SCR 99

LINDA LINGLE GOVERNOR OF HAWAJI





STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621 HONOLULU, HAWAII 96809 LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI FIRST DEPUTY

KEN C. KAWAHARA DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
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ENGINEERING
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KAHOOLAWE ELAND RESERVE COMMISSION
LAND
STATE FARKS

Testimony of LAURA H. THIELEN Chairperson

Before the Senate Committees on ENERGY AND ENVIRONMENT and WATER, LAND, AGRICULTURE AND HAWAIIAN AFFAIRS

Thursday, March 25, 2010 3:00 P.M. State Capitol, Conference Room 225

In consideration of SENATE CONCURRENT RESOLUTION 99 REQUESTING THE ESTABLISHMENT OF A WORKING GROUP TO ANALYZE THE POTENTIAL DEVELOPMENT OF GEOTHERMAL ENERGY AS THE PRIMARY ENERGY SOURCE TO MEET THE BASELOAD DEMAND FOR ELECTRICITY ON THE BIG ISLAND

Senate Concurrent Resolution 99 requests the establishment of a working group to analyze the potential of geothermal energy to provide the primary energy source to meet the Big Island's baseline electrical demand. While the Department of Land and Natural Resources (Department) acknowledges the importance of geothermal energy to meet the Big Island's electrical demands, the Department nonetheless cannot undertake an unfunded mandate or working group study as called for in this concurrent resolution, as it would detract from core public management responsibilities.

The Department's general fund has been cut 32% over the past 3 years, special fund revenues have declined 35% over the past 3 years, and the Department has lost 80 positions in the recent Reduction-in-Force this past year. Any further cuts or additions of new unfunded mandates will likely result in loss of staff and maintenance and operations of core departmental mission. Accordingly, the Department is unable provide the requested service on this working group.



DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
EARL IMADA IBOSHI
DEPUTY DIRECTOR

Telephone: (808) 586-2355 Fax: (808) 586-2377

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804 Web site: www.hawaii.gov/dbedt

Statement of

THEODORE E. LIU

Director

Department of Business, Economic Development, and Tourism before the

SENATE COMMITTEES ON ENERGY AND ENVIRONMENT AND WATER, LAND, AGRICULTURE, AND HAWAIIAN AFFAIRS

Thursday, March 25, 2010 3:00 PM State Capitol, Conference Room 225

in consideration of

SCR 99

REQUESTING THE ESTABLISHMENT OF A WORKING GROUP TO ANALYZE THE POTENTIAL DEVELOPMENT OF GEOTHERMAL ENERGY AS THE PRIMARY ENERGY SOURCE TO MEET THE BASELOAD DEMAND FOR ELECTRICITY ON THE BIG ISLAND.

Chairs Gabbard and Hee, Vice Chairs English and Tokuda, and Members of the Committees.

The Department of Business, Economic Development, and Tourism (DBEDT) would like to offer comments on SCR 99, which requests that the County of Hawaii establish, convene and facilitate a working group to analyze the potential development of geothermal energy as the primary energy source to meet the baseload demand for electricity on the Big Island. The proposed 11-member working group is also to recommend methods to mitigate potential environmental and cultural impacts and to consider improvements to the electricity grid.

DBEDT is aware of a number of past and ongoing efforts concerning these themes. For instance, the PUC directed the Hawaii Electric Light Company (and other utilities) to develop Integrated Resource Plans (IRP) which examined the potential and impact of a variety of

renewable energy technologies, including geothermal, as well as efficiency and conservation measures. The PUC is considering replacing the IRP process with Clean Energy Scenario Planning (CESP), which will, in addition to examining renewables and efficiency, also include transmission and distribution improvements. There is likely to be significant overlap between the CESP efforts and the tasks of the proposed working group.

Regarding the royalties paid for geothermal generation and allocated to the County of Hawaii, these funds are already deposited into an account intended to assist members of the community who are negatively impacted by geothermal development. Some of the funds have been utilized, in keeping with County ordinance, to relocate homeowners near the geothermal power plant who wished to move but were unable to sell their homes.

Thank you for the opportunity to offer these comments.

