



Honolulu Seawater Air Conditioning, LLC
1132 Bishop Street, Suite 1410
Honolulu, Hawaii 96813

Tel 808.531.7922
Fax 808.531.7923
www.honoluluswac.com

Testimony on
H.B. 1321
RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS TO ASSIST SEAWATER AIR CONDITIONING PROJECTS ON OAHU.

Before the
State House
COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
and
COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS
Thursday, February 7, 2019

By
Eric Masutomi, CEO and President
Honolulu Seawater Air Conditioning, LLC

Chairs Lowen and McKelvey, Vice Chairs Wildberger and Kitagawa, and Members of the Committee:

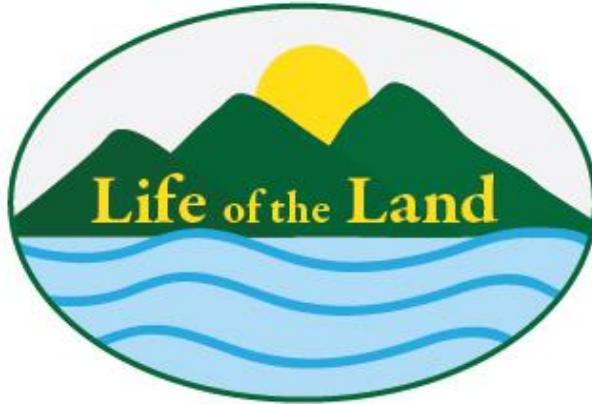
Honolulu Seawater Air Conditioning (HSWAC) encourages your approval of H.B. 1321 which extends the authorization to issue \$77 million in special purpose revenue bonds (SPRBs) for Honolulu Seawater Air Conditioning, LLC for the construction of a seawater air conditioning district cooling system on Oahu.

HSWAC appreciates the prior support that the Hawaii State Legislature has provided for this initiative, including the authorization of a total of \$145M in SPRBs for the HSWAC project. \$77 million of the total were authorized by the Legislature in 2014 and will expire June 28, 2019. This bill extends this SPRB authorization from June 28, 2019 to June 30, 2024.

HSWAC's Downtown Honolulu Seawater Air Conditioning project will service approximately 14 million square feet of downtown building space. In addition to the compelling environmental and renewable energy benefits associated with deep water cooling, the project will generate more than \$300 million of dollars in construction spending and create more than 1,348 direct construction-related jobs in 2020 through 2023. In addition, it would create long-term, high-value employment opportunities and establish the State as a leading authority on the development and installation of seawater air conditioning systems throughout the Asia-Pacific region. Other local economic benefits would accrue from money that stays in Hawaii and is not exported outside the State to purchase oil.

Longer-than-expected permitting and regulatory reviews and closings of key customer agreements necessitated HSWAC to postpone the earlier sale of SPRBs. Despite these challenges, HSWAC's commitment to the project has not waned; over \$25 million in private capital has been invested to-date in the development of the project. In addition to State of Hawaii SPRBs, the balance of HSWAC funding consists of taxable revenue bonds and equity investment. With an anticipated construction start in early 2020, HSWAC expects to use all of its authorized SPRBs within the next two years. The requested SPRBs are an important element in providing economically feasible project financing.

Thank you for this opportunity to testify.



P.O. Box 37158, Honolulu, Hawai`i 96837-0158
Phone: 927-0709 henry.lifeoftheland@gmail.com

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Nicole E. Lowen, Chair
Rep. Tina Wildberger, Vice Chair

COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS

Rep. Angus L.K. McKelvey, Chair
Rep. Lisa Kitagawa, Vice Chair

DATE: Thursday, February 7, 2019

TIME: 8:40 AM

PLACE: Conference Room 325

HB 1321 SPRBs TO ASSIST SWAC ON OAHU.

STRONG SUPPORT

Aloha Chairs Lowen and McKelvey, Vice Chairs Wildberger and Kitagawa, and Members of the Committees

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 49 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.

