

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

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

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**  
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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 ENERGY AND ENVIRONMENTAL PROTECTION  
ON  
HOUSE BILL NO. 2054

**February 8, 2022**  
**8:50 a.m.**  
**Room 325 and Videoconference**

RELATING TO ENERGY

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

House Bill (H.B.) No. 2054 authorizes the Hawai'i Technology Development Corporation (HTDC) 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; establishes the Alternative Energy Research and Development Revolving Fund (AERDRF); appropriates \$1,000,000 of general funds in FY 23 to be deposited into the AERDRF; and appropriates the same amount out of the AERDRF for the purpose of providing grants pursuant to this measure. Section 3 of H.B. No. 2054 provides that the AERDRF shall be abolished on June 30, 2024, and all unencumbered balances shall lapse to the credit of the general fund.

First, B&F notes that Act 69, SLH 2017, renamed the "High Technology Development Corporation" to the "Hawai'i Technology Development Corporation." H.B. No. 2054 references HTDC as the "High Technology Development Corporation" and should be amended to reflect the agency's current name.

Second, the HONRGP, as described, is a grant program with no expectation of repayment and reissuance of further grants from revenues derived from any form of repayment. B&F notes that HTDC already administers and issues awards through other grant programs under its jurisdiction from funds appropriated to the agency either through HTDC's budget or as a direct general fund appropriation. To this end, B&F points out that the establishment of a revolving fund may not be an appropriate means to support the HONRGP. Findings from Report No. 18-06 published by the Office of the Auditor found that previous legislation proposing the establishment of the AERDRF did not satisfy the criteria of establishing a revolving fund. B&F defers to the Auditor's report on the details as to why the AERDRF fails to meet the criteria.

In addition, as a matter of general policy, B&F does not support the creation of any revolving fund which does not meet the requirements of Section 37-52.4, HRS. Revolving funds should: 1) serve a need as demonstrated by the purpose, scope of work and an explanation why the program cannot be implemented successfully under the general fund appropriation process; 2) reflect a clear nexus between the benefits sought and charges made upon the users or beneficiaries or a clear link between the program and the sources of revenue; 3) provide an appropriate means of financing for the program or activity; and 4) demonstrate the capacity to be financially self-sustaining. Regarding H.B. No. 2054, it is difficult to determine whether the proposed revolving fund would be self-sustaining as there does not appear to be any significant source of revenues to support the AERDRF aside from appropriations from the Legislature.

Finally, 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:

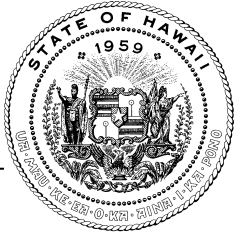
- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 at least at the proportional level of the state's support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

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Testimony of  
**SCOTT J. GLENN, Chief Energy Officer**

before the  
**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

Tuesday, February 8, 2022  
8:50 AM  
State Capitol, Conference Room 325

**SUPPORT  
HB 2054  
RELATING TO ENERGY.**

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawai'i State Energy Office (HSEO) supports HB 2054, which authorizes the High 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; establishes the alternative energy research and development revolving fund; and makes appropriations.

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, or energy storage," as these are also areas of interest to Hawaii.

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 ENERGY & ENVIRONMENTAL PROTECTION**

Tuesday, February 8, 2022  
8:50 a.m.  
Videoconference

In consideration of  
**HB2054**  
**RELATING TO ENERGY**

Chair Lowen, Vice Chair Marten and Members of the Committee

The Hawai'i Technology Development Corporation (HTDC) **supports with comments** HB2054 that authorizes the High 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.

HTDC **comments** that the **revolving fund** established in the bill has been flagged as problematic and suggests that the program make awards directly from the general fund consistent with HTDC's other matching grant programs.

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.



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

Before the  
**HOUSE COMMITTEES ON ENERGY & ENVIRONMENTAL PROTECTION**

February 8, 2022

8:50 a.m.  
State Capitol, Conference Room 325 via VideoConference

**HB2054 RELATING TO ENERGY**

To: Chair, Representative Nicole E. Lowen, Vice Chair, Representative Lisa Marten  
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



**Testimony to  
The Committee on Energy & Environmental Protection**

**Tuesday, February 8, 2022**

**8:50 AM**

**VIA Video Conference**

**Conference Room 325, Hawaii State Capitol**

**HB 2054**

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

Hawaii Gas **supports HB 2054**, 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 will continue to be necessary to achieve the state's carbon neutrality goal. Any incentives and funding that can be deployed and directed to help accelerate innovative solutions creates more options to create renewable fuels and bioenergy.

We urge the committees to pass HB 2054.

Thank you for the opportunity to testify.



Statement of  
**Greg Rocheleau**  
CEO  
**Makai Ocean Engineering, Inc.**  
before the  
**House Committee on Energy & Environmental Protection**  
Tuesday, February 8, 2021  
8:50am  
Videoconference  
State Capitol, Conference Room 325  
In consideration of  
**HB2054**  
**RELATING TO ENERGY**

Chair Lowen, Vice Chair Marten, 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.

A handwritten signature in black ink, appearing to read 'G. Rocheleau', is written over a light blue circular watermark.

Greg Rocheleau

Chief Executive Officer  
Makai Ocean Engineering, Inc.

**HB-2054**

Submitted on: 2/7/2022 12:22:17 PM

Testimony for EEP on 2/8/2022 8:50:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Ann Chung	Individual	Support	No

Comments:

Aloha Chair:

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!

**HB-2054**

Submitted on: 2/7/2022 12:59:22 PM

Testimony for EEP on 2/8/2022 8:50:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Hermann Kugeler	Individual	Support	Yes

Comments:

I **STRONGLY SUPPORT HB2054** that re-establishes the Hawaii office of naval research grant program. Programs such as these allow local engineers, such as myself, to work within the state. This program supports local businesses, and thus local engineers. This will not only support the state's renewable energy goals, but also support the much needed diversification of Hawaii's economy. The pandemic has shown us that we cannot rely so heavily on the tourism industry, and that diversification in science and technology will allow the state and its residents to better withstand hardships.