William P. Kenoi

Mayor



William T. Takaba Managing Director

Walter K.M. Lau Deputy Managing Director

County of Hawai'i Office of the Mayor

25 Aupuni Street, Suite 2603 • Hilo, Hawai'i 96720 • (808) 961-8211 • Fax (808) 961-6553 KONA: 75-5722 Hanama Place, Suite 102 • Kailua-Kona, Hawai'i 96740 (808) 327-3602 • Fax (808) 326-5663

March 25, 2007

The Honorable Senator Clayton Hee, Chair
And Members of the Senate Committee on Water,
Land, Agriculture and Hawaiian Affairs
The Honorable Senator Mike Gabbard, Chair
And Members of the Senate Committee on Energy and Environment
Hawai'i State Capitol, Room 225
Honolulu, Hawaii 96813

Re: SCR 99, REQUESTING THE ESTABLISHMENT OF A WORKING GROUP TO ANALYZE THE POTENTIAL DEVELOPMENT OF GEOTHERMAL ENERGY AS THE PRIMARY ENERGY SOURCE TO MEET THE BASELOAD DEMAND FOR ELECTRICITY ON THE BIG ISLAND

Aloha, Chair Hee and Chair Gabbard:

Thank you for this opportunity to submit testimony in support of SCR99. Geothermal is a proven renewable resource in the County of Hawai'i, where the first geothermal power plant began producing electricity in 1981. As this technology evolved and geothermal operators have gained experience managing our geothermal resource, the potential for expanded, clean, reliable geothermal electrical production has become obvious.

We have a responsibility to our community to aggressively seek out the best ways to curb increasing energy costs, promote energy independence and protect our environment by reducing greenhouse gas emissions. Geothermal has demonstrated it has the potential to accomplish all of these objectives, and also offers an opportunity to foster economic growth by reducing energy costs for our businesses and residents.

We are prepared to convene and support the working group proposed in this resolution to analyze the additional electrical generation potential for geothermal development.

Aloha.

William P. Kenoi MAYOR

County of Hawai'i is an Equal Opportunity Provider and Employer.

William P. Kenoi Mayor



Randali M. Kurohara Director

Laverne R. Omori Deputy Director

County of Hawaii

DEPARTMENT OF RESEARCH AND DEVELOPMENT

25 Aupuni Street, Room 1301 • Hilo, Hawaii 96720-4252 (808) 951-8366 • Fax (808) 935-1205 E-mall: chresdev@co.hawaii.hi.us

March 24, 2010

Senator Mike Gabbard, Chair and Members of the Committee on Energy and Environment Senator Clayton Hee, Chair and Members of the Committee on Water, Land, Agriculture, and Hawaiian Affairs
State Capitol, Room 201
Honolulu, Hawai'i 96813

RE: SCR 99 relating to Geothermal

Dear Senators Gabbard and Hee:

Thank you for the opportunity to submit testimony in favor of SCR 99 Requesting the Establishment of a Working Group to Analyze the Potential Development of Geothermal Energy as the Primary Energy Source to Meet the Baseload Demand for Electricity on the Big Island.

The County of Hawai'i supports SCR 99 because successful implementation will result in future renewable energy development and energy security for Hawai'i residences and commercial facilities. Geothermal is an effective and proven stable form of renewable energy, and analyzing the further potential development of the same would be beneficial overall.

The energy savings generated from the use of geothermal will further help reduce the operational costs and overhead expenses for residences and commercial facilities of Hawai'i; ultimately reducing our carbon footprint significantly while complying with the Hawaii Clean Energy Initiative.

Utilizing geothermal as a source of renewable energy to meet the County of Hawai'i 's demand will further provide a stimulus growth for economic development within Hawai'i County, and benefitting the State of Hawai'i in general.

The County of Hawai'i embraces geothermal and would like to see it utilized at its full potential for the Island of Hawai'i.

/éry∕truly yours,

RÅNDALL M. KUROHARA

Director



Hawaii Island Chamber of Commerce

106 Kamehameha Avenue Hilo, Hawaii 96720 Phone: (808) 935-7178 Fax: (808) 961-4435 E-mail: admin@hicc.biz

www.hicc.biz

March 23, 2010

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The Honorable Senator Clayton Hee

Chairperson Committee on Water, Land, Agriculture & Hawaiian

Affairs

The Honorable Senator Mike Gabbard

Chairperson Committee on Energy & Environment

RE: SCR99

I am Mary Begier, President of the Hawaii Island Chamber of Commerce. Here on Hawaii island we currently benefit from this resource as it contributes to our electrical supply grid. This resource, owned by the State of Hawaii, is a source of revenue to the state of approximately \$3 million a year. Additionally OHA receives over a half a million dollars a year and our County of Hawaii receiving approximately \$300,000.

