



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

Date: 02/12/2020

Time: 02:10 PM

Location: 309

Committee: House Lower & Higher
Education

Department: Education

Person Testifying: Dr. Christina M. Kishimoto, Superintendent of Education

Title of Bill: HB 2715, HD1 RELATING TO RESEARCH AND TECHNOLOGY GRANTS.

Purpose of Bill: Establishes the research and technology grant program within the Hawaii technology development corporation to provide grants to qualified research and technology companies in Hawaii for eligible projects. Establishes program guidelines and eligibility criteria for research and technology companies. Requires eligible projects to foster science, technology, engineering, or mathematics education at the K-12 or university levels. Appropriates funds to the program. Takes effect on 7/1/2112. (HD1)

Department's Position:

The Department of Education (Department) supports the intent of HB 2715, HD1, provided that its passage does not replace or adversely impact priorities as indicated in our approved Board of Education budget. The Department respectfully provides comments.

Science, Technology, Engineering, and Mathematics (STEM) education is one component of a public school education in that it supports the Department's five promises to students through School Design and Innovation. STEM learning provides opportunities for students to engage in applied learning in the school and community and encourages creativity and innovation. Students can innovate through rigorous, technology-rich, problem-solving that enables them to address authentic community challenges and develop pathways to goals. The Department appreciates the requirement of the proposed grant program to include student voice as a criterion for eligibility. The proposed program aligns to the Department's mission to work with partners, families and communities to ensure that all students reach their aspirations, from early learning through college, career and citizenship.

The Department notes that teaching and learning are aligned to state standards in science, computer science, and mathematics rather than principles of robotics, engineering, science or

mathematics. Board of Education Policies 105-1: Academic Program and 105-3: Curriculum outline the role of schools in making curricular and instructional decisions to provide a quality, standards-based academic program. The Department's school design strategy prioritizes a flexible and adaptive approach, empowering each school to make decisions about specific contexts and partnerships for developing high quality and relevant learning experiences that are based on the needs of their students and the local community. Within the Department, a tri-level system composed of the schools, complex areas and state offices responds and provides multiple instructional and infrastructure supports to meet a school's outcomes across the range of school design models.

The Department respectfully recommends that eligible grant proposals align to the Department's academic standards in science, mathematics, computer science and other applicable content areas. Finally, the Department would also note that any grant-awarded programs impacting school time or taking place on Department property must adhere to all relevant Department policies and procedures.

Thank you for this opportunity to provide testimony on HB 2715, HD1.

The Hawai'i State Department of Education is committed to delivering on our promises to students, providing an equitable, excellent, and innovative learning environment in every school to engage and elevate our communities. This is achieved through targeted work around three impact strategies: school design, student voice, and teacher collaboration. Detailed information is available at www.hawaiipublicschools.org.



Statement of
Hermann Kugeler
Business Development Manager
Makai Ocean Engineering, Inc.
before the
House Committee on Lower & Higher Education
Wednesday, February 12, 2020
2:10pm
State Capitol, Conference Room 309
In consideration of
HB2715
RELATING TO RESEARCH AND TECHNOLOGY GRANTS.

Chair Woodson, Vice Chair Hashem, Vice Chair Quinlan, and members of the Committee.

Makai Ocean Engineering, Inc. **STRONGLY SUPPORTS HB2715** that establishes the research and technology grant program in the high technology development corporation.

Makai is a locally-owned and operated technology company based in Hawai'i for over 45 years. We are currently performing R&D on a variety of exciting ocean technology projects, including autonomous underwater vehicles, ocean thermal energy conversion (OTEC) and seawater air conditioning (SWAC) systems, submarine and subsea cable systems, and a Department of Energy project to grow and harvest macroalgae offshore in Hawaiian waters to produce a renewable biofuel alternative for transportation. We have provided engineering internships to local students for years, and currently have 3 University of Hawaii engineering students interning with us that assist on these projects.

Makai has been successful in bringing in tens of millions of dollars in R&D funds from federal and international sponsors to Hawai'i, helping to stem the tide of "brain drain" of talented kama'aina kids going to the mainland, and provide exciting projects that our employees and interns get to work on in the state. Makai is not unique among Hawaii technology companies in this. There is a tech community here that has made a strong economic impact in terms of high paying jobs, and demonstrated success in commercializing federal R&D, which has increased taxable revenue for the state, and brought home kama'aina scientists and engineers. Continued involvement from Hawaii's educators and students has allowed Makai to remain on the cutting edge of technology.

This bill would enhance the ability of Hawaii companies like Makai to further involve Hawaii's bright young minds in innovative projects, bring home R&D dollars that greatly exceed the initial investment, and create a critical mass and a truly vibrant industry of innovative R&D companies in Hawaii. It would enable our tech industry to support local educators and student and ultimately provide high-paying, highly-skilled professional jobs for our keiki here at home.

This is why Makai **STRONGLY SUPPORTS HB2715**. Thank you for the opportunity to testify.



Written Statement of
Len Higashi
Acting Executive Director
Hawaii Technology Development Corporation
before the
House Committee on Lower and Higher Education
Wednesday, February 12, 2020
2:10 p.m.
State Capitol, Conference Room 309

In consideration of
HB2715, HD1
RELATING TO RESEARCH AND DEVELOPMENT GRANTS.

Chair Woodson, Vice Chairs Hashem and Quinlan, and Members of the Committee.

The Hawaii Technology Development Corporation (HTDC) offers **comments** on HB2715, HD1 that establishes the research and technology grant program within the Hawaii Technology Development Corporation to provide grants to qualified research and technology companies in Hawaii for eligible projects. Establishes program guidelines and eligibility criteria for research and technology companies. Requires eligible projects to foster science, technology, engineering, or mathematics education at the K-12 or university levels.

As part of HTDC's vision to create 80,000 new innovation jobs in Hawaii earning \$80,000 or more by 2030, HTDC supports initiatives aimed at promoting technology and innovation jobs. HTDC agrees that STEM education should be connected with workforce opportunities. The proposed program requires a match which would help provide leverage for state funding. HTDC's programs are focused on economic development and workforce development. While HTDC supports the intent of this measure, HTDC's mission would guide us toward high school or university training opportunities that lead to future employment. HTDC believes the intent of the bill is broader education and opportunities.

HTDC supports this bill provided it does not adversely impact the Executive Budget request. Thank you for the opportunity to offer these comments.



**Testimony to the House Committee on Lower and Higher Education
Wednesday, February 12, 2020 at 2:10 P.M.
Conference Room 309, State Capitol**

RE: HB 2715 HD1, RELATING TO RESEARCH AND TECHNOLOGY GRANTS

Chair Woodson, Vice Chairs Hashem and Quinlan, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **supports** HB 2715 HD1, which establishes the research and technology grant program within the High Technology Development Corporation (HTDC) to provide grants to qualified research and technology companies in Hawaii for eligible projects. This bill would also establish program guidelines and eligibility criteria for research and technology companies, and requires eligible projects to foster science, technology, engineering, or mathematics education at the K-12 or university levels.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

The Chamber continues to support the State's efforts to promote and foster innovation research and development in Hawaii. Innovation is a proven catalyst for economic growth and the creation of high-skilled and high-paying jobs. Additionally, the Chamber recognizes that STEM, or Science, Technology, Engineering and Math jobs are expected to grow twice as fast as non-STEM professions in the coming years, but Hawaii is still lagging. Helping to foster STEM at the K-12 or university levels is important for both our children and our economic future. It is our hope that through the development of this program, there are opportunities for the companies who participate to be able to hire the students from the grant program.

Thank you for the opportunity to testify.