thank you for your leadership. Mahalo nui.

SB-1269-HD-2
Submitted on: 3/29/2025 1:43:31 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Ann Chung	Individual	Support	In Person

Comments:

This is a program already in progress and a roadmap has been completed with the goal of developing the first utility
scale 50- to 100-megawatt power station on Hawai‘i island.

Full funding of $6M inclunding $3M originally allocated by this Legislature last session should be restored to continue the work that has been started.

DBEDT is the proper lead agency to & the Big Island holds the most promise for a commercially focused geothermal outcome.

Please support & pass this bill.

Mahalo

Ann Chung

SB-1269-HD-2
Submitted on: 3/29/2025 8:03:37 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Alice Kim	Individual	Comments	Written Testimony Only

Comments:

I support commercial geothermal resource development and appreciate the intent of SB1269. Furthermore, the Hawaii Groundwater and Geothermal Resources Center (HGGRC) should execute the geothermal resource characterization. Through this University of Hawaii research unit, the State of Hawaii's most prominent earth scientists are researching Hawaii's groundwater resources. HGGRC obtained land access for research from dozens of landowners across the state. For research equipment, HGGRC has access to $1 million worth of geophysical equipment and a $3 million drill rig (Notably, Puna Geothermal Venture is the only other geothermal-focused organization in Hawaii that has a suitable drill rig). The State can further benefit from HGGRC and UH's research, expertise, and resources.

SB-1269-HD-2
Submitted on: 3/29/2025 11:10:46 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Malama Solomon	Individual	Support	Written Testimony Only

Comments:

Aloha mai kakou,

I submit this testimony in strong support of SB1269 SD1 HD2. I firmly advocate for retaining the Senate version of this bill (SB1269 SD1), as its language better aligns with the principles of responsible and science-based geothermal energy development and exploration.

It is deeply problematic to exclude specific areas from consideration at this stage. Decisions regarding site suitability should be informed by comprehensive, science-based assessments that evaluate environmental, noise, visual, cultural, and community impacts. Such studies must account for the full range of technologies, their emissions profiles, and visual impacts specific to the reservoir and site characteristics. These findings should form the basis for negotiated agreements with developers to ensure that final permits include necessary buffers to protect residential communities.

To impose arbitrary exclusion zones without considering project-specific factors is irresponsible. The impacts of geothermal power plants differ significantly from those of wellheads and pipelines, each having unique effects on surrounding areas depending on geography, terrain, community dynamics, and technological choices. A blanket radius exclusion ignores these critical variables and risks undermining the potential for tailored solutions that balance energy development with community needs.

I urge this committee to support a process that prioritizes rigorous scientific analysis and community engagement in determining site suitability. Geothermal energy represents an essential opportunity for Hawaii's transition to renewable energy, but its development must be approached thoughtfully to ensure equitable benefits and sustainable practices.

Mahalo for your consideration.

SB-1269-HD-2
Submitted on: 3/29/2025 11:13:34 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Roberta Cabral	Individual	Support	Written Testimony Only

Comments:

Chair Dela Cruz and the members of the Committee,

I respectfully submit this testimony in strong support of SB1269 SD1 HD2 and urge you to adopt the language from the Senate version of this bill, SB1269 SD1. The Senate version offers a more comprehensive and commercially responsible approach to geothermal development that aligns with Hawaii's renewable energy goals.

It is highly problematic to exclude specific areas from consideration at this stage. Site suitability for geothermal projects should be determined through rigorous, science-based studies that incorporate environmental, noise, visual, cultural, and community impacts. These assessments must evaluate the range of technologies available, including their visual and emissions profiles relative to site-specific characteristics such as geography and reservoir conditions. The findings from these studies should guide negotiations with developers to ensure that final permits include appropriate buffers for residential communities and other necessary safeguards.

Determining an arbitrary exclusion radius at this point is premature and irresponsible. The impacts of geothermal power plants differ significantly from those of wellheads or pipelines, with each having unique effects based on factors like terrain, technology choices, and proximity to communities. A one-size-fits-all approach fails to account for these critical variables and risks undermining the success of Hawaii's geothermal initiatives.

By adopting the language in SB1269 SD1 or amending SB1269 SD1 HD2 to reflect these principles, we can ensure that geothermal development proceeds responsibly and with the input of science and community stakeholders. This is an opportunity for Hawaii to lead in renewable energy innovation while addressing community concerns thoughtfully and effectively.