We support the intent of this resolution but ask that you consider broadening the participants in the working group to include the business community. The Hawaii Island Chamber of Commerce and the Kona Kohala Chamber of Commerce have supported the current geothermal program and would like to continue those efforts. We also note that no one from the UH Hilo is recommended.

Thank you for this opportunity to present our thoughts.

Sincerely,

Mary Begier

President 2009-2010



Japanese Chamber of Commerce & Industry of Hawaii

March 23, 2010

The Honorable Senator Mike Gabbard, Chair Committee on Energy and Environment

Re: SCR99 - Establish working group to study feasibility of geothermal

Dear Chair Hee,

The Japanese Chamber of Commerce & Industry of Hawaii is submitting this testimony in support of SCR99. On the Big Island the geothermal resource is renewable resource that is proven technology. The resource, owned by the State of Hawaii, is a source of revenue to the State - \$3 million annually, OHA - \$600,000 annually and the County of Hawaii - \$300,000 annually.

Compared to oil and bio

fuels whose cost will steadily rise, geothermal costs will be stable for centuries to come. It will stable cheap electricity costs will help folks on the lowest rungs of the economic ladder. They are the ones whose lights will be turned off first. Cheaper electricity will leave more discretionary income in the pockets of everyone, therefore supporting businesses where folks can have jobs to feed their families. Also, geothermal is clean energy, there are no emissions.

Since geothermal can be considered a Hawaiian resource, developing geothermal so that the benefits of that resource can go to Native Hawaiians will show the Hawaiian people in a real way that their culture is valued. This is very important as we transition to an uncertain future.

Yours truly,

Allan H. Onishi

2009-2010 JCCIH President

714 Kanoelehua Avenue • Hilo, Hawaii 96720-4565 P.O. Box 7436 • Hilo, Hawaii 96720-8981 Phone: (808) 934-0177 • Fax: (808) 934-0178 • E-mail: jccih1@hawaiiantel.net

Testimony before the Senate Committees on Energy and Environment and Water, Land, Agriculture and Hawaiian Affairs

S.C.R. 99

Requesting the Establishment of a Working Group to Analyze the Potential Development of Geothermal Energy as the Primary Energy Source to Meet the Baseload Demand for Electricity on the Big Island

Thursday, March 25, 2010 3:00 pm, Conference Room 225

By Jay Ignacio President Hawaii Electric Light Company, Inc.

Chairs Gabbard and Hee, Vice-Chairs English and Tokuda and Members of the Committees:

My name is Jay Ignacio. I am the President of Hawaii Electric Light Company (HELCO). As you may know, geothermal power plants have been operational since the 1960s in the United States. In Hawaii, HELCO has had a 30 MW power purchase agreement (PPA) with Puna Geothermal Venture (PGV) on the Big Island since the early 1990s.

We support S.C.R. 99, which establishes a working group to analyze the potential for geothermal development on the Big Island, and offer these comments:

- A representative from the geothermal development community should be included in the working group.
- HELCO supports geothermal technologies that provide the grid services that are
 equivalent to conventional resources such as dispatchability, load following,
 inertia, frequency and voltage regulation. Because of our high penetration of
 variable or intermittent renewable generation, it is essential that future generating
 units provide these types of services.

- For the majority of its operation, PGV has provided firm, reliable geothermal
 power to the Big Island electrical grid. PGV has had issues, past and present,
 with maintaining its geothermal resource and is currently taking steps to resolve
 this issue. HELCO is negotiating to increase PGV's PPA by 8 MW.
- PGV has stated its plans to increase geothermal capacity on the Big Island by developing the resource in the Kona area. An increase in geothermal capacity in this area versus the Puna area would be helpful to HELCO as the electrical demand is larger on the Kona side of the Big Island than in the Puna district. Geothermal Production on the Kona side would also reduce transmission losses and the need for new cross island transmission lines. However, we believe that a lengthy geothermal subzone designation process would be required before any exploration can take place in Kona. In addition, cultural issues will have to be addressed.
- HELCO is part of a PUC docket for the Clean Energy Scenario Planning (CESP)
 framework development, which is being proposed to replace the current
 integrated resource planning (IRP) process. CESP involves public input and will
 be the best venue to determine the type and mix of renewable generation for the
 Big Island and the benefits and cost-effectiveness of potential generation
 technologies and resources.
- The Public Utilities Commission has mandated competitive bidding for future generating resources greater than 2.8 MW on the Big Island. HELCO will be using competitive bidding to acquire the next large resource.

