



NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY



An Authority of the State of Hawaii attached to the Department of Business, Economic Development & Tourism

Statement of
Gregory P. Barbour
Executive Director

Natural Energy Laboratory of Hawaii Authority
before the

SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT AND TOURISM
and
SENATE COMMITTEE ON HAWAIIAN AFFAIRS

Tuesday, March 21, 2023
1:30 pm
State Capitol, Conference Room 229 & Videoconference

in consideration of

HB 913 H.D.2
RELATING TO THE NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

Chairs DeCoite and Shimabukuro and Vice-Chairs Wakai and Fevella, and the Members of the Committees, the Natural Energy Laboratory of Hawaii Authority (NELHA) is pleased to comment on HB 913 H.D. which amends Chapter 227D, Hawai'i Revised Statutes (HRS). We believe that over the past 45 years and to date, we have concrete actions and activities that successfully meet the objectives of the added language.

The measure adds the statement "environmentally responsible and culturally sensitive and appropriate" to NELHA's purpose statement in 227D-2. Similar language is already included in our mission statement. Annual reports for over 30 years and as far back as 1992 state: "To develop and diversify the Hawai'i economy by providing resources and facilities for

energy and ocean related research, education, and commercial activities in an environmentally sound and culturally sensitive manner". We believe that we have been successful in following and adhering to our mission statement.

This measure adds language to NELHA's duties to include the statement that NELHA shall establish, manage, and operate facilities, in compliance with all state and federal laws, rules, regulations, and licensing and permitting requirements. We faithfully follow all laws and regulations that pertain to our operations. NELHA's last audit uncovered no instances of violating laws, rules, and regulations.

This measure also adds language to Chapter 227D-4, that our research advisory committee (RAC) shall include a member of the University of Hawaii institutional animal care and use committee (IACUC). NELHA staff recognize the importance of being vigilant of animal welfare needs and as a premier site for research on tropical marine biology, NELHA hosts many teams from around the world that undertake research programs on a wide variety of organisms. All projects for which new leases are issued by NELHA are vetted and reviewed by NELHA staff and projects longer than one year are also vetted and reviewed by the RAC. Currently, six RAC members have Doctorate degrees in various ocean related fields and have the purview to flag and question all methods and protocols proposed by an applicant. Given the evolving awareness and emphasis on animal welfare, we support adding a member from IACUC to our RAC to provide expert input on such issues.

The measure adds language that NELHA shall "engaging in community outreach and education in west Hawaii island as they relate to activities within the park to promote workforce development in science, technology, engineering, math, and aquaculture industries, including through programs for local educators, students, educational institutions within

Hawaii, and state— and county-sponsored community groups”. Place based training and internship programs are very important for NELHA to assist Hawai’i in developing a workforce for the future especially in new sectors related to economic diversification and “green sustainable economy”. Some notable recent accomplishments include our internship program where over 50 interns have participated, organizing science fairs held in our Research Campus for the past 10 years, and outreach to local high schools. We have been working with the University of Hawai’i at Hilo over the past year to develop a pathways program and as recently as several months ago organized a group of approximately 15 officials and professors to tour five businesses at NELHA to get a better understanding of the kinds of jobs and skills sets needed to better design courses for a new workforce. We recently had discussions with Hawai’i Community College – Pāalamanui regarding these tours and plan to approach nearby high schools in the near future. NELHA has supported a charter school, for over 30 years by leasing property and providing sea water utilities at a subsidized rate of approximately one-third of our normal rates to businesses. Finally, for over 15 years and until recently, NELHA provided 5,000 sf and utilities at no charge, amounting to a “forgone” revenue to NELHA well in excess of \$1 million, to a non-profit “Friends of NELHA” that was focused on educating individuals and groups regarding the mission and businesses at HOST Park.

Thank you for the opportunity to offer these comments and we look forward to continuing our mission driving a sustainable green economy.



