JOSH GREEN, M.D. GOVERNOR

> SYLVIA LUKE LT. GOVERNOR

MARK B. GLICK CHIEF ENERGY OFFICER

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HAWAII STATE ENERGY OFFICE STATE OF HAWAII

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804 Telephone: Web: (808) 451-6648 energy.hawaii.gov

Testimony of MARK B. GLICK, Chief Energy Officer

before the SENATE COMMITTEE ON WAYS AND MEANS

Friday, February 23, 2024 10:30 AM State Capitol, Conference Room 211 and Videoconference

Providing Comments on SB 2518, SD1

RELATING TO GEOTHERMAL ENERGY EXPLORATION.

Chair Dela Cruz, Vice Chair Moriwaki, and members of the Committee, the Hawai'i State Energy Office (HSEO) offers comments on SB 2518, SD1, which appropriates moneys to the Hawai'i Technology Development Corporation for geothermal energy exploration and community outreach.

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 and 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. Geothermal resources provide firm renewable energy; depending on the quantity and location, this could be used for electricity production, excess could be used for the production of hydrogen, and steam could be used directly.

HSEO is currently advocating for and supporting the essential first step of exploration and resource assessment through slim hole resource characterization. Geothermal exploration and identification require upfront capital; it can be costly to confirm the viability of geothermal. Support for geothermal resource exploration can

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

Hawai'i State Energy Office SB 2518, SD1 - RELATING TO GEOTHERMAL ENERGY EXPLORATION - Comments February 23, 2024 Page 2

help attract private capital for potential development. HSEO supports state funding for such directed efforts by HTDC, HSEO and other state and county jurisdictions, particularly when coordinated with entities such as the University of Hawai'i's Groundwater and Geothermal Resources Center 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.

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

Thank you for the opportunity to testify.



Hawaii Technology Development Corporation521 Ala Moana Blvd, Ste 255808-539-3806Honolulu, Hawaii 96813www.htdc.org

JOSH GREEN, M.D. GOVERNOR

> SYLVIA LUKE LT. GOVERNOR

Written Statement of Wayne Inouye Interim Director Hawaii Technology Development Corporation before the SENATE COMMITTEE ON WAYS AND MEANS

Friday, February 23, 2024 10:30 AM State Capitol, Conference Room #211

In consideration of SB2518 SD1 RELATING TO GEOTHERMAL ENERGY EXPLORATION

Chair Dela Cruz, Vice Chair Moriwaki and members of the Committee.

The Hawaii Technology Development Corporation (HTDC) supports SB2518 SD1 that appropriates moneys to the Hawaii Technology Development Corporation for geothermal energy exploration. Requires surface and subsurface exploration and community outreach. Declares that the appropriation exceeds the state general fund expenditure ceiling for 2024-2025.

HTDC supports the exploration of both surface and subsurface geothermal exploration. Geothermal is a clean source of energy, with emissions as low as solar, wind, and hydropower. By exploring geothermal energy, HTDC hopes to bring renewable energy sources that produce lower or no greenhouse gas emissions to light, which is critically important in tackling the climate crisis. Geothermal energy can be used to heat structures such as buildings, parking lots, and sidewalks, and its steam can be used to generate electricity. By investing in geothermal energy and outreach, we can reduce our carbon footprint and help create a more sustainable future.

HTDC would also like to acknowledge the cultural sensitivity regarding the study and use of geothermal energy and will take these concerns into account should this bill pass. We appreciate the opportunity to take part in the geothermal energy exploration.

Thank you for the opportunity to testify.



Email: <u>communications@ulupono.com</u>

SENATE COMMITTEE ON WAYS & MEANS Friday, February 23, 2024 — 10:30 a.m.

Ulupono Initiative <u>supports</u> SB 2518 SD1, Relating to Geothermal Energy Exploration.

Dear Chair Dela Cruz 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 <u>supports</u> SB 2518 SD1, which appropriates moneys to the Hawai'i Technology Development Corporation for geothermal energy exploration and requires surface and subsurface exploration and community outreach.

