



NELHA BOARD BOOK
August 27, 2024

Item 2.

New Minutes Methodology

and

Draft Minutes NELHA BOD

Meeting July 16, 2024



NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

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



BOARD OF DIRECTORS MEETING MINUTES

DRAFT

July 16, 2024
10:00 a.m.

**An Interactive Conference Technology Meeting was held at
NELHA OceanView Conference Room
Hale Iako Building
73-970 Makako Bay Drive
Kailua-Kona, HI 96740
and via Zoom Video Conferencing Software.**

Members/Designees in Attendance

Noelani Kalipi (Gov. Appointee/Chair)
Cyd Miyashiro (Gov. Appointee/Vice Chair)
Gordon Bruce (Gov. Appointee)
Dr. Philip Bossert (RAC Secretary)
Alan Hilton (RAC Chair)
Dick Jones (Tenant Representative)
Gregory Kim (HTDC)
Nathan Tsao (Tenant Representative)
Russell Tsuji (DLNR)
Bobby Command (County of Hawaii)

Board Members Not Attending and Excused

Doug Adams (County of Hawaii)
Dr. Vassilis Syrmos (University of Hawaii)
Dane Wicker (DBEDT)

Guests/Staff Present

Greg Barbour (NELHA)
Laurence Sombardier (NELHA)
Alexander Leonard (NELHA)
Faustine Edge (NELHA)
Alex Leonard (NELHA)
Pam Madden (NELHA)
Rae Nguyen (NELHA)
Keith Olson (NELHA)
Jennifer Rasmussen (NELHA)
John Cole (AG)
Micah Brodsky (Hawaii Dept of Agriculture)
Chuck Call (Integrated Offgrid)
KB Chun (DHHL)
Monica Duntz
Gerald Heslinga (Indo-Pacific Sea Farms)
Mark Ladao (Hawaii Public Radio)
Jaime Matsukawa (Shrimp Improvement Systems)
Bill Morton (Pacific Filtration Systems)
Phil Morton (Pacific Filtration Systems)
Ashley Von Jetzer (KOWA)
James Wyban (Consultant)
Jeff Zimpher (National Park Service)

73-4460 Queen Kaahumanu Hwy., #101, Kailua-Kona, Hawai'i USA 96740-2637
Phone: (808) 327-9585 Fax: (808) 327-9586 Email: nelha@nelha.org Website:
<http://www.nelha.hawaii.gov>

- **Item 1. (10:01am; video run time 0:00.12) Call to Order.**

The meeting was called to order by Chair Noelani Kalipi at 10:01 a.m. and asked Executive Director (ED) Barbour for a roll call of Board members and NELHA staff. Reference to Act 220. 10 members present and 2 excused.

- **Item 2. (10:07 a.m. video run time 0:05.53) Approval May 21, 2024, NELHA Board of Directors' Meeting Minutes.**

Chair Kalipi entertained a motion to approve the May 21, 2024, minutes. The motion was made by Director Bruce and seconded by Director Jones (10:07 a.m, video run time 0:06:11). The minutes were approved at (10-0) (10:08 a.m. video run time 0:07:11).

- **Item 3. (10:08 a.m. video run time 0:07:15) Approval April 9, 2024, NELHA Board of Directors' Executive Session Meeting Minutes.**

Chair Kalipi entertained a motion to approve the April 9, 2024 Executive Session Meeting minutes which were distributed by Deputy Attorney General John Cole (AG). The motion was made by Director Bruce and seconded by Director Tsao (10:08 a.m. video run time 0:07:34). The minutes were approved (8-0) with Directors Hilton and Tsuji abstaining because they were not present at the Executive Session (10:09 a.m. video run time 0:08:10).

- **Item 4. (10:09 a.m. video run time 0:08:21) Public Testimony.**

Chair Kalipi opened the floor to any public testimony or any open items not on the agenda. Chair Kalipi reminded the public there is a 5-minute time limit for each testimony. No one came forward.

- **Item 5. (10:10 a.m. video run time 0:09:12) Old Business. Seawater Quality Analysis Report Presentation by Dr. Jim Wyban.**

Dr. Wyban presented his final report of his Investigation of Seawater Quality Issue Relating to Larval Survival Rates for Hawaii Ocean Science and Technology (HOST) Park. The Board members and meeting attendees were provided with the opportunity to ask questions.

- **Item 6a. (11:16 a.m. video run time 1:15:23) New Business. Create a Permitted Interaction Group, pursuant to HRS §92-2.5(b), for the purpose of recruiting and making a recommendation to the NELHA Board of Directors for hiring of the NELHA Executive Director position – Discussion and Decision.**

Chair Kalipi introduced the agenda item and asked if there were any comments or additions for the Permitted Action Group (PIG). Director Bruce asked if the Board recommendation requires Legislative approval. AG Cole answered no, and ED Barbour added it will require DBEDT approval. Director Kim moved to Create the Permitted Action Group, and Director Tsuji seconded the motion. AG Cole explained up to six Board Directors can be appointed as members of the PIG. They are: Chair Kalipi, Vice Chair Miyashiro, Director Bruce, Director Jones, Director Tsao, Director Wicker. AG Cole confirmed NELHA staff can be members of the PIG. They are DD Sombardier and one other NELHA staff to be named later.

