

WRITTEN TESTIMONY

TESTIMONY BY KALBERT K. YOUNG  
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE  
STATE OF HAWAII  
TO THE SENATE COMMITTEE ON WAYS AND MEANS  
ON  
SENATE BILL NO. 23

February 14, 2013

RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS TO  
ASSIST A SEAWATER AIR CONDITIONING PROJECT

Senate Bill No. 23 authorizes the issuance of special purpose revenue bonds (SPRB) of up to \$200,000,000, to assist Kaiuli Energy, LLC, in the planning, design, and construction of its seawater air conditioning district cooling system in and around Waikiki, Oahu, pursuant to Part V, Chapter 39A, Hawaii Revised Statutes.

The Department has no position on the issuance of SPRBs as contemplated in this bill. The Department would like to remind the Legislature and prospective issuers that should the legislation be approved, approval of SPRB issuance will still require further discussion and satisfactory review of the financing components involved in the transaction.

Thank you for the opportunity to provide testimony on this measure.

Written Statement of  
**YUKA NAGASHIMA**  
**Executive Director & CEO**  
High Technology Development Corporation  
before the  
**SENATE COMMITTEE ON WAYS AND MEANS**

Thursday, February 14, 2013  
9:05 a.m.  
State Capitol, Conference Room 211  
In consideration of

**SB 23 RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS  
TO ASSIST A SEAWATER AIR CONDITIONING PROJECT.**

Chair Ige, Vice Chair Kidani, and Members of the Committee on Ways and Means.

Thank you for the opportunity to submit comments on this bill.

The High Technology Development Corporation (HTDC) **supports** SB 23 which authorizes Special Purpose Revenue Bonds to Kaiuli Energy, LLC to build a seawater air conditioning (SWAC) district cooling system to serve Waikiki and nearby areas on the island of Oahu.

As a manufacturer of energy technology systems, Kaiuli Energy is the type of company HTDC supports. Furthermore, the SWAC cooling system is a positive step for the State in achieving its renewable energy goals.

Thank you for the opportunity to offer these comments.



## **MAKAI OCEAN ENGINEERING, INC.**

P.O. BOX 1206 KAILUA, OAHU, HAWAII 96734 USA

Testimony To  
Senate Committee on Ways and Means

Relating To  
S.B. 23

Relating to the Issuance of Special Purpose Revenue Bonds to Assist Kaiuli Energy Sea  
Water Air Conditioning (SWAC) Project in Waikiki

By  
Billy Pieper, Makai Ocean Engineering

Date: February 12, 2013

To: Chair Ige and members

The purpose of this proposed bill is to issue special purpose revenue bonds to assist Kaiuli Energy to develop a district cooling system for Waikiki. Makai Ocean Engineering is in support of this measure.

Air conditioning is estimated to make up about 45% of the electrical consumption in Waikiki each year. The use of deep cold seawater as a source of cooling can result in a significant decrease in energy consumption.

Makai is a longtime advocate of utilizing deep cold seawater as an efficient, renewable and environmentally sound source for large commercial cooling systems. Makai has successfully developed the technology to safely design, engineer and deploy deep ocean pipelines which are used to draw cold water from miles offshore. This cold seawater coupled with a heat exchanger reduces the need for energy intensive refrigeration systems. In some cases, we have seen energy savings approach upwards of 80%.

This technology has been successfully utilized at a number of places around the world.

- Cornell University where a pipeline was installed in Lake Cayuga to access cold water to provide air conditioning for the Cornell University campus and parts of the public school system.
- Toronto Canada where 3 pipelines were deployed to access cold water in Lake Ontario
- Natural Energy Lab (NELHA) on Hawaii Island
- Intercontinental Resort and Spa - Bora Bora, Tahiti
- Curacao Airport \*

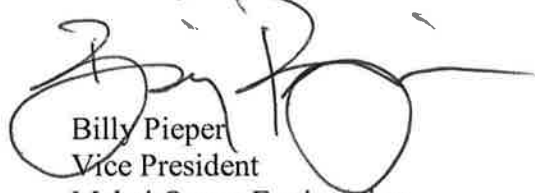
- Downtown District – Downtown Honolulu, HI \*

\* under planning and/or development

Kaiuli Energy is requesting your assistance for these special purpose revenue bonds to assist financing its proposed project in Waikiki. We believe that this is an excellent opportunity for the private and public sector to cooperatively work together in developing cooling systems using Hawaii's largest natural resource, its deep oceans. This project will encompass significant job creation and upwards of \$200M worth of capital expenditures will remain with Hawaii companies. Makai Ocean Engineering would encourage you to support this measure.

Thank you for the opportunity to share these thoughts with you.

Best Regards,

A handwritten signature in black ink, appearing to read 'Billy Pieper', with a long horizontal flourish extending to the right.