Hawai'i needs all viable forms of renewable energy to meet the 100% renewable portfolio standard by 2045. Furthermore, the Hawai'i State Energy Office in its recently published Hawai'i Pathways to Decarbonization Report identifies, among other things, the significant need for additional renewable energy generation to meet broader economy-wide decarbonization goals.¹ Wind and solar alone are not enough. Firm sources, such as geothermal, will also be necessary. Hawai'i also faces many competing demands for available land, and geothermal projects use the least amount of land per megawatt of renewable power produced. As reported by Hawai'i Public Radio in 2019, <u>"[r]esearch recently presented</u> by graduate student Ted Brennis with the <u>Hawai'i Groundwater and Geothermal Resources</u> <u>Center</u> indicates that where resources are available, geothermal is competitive with wind and solar on both cost and land use."²

Most residents seem to believe the Big Island is the only place in which geothermal energy can be commercially produced, and yet that assumption has never been thoroughly researched

¹ Hawai'i Pathways to Decarbonization Act 238, Session Laws of Hawai'i 2022, Report to the 2024 Hawai'i State Legislature December 2023. <u>https://energy.hawaii.gov/wp-content/uploads/2024/01/Act-238 HSEO Decarbonization Report.pdf</u>

² <u>https://www.hawaiipublicradio.org/local-news/2019-07-25/unexplored-geothermal-potential-may-offer-solution-to-renewables-reliability-problem</u>. Report cited can be found at <u>https://www.higp.hawaii.edu/hggrc/wp-content/uploads/2019/07/Brennis-Ted-2019.07.23-Thesis-</u>



and confirmed. Ulupono supports the work of the Hawai'i Technology Development Corporation to further the discovery and development of geothermal resources.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata Director of Government Affairs



1/31/24

Roberta Cabral 5184 Iroquois Ave Ewa Beach, Hawaii 96706

> Testimony of Roberta Cabral of Innovations Development Group, Inc.

> Before the Energy, Economic Development & Tourism Committee Feb 1, 2024 at 1pm CR 229

SB2518 Relating to Geothermal Energy Exploration

Chair Wakai, Vice Chair Misalucha, and Members of the Energy, Economic Development & Tourism Committee:

On behalf of Innovations Development Group, Inc. and myself, I am submitting this testimony in **STRONG SUPPORT** of **SB2518**, relating to **GEOTHERMAL ENERGY EXPLORATION**.

Hawaii is the most oil dependent & energy insecure state in the United States. We rely heavily on imported fossil fuels for our energy needs and pay the highest electricity rates in the country. The State of Hawaii has made a commitment to changing our energy reality and to become leaders in clean, renewable energy through a bold energy agenda, by achieving 100 percent clean energy by the year 2045. Along with reducing our islands' dependency on fossil fuels and increasing efficiency measures, the clean energy plan is also contributing to the state's economic growth.

Fortunately we are blessed with ample geothermal power on Hawaii island. As you know, we have already invested in a great deal of research into understanding the nature of what Pele has provided and how best to access her energy for the good of all.

This measure promotes geothermal energy as the most reliable & affordable source of FIRM power for Hawaii, and lays a clear foundation to ensure that this source of firm power will be developed in a manner that benefits those who are the legal beneficiaries of the public trust.

Today, we all recognize that geothermal renewable energy resources are "minerals" under State law & as such are assets of the Public Trust. The time has come for the State of Hawaii to prioritize the development of these precious resources in order to ensure that our State can become energy self-sufficient and independent in future years. In addition, the IDG believes that Public Trust energy resources should be developed in a way that brings direct and tangible benefits to the 'consumers' of our State who also happen to be the beneficiaries of the public trust.

Geothermal energy is an asset of the public trust. It is defined as a mineral by Hawaii statutes, and as such is a public energy resource. Although the State owns the resource, the State has never managed & developed it as a 'trust asset'. Rather, geothermal energy has been developed on private land to the benefit of private parties with the State receiving only mineral royalties. The time has come for the State to prioritize the development of geothermal energy (and all other renewable energy resources of the trust) pursuant to its trust obligation that requires that the State develop these resources for the benefit of the State and its public & native Hawaiian beneficiaries.