Thank you for the opportunity to testify.

Jeffrey Melrose Island Planning 1405 Waianuenue Ave. Hilo, HI 96720

Senate Committee on Energy and Environment Senate Committee on Water, Land, Agriculture and Hawaiian Affairs Hawaii State Capitol Honolulu, Hawaii Via e-mail

Re: SCR99 -- Establish working group to study feasibility of geothermal.....

Dear Chairperson Hee and Gabbard

I am submitting this testimony in support of SCR99. Hawaii Island has a long and generally successful history of capturing geothermal heat to light our homes and businesses. Geothermal provides a stable source of locally produced energy that is not subject to the oncoming shortages and price increases associated with imported fossil fuels. Further, the resource is owned by the State of Hawaii, and is a source of revenue to the state--- currently \$3 million annually; OHA \$600,000 annually; and the County of Hawaii-\$300,000 annually.

I believe that is time to re-engage the discussion about the future of this important energy source and to do so in the manner that is prescribed in SCR99. It is important, as well, to engage this effort with the active participation of geothermal companies who can bring the practical issues to the table as the Working Group explores ways to promote further investment in geothermal development.

Geothermal energy has many things in its favor. It is relatively cheap to operate, it decouples our energy future for the rest of the global trend, it has no carbon emission and it has a very small land use footprint. It would be tragic if we missed the opportunity to promote this local energy source and accepted a future tied to either global energy prices or to large land-consuming biofuels that will compete with our local capacity to produce sustainable food crops or export commodities.

Let's move now to keep our energy dollars at home in Hawaii and to make all reasonable efforts to unleash our geothermal potential to the good of future generations.

Thank you for the chance to submit testimony.

Mahalo nui

Jeffrey Melrose

Principal Planner Island Planning HOKULIA

March 23, 2010

Hawaii State Capitol, 415 Beretania Street, Honolulu, Hawaii 96813

Senate Committee on Water, Land, Agriculture and Hawaiian Affairs

The Honorable Senator Clayton Hee, Chairperson

Senate Committee on Energy and Environment

DISThe Honorable Senator Mike Gabbard

DISTRIBUTED VIA E-MAIL

Subject: Support for Senate Concurrent Resolution 99 – Requesting the Establishment of a Working Group to Analyze the Potential Development of Geothermal Energy as the Primary Energy Source to Meet the Base Load Demand for Electricity on Hawaii Island

Aloha e Chairman Hee and Chairman Gabbard,

At the heart of my support for SCR 99 is the urgent need and golden opportunity for the Island of Hawaii to evolve itself into becoming a world leader is the usage of renewable energy; or as my Native Hawaiian friends call it - "indigenous energy".

For reasons that are clearly articulated within the Resolution itself and the proposed scope of the working group's time-sensitive assignment, SCR99 is a worthy investment of public tax dollars. Furthermore, the eleven (11) members will receive their respective designations from a diverse circle of stakeholder-representatives in an effort to find a well-balanced perspective.

Critical to the credibility of this analysis is the consideration that the working group will be tasked with in considering what improvements may be required for the electricity transmission system and what funding may be available for such projects from the United States Department of Energy.

Honorable Senators, please encourage unanimous support from your respective Committee Members for SCR 99; which will serve as a pivotal step toward our Island's future.

E Malama Moku o Keawe,

John De Fries President & CEO

cc: Senator Russell Kokubun

gabbard1 - Carlton

From:

Rock Riggs

Sent:

Wednesday, March 24, 2010 9:02 AM

To:

gabbard1 - Cariton

Subject:

FW: SCR99 Establish working group to study feasibility of geothermal...

From: Richard Ha [mailto:richard@hamakuasprings.com]

Sent: Wednesday, March 24, 2010 6:59 AM

To: Sen. Clayton Hee; Sen. Mike Gabbard; WTLTestimony

Cc: Sen. Russell Kokubun

Subject: SCR99 Establish working group to study feasibility of geothermal...