Mahalo for your time and consideration.

SB-1269-HD-2
Submitted on: 3/29/2025 11:29:08 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Pilialoha Lee Loy	Individual	Support	Written Testimony Only

Comments:

I support bill SB1269 SD1 HD2. However the exclusion of any area at this early point does not seem to make sense and is very pre-mature.

SB-1269-HD-2
Submitted on: 3/31/2025 6:34:25 AM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Glen Kagamida	Individual	Support	Written Testimony Only

Comments:

STRONG SUPPORT for energy independance. Mahalo!

March 18, 2025

COMMENTS for SB1269 SD1 HD2 - RELATING TO GEOTHERMAL RESOURCES

Dear Chair Yamashita, Vice-Chair Takenouchi, and Members of the Committee,

My name is Noel Morin. **I support the intent of SB1269 SD1 HD2,** which *"appropriates funds to the Department of Business, Economic Development, and Tourism for continued exploration and identification of geothermal resources and commercial viability for utility-scale geothermal production in counties with a population of less than 300,000."*

As a renewable energy advocate concerned with Hawai'i's resilience and sustainability, I believe geothermal energy must play a larger role in our state's clean energy future. Hawai'i residents face electricity costs about double the U.S. average, due largely to heavy dependence on imported oil. We are also on the front lines of climate change and natural disasters, which threaten fuel supply lines and grid stability. Leveraging the firm, always-on power of geothermal can help us address these vulnerabilities by providing 24/7 local energy that is independent of weather or time of day.

Our sole geothermal plant on Hawai'i Island already produces *five times* the electricity of one of our largest solar farms while using 80% less land area[1]. This underscores geothermal's remarkable efficiency and small footprint, an important environmental consideration, particularly in our island state.

Modern geothermal plants can operate for 50 years or more and provide limitless firm power, 24 hours a day, year-round. According to the U.S. Department of Energy, geothermal facilities require a high upfront investment but enjoy low operating costs and capacity factors exceeding 90% – meaning they run near full power most of the time[2]. In practical terms, geothermal can deliver reliable baseload energy that no amount of solar panels or batteries can fully replace for around-the-clock grid reliability. Even Hawaiian Electric's planners recognize that firm renewable sources like geothermal are crucial to back up the grid during long cloudy or windless periods[3]. In short, geothermal is a clean, always available power source that complements solar and wind and clears our path to 100% renewable energy.

Hawai'i sits atop a geologic hotspot that has sustained volcanic activity for millions of years – an indicator of tremendous geothermal potential beneath our feet. Research from the University of Hawai'i's Groundwater and Geothermal Resources Center (HGGRC) suggests that all the major Hawaiian Islands may harbor usable subsurface heat. Yet, outside of Kīlauea's East Rift Zone on Hawai'i Island, we have barely begun to assess these resources.

I recommend that SB1269 SD1 HD2 be amended so that it results in the appropriate level of funding to enable HGGRC to accelerate its efforts to identify commercially viable sites across Hawaii. Let's build upon local knowledge, leverage our experts, and build the exploratory infrastructure required for us to build the right geothermal solutions for Hawaii. Let's also not exclude Oahu, the island with the greatest energy need.

Thank you for this opportunity to testify.

Respectfully,
Noel Morin
Climate, Sustainability, and Resilience Advocate
Hilo, Hawaii

[1] www.hawaii.edu/news/2023/11/24/assessing-hawaii-geothermal-potential
[2] css.umich.edu/publications/factsheets/energy/geothermal-energy-factsheet
[3] www.hawaiinewsnow.com/2023/03/09/amid-solar-wind-boom-heco-also-seeks-more-firm-renewables

SB-1269-HD-2
Submitted on: 3/31/2025 1:59:28 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Tara Rojas	Individual	Oppose	Remotely Via Zoom

Comments:

To:
Honorable Chair Kyle Yamashita
House Finance Committee
State Capitol, Room 308
415 South Beretania Street
Honolulu, Hawaii 96813

Date: March 31, 2025

Subject: **Opposition to SB1269 SD1 HD2 Regarding Geothermal Resources and Demand for Immediate Action**

Dear Chair Yamashita,

I, Tara Rojas, submit this testimony to express my strong opposition to SB1269 SD1 HD2, concerning the exploration and development of geothermal resources in Hawai'i. The bill proposes funding for continued geothermal exploration without adequately addressing critical safety concerns, particularly the establishment of appropriate buffer zones around geothermal facilities.