The State of Hawaii is facing a serious energy & fiscal crisis. We badly need to expedite the development of our own State renewable resources and to ensure that the manner in which these precious and invaluable resources are developed brings a direct benefit to those who own the resources.

Today, more than ever, Geothermal should be a critical component of Hawaii's sustainable energy future. It is a clean, reliable, mature, firm base-load energy technology that will be key to Hawaii's sustainable energy mix.

I urge you to pass SB2518 and finally clear the way for Hawaii to build an energy secure future, reducing our dependence on fossil fules that is built on firm, baseload renewable energy found in abundnace in our islands that is available for all people, from keiki to kupuna, that is culturally appropriate, environmentally sustainable, and economically sensible for present and future generations.



SENATE COMMITTEE ON WAYS AND MEANS

February 23, 2024, 10:30 am Room 211, Decision Making Only

TESTIMONY IN SUPPORT OF SB 2518 SD1

Aloha Chair Dela Cruz, Vice Chair Moriwaki, and Committee members:

Blue Planet Foundation **supports SB 2518 SD1**, which appropriates funding to the Hawai'i Technology Development Corporation for geothermal energy exploration and community outreach.

Blue Planet Foundation is a Hawai'i-based nonprofit organization committed to help Hawai'i cut its carbon emissions and avoid the worst impacts of climate change. Through our advocacy for renewable energy, energy efficiency, and clean transportation, we seek to make our communities stronger, our energy more secure, our environment healthier, and our economy more robust.

Hawai'i is fortunate to have a variety of clean energy options to meet our 100% renewable portfolio standards by 2045. While solar and wind energy face challenges of intermittency, geothermal has the potential to provide low-carbon, firm renewable energy– expanding and diversifying our local energy system as we move our islands closer to 100%.

Blue Planet supports research for geothermal for the following reasons:

Renewable and Sustainable: Geothermal energy is a renewable resource, meaning it can be replenished naturally over time. In Hawaii, where there is significant volcanic activity, geothermal energy provides a continuous and reliable source of power without relying on finite fossil fuels.

Stable and Baseload Power: Geothermal power plants can provide baseload power, meaning they can generate electricity consistently, unlike some other renewable sources like solar and wind, which depend on weather conditions. This stability helps ensure a reliable electricity supply for Hawaii's residents and businesses.

Reduced Greenhouse Gas Emissions: Geothermal energy is a low-carbon energy source, emitting minimal greenhouse gases compared to fossil fuels like coal, oil, and natural gas. By utilizing geothermal energy, Hawaii can reduce its carbon footprint and contribute to mitigating climate change.

Energy Independence: Harnessing geothermal energy helps reduce Hawaii's dependence on imported fossil fuels for electricity generation. This enhances energy security and resilience by diversifying the energy mix and reducing exposure to volatile fuel prices and supply disruptions.

Achieving Hawaii's ambitious clean energy and resilience goals will require a diverse mix of renewable, local energy sources and types. This bill is a first step towards identifying where geothermal energy might be located, so that further exploration and necessary community engagement can follow.

Thank you for the opportunity to submit testimony in support.



TESTIMONY BEFORE THE SENATE COMMITTEE ON WAYS AND MEANS

SB 2518, SD1 Relating to Geothermal Energy Exploration

> Friday, February 23, 2024 10:30 AM State Capitol, Conference Room 211

Greg Shimokawa Director, Renewable Acquisition Hawaiian Electric

Dear Chair Dela Cruz, Vice Chair Moriwaki, and Members of the Committee,

My name is Greg Shimokawa and I am testifying on behalf of Hawaiian Electric in **support** of SB 2518, SD1, Relating to Geothermal Energy Exploration. This bill seeks to appropriate funds for the continued exploration of geothermal resources in Hawaii and community outreach activities.

Hawaiian Electric supports continued exploration of geothermal resources and community outreach to help accelerate the development of renewable energy projects, support the State's Renewable Portfolio Standards ("RPS") requirements, reduce reliance on imported fossil fuels, stabilize and reduce volatility of customers' bills, reduce greenhouse gas emissions, and assist with post-pandemic economic recovery.

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

Accordingly, Hawaiian Electric supports SB 2518, SD1. Thank you for this opportunity to testify.