Mar 23, 2007

The Honorable Senator Clayton Hee
Chairperson
Committee on Water, Land, Agriculture and Hawaiian Affairs
The Honorable Senator Mike Gabbard
Chairperson
Committee on Energy and Environment

Via Email: senhee@capitol.hawaii.gov

sengabbard@Capitol.hawaii.gov

Re: SCR99 -- Establish working group to study feasibility of geothermal...

Dear Chairperson Hee and Gabbard

I am submitting this testimony in support of SCR99. On the Big Island the geothermal resource is a renewable resource that is proven technology. The resource, owned by the state of Hawaii, is a source of revenue to the state-\$3 million annually; OHA \$600,00 annually; And, the County of Hawaii-\$300,000 annually.

Compared to oil and biofuels whose costs will steadily rise, geothermal costs will be stable for centuries.

Stable cheap electricity costs will help folks on the lowest rungs of the economic ladder. They are the ones whose lights will be turned off first.

Cheap electricity will leave discretionary income in the pockets of everyone, thereby supporting businesses where folks can have jobs to feed their families.

Geothermal is clean energy, there are no emissions.

Since geothermal can be considered a Hawaiian resource, developing geothermal so that the benefits of that resource can go to Native Hawaiians --will show Hawaiian people in a real way that their culture is valued. This is very important as we transition to an uncertain future.

Mahalo

Richard Ha President Hamakua Springs Country Farms

....

Puna Geothermal Venture



Hawaii State Senate Committee on Energy and Environment and the Committee on Water, Land, Agriculture and Hawaiian Affairs Hawaii State Capitol Honolulu, Hawaii

Aloha Chairs Gabbard and Hee:

We support the intent and purpose of SCR 99 and would offer some comments to expand the focus of the Geothermal Working Group. Certainly Puna Geothermal Venture does offer our experience and knowledge to assist the Working Group with their endeavor.

Back in 1983 a group of knowledgeable scientists and bureaucrats reviewed the potential for geothermal development in the State of Hawaii. Since that time, only one project has developed 30 megawatts of electricity on one of the zones identified by the group. This is a mere "blip" of the true potential on Hawaii Island and in the State of Hawaii. This 30 megawatt project has paid over \$15 million in geothermal royalties to the State of Hawaii while displacing the need for millions of gallons of oil annually.

It is important that the working group specifically identify the type and extent of geothermal resource assessment that is necessary to plan for the eventual replacement of fossil fuel imports for electricity generation or transportation. Such planning is necessary to prepare for when oil price exceeds \$200 per barrel. We MUST position Hawaii Island and the State of Hawaii to minimize the economic catastrophe which will result with high oil prices OR the lack of availability of oil entering the State.

Should you or any members of the committees have any questions, I would be happy to respond.

Sincerely,

Michael L. Kaleikini Puna Geothermal Venture

lichael L. Kalei Kemi

Plant Manager

Post Office Box 30 + 14-3860 Kapoho-Pähoa Road Pāhoa, Hawai'i 96778 Tel (808) 965-6233 + Fax (808) 965-7254 PunaGeothermalVenture.com

gabbard1 - Carlton

From:

Rock Riggs

Sent:

Thursday, March 25, 2010 9:40 AM

To:

gabbard1 - Carlton

Subject:

FW: SCR99

From: Nimr Y. Tamimi [mailto:nimr@epihawaii.com]

Sent: Thursday, March 25, 2010 8:26 AM To: Sen. Mike Gabbard; Sen. Clayton Hee

Cc: 'Richard Ha' Subject: SCR99

Senator Gabbard & Hee:

Thank you very much for your time in reading this e-mail, we are supportive of the idea of expanding the use of geothermal energy in our community (SCR 99). We are firm believers that our island can one day become an example for the State by being nearly 100% energy self sufficient. This includes transportation. The utilization of electric driven mass transit systems for moving people and product, in my opinion, is not too far in the future.

The only apprehension I have with this resolution is that it is too government heavy, please consider using the government/environmental participants in the capacity of an advisory board and creating a board of 7 to 9 people from within the community (different parts of the island).

I am very fortunate to have the privilege of being a professional engineer in our community along with involvement and leadership in community business organizations. Energy and energy sustainability are issues that are very dear to my heart, especially with the knowledge of the resources that are available to us.