Director Bossert exited the meeting at 11:20 a.m.

Director Hilton moved to approve the PIG and its members. Director Bruce seconded the motion (11:23 a.m. video run time 1:23:21). The motion was approved (9-0). 11:25 a.m. video run time 1:24:47)

- **Item 7 (11:26 a.m. video run time 1:24:54 – a break was requested and reconvened at 11:32 a.m. video run time 1:31:01). Financial Report: Approval and Decision Making.**

ED Barbour presented a financial overview for July 2023 through June 2024.

Director Bruce moved to approve the Financial Report and Director Tsao seconded (11:47 a.m. video run time 1:47:31). The Financial Report was approved (9-0) (11:48 a.m. video run time 1:47:51).

- **Item 8. (11:48 a.m. video run time 1:47:56) Proposed Budget FY 2025: Approval and Decision Making.**

ED Barbour provided a summary for a proposed budget including CIP projects, grant projects, proposed revenue and expenditures. Total estimated revenue for FY2025 is \$5.6M. Total expenditures are proposed to increase by 12 percent overall or \$650,000 in FY2025 compared to FY2024.

Director Bruce moved to approve the FY2025 Budget, Director Hilton seconded the motion (12:07 p.m. video run time 2:06:38). The Proposed Budget for FY2025 was approved as amended to include Community Outreach. (9-0) (12:08 p.m. video run time 2:07:03).

- **Item 9. (12:09 p.m. video run time 2:07:53) Executive Director’s Informational Status Report on ongoing projects including: new leases; seawater system maintenance; offshore deep seawater pipe removal planning and design; regional seawater air conditioning planning and design; new potable water supply update; aquaculture**

accelerator and investment fund initiative; design of expansion of research campus and visitor center; renewable distributed energy resources initiative for microgrid; and, solar desalination.*

ED Barbour presented this agenda item starting 12:09 p.m. (video run time 2:07:55).

- **Item 10. (12:15 p.m. video run time 2:14:18) Announcements.**

NELHA Board of Directors will meet monthly until the NELHA Executive Director position is filled. Next meeting is scheduled for August 20, 2024, at 10:00 a.m.

- **Item 11. (12:17 p.m. video runtime 2:15:21) Adjournment.**

Chair Kalipi adjourned the meeting at 12:17 p.m. (video runtime 2:15:38).

###

Item 3.

Public Testimony

Item 4.
Old Business

- a. Report from the Permitted Action Group regarding Hiring of the NELHA Executive Director Position

NELHA EXECUTIVE DIRECTOR POSITION DESCRIPTION

I. INTRODUCTION

This position is located in the Natural Energy Laboratory of Hawaii Authority, an agency assigned to the Department of Business and Economic Development & Tourism (DBEDT) for administrative purposes. The Authority responsible for promoting the development of research and commercial uses of the abundance of natural resources available on the island of Hawaii at facilities existing at Keahole, and for assisting in the construction and operation of facilities.

The incumbent of this position serves as the chief executive officer of the Authority and is responsible to a twelve member Board of Directors for planning, organizing, coordinating, directing, and reporting upon the work of the Authority.

II. MAJOR DUTIES AND RESPONSIBILITIES

1. Implement policies and instructions of the Board of Directors and administer the activities of the Authority by planning, organizing, directing, coordinating, and reporting upon its work. 50%

- a. Schedules, develops agenda for, and attends meeting of the Board of Directors. Provides the Board with information, comments, and recommendations about subjects of concern to the Authority, including potential projects and project proposals; selection of consultants, legal counsel, financial advisers, and developers for specific projects; legal questions requiring resolution; construction and interest costs; trends and developments in natural energy and research industries, to include aquaculture industry, and other matters dealing with the development and construction and operation of facilities.

Provides information and recommendations to the Board regarding strategic direction to complete the development of the technical park. Determines critical pathways to fulfill NELHA's vision. Oversees master and other planning activities.

- b. Serves primary point of contact (POC) for NELHA. Represents the Authority in contacts and negotiations with

businesses, developers, and property owners. Directs staff and consultants in developing or studying proposals and in reporting upon economic feasibility financing arrangements; engineering analyses and the costs, benefits, and risks inherent in specific projects or project proposals. Responsible for updating and implementing strategic and economic development plans.

