LATE

SB-3056
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Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	OCC Legislative Priorities	Support	No

Comments:

PRESENTATION OF THE

OAHU COUNTY COMMITTEE ON LEGISLATIVE PRIORITIES

DEMOCRATIC PARTY OF HAWAII

TO THE COMMITTEE ON ECONOMIC DEVELOPMENT, TOURISM, AND TECHNOLOGY, AND

COMMITTEE ON TRANSPORTATION AND ENERGY

THE SENATE

TWENTY-NINTH LEGISLATURE

REGULAR SESSION OF 2018

Monday, February 5, 2018

1:20 p.m.

Hawaii State Capitol, Conference Room 414

RE: **Testimony in Support** of SB 3056, RELATING TO HYDROELECTRICITY

To the Honorable Glenn Wakai, Chair; the Honorable Brian T. Taniguchi, Vice-Chair and Members of the Committee on Economic Development, Tourism, and Technology:

To the Honorable Lorraine R. Inouye, Chair; the Honorable Will Espero, Vice-Chair and Members of the Committee on Transportation and Energy:

Good afternoon. My name is Melodie Aduja. I serve as Chair of the Oahu County Committee ("OCC") Legislative Priorities Committee of the Democratic Party of Hawaii. Thank you for the opportunity to provide written testimony on Senate Bill No.

3056, relating to appropriating funds to the Natural Energy Laboratory of Hawaii Authority to enable the authority to continue its efforts in producing hydroelectric power for the State. The OCC Legislative Priorities Committee is in favor of Senate Bill No. 3056 and support its passage.

Senate Bill No. 3056, is in accord with the Platform of the Democratic Party of Hawai'i ("DPH"), 2016, as it appropriate funds to the Natural Energy Laboratory of Hawaii Authority to enable it to continue its efforts in producing hydroelectric power for the State.

The Poseidon hydroelectric system draws water directly from the ocean, amplifies the power of the water, and uses it to produce electricity before returning it unharmed to the ocean; it does not use wave energy or temperature inversions. The use of this device is planned to produce low-cost renewable hydroelectricity, thereby saving money for every resident while lowering the cost of business in every sector of the State's economy.

Specifically, the DPH Platform provides that "[w]e seek to achieve energy sustainability based on renewable energy sources. . . . We must also urgently development the use of a variety of cost-effective energy providing systems, encourage transit-oriented development, and support tax incentives that encourage renewable energy initiatives.. . . We support energy independence, self-sufficiency, affordability and reliability for Hawai'i through the development of renewable alternative energy sources. Specifically, we need to support policies that foster the development of energy production methods that de-emphasize carbon-based fuels and promote renewable sources such as wind, solar, wave, geothermal and Ocean Thermal Energy Conversion (OTEC).

Electricity rates in Hawaii are among the highest in the nation despite the fact that we enjoy an abundance of sunshine year round. Electric utility companies and cooperatives must open the grid to alternative power sources including solar panels and geothermal energy. We support the effort of our government officials to require utilities to provide for the maximum, comprehensive, integrated use of renewable energy and associated technologies such as storage and smart grid technologies." (Platform of the DPH, P. 8, Line 443, 446, P. 9, Lines 447-448, 452-4462 (2016)).

Given that Senate Bill No. 3056 appropriates funds to the Natural Energy Laboratory of Hawaii Authority to enable the authority to continue its efforts in producing hydroelectric power for the State, it is the position of the OCC Legislative Priorities Committee to support this measure.

Thank you very much for your kind consideration.

Sincerely yours,

/s/ **Melodie Aduja**

Melodie Aduja, Chair, OCC Legislative Priorities Committee

Email: legislativeprorities@gmail.com, Tel.: (808) 258-8889

LATE

Support of Senate Bill 3056

Relating to Hydroelectricity

Introduced by

Senators Will Espero, Lorraine Inouye,

Karl Rhoads, and Gil Riviere.

By

Dr. Richard Navarro

Chief Executive Officer

Renewable Ocean Energy, Inc.

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Thank you for meeting with us to discuss our exciting proposal for the Natural Energy Laboratory Hawaii Authority (NELHA), Kailua-Kona. Supporting Senate Bill 3056 will allow Renewable Ocean Energy, Inc. (ROE) to demonstrate our patent pending technology that promises to reduce the cost of electricity in Hawaii. By using ocean water to produce low-cost renewable hydroelectricity, we seek to help every Hawaii resident while lowering the cost of business in every sector of the economy.