Should you have any concerns, questions or if I can be of further assistance, please feel free to contact me.

Thank you very much for your time and for your forward thinking.



Engineering Partners, Inc. Progressive Solutions
Nimry, Tamimi, P.E., LEED AF

Principal

P.O. Box 4159 Hilo, HI 96720 (808) 933-7900 ext. 223 (808) 933-3533 fax (808) 936-1779 cell nimr@epihawaii.com

March 25, 2010

The Honorable Senator Clayton Hee Chairperson Committee on Water, Land, Agriculture and Hawaiian Affairs

The Honorable Senator Mike Gabbard
Chairperson
Committee on Energy and Environment ENE - Energy and Environment

Fax: 808-586-7334

Re: SCR99

Aloha Clayton and Mike,

I am writing in support of Bill SCR99, a bill to establish a working group to analyze the potential development of geothermal energy as the primary energy source to meet the base load demand for electricity on the island of Hawaii.

Geothermal energy production on the Big Island is an established renewable energy resource with proven and tested technology. The natural energy that is tapped to produce electrical power for Hawaii island residents is owned by the state of Hawaii and provides \$3 million annually to the state, \$600,000 annually to OHA, and \$300,000 annually to the County of Hawaii.

As energy cost continue to rise and impact the quality of life for our island communities, geothermal offers a truly viable option to replace our dependence on imported fossil fuels. We can keep our hard earned dollars in state by supporting a stable source of energy that is produced locally. Economically, our islanders would not be the victims of global factors that influence the price of oil which ultimately affect the bottom line for island families.

Clearly as global oil resources are depleted, we as a captive island community must look to develop local renewable energy resources that will sustain our communities into the future. I look forward to your support of Bill SCR99 and the beginnings of energy self sufficiency for our island communities.

Mahalo nui loa,

Chad Kälepa Baybayan

Captain and Navigator, Hokule'a, Hawaiiloa, Hokualaka'i

TESTIMONY SCR 99 ESTABLISHING WORKING GROUP TO STUDY FEASIBILITY OF GEOTHERMAL

The Honorable Senator Clayton Hee Chairperson - Water, Land, Agriculture and Hawaiian Affairs

The Honorable Senator Mike Gabbard Chairperson - Committee On Energy and Environment

> Thursday, March 25, 2010 at 3:00 pm Room 225

Tuesday, March 23, 2010

Dear Senators Hee and Gabbard:

I'm in full support of SCR 99 because I believe that geothermal will play a vital role in Hawaii's energy security. Geothermal technology is proven not only as an affordable source of renewable energy but environmentally friendly with no emissions.

Hawaii needs to have a compliment of reliable and affordable renewable energy sources as oil prices (per barrel) start to reach the triple digit level again. Energy self-sufficiency will be critical in the not too distant future as the global economy starts to progress toward a more localize economy.

China's population is fast becoming a massive middle-class society and its oil consumption will reach astronomical heights. Eco-statistician Lester Brown estimates that by 2031, their 1.3 billion residents will use 99 million barrels of oil a day, 20 million more barrels than the entire world consumes at present. Countries like India are not far behind.

We'll have oil for some time to come but will it be affordable for all of our residents? Will our lower income families be able to keep their food chilled and lights on at night? Geothermal could be the answer to these questions.

Your support for SCR 99 is essential for the well being for all of Hawaii's residents.

Respectfully,

Daniel S. Nakasone

James L. Pa P.O. Box 6915 Hilo, Hawai'i 96720

March 24, 2010

The Honorable Senator Clayton Hee Chairperson Committee on Water, Land, Agriculture and Hawaiian Affairs

The Honorable Senator Mike Gabbard Chairperson Committee on Energy and Environment

Dear Senator Hee and Senator Gabbard,

I am submitting this testimony in support of Bill No. SCR99. Here on the Island of Hawai'i, geothermal is the only 24/7 resource that we have and is a viable source that will last many centuries.

Cheap geothermal power will help the working people through these tough economic times we are facing now and into the future. Cheap electricity can help our economy which will in turn benefit businesses, grow new industries and create more jobs.

I am a Native Hawaiian and I believe geothermal can help all of Hawai'i residents.

Sincerely yours,

James L. Pa