- c. Directs the preparation of requests for proposals, requests for bids, and other solicitations of the Board for professional services and for development or construction projects. Ensures that State Procurement procedures are followed. Directs the drafting of agreements for services and/or construction.
- d. Directs staff and consultants and participates in identifying governmental concerns and implementing actions approved by the Board. Works closely with qualified persons and legal counsel in negotiating and developing project agreements for the development of projects or businesses and for the construction of facilities for tenants as required. In support of tenants, supervises and participates in developing critical path analyses, establishing work and project schedules, and programming project resource requirements.
- e. Coordinates with the Authority Board of Directors and DBEDT for the drafting of legislation on behalf of the Authority; drafts and presents testimony for public hearing by legislature; prepares comments and recommendations on bills passed by the legislature, presents and defends the budget requests to the legislature; is the advocate for the Authority at public hearings.
- f. Coordinates the State finance personnel bond counsel, bond underwriters, and financial advisers in requesting legislative authorization as well as in preparing for the issuance of special purpose revenue bonds; drafts, or works closely with developers and others in drafting legislation to obtain authorization for specific bond issues; drafts testimony for bond financing bills being considered by legislative committees and testifies at public hearings; prepares comments and recommendations on bills passed

by the Legislature; directs preparations for the issuance of authorized bonds.

- g. Maintains close working relationships with the High Technology Development Corporation and other public and private organizations involved in efforts to attract natural resource research and commercial businesses in Hawaii; maintain close working relationships with personnel and government, the private sector, and community organizations involved in, or affected by specific developments or projects hosted by the Authority.
- h. Provides public information about the work of the Authority and speaks before private and public groups to provide information and to obtain comments and suggestions.
- i. Directs and participates in studies to develop and update strategies on supporting the development of natural resources research and commercialization, including promotional and marketing programs for the Authority.

2. Responsible for Authority's business operations. Directs the drafting and updating of the Authority's bylaws, administrative rules, and development rules. Develops internal policies and procedures governing the staff's work. Develops and presents budgets for the Authority's operations and for its projects; implements approved budgets to ensure the Authority's self-sufficiency. Provides for the development of expenditure plans, accounting and internal controls, cash flow management, and the investment of special funds not immediately needed. Supervises the immediate staff, directs obtaining supplies, materials, equipment, and services needed by the Authority, the development of office systems to handle and maintain the Authority's correspondence and records; directs the preparation of periodic and special reports, including the Authority's annual report and financial statements; the preparation of public notices and advertisement; has custody of the Authority's personal property and directs the preparation of periodic inventories. Coordinates fiscal and business management matters with DBEDT's Fiscal Office and with appropriate State central agencies. Directs property management activities including leasing activities, property upkeep and maintenance. Initiates and directs other activities required in ensuring the proper operation of the Authority, including EIS and other permit updates. 30%

- 3. Through the immediate staff, manages personnel of the Authority, including making recommendations to the Board on establishing permanent and temporary positions, hiring staff and consultants, and on other personnel matters, providing orientation and training, maintaining discipline. Evaluates performance of subordinates; resolves grievances; approves leave requests; and approves personnel and pay actions. 15%
- 4. Performs other duties as may be required. 5%

III. CONTROL OVER THE POSITION.

Works under the administrative direction of the Natural Energy Laboratory of Hawaii Authority Board of Directors, acting through its chairperson and designated officers. The Authority is attached to DBEDT for administrative purposes.

IV. QUALIFICATIONS:

Educational Qualifications: Graduation from an accredited four-year college or university. Preference will be given for a graduate degree in one of the following fields: business administration, public administration, economics, accounting, banking and finance, planning, law, architecture, engineering (any field), or any of the physical or natural sciences.

Experience Qualifications:

- A track record of significant and successful leadership that aligns with the 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.
- Excellent operational skills and experience that will transfer into leading and managing the HOST Park, including:
 - Seawater system, master permitted to pump over 130,000 gpm, installed capacity of 90,000 gpm, three deep seawater pipelines up to 3,000 ft. deep, three surface seawater pipelines at 80 ft. depth, with 99.9% uptime
 - Energy ecosystem including 1 MW solar, Backup Power systems, Advanced Energy Testbed, Outdoor Demonstration Site, Ocean Thermal

Energy Conversion (OTEC), Microgrid Development and Testing; Energy Storage System (ESS); and Hydrogen Production, Storage and Fueling

- Land management and development, including 870 acres of State coastal land in Keāhole Point, Kona, including 4-acre makai research campus and 3-acre mauka research campus.
- Road management
- Tenant outreach and relations
- Demonstrated history of working and engagement with multicultural and diverse populations. Demonstrated ability to understand local community values specific to West Hawaii Island and ability to work with lineal descendants.
- Demonstrated fiscal and strategic acumen, including experience and accountability for budget decisions, and a record of success in creating financially sustainable budget models for a large, complex organization and its key components.
- Demonstrated leadership qualities capable of leveraging and growing Hawaii's Ocean Economy and meeting Hawaii's clean energy goals in the following areas: Food Security, Ocean Technology, Ocean Conservation and Energy Security.
- Experience working with a governing board (e.g., public authority, trustees, board of directors for a nonprofit organization or business).
- Demonstrated political and diplomatic acumen in engaging with policymakers at all levels of government and success in advocating