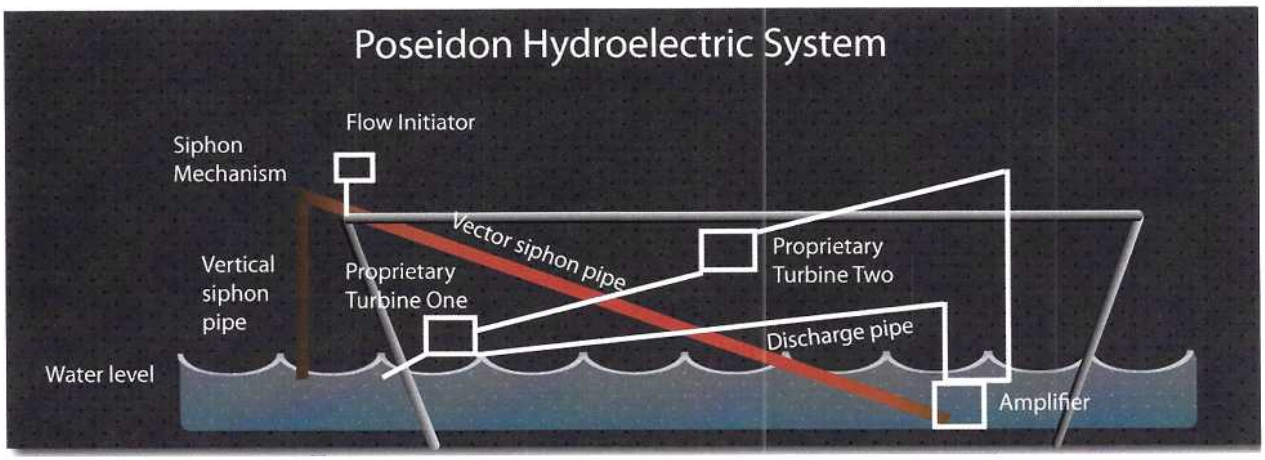
Hydroelectric is the lowest cost form of renewable energy but has limited use in Hawaii. Our revolutionary technology changes that and keeps Hawaii as the world leader in renewable energy production. There are 138 low head dams in Hawaii and some of these dams may be suitable for hydroelectricity production with our Active Water Technology called Hydro Dynamic Turbines.

We use these turbines in our Passive Water technology called Poseidon Hydroelectric to produce electricity on the Pacific Ocean. So, this project will be an expanded test for both technologies.

In a study conducted as part of the Hawaii Island Business Plan Competition last October, full implementation of our Poseidon Hydroelectric System island wide was projected to show energy cost savings of $ 200 million dollars a year on Hawaii Island alone. The savings would be significantly greater for other islands particularly Oahu.

Poseidon Hydroelectric siphons water directly from the ocean, amplifies the power of the water, and uses it to produce electricity before returning it unharmed to the ocean. It uses solar power to start the flow of water but once that flow is started no external energy source is required. It applies technology that has been proven to work for hundreds of years but has never been used to produce electricity on the ocean. This project has been in development for over ten years with

private investments of over $ 275,000 and our lab prototype unveiled in October 2016 proved the concept. We hold two U.S. patents and have two patents pending. Poseidon Hydroelectric does not use wave energy or temperature inversions but relies on proven technology to address an important need for the people of Hawaii.



By adding $350,000 to the budget of the Natural Energy Laboratory Hawaii Authority, ROE will be able to complete the next two steps at NELHA and strategically help other Hawaii entities:

- Step One is a 2-kilowatt pilot project on the ocean.

Projected cost of this Step	$ 112, 875
Projected time required [a]	4 months

- Step Two is a 50-kilowatt project to lay the foundation for a 100-Megawatt power plant on Oahu.

Projected cost of this Step	$ 200,000
Projected time required [a]	8 months
Overhead and administrative	$ 37,125

[a] Projected construction times. Federal, state and county approval times are not included in these estimates.

Strategic Benefits to Supporting SB 3056

1. This project helps NELHA achieve its strategic mission.

2. By partnering with Hawaiian Electric Company and its subsidiaries, we seek to cut the cost of energy across Hawaii.

3. Poseidon Hydroelectric has the potential to help achieve the goal of 100% renewable energy for Hawaii years before the target date.

4. Low cost energy will facilitate the operations of the Department of Business Economic Development and Tourism (DBEDT) by making Hawaii a more attractive place to live, do business, and enhance tourist spending.

5. This technology is uniquely Hawaiian as I started researching it at Chinaman's Hat Kaneohe Bay in 2007. So, it keeps Hawaii as the world leader in renewable energy while lowering the cost of living so residents and businesses can spend that money for other purposes.

6. Over the last year, we have been contacted by many countries around the world but have deferred moving forward with others until we bring this technology home to Hawaii.

We look forward to working with you and providing tangible benefits to every resident, business person, and tourist in Hawaii.

Thank you for the opportunity to share this important information. I am happy to address any questions you may have.

Richard Navarro
Chief Executive Officer