Billy Pieper  
Vice President  
Makai Ocean Engineering



Written Statement of  
**DARRYL NAKAMOTO, Partner**  
Kaiuli Energy

before the  
**SENATE COMMITTEE ON WAYS AND MEANS**  
Thursday, February 14, 2013  
9:05 AM  
State Capitol, Conference Room 211

In consideration of  
**SB 23 RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS  
TO ASSIST A SEAWATER AIR CONDITIONING PROJECT.**

Date: February 12, 2013

To: Chair Ige and Committee Members

Kaiuli Energy is in support of this measure that will allow the State of Hawaii to issue Special Purpose Revenue Bonds (SPRBs) for the development of a district cooling system for Waikiki.

Kaiuli Energy was founded in 2011 with the goal to be a global leader in ocean sourced energy development. Its current focus is on developing a 22,500 ton Waikiki based seawater air conditioning (SWAC) system, which is designed to provide district cooling to replace the energy-intensive central refrigeration system of a traditional air conditioning at individual buildings. The natural resource of cold seawater is used to chill freshwater that will be delivered to structures with centralized air conditioning systems.

A 22,500 ton SWAC system offers:

- Conservation of approximately 106,000 barrels of oil/year
- Reduction of approximately 48,000,000 kWh/year
- Reduction of potable water usage by approximately 157,000,000 gallons/year
- Reduction of sewage discharge by approximately 69,000,000 gallons/year
- Reduction of harmful gas emissions of approximately 50,000 tons/year
- Alignment with HCEI's goals of End-Use Efficiency and next generation technologies

There are five parameters that favor potential SWAC project locations. They are: access to cold water, high density of customer load, year-round air conditioning utilization, high electricity rates, and a good marine environment. A Waikiki system satisfies all five parameters. Other locations where SWAC projects are currently in operation are:

- Stockholm, Sweden – 80,000 tons
- Toronto, Canada – 75,000+ tons
- Amsterdam, Netherlands – 35,000 tons
- Cornell University, Ithaca, New York – 20,000 tons
- Bora Bora, French Polynesia – 3,000 tons

Our customers will be hotels and other buildings in and around the Waikiki and Ala Moana areas that have large air conditioning loads. It is estimated that air conditioning usage represents up to 45% of these buildings' total electricity costs. Not only will these SWAC customers benefit through substantial savings on electricity rates, SWAC customers will also realize significant savings on water and sewage consumption. In addition, these hotels, resorts, retail centers and other commercial and residential entities will be able to market themselves as environmentally conscious and friendly consumers.

The project is estimated to take five years to complete with the delivery of chilled water beginning in 2018. The estimated total project cost of the Waikiki SWAC system is projected to be approximately \$225 million.

Kaiuli's management team is comprised of Hawaii business and community leaders with the necessary experience critical to the project's success. As the former CFO of Hoku Corporation, I have over seven years of experience in alternative energy and raising funds for large scale ventures. In addition, Rob Iopa, president of WCIT Architecture, has extensive experience and expertise in entitling, designing and constructing large complex projects in Waikiki and urban Honolulu, and Ray Soon has over 40+ years consulting and delivering on construction projects in Hawaii.

Thank you for the opportunity to share our thoughts with you.

**PROJECT:**

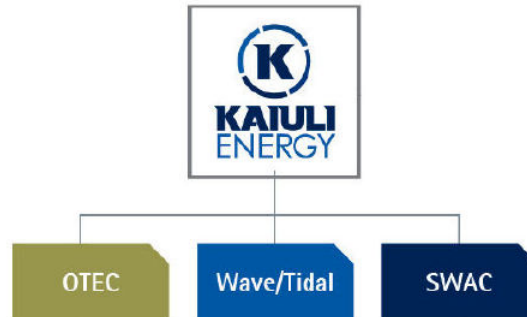
Construct a 22,500 ton Seawater Air Conditioning in Waikiki

**FINANCING:**

Requesting \$200 million in Hawaii Special Purpose Revenue Bonds

**TIMELINE:**

Operations beginning mid -2018 - 3 years of entitlement/2 years of construction



**ENVIRONMENTAL BENEFITS:**

Based on a 22,500 ton SWAC system:

- + Reduction of imported fossil fuels by up to 106,000 barrels of oil/year
- + Reduction of electrical usage by up to 48,000,000 kWh/year
- + Reduction of harmful emissions by up to 50,000 tons/year
- + Reduction of potable water usage by up to 157,000,000 gallons/year
- + Reduction of sewer production by up to 69,000,000 gallons/year

**ECONOMIC BENEFITS:**

- + Elimination of up to 14 megawatts of new generating capacity (equivalent to one year of HECO load growth)
- + \$200M worth of construction improvements and job creation
- + Economic multiplier effects on money that stays in Hawaii's economy
- + Ability to market a green Waikiki
- + Significant electricity, water, and sewage savings for customers





## DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

NEIL ABERCROMBIE  
GOVERNOR

RICHARD C. LIM  
DIRECTOR

MARY ALICE EVANS  
DEPUTY DIRECTOR

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](http://www.hawaii.gov/dbedt)

Telephone: (808) 586-2355  
Fax: (808) 586-2377  
20130123125110

January 24, 2013

The Honorable Senator Mike Gabbard, Chair  
Senate Committee on Energy and Environment  
Twenty-Seventh State Legislature  
State Capitol Room 201  
Honolulu, Hawaii 96813

Dear Chair Gabbard:

This letter is to verify that the Department of Business, Economic Development, and Tourism (DBEDT) has received and reviewed the business plan submitted by the Kaiuli Energy, LLC - Waikiki Seawater Air Conditioning business venture.

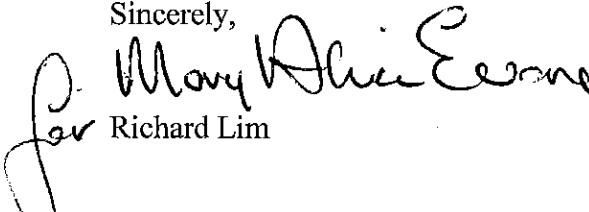
The business venture outlined in this proposal seeks to develop a seawater air conditioning (SWAC) system for the district of Waikiki in Honolulu, Hawaii. The long term goals include developing additional SWAC projects and expanding Kaiuli's product offerings to other ocean sourced energy technologies, which include, but are not limited to, ocean thermal energy conversion and wave and tidal energy.

The targeted customers are hotels and other buildings in and around the Waikiki/Ala Moana area that use air conditioning throughout the day and have large air conditioning loads. It is estimated that air conditioning usage represents up to 45% of these buildings' total electricity costs. It is anticipated that any building using a centralized air conditioning system and within an approximate two-mile radius of the district cooling station is a potential customer for the Waikiki SWAC system.

DBEDT ultimately defers statements of financial findings to the Department of Budget and Finance for consideration of special purpose revenue bond allocation. Furthermore, this letter only validates the existence and review of the aforementioned business plan without opinion and should not be considered an endorsement of Kaiuli Energy, LLC.

We appreciate the opportunity to offer these statements regarding Kaiuli Energy, LLC.

Sincerely,

  
for Richard Lim



NEIL ABERCROMBIE  
GOVERNOR



KALBERT K. YOUNG  
DIRECTOR

LUIS P. SALAVERIA  
DEPUTY DIRECTOR

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER  
PUBLIC UTILITIES COMMISSION

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
OFFICE OF ECONOMIC RECOVERY  
AND REINVESTMENT (ARRA)

January 28, 2013

Mr. Darryl Nakamoto, Partner  
Kaiuli Energy, LCC  
725 Kapiolani Boulevard, Suite C400  
Honolulu, HI 96813

Dear Mr. Nakamoto:

Subject: Kaiuli Energy, LLC  
Seawater Air Conditioning  
Special Purpose Revenue Bonds

This letter is in response to requests from yourself and Senator Gabbard's office. The Department of Budget and Finance (the "Department") reviewed Kaiuli Energy, LLC's (Kaiuli) Business Plan. (A copy of the revised Business Plan was emailed to Mr. Scott Kami on January 24, 2013.) This letter will confirm that the Department has reviewed, without rendering an opinion, Kaiuli's Business Plan. According to the Business Plan, Kaiuli was founded in 2011 and currently does not generate any revenue. As such, the Department would expect that further details be presented as this project progresses.

Please be advised that pursuant to Section 39A-154(b), HRS, and Chapter 6-10, Hawaii Administrative Rules, the Department is required, among other things, to determine whether Kaiuli is a responsible party in order to issue the bonds, as follows:

“(b) The department shall not enter into any project agreement with respect to any project unless the legislature shall have first authorized the issuance of special purpose revenue bonds to finance the project pursuant to section 39A-157 and the department has determined that:

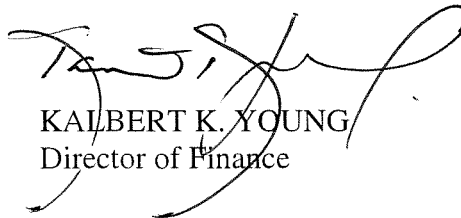
(1) The project party is a responsible party, whether by reason of economic assets or experience in the type of enterprise to be undertaken through the project, or otherwise; or

(2) The obligations of the project party under the project agreement will be unconditionally guaranteed by a person who is a responsible party, whether by reason of economic assets or experience in the type of enterprise to be undertaken through the project, or otherwise. [L 1981, c 122, pt of §2; am L 2007, c 44, §7]”

Mr. Darryl Nakamoto  
Kaiuli Energy  
January 28, 2013  
Page 2

Thank you for giving the Department the opportunity to review on Kaiuli's Business Plan. Should you have any questions, please call Scott Kami, Administrator, Financial Administration Division, at 586-1612.