Hawaiian Electric



Testimony to the Senate Committee on Ways and Means Friday, February 23, 2024, at 10:30AM Conference Room 211

RE: SB2518 SD1 Relating to Geothermal Energy

Chair Dela Cruz, Vice Chair Moriwaki, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **supports SB2518 SD1**, which appropriates funds to the Hawaii Technology Development Corporation for geothermal energy exploration.

Geothermal energy exploration is a pivotal step towards our state's resiliency sustainability goals. By harnessing the Earth's natural heat through geothermal optimization, we significantly reduce our reliance on fossil fuels, mitigate environmental impact and increase our island's independence.

Investing in geothermal technology not only promotes renewable and clean energy but also contributes to job creation and energy independence. We support HTDC's efforts in this, as it's a crucial investment for a greener, more resilient future for our state.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

Thank you for the opportunity to testify.



Indigenous Consultants, LLC Mililani B. Trask, Principal P.O.Box 6377 & Hilo, HI 96720 <u>Mililani.trask@gmail.com</u>



Date: Friday, February 23, 2024 Time: 10:30 am Place: Conference Room 211 Committees: Senate – WAM

Re: SB 2518 SD1 - Relating to Geothermal Energy Exploration

Aloha Senators,

Indigenous Consultants (IC) is a Hawaii based, indigenous LLC owned and operated by Native Hawaiians. It was created to assist indigenous peoples in developing their renewable energy resources in ways tat are: Culturally appropriate, environmentally green and sustainable, socially responsible and economically equitable and affordable. For several years the IC has worked with Innovations Development Group in New Zealand and indigenous Maori developing geothermal resources, which are trust assets of Maori Land Trusts. In addition, the IC has acted as a consultant to other indigenous people in Hawaii and Asia who are addressing development of their trust renewable energy resources in ways that; directly benefit their people, bring in revenues, create small business opportunities and ensure fair & affordable rates to consumers, including themselves and their communities.

Testimony in Strong Support

Hawaii is the most energy insecure State in the Union. Hawaii is currently experiencing a crisis in energy among the many issues affecting our state from water and food security, affordable housing and the devastating impact of the recent fires in Maui. Our energy crisis is due largely to the fact that Hawaii exports billions of dollars a year for fossil fuel and a lack of infrastructure to support firm, renewable generation. These revenues are not being made available for growth and expansion of our economy because they are diverted to pay for fossil fuel despite the fact that Hawaii has a great bounty of indigenous renewable energy, including geothermal energy that is a 'mineral' and an asset of the public trust. The State and its agencies & regulatory bodies, including the PUC, have a trust & fiduciary obligation to inventory & develop these renewable assets in a way that benefits the public and Native Hawaiians who are the beneficiaries of the public trust.

One of the primary barriers to Hawaii's energy self-sufficiency is the conflict of interest that exists because the electric utility that owns & manages the grid is also in the business of energy generation using fossil fuels and facilities that can only be run on fossil fuels of their own bio-fuel plants. These facilities cannot interface with geothermal or other renewable energy sources.

Geothermal energy development should be a key component of Hawaii's Renewable energy future. The technology is mature, having been implemented successfully around the world in countries like New Zealand (Aotearoa), Iceland and the Philippines among others. Geothermal is also a clean, renewable, firm power capable of being a baseload for our electricity needs here in Hawaii.

This bill is needed in order to facilitate the immediate exploration of the States geothermal public trust assets in light of the energy needs Hawaii is facing due to the requirements of the Hawaii Clean Energy Initiative. Exploration for geothermal resources capable for energy development is the first step that is needed to determine what can be done here in Hawaii in a safe, responsible and equitable manner. Forty years ago, Hawaii's statutes anticipated that the State of Hawaii would expend millions of dollars testing the viability of our geothermal resources so that the State could then determine which lands were suitable for geothermal development, and thereafter designate these areas as 'geothermal sub-zones' for private sector development. Now is the time to make good on that promise.

