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 WATER AND LAND
and
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Thursday, January 18, 2024
8:30 am
State Capitol, Conference Room 229 & Videoconference

in consideration of

INFORMATIONAL BRIEFING ON AQUACULTURE.

The Natural Energy Laboratory of Hawaii Authority (NELHA) is pleased to submit comments on our role in aquaculture and the businesses here at our ocean science and technology park in Kona. NELHA's enabling legislation as contained in Section 227D-2 HRS provides broad powers for the purpose of "ocean-related research, technology, and commercialization" and businesses have had much success over the past 50 years. This is due to our comparative advantage resulting from the vast amounts of pristine nutrient rich ocean water that we pump ashore, ocean temperature differential due to the close proximity of deep-ocean water; and a climate optimal for sea water aquaculture due to the high solar insolation.

Prior to 2012, NELHA's focus was on the lease of our 900 acres to public agencies and private businesses. However, as shown on the attached slide we have increased our focus on

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building an entrepreneurial ecosystem to assist research, start-ups, and grow businesses using our ocean resources. Beginning in 2012 we initially focused on "bricks and mortar" issues and renovated our main administration building into a 20,000-sf office building and incubator. We began entrepreneurial programs in 2017, when we held a Statewide aquaculture summit at NELHA with over 100 stakeholders including Federal, State, Legislators, UH, County and Private Sector. At this summit there was consensus that UH will continue to take the lead on research related issues, Department of Agriculture would take the lead on growing food for Hawaii's people and NELHA would focus on technology and innovation to grow existing businesses as well as start-ups.

We received funding from the 2018 Legislature to start an aquaculture accelerator and received significant funds from UH and the Federal government. This accelerator has been successful, and we received an additional $3M from the federal government to continue operations through 2025. We also have seen the formation of two new venture funds totaling almost $20M in association with this accelerator to provide capital to companies successfully exiting the accelerator.

Success in this area, resulted in our office incubator and research campus achieving close to 100 occupancy several years ago. As such, we purchased an additional 30,000 sf warehouse/office building and 3A of associated facilities in 2020 using federal funds. We also used federal funds to begin planning and design of an 6A expansion to our existing makai research campus including a new 20,000 sf office building/research laboratory. These two new sites will be focused on accommodating two new accelerators in the areas of ocean technology and ocean conservation.

The recently released economic impact analysis for NELHA shows a significant jump in activity over the past four years during the pandemic and times of economic uncertainty. We believe that this points to the resiliency of the ocean science (including aquaculture) sectors we target which can stand up to economic weaknesses and provide opportunities to pursue economic diversification. This spike includes 13 new projects over the last two years, covering 76 acres or almost 10 percent of the land at HOST Park. Media reports show that companies that operate at NELHA have secured over $200M in the past several years. We believe that economic output of the aquaculture sector could easily double or perhaps grow from almost $100M last year to over $300M in the next several years.

More specifically, of the over 50 business at NELHA approximately 40 percent could be considered aquaculture related and all rely on our seawater for their livelihood. Assuming that 40 percent of our economic impact of $145M last year these businesses accounted for approximately $60M or 60 percent of the state total. Likewise, of the 714 jobs generated by NELHA business, approximately 300 jobs are due to aquaculture.

Thank you for the opportunity to offer these comments.

Attachment (1)

BRICKS AND MORTAR

2012

Federal grants totaling almost $3.5 million received for renovation of main administration building into an office building and incubator and micro-grid infrastructure for the six-acre Research Campus.

2015

Began renovation of main administration building to turn it into an office and incubator building to serve as an anchor as a "one-stop-shop for economic development agencies including SBDC, HTDC and others.

2016

Completed renovation of Hale Iako and significant improvements to the Research to provide 14,000 sf blue technology and advanced energy incubator building with 17 offices.

2020

Federal grants and insurance funds totaling almost $7 million received due to destruction of buildings in Puna due to the Kilauea Volcanic eruption. Research campus and Hale Iako at 100 percent occupancy.

2021

Planning and Design of Research Campus Expansion and Master Plan and building design.

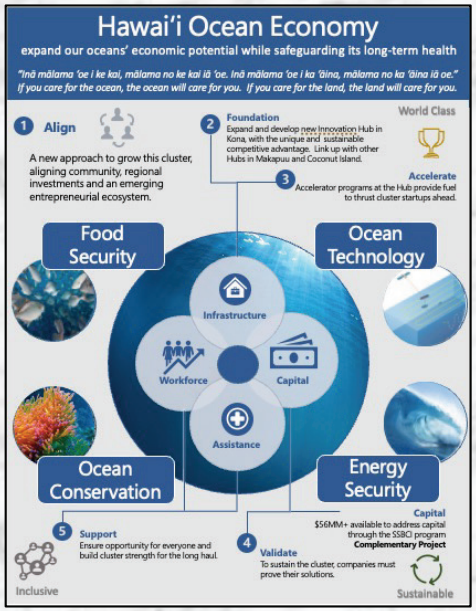
2022

Completed purchase of 30,000 sf building and associated facilities on a new three-acre mauka research campus using $5 million in grant funds from FEMA and the insurance companies. Completed AIS and EA for makai research campus.

2027

Build out six-acre Makai Research Campus Expansion and new 20,000 sf office/incubator building to serve as a center for new ocean technology and ocean conservation start-ups.

BUILDING AN OCEAN SCIENCES ENTREPRENEURIAL ECOSYSTEM AND PROOF OF CONCEPT CENTER AT HOST PARK



Statewide Aquaculture Summit at NELHA

Sponsored by DOA, HTDC, HSDC, SBDC, County of HI, Feed the Hunger Foundation and NELHA. Over 100 Hawaii stakeholders attend, including Federal, State, Legislators, UH, County and Private Sector representatives. Roundtable Discussions/Path Forward.

2017

Accelerator Phase I

Legislature appropriates $675,000 in General Funds for NELHA Aquaculture Accelerator. Act 53, SLH 2018, Section 3, A.21. $200,000 restricted by Governor. Executed agreement with Hatch in 2019 for a 3-year $1.8 M. Funds from EDA, UH, and NELHA. Established $8M follow-on venture fund.

2018

Accelerator Phase II

EDA Disaster Relief grant awarded for $1.8M.

Four-year extension to existing HATCH agreement .

Goal: Establish Hatch as self-sustaining accelerator program beginning in 2026.

Deliverables: Annual cohorts with 75 companies as well as annual "ideation workshops".

In 2023, received additional EDA funds of $650,000.

Established new $10M follow-on venture fund.

2020

EDA Grant Opportunity

DBEDT/NELHA $500K EDA application to accelerate Ocean Economy Growth. Included creation of a facility at NELHA for ocean economy related projects. Coalition including DBEDT-BSD, HIGA, HTDC, DOA, HSEO, MBDA Business Center, UH and NELHA. Not awarded groundwork for partnerships in this cluster.

2021

NOAA Grant Opportunity

$175,000 application to accelerate NELHA's emphasis on ocean tech and conservation. Fills gap in Hawaii's innovation ecosystem and will complement the existing food security accelerator. Hawaii was not awarded but NELHA continues to seek funds from alternative sources.

2023

Climate Resilient Food Innovation Network

Integrate Indigenous knowledge systems and scientific technologies to generate food products and services.

UH Lead with NELHA, HTDC, PDC, EWC, Good Food Alliance, Ulu Cooperative, UGuam, Elemental Excelerator and HATCH as partners.

2024

ACCELERATORS, WORKSHOPS, TRAINING, AND VENTURE FUNDS