Sincerely,



KALBERT K. YOUNG  
Director of Finance

c: Senator Mike Gabbard



January 30, 2013

Kaiuli Energy, LLC  
Attention: Robert K. Iopa, Partner  
725 Kapiolani Blvd, Suite 400  
Honolulu, HI 96813

Re: Kaiuli Energy, LLC's Deep Seawater Cooling System

Dear Mr. Iopa,

Thank you for soliciting our interest and participation in the chilled water cooling system that Kaiuli Energy is developing to service Waikiki. As the owner of the Sheraton Waikiki, the Royal Hawaiian Resort – A Luxury Collection, the Westin Moana Surfrider, and the Sheraton Princess Kaiulani, we are a significant provider of hotel and lodging in Waikiki and a company that has been at the forefront in our industry in the adoption of more sustainable technologies and practices. We consider the proposed chilled water cooling system to be ideal for our business as it has the prospect of reducing our costs, promoting sustainable energy and the reduction in greenhouse emissions, and contributing to our brand.

We look forward to continuing to work with Kaiuli Energy to realize this project and of course consider ourselves a prime candidate to be a customer of Kaiuli Energy for the long term. Please keep me apprised of this exciting project and let me know if you or your team members need anything additional from me.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Dickhens".

Greg Dickhens  
President  
Kyo-ya Hotels & Resorts, LLC



Gerard C. Gibson  
Area Vice President

January 22, 2013

Kaiuli Energy  
725 Kapiolani Boulevard  
Suite C-400  
Honolulu, HI 96813

Dear Kaiuli Energy,

Thank you for taking the time to discuss your planned seawater air conditioning (SWAC) project for Waikiki. Based on the potential electricity, water, and sewage savings that you are projecting, we are interested in being a SWAC customer.

We view the cost of fossil fuel increases as a part of every year's budget process. It would help the industry tremendously if we could not only stem the tide of increase but find a lower, sustainable way to continually help with our eroding margins. We realize the cost of considering such a bold adventure is extremely expensive and will take commitment from the stakeholders.

We appreciate Kaiuli's bold approach to the energy challenge and plan to support the effort going forward in an effort to ultimately enter into a long-term agreement.

Best regards,

A handwritten signature in green ink, appearing to read 'G.C. Gibson', with a long horizontal line extending to the right.

Gerard C. Gibson

2005 Kalia Road, Honolulu, HI 96815  
Tel: 808 949 4321 Direct Line: 808 941 9226  
Fax: 808 947 7800  
email: [jerry.gibson@hilton.com](mailto:jerry.gibson@hilton.com)  
Reservations: [www.hilton.com](http://www.hilton.com) or 1-800-HILTONS







Email: [communications@uluponoinitiative.com](mailto:communications@uluponoinitiative.com)

SENATE COMMITTEE ON WAYS AND MEANS  
Thursday, February 14, 2013 — 9:05 a.m. — Room 211

**Ulupono Initiative Supports SB 23, Relating to the Issuance of Special Purpose Revenue Bonds to Assist a Seawater Air Conditioning (SWAC) Project**

Chair Ige, Vice Chair Kidani and Members of the Committee:

My name is Murray Clay, Managing Partner of the Ulupono Initiative, a Hawai'i-based impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally grown food, increase renewable energy, and reduce/recycle waste.

Ulupono Initiative seeks to promote and invest in innovative sustainability ideas and business models that have the potential to make a significant difference for Hawai'i. We work with, and invest in, businesses that show this potential for innovation, have local leadership, develop businesses from ideas and inspiration born in Hawai'i to reach the needs of Hawai'i, and use technologies and models that can be replicated and have potential global applicability.

**Ulupono is testifying in support of SB 23**, which will allow the State to issue Special Purpose Revenue Bonds (SPRBs) for the development of a seawater air conditioning (SWAC) district cooling system for Waikiki. We support Kaiuli's request because we believe SWAC technology is proven and will help replace the energy-intensive central refrigeration system of a traditional air conditioning system. Kaiuli is targeting hotels and other buildings in the Waikiki and Ala Moana areas that could benefit from SWAC which will include substantial savings on electricity and water consumption, system replacement costs, and maintenance costs. This technology is known to provide substantial savings of energy and fresh water, both of which are critical to our economy and sustainability. In addition, it will also help the State move closer to its HCEI clean energy goals and support Hawai'i's vital tourism industry.

We appreciate the opportunity to present this testimony in support of SB 23 and ask for your favorable consideration of this bill.

Thank you very much,

Murray Clay  
Managing Partner