Sincere Regards,

ILL_BIM

Mililani B. Trask - Indigenous Consultants LLC

SB-2518-SD-1

Submitted on: 2/17/2024 8:24:35 PM Testimony for WAM on 2/23/2024 10:30:00 AM

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

Comments:

Geothermal energy will Hawaii reach its 100% renewable source mandate by 2045, and geothermal benefits the people of Hawaii by offering the following:

- Lower the cost of electricity
- Greatly reduce carbon emissions involved with creating energy
- As firm renewable energy, provide baseload power and ensure reliability of the electricity grid
- Generate revenues for the betterment of the State of Hawaii
- Increase the self-sustainability of the Hawaiian islands and reduce the import of oil
- Create local professional jobs

The rolling energy blackouts on Oahu in January demonstrated a vulnerability in Hawaii's electricity grid. A power plant going offline amid a storm should not force electricity shut downs in neighborhoods. This incident could have been avoided if Hawaii employed a more diverse energy portfolio and more firm renewable energy. Geothermal can help ensure that Hawaii has a more reliable electrical grid.

Currently, the Kilauea East Rift Zone on Hawaii Island is the only geothermal system in the Hawaiian archipelago from which geothermal electric power is being produced. Preliminary research by the University of Hawaii shows that all of the major Hawaiian Islands hold geothermal potential and that much of Hawaii's geothermal resources is unknown. More research is needed to uncover these geothermal resources.

Hawaii should take advantage of its rich volcanic resources for lower electricity prices, energy security, job and educational opportunities, and sustainability. Please invest in Hawaii's geothermal development.

SB-2518-SD-1

Submitted on: 2/20/2024 9:23:47 AM Testimony for WAM on 2/23/2024 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Keith Neal	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Dela Cruz and members of the WAM

I strongly support SB2518!

Hawaii must develop it's abundant, ubiquitous geothermal energy resource that is available on every island. Geothermal energy is always available around the clock, around the year, and just below our feet.

The oil market shocks of the Ukraine invasion is a clear warning that Hawaii must become energy sovereign and resilient. While continuing to add wind and solar generation, Hawaii must urgently develop it's geothermal energy resources. Current blackouts exemplify the need to develop 24 X 7 X 365 local geothermal energy.

Mahalo,

Keith Neal

Waimea

Aloha Legislators,

My name is Kilihea Inaba, a kanaka of Kaloko, Kona, Moku o Keawe.

This testimony is in opposition of SB2518 which appropriates money to Hawai'i Technology Development Corporation for the continued exploration of geothermal resources. No further money should be given to fund this exploratory operation on any land here in Hawai'i. Agreed that power is needed on this island and state, but where exactly is all the power going? Can we identify the major users of the electricity and power that is being used on Hawai'i island and in the state? It would be interesting to see who all this power is going to; and I'm not talking about residential households.

How much do we need to sacrifice to meet the state's goal of 100 percent clean energy by 2045? This "clean energy" is a fascade as it is in fact the opposite. Large corporations and energy related organizations are in strong support of geothermal sourcing of power, but none of the entities are directly affected by how this resoure is extracted. PGV (Puna Geothermal Venture) and government agencies have not followed through on their end to keep the people and more-than-human beings of these areas safe. When I say more-than-human beings I am referring to the plants, animals, creatures, of these areas.

Go talk to the kanaka and kamaaina who have lived near PGV for decades and see the irreversible health effects of the contaminated air, water, and land due to PGV's drilling. To my knowledge, the last study on the potential effects of geothermal projects on ground water resources on Hawai'i island was done in 1994. I'm sure if done now that the baseline numbers would be skewed as there is likely water contamination because of the many years of geothermal development, but this just goes to show that not enough has been done to protect our waters, people, and beings that occupy nearby spaces. Mahalo to the late Mayor Billy Kenoi who commissioned a geothermal public health assessment over a decade ago. In the report you can read the recommendations for environmental studies specifically water and health studies to be done. Though the environmental and health effects are already evident, the study recommends that "before geothermal development begins, a geothermal developer should fund a county-approved independent, baseline health study to establish a basis for any comparison of emerging effects of future geothermal development and production. The target area of study should include local surrounding communities that could be affected by exposures to peak concentrations of 25 ppb or more in worst-case accident scenarios." None of which has been done. We cannot rely on any agency to monitor the effects of this exploration once it is being conducted as is currently occurring; we must say no to this now.