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented to the
Senate Committee on Energy, Economic Development, and Tourism
Senate Committee on Hawaiian Affairs
Tuesday, March 21, 2023 at 1:30 p.m.

by

Vassilis L. Syrmos
Vice President for Research and Innovation
University of Hawai'i System

**HB 913 HD2 – RELATING TO THE NATURAL ENERGY LABORATORY OF HAWAII
AUTHORITY**

Chairs DeCoite and Shimabukuro, Vice Chairs Wakai and Favella, and Members of the
Committees:

The University of Hawai'i (UH) appreciates the opportunity to provide comment on HB
913 HD2 that seeks to establish a research advisory council (RAC) at the Natural
Energy Laboratory of Hawai'i Authority (NELHA), that would include a member of UH's
institutional animal care and use committee (IACUC).

Other than projects relating to aquaculture of fish and the Ke Kai Ola hospital for
juvenile monk seals, the programs working with animals at NELHA focus on
invertebrate species. Current regulations and guidance documents used by the UH
IACUC do not pertain to invertebrates, as there is no federal requirement for IACUCs to
oversee work with invertebrates. Any mandate put on work with invertebrates conducted
by private entities at NELHA would be specific to the State of Hawai'i only.

Additionally, federal requirements state that IACUCs must be composed of at least five
members of different backgrounds and expertise, as well as representation from the
community, in order to deliberate and provide quality reviews on proposals.

A more feasible alternative might be to consider appointing someone with an expertise
in invertebrates to sit on the NELHA RAC in lieu of a UH IACUC member.

Thank you for the opportunity to comment.



SanHi

GOVERNMENT STRATEGIES
A LIMITED LIABILITY LAW PARTNERSHIP

DATE: March 21, 2023

TO: Senator Lynn DeCoite
Chair, Committee on Energy, Economic Development, and Tourism

Senator Maile Shimabukuro
Chair, Committee on Hawaiian Affairs

FROM: Mihoko Ito

RE: **H.B. 913, H.D. 2 – Relating to the Natural Energy Laboratory of Hawaii Authority**
Hearing Date: Tuesday, March 21, 2023 at 1:30 p.m.
Conference Room: 229

Dear Chair DeCoite, Chair Shimabukuro, and Members of the Joint Committees:

On behalf of Kanaloa Octopus Research Center (“Kanaloa”), a tenant of the National Energy Laboratory of Hawaii Authority (“NELHA”), we submit this testimony in **opposition** to H.B. 913 H.D. 2.

Kanaloa is a cephalopod aquaculture research and education facility located at the Hawai'i Ocean Science and Technology Park in Kailua-Kona. Kanaloa Octopus is fully committed to education, sustainability, and growing our economy with the utmost respect for our finite natural resources.

While we are appreciative of the intent of this measure, we respectfully oppose for the following reasons:

H.B. 913 H.D. 2 seeks to amend § 227D-2, Hawaii Revised Statutes (“HRS”). The proposed amendments are duplicative and unnecessary given NELHA’s past and ongoing commitment and proven track record of promoting economic activity that is both environmentally responsible and culturally appropriate. Furthermore, NELHA and its tenants must comply with all applicable federal and state animal welfare laws, and, to date, we are unaware of any violations of the existing laws.

The measure includes the following amendments:

1. Amends the purpose of the National Energy Laboratory of Hawai'i Authority’s (“NELHA”) to “facilitate research[.]; development[.]; and environmentally responsible and culturally appropriate commercialization of natural energy resources and ocean-related research, technology, and industry in Hawaii.” And to engage in “environmentally responsible and culturally appropriate retail, commercial, or tourism activities that will financially support that research,

