

DAVID Y. IGE
GOVERNOR



CRAIG K. HIRAI
DIRECTOR

GLORIA CHANG
DEPUTY DIRECTOR

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

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
P.O. BOX 150
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND
MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY
TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEE ON HIGHER EDUCATION & TECHNOLOGY
ON
HOUSE BILL NO. 2054, H.D. 1

February 16, 2022
2:00 p.m.
Room 309 and Videoconference

RELATING TO ENERGY

The Department of Budget and Finance (B&F) offers comments on this bill.

House Bill (H.B.) No. 2054, H.D. 1, authorizes the Hawai'i Technology Development Corporation to temporarily re-establish the Hawai'i Office of Naval Research Grant Program (HONRGP) to provide 50% matching grants to Hawai'i awardees of alternative energy research grants from the U.S. Office of Naval Research; and appropriates \$1,000,000 of general funds in FY 23 for the purpose of providing grants pursuant to this measure. Section 2 of H.B. No. 2054, H.D. 1, provides that the HONRGP shall be abolished on June 30, 2024.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and

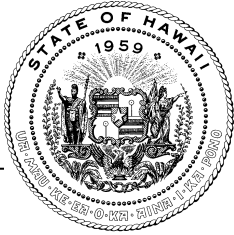
- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone:
Web:

(808) 587-3807
energy.hawaii.gov

Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
HOUSE COMMITTEE ON HIGHER EDUCATION & TECHNOLOGY
Wednesday, February 16, 2022
2:00 PM
State Capitol, Conference Room 309 & Videoconference

SUPPORT
HB 2054, HD1
RELATING TO ENERGY.

Chair Takayama, Vice Chair Clark, and Members of the Committee, the Hawai'i State Energy Office (HSEO) supports HB 2054, HD1, which authorizes the Hawaii Technology Development Corporation to temporarily re-establish the Hawaii Office of Naval Research Grant Program to provide fifty per cent matching grants to Hawaii awardees of alternative energy research grants from the United States Office of Naval Research.

HSEO's testimony is guided by its mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy.

In addition to the topic areas currently listed in the bill, HSEO recommends adding alternative fuels, hydrogen, batteries, and energy storage, as these are also areas of interest to Hawaii. The recommended change would be to add these to paragraph (b)(1) on page 2, starting on line 16:

- (1) Has been awarded a competitive contract from the Department of Defense Office of Naval Research related to the research of alternative energy and energy efficiency technologies in the fields of geothermal, solar, wind, ocean power, hydrodynamics, bioenergy, biomass, solid waste, smart

grids, transportation, alternative fuels,
hydrogen, batteries, energy storage or
demand response;

HSEO defers to the appropriate agency for comment on the management of the program.

HSEO supports this bill provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget.

Thank you for the opportunity to testify.



Written Statement of
Len Higashi
Acting Executive Director
Hawaii Technology Development Corporation
before the
HOUSE COMMITTEE ON HIGHER EDUCATION & TECHNOLOGY

Wednesday, February 16, 2022
2:00 p.m.
Videoconference

In consideration of
HB2054, HD1
RELATING TO ENERGY.

Chair Takayama, Vice Chair Clark and Members of the Committee.

The Hawai'i Technology Development Corporation (HTDC) **supports** HB2054, HD1 that authorizes the Hawaii Technology Development Corporation to temporarily re-establish the Hawaii Office of Naval Research Grant Program to provide fifty per cent matching grants to Hawaii awardees of alternative energy research grants from the United States Office of Naval Research and establishes the alternative energy research and development revolving fund and makes appropriations.

HTDC supports initiatives aimed at promoting technology and manufacturing jobs. The Office of Naval Research Alternative Energy Research (HONR) grant program was last appropriated in FY17. In FY17, all three companies that applied were awarded a total of \$950,000. The companies matched the state award with a total of \$10.2 million of federal funds. HTDC believes the grant programs provide leverage and positive economic development value for the State.

We support this request provided it does not supplant the Governor's priorities in the Administrative budget. Thank you for the opportunity to offer these comments.



Statement of
Hermann Kugeler
Vice President of Business Development
Makai Ocean Engineering, Inc.
before the
House Committee on Higher Education & Technology
Wednesday, February 16, 2022
2:00pm
Videoconference
State Capitol, Conference Room 309
In consideration of
HB2054
RELATING TO ENERGY

Chair Takayama, Vice Chair Clark, and Members of the Committee

Makai Ocean Engineering, Inc. **STRONGLY SUPPORTS HB2054** that re-establishes the Hawaii office of naval research grant program.

Makai is a locally-owned and operated technology company based in Hawai`i for nearly 50 years. One of the driving reasons behind Makai's existence is to help Hawai`i achieve energy independence using clean, alternative and renewable resources.