Historical Safety Incidents Highlighting the Need for Buffer Zones

In 1991, a significant blowout occurred at the Puna Geothermal Venture (PGV) site, resulting in a 60-foot steam plume and the release of over a ton of hydrogen sulfide gas. This incident led to the evacuation of nearby residents and raised serious health and safety concerns within the community. Wikipedia+5Think GeoEnergy - Geothermal Energy News+5Wikipedia+5

Following this event, Goddard & Goddard Engineering conducted an environmental analysis, concluding that the presence of geothermal energy production could adversely affect air quality and public health. The study highlighted the potential risks associated with geothermal development, emphasizing the need for stringent safety measures. localhawaiirealestate.com

[https://www.localhawaiirealestate.com/Docs%20and%20Forms/public/GEOTHERMAL_PUBLIC_HEALTH_ASSESSMENT.pdf?utm_source=chatgpt.com]

Moreover, the U.S. Geological Survey's 1994 report on the potential effects of the Hawaii Geothermal Project on groundwater resources discussed the risks of contaminating groundwater due to accidental releases of geothermal fluids. It underscored the necessity of implementing robust safety protocols to protect both public health and the environment. U.S. Geological Survey+1U.S. Geological Survey+1

Expert Recommendations for Safety Buffers

Geothermal experts who investigated the causes of the 1991 KS12 well blowout recommended that geothermal development, drilling, and facilities maintain a minimum buffer zone of 10 miles from residential areas to safeguard public health and safety. This recommendation stems from the need to mitigate risks associated with geothermal operations, including the potential release of hazardous gases and other environmental hazards.

Ongoing Health and Safety Concerns

Residents in the Puna district continue to experience health issues related to geothermal activities. For instance, a blowout in March 2023 resulted in the release of toxic gases, affecting the physical and mental well-being of local residents. The lack of transparency and insufficient oversight exacerbate these concerns, leaving the community vulnerable to potential health risks. WikipediaHawaii Business Magazine

Conflict of Interest Concerns

The dual roles of individuals such as Mike Kaleikini, who serves as head of the Department of Hawaiian Home Lands (DHHL) while also being affiliated with PGV, raise significant conflict of interest issues. This dual affiliation may influence decision-making processes related to geothermal development, potentially compromising the interests and safety of affected communities.

Call for Immediate Action

Given the historical incidents, expert recommendations, ongoing health concerns, and potential conflicts of interest, I urge the House Finance Committee to:

1. **Reject SB1269 SD1 HD2**: The bill fails to adequately address critical safety measures, including the establishment of appropriate buffer zones around geothermal facilities.
2. **Implement a Minimum 10-Mile Buffer Zone**: Enforce a mandatory 10-mile buffer zone between geothermal development sites and residential areas to protect public health and safety.
3. **Enhance Oversight and Transparency**: Establish independent oversight mechanisms to monitor geothermal activities and ensure transparent reporting of all incidents and safety measures.
4. **Address Conflict of Interest Issues**: Review and resolve any potential conflicts of interest among individuals involved in both regulatory agencies and geothermal companies to ensure decisions are made in the best interest of the public.

Conclusion

The safety and well-being of Hawai'i's residents must be the top priority in any discussions or actions related to geothermal development. The historical record, expert analyses, and ongoing community concerns provide a compelling case for rejecting SB1269 SD1 HD2 and implementing stronger safeguards to protect our communities.

Thank you for your attention to this critical matter.

SB-1269-HD-2
Submitted on: 3/31/2025 3:54:56 PM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Krista Vessell	Individual	Oppose	Written Testimony Only

Comments:

VEHEMENTLY OPPOSE! GEOTHERMAL IS A HAZARD TO EVERYONE WHO LIVED IN HAWAI'I! WHY ARE YOU ALLOWING US TO BE POISONED?!

SB-1269-HD-2
Submitted on: 4/1/2025 12:19:58 AM
Testimony for FIN on 4/1/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Yvonne Alvarado	Individual	Oppose	Written Testimony Only

Comments:

I Yvonne Alvarado Oppose Bill SB1269 SD1 HD2