- development, and commercialization at a research and technology park in Hawaii.”
2. Requires NELHA to establish, manage, and operate facilities “in compliance with all state and federal laws, rules, regulations, and licensing and permitting requirements[.]”
 3. Requires NELHA to promote and market the reasonable utilization of available natural resources “in a culturally appropriate and environmentally responsible manner[.]”
 4. Requires NELHA to engage in “community outreach and education in west Hawaii island as they relate to activities within the park to promote workforce development in science, technology, engineering, math, and aquaculture industries, including through programs for local educators, students, educational institutions within Hawaii, and state- and county-sponsored community groups.”
 5. Amends the areas of knowledge, interest, and expertise to include “Native Hawaiian cultural practices and traditions, conservation, and animal welfare,” which serve as the criteria for selecting members to NELHA’s board of directors.
 6. Requires NELHA’s Research Advisory Committee to include a “member of the University of Hawaii institutional animal care and use committee.”
 7. Additional non-substantive and technical amendments.

Amendments 1 thru 5 are unnecessarily duplicative as they are clearly embraced by NELHA’s mission “To develop and diversify the Hawaii economy by providing resources and facilities for energy and ocean related research, education and commercial activities in an **environmentally, sound and culturally sensitive manner.**” Moreover, NELHA previously testified that they initiated the formation of a Cultural Advisory Committee comprising of seven to eleven members from Hawai’i island to meet and address such issues. Lastly, NELHA and its tenants must fully comply with State and federal animal welfare and conservation laws, for example the 1966 Animal Welfare Act, 7 U.S.C. § 2131 et. seq. (AWA), and HRS § 195D-4 (making it illegal to export, take, or possess any threatened or endangered species).

We also oppose the inclusion of a member of the University of Hawai’i Institutional Animal Care and Use Committee (IACUC) as a permanent member of Research Advisory Committee in Section 2 of the bill. Like Kanaloa, the majority of NELHA’s tenants raise and maintain invertebrates. IACUC previously testified that federal law does not require the review of research on invertebrates. Thus, we believe it is inappropriate and premature to have a representative from IACUC as a permanent member of the Research Advisory Committee to address concerns about invertebrates.

As a tenant of NELHA since 2015, we are fully committed to continuing to work with NELHA and the community to address any concerns, now and in the future, as we strive together towards a sustainable future for Hawai’i. We thank you for your consideration in deferring this measure indefinitely and the opportunity to submit our testimony.

HB-913-HD-2

Submitted on: 3/17/2023 6:57:20 PM

Testimony for EET on 3/21/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Julia Estigoy-Kahoonei	Individual	Support	Written Testimony Only

Comments:

Anything that affects land and culture should always be consulted with the local and native community. Land is sacred here and any business venture or commercial development needs to be regulated so it's culturally sensitive and environmentally appropriate.

LATE

HB-913-HD-2

Submitted on: 3/20/2023 4:30:08 PM

Testimony for EET on 3/21/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Nicole Larson	Individual	Support	Written Testimony Only

Comments:

Testimony in Support of HB913

My name is Nicole Larson and I am an environmental educator and sustainability consultant on the island of Hawaii. I am testifying in strong support of HB913, which would help to refine and improve the statutory duties of the NELHA to ensure that all activities are conducted in a culturally sensitive and environmentally appropriate manner. There is so much amazing technology happening right here at the HOST Park, it is a huge benefit to the island and state to have these resources available to us. Therefore, it is imperative for the legislature to hold businesses accountable to follow best practices in both environmental management, animal husbandry, and to acknowledge the importance of collaboration with cultural Hawaiian practitioners who have managed these lands for generations before us.

This new era of climate change we are in requires us to rapidly demobilize from carbon, while also rapidly educating the residents of Hawaii to reach a level of eco literacy and civic engagement that will help create a resilient Hawaii. This can happen through both improved science education opportunities, and clearly defined career paths to jobs in these emerging industries.

The HOST Park is an amazing place to be able to highlight the clean tech, aquaculture and energy strategies that can lead to island resilience, there is a fanatastic opportunity to work in collaboration with these businesses to create education programs, internship programs and outreach materials to show Hawaii residents the numerous ways that these technologies can help to provide a sustainable future for generations to come.