It is too late to take back what has been done, but we can stop any further damage.

Mahalo for your consideration, Kilihea Inaba Kaloko, Kona, Hawaiʻi

<u>SB-2518-SD-1</u> Submitted on: 2/21/2024 8:23:47 AM Testimony for WAM on 2/23/2024 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Keoni Shizuma	Individual	Oppose	Written Testimony Only

Comments:

Aloha Chair, Vice Chair, and members of the committee,

I stand in opposition of SB2518.

While I recognize the potential of utilizing geothermal energy as an energy source, which could theoretically lower the cost of energy in the area that it is being done in, I stand in opposition of this bill as it disregards the cultural beliefs of the Hawaiian people, and there are many other non-invasive, non-destructive forms of green energy, which can be done in alignment of Hawaiian cultural beliefs. Solar, wind, and wave technology all have the potential to provide a clean and sustainable energy source, while not being invasive to our environmental resources, nor disregarding Hawaiian cultural values.

Also, the next 5 years will be a tight budget, with monies being needed for the Lahaina recovery. \$6 million would be better used supporting the restoration of Lahaina.

In Hawaiian culture, our land is Papahanaumoku, a female deity which we treat with respect and reverence. The heat within the Earth's crust, below Papahanaumoku, is often associated with Pelehonuamea, our goddess of the volcano. Hawaiians have many beliefs and many akua (gods) for various aspects of our environment, and the fact that they have any beliefs for these aspects of our environment is what's important. To disregard these beliefs for any reason is disrespectful to the host culture of these islands.

There is absolutely no precedent in Hawaiian culture or history of Hawaiians drilling into Papahanaumoku. The State of Hawaii should not continue to disrespect and disregard the host culture of these islands by passing this bill and further exploring geothermal energy.

The State of Hawaii has already disrespected and disregarded Hawaiian culture when they allowed Puna Geothermal in the past. Please do not repeat these harms to Hawaiian culture. There are other alternative ways that we should be pursuing, which I've mentioned above.

Mahalo nui loa for your time and consideration.

Keoni Shizuma

SB2518 Relating to Geothermal Energy Exploration

I am submitting this testimony in **STRONG SUPPORT** of **SB2518**, relating to **RELATING TO GEOTHERMAL ENERGY EXPLORATION**.

Hawaii has every reason to be proud of its commitment to moving to <u>100 percent renewable energy by</u> <u>2045</u>. But we have much to do to get there. The recent blackouts throughout Oahu once again highlight Hawaii's need to supplement the availability of another firm renewable energy power source.

Fortunately we are blessed with ample geothermal power on Hawaii island. As you know, we have already invested in a great deal of research into understanding the nature of what Pele has provided and how best to access her energy for the good of all.

Today, more than ever, Geothermal should be a critical component of Hawaii's sustainable energy future. It is a clean, reliable, mature, firm base-load energy technology that will be key to Hawaii's sustainable energy mix.

I believe in the need for a whole new collaborative approach to energy independence and compliance with the Hawaii Clean Energy Initiative through meaningful policy changes, committed long-term investment by all stakeholders, real cultural protections and equitably shared profits while bringing access to global industry experience, cleaner technologies, enhanced environmental awareness, and a commitment to sustainable energy development & community participation.

To achieve that understanding we must have a robust community outreach campaign that gives everyone a chance to listen, learn and voice their concerns. The community needs to know that we understand and will be properly responsive to any concerns they might raise.

The State of Hawaii has a responsibility to all its residents to provide affordable and clean electricity for all by utilizing its natural resources to support the development of clean, safe and affordable renewable energy. Energy security is a core tenet of life in an island-based economy and for far too long have the residents of Hawaii suffered unnecessarily.

I urge you to pass SB2518 and finally clear the way for Hawaii to build an energy secure future, reducing our dependence on fossil fules that is built on firm, baseload renewable energy found in abundnace in our islands that is available for all people, from keiki to kupuna, that is culturally appropriate, environmentally sustainable, and economically sensible for present and future generations.