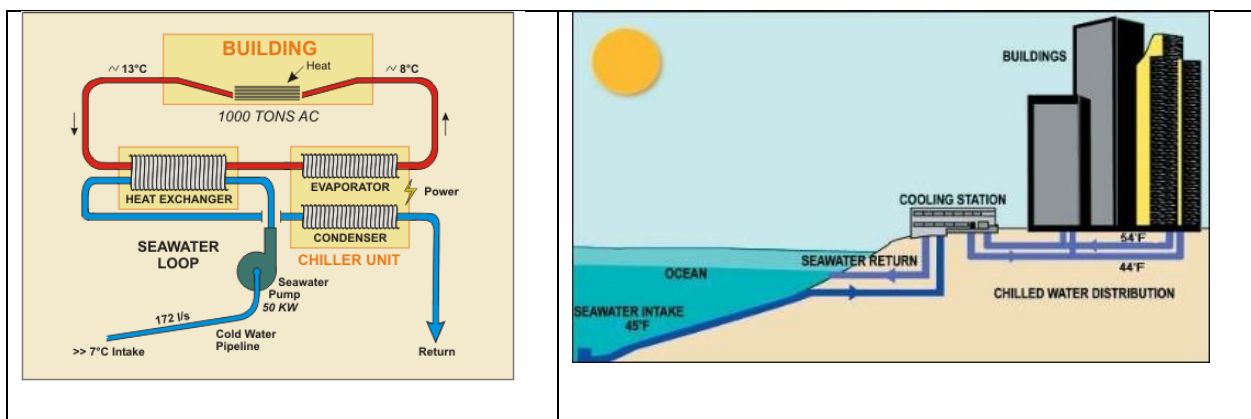
“The use of cold ocean water could reduce Waikiki's energy bill by 40%”
according to Dr. John Harrison, the Environmental Coordinator at the University of Hawai`i Environmental Center (1986-2007).

His testimony on Sea Water Air Conditioning (SWAC) on behalf of Life of the Land, went unchallenged during the Board of Land and Natural Resources (BLNR) contested case hearing re Conservation District Use Application (CDUA) OA-2801 for the proposed HECO 138-kV Transmission Line (1973-2002).

Sea Water Air Conditioning (SWAC), and its counterparts Deep Lake Air Conditioning (DLAC), Deep Water Air Conditioning (DWAC), and Ocean Water Air Conditioning (OWAC) are means of using cold water to cool buildings and commercial facilities. One good example is Cornell University's Lake Source Cooling Project.

Makai Ocean Engineering wanted to install Hawai'i systems but wound up helping Cornell and Toronto while Hawai'i dragged its feet. One of the best Hawai'i environmental impact statements with a thorough cultural impact statement is now ten years old and no project is advancing.

Cornell University studied this approach in a multi-year environmental review, examined in depth by environmentalists and university researchers. They found that the total yearly heat added, via pipe, to a lake located six miles from campus was equivalent to one hour of summer sunshine upon the lake surface. That is, over the course of the year, the sun accounted for 99.9% of the heat entering the lake. Cornell University's and Toronto's systems were installed by Makai Ocean Engineering.



Sea Water Air Conditioning involves two pipes, a U-shaped ocean-water pipe and a circular fresh-water pipe, which meet at a heat exchanger. The water in each pipe does not cross into the other pipe, rather the heat moves from the fresh-water to the ocean-water. The ocean water pipe pulls cold water from the lower depths and discharges warmer water to a warmer layer of the ocean.

Mahalo

Henry Curtis
Executive Director



Email: communications@ulupono.com

HOUSE COMMITTEES ON ENERGY & ENVIRONMENTAL PROTECTION AND ECONOMIC
DEVELOPMENT & BUSINESS

Thursday, February 7, 2019 — 8:40 a.m. — Room 325

Ulupono Initiative Supports HB 1321, Relating to the Issuance of Special Purpose Revenue Bonds to Assist Seawater Air Conditioning Projects on Oahu

Dear Chair Lowen, Vice Chair Wildberger, Chair McKelvey, Vice Chair Kitagawa, and Members of the Committees:

My name is Murray Clay, and I am 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 produced food; increase affordable, clean, renewable energy; and better manage waste and fresh water resources. Ulupono believes that self-sufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

Ulupono supports HB 1321, which extends the authorization to issue special purpose revenue bonds to assist Honolulu Seawater Air Conditioning (HSWAC), LLC, until June 30, 2024, because it aligns with our goal of increasing the production of clean, renewable energy in Hawai'i.