Our island has an opportunity to face the rising seas of our future with science education and career-connected learning opportunities that can help to provide good jobs helping to protect and preserve our island home.

The future of Hawaii is dependent upon utilizing the best of science and technology, and combining this with indigenous Hawaiian practices of land and resource management. Incorporating cultural practices and wisdom with sound science, that is the way forward. I am humbled to be alive and in this part of history where we can acknowledge the mistakes that have been made, and work together to preserve this planet for future generations. Locally, HB913 is one small way that we can support moving towards a resilient future for Hawaii. Please support this bill and help to further the amazing progress happening with NELHA and the HOST park.

Mahalo for the opportunity to testify,

Nicole Larson

LATE

HB-913-HD-2

Submitted on: 3/20/2023 6:41:11 PM

Testimony for EET on 3/21/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Candee Laine Ellsworth	Individual	Support	Written Testimony Only

Comments:

Dear Chair Lowen and Committee members,

I am writing in support of this measure. I feel considering the overwhelming past support by the NELHA administration of Kanaloa Octopus Farm (KOF) and the recent evidence of the lack of appropriate permits, along with blatant wildlife exploitation (for which many have voiced concerns throughout the past few years), there is a need for outside oversight as it relates to research with live animals, keeping animal welfare in mind. Also, that research/business activities are being done with the input and guidance cultural practitioners. Thank you for the opportunity to support HB913 and the necessary changes to existing statute as it relates to NELHA. This would help to ensure that business and research endeavors consider the potential environmental and cultural impacts and require input and expertise from cultural practitioners and scientists.

As the Executive Director of the nonprofit mentioned, Friends of NELHA, I can say we have not received any financial support in over a year to provide free HOST Park educational opportunities for local schools, students or educators, but have tried to do so as much as possible despite that lack of support. We have a tremendous demand for our programs but are not able to fulfill that demand due to lack of support. Without the support we need, will be able to do less and less for the community. Our goal is to provide educational opportunities to help promote the amazing employment opportunities to local youths throughout the State of Hawaii's Hawaii Ocean Science and Technology Park, and we have done so successfully for over 20 years. Our organization tries to support all of the tenant activities, products, services, missions and messaging globally and locally with outreach and free marketing. We act as the State's biggest cheerleader of NELHA's HOST Park as a public advocate to a state entity. These changes will continue to make the HOST Park the leader in a green economy more so than it already is.

Mahalo,

Candee Ellsworth

LATE

Testimony Supporting HB913: Relating to The Natural Energy Laboratory of Hawai

Chair DeCoite and Members of the Senate Committee on Energy and Economic Development and Tourism and Chair Shimabukuro and Members of the Senate Committee on Hawaiian Affairs,

My name is Thomas H. Daniel. I received a Ph.D. in Oceanography from UH Mānoa and retired from the State of Hawai'i after 25 years of service, 21 of those as the Scientific/Technical Director of the Natural Energy Laboratory of Hawai'i Authority at Keahole Point and 3 ½ years as Facility Engineer for West Hawai'i Hospitals with HHSC. I initially moved to Hawai'i in 1967 and have resided on the Big Island and been involved in the West Hawai'i Community since 1982. As Technical Director of NELHA, I worked on many ocean energy initiatives, and I was awarded the 2020 Uehara Prize for my leadership in the development of Ocean Thermal Energy Conversion. I also served as interim director of the Puna Geothermal Facility and oversaw the closing of the HGP-A well.

I am submitting this testimony in support of HB 913 for several reasons.