Hawai`i is blessed with abundant natural resources such as wind, solar, geothermal, hydro, biofuels, and ocean energy. While wind and especially solar contributions to the energy portfolio are now commercial and have grown significantly, other options like ocean energy have the potential to significantly contribute to the supply of base load / firm / constant renewable power, but are worryingly underrepresented. These alternative options are at the same place solar and wind was 25 years ago, and require R&D to reach the same level of maturity and commercialization.

Makai is currently performing R&D and working towards commercialization of ocean thermal energy conversion (OTEC) at the Natural Energy Laboratory of Hawai`i Authority (NELHA) in Kailua-Kona. Makai employs six highly-paid, highly-skilled engineers and scientists in the high tech / renewable energy field in rural Kailua-Kona. This program has achieved a huge milestone of connecting to the grid, making Hawai`i the home of the first US-grid-connected OTEC plant, and the clear leader in ocean thermal energy. Plans are in the works for new developments to move this technology even further, including research and development on patent pending heat exchangers that will not only help OTEC achieve commercial adoption, but increase the efficiencies in traditional power generation systems and enable other energy harvesting technologies such as concentrated solar power and heat recovery systems.

Governor David Ige was present to dedicate the OTEC power plant and 'flip the switch,' and in his keynote address he said, "One big difference with OTEC is that it is a firm power



source; it allows us to generate electricity consistently... and in the evening hours when other renewable sources are not available, which really is the key to a 100% renewable future.”

With the help of programs like this bill, Makai has been able to secure additional competitively awarded federal funding from the U.S. Navy, U.S. Air Force, U.S. Army, and the Department of Energy, and bring home national honors, such as the Small Business Administration’s Tibbetts Award. This national award recognizes the very best in small innovative companies in the country whose technologies have made a strong economic impact in terms of high paying jobs, and demonstrating success in actually commercializing federal R&D and increasing taxable revenue for the state.

This is why we **STRONGLY SUPPORT HB2054**. Not only would this program develop alternative energy technology for our 100% renewable future, it would enable our tech industry to compete and win more federal monies for technology development and support high-paying, highly-skilled professional jobs for our keiki here at home.

Thank you for the opportunity to testify.



**Testimony to
The Committee on Higher Education and Technology**

Wednesday, February 16, 2022

2:00 PM

VIA Video Conference

Conference Room 309, Hawaii State Capitol

HB 2054 HD1

Chair Lowen, Vice Chair Marten, and members of the committee,

Hawaii Gas **supports HB 2054 HD1**, which authorizes the High Technology Development Corporation to temporarily re-establish the Hawaii Office of Naval Research Grant Program to provide fifty percent matching grants to Hawaii awardees of alternative energy research grants from the United States Office of Naval Research, establishes the alternative energy research and development revolving fund, and appropriates funds.

Hawaii Gas is a national leader in the production and distribution of renewable gas in a gas utility system and has committed to support the state's march towards carbon neutrality by 2045. Despite representing less than 1% of the greenhouse gases emitted into Hawaii's atmosphere, we agree that it's everyone's responsibility to do everything we can to make sure Hawaii meets that milestone.

Alternative energy research is at the forefront of Hawaii's march to meet the 2045 goal, and any incentives and funding that can be directed to that work creates more bioenergy energy options to create renewable fuels.

We urge the committees to pass HB 2054.

Thank you for the opportunity to testify.



Written Statement of
DR. PATRICK K. SULLIVAN
PRESIDENT/CEO OCEANIT

Before the
HOUSE COMMITTEE ON HIGHER EDUCATION AND TECHNOLOGY

February 16, 2022

2:00 p.m.
State Capitol, Conference Room 309 via VideoConference

HB2054 RELATING TO ENERGY

To: Chair, Representative Gregg Takayama, Vice Chair, Representative Linda Clark
and Members of the Committee

From: Dr. Patrick K. Sullivan, President/CEO

Re: HB2054

Honorable Chairs, Vice-Chairs and Committee Members:

Thank you for the opportunity to offer comments for **HB2054**

Hawaii's Alternative Energy and Research Development Program is an integral part in making the entire state energy sustainable. Hawaii is fortunate with its diverse resources such as solar, wind, hydro, bioenergy and geothermal which is ideal for the development of clean energy. The continuation of this program is important for Hawaii's economy as it will allow local companies to continue to do their research and development in renewable energy. In addition, it will keep high-paying, high-skilled jobs in Hawaii, furthering the State's commitment to renewable energy and supporting business.

Oceanit is in SUPPORT of HB2054

HB-2054-HD-1

Submitted on: 2/16/2022 10:17:41 AM

Testimony for HET on 2/16/2022 2:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ann Chung	Individual	Support	No

Comments:

Aloha Chair & Committee members

I strongly support HB2054. This is a great program that HTDC has already administered in the past but is currently not funded. This program supports local companies doing renewable energy research and leverages federal funding helping these companies pursue even more federal grants. The program supports the economy by keeping high-paying, high-skilled jobs and keeping revenues in Hawaii, while furthering the State's commitment to renewable energy and supporting businesses.

Mahalo!