We support HSWAC's request because seawater air conditioning is a proven technology that will replace the energy-intensive central refrigeration system of a traditional air-conditioning system. HSWAC is targeting buildings that could benefit from substantial savings on electricity and water consumption, system replacement costs, and maintenance costs. By using 44-degree seawater via a freshwater loop instead of electricity to cool buildings, electricity costs can be cut by 75 percent and save an estimated 77 million kilowatt-hours of power a year, which is equivalent to a 20-megawatt wind farm or a 40-megawatt solar farm. That is enough to power more than 10,000 homes and eliminate the need to burn 178,000 barrels of oil a year. HSWAC is one of the State's largest energy efficiency projects.

This technology is known to provide substantial savings of energy and fresh water, both of which are critical to our economy and sustainability. HSWAC will reduce potable water consumption for air conditioning by 260 million gallons, reduce sewage production up to

Investing in a Sustainable Hawai'i



84 million gallons per year, and avoids 84,000 tons of carbon dioxide (15,000 cars). In addition, it will also help the State move closer to its clean energy goals. This designation will help to spur greater success in energy efficiency projects that can help Hawai'i become less dependent on imported fossil fuels.

Since the last SPRB extension for this project, HSWAC has successfully added customers, including the John A. Burns School of Medicine and the State of Hawai'i Department of Accounting and General Services' buildings in the downtown Honolulu area.

As Hawai'i's energy issues become increasingly complex and challenging, we appreciate these committees' efforts to look at policies that support renewable energy production.

Thank you for this opportunity to testify.

Respectfully,

Murray Clay
Managing Partner

HB-1321

Submitted on: 2/6/2019 8:20:31 AM

Testimony for EEP on 2/7/2019 8:40:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:

HB-1321

Submitted on: 2/4/2019 12:50:22 PM

Testimony for EEP on 2/7/2019 8:40:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Karen Winslow	Individual	Support	No

Comments:



LATE

February 7, 2017

Representative Nicole E. Lowen, Chair
Representative Tina Wildberger, Vice Chair
House Committee on Energy & Environmental Protection

Representative Angus L.K. McKelvey, Chair
Representative Lisa Kitagawa, Vice Chair
House Committee on Economic Development & Business

Support of HB 1321 RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS TO ASSIST SEAWATER AIR CONDITIONING PROJECTS ON OAHU. (Extends the authorization to issue special purpose revenue bonds to assist Honolulu Seawater Air Conditioning, LLC, until June 30, 2024.)

EEP/EDB Hrg: Thursday, February 7, 2019, 8:40 a.m., in Conf. Rm. 325

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers and major utility companies. LURF's mission is to advocate for reasonable, rational and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

LURF **supports HB 1321**, which would extend the authorization to issue special purpose revenue bonds to assist Honolulu Seawater Air Conditioning, LLC, under Act 113, Session Laws of Hawaii 2009, as amended by Act 150, Session Laws of Hawaii 2014, until June 30, 2024.

The initial authorization to issue special revenue bonds was set to lapse on June 30, 2014, and Act 150 (SLH 2014), extended the lapse date until June 28, 2019. LURF understands that this measure will assist Honolulu Seawater Air Conditioning, LLC, in constructing a district cooling project consisting of its chilled water distribution system and balance-of-system components and structures, to assist with the development of a seawater air conditioning system in downtown Honolulu.

LURF respectfully urges your Committees to **favorably consider HB 1321**.

Thank you for the opportunity to present testimony regarding this measure.