Having spent many years coordinating the NELHA visitor program and writing proposals for its funding, I eventually supported the establishment of the Friends of NELHA (now the Keahole Center for Sustainability) to involve community volunteers in "spreading the word" about the important work going on at Keahole Point. FON, and now KCS, have done a creditable job of performing this function, with little support from the NELHA Board or administration. After about 18 years of successful conduct of public tours and community outreach in the Gateway Center (built with funding obtained by Senator Daniel Inouye), the current Administration has rented the facility to a new startup company and forced KCS to seek other facilities much less appropriate than that showpiece building.

I have believed since I began working at NELHA in 1982 that public outreach was an important component of its mission, and I've always felt that it was a mistake to remove that component when the original 1976 legislation was modified multiple times over the years.

I believe that the proposed sections (a) (8) and (a) (9) of HB913 are essential to clarify the responsibility of the NELHA Board and Administration for these essential public outreach functions.

I also believe that the changes proposed in HB913 to Section (b) of HRS 227D-2 are important to the future of NELHA and it's integration into the West Hawai'i Community. The existing Board of Directors composition continues to be weighted towards O'ahu and State Government, and the proposed changes will provide for input from local and native Hawaiian communities as well as from the University's scientific community.

The change from an even to an odd number of voting board members is also sensible for any governing body.

For these reasons, I strongly urge that this measure be approved.

Mahalo for the opportunity to testify on this much needed piece of legislation.

LATE

HB-913-HD-2

Submitted on: 3/21/2023 7:34:54 AM

Testimony for EET on 3/21/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Megan Lamson Leatherman	Individual	Support	Written Testimony Only

Comments:

Aloha esteemed Representatives on the EET/HWN committees;

Please support this measure (HB913) that brings ethical and cultural protections for the wildlife at NELHA (NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY). In light of the recent happenings at the octopus farm, this bill is much needed. It is important to keep the components regarding IACUC (institutional animal care and use committee) and references to animal welfare. As a marine biologist working in the field and interacting with native wildlife, I can verify that these components are critical for NELHA, and for all state agencies.

Mahalo for Reps Lowen and Holt for introducing this! I hope that it continues its path through the legislature into law. Many thanks for your time and consideration.

Best,

Megan Lamson Leatherman, M.Sc.

Honalo, HI

LATE

HB-913-HD-2

Submitted on: 3/21/2023 10:11:58 AM

Testimony for EET on 3/21/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Debra Gavelek	Individual	Support	Written Testimony Only

Comments:

Aloha, I feel strongly we need the state to ensure outside supervision where animal welfare is concerned in business efforts at NELHA's HOST Park. Case in point: The Kanaloa Octopus Farm operated for years as an 'entertainment' venue under the ruse of a scientific research operation and did so without proper permits. I also think it is important NELHA's administration support efforts in place by the Keahole Center for Sustainability to share community outreach and education on all the innovative companies operating at HOST awhile illustrating the great STEM opportunities available for our young local graduates. Thank you for this opportunity to share my views. Debra Gavelek, Holualoa, HI

LATE

HB-913-HD-2

Submitted on: 3/21/2023 11:21:17 AM

Testimony for EET on 3/21/2023 1:30:00 PM

Submitted By	Organization	Testifier Position	Testify
Richard Bailey	Individual	Support	Written Testimony Only

Comments:

I have been associated with NELHA for more than 35 years, both in government and as a private tenant and researcher. The unique nature of what makes NELHA what it's not just deep ocean water it is the sun, heat, humidity, airport and many other attributes placed in a beautiful spot. It really is a true amusement of different ideas. The NELHA could be more than just having tenants it can be destination for educational tourism. The Keahole Center for Sustainability (KCS) is located in NELHA has had a good history of telling the story of NELHA and it's current tenants activities. KCS"s currently receives NO funding support from the State while its efforts are TRUELY driven in support of NELHA and other sustainable activities in the State. KSC should be supported to enhance its tourism outreach in selling NELHA as a choice tourism destination spot for Hawai'i as it is a Hawai'i jewel.. KSC's track record of many years (formerly the Friends of NELHA) has demonstrated that it has a PR program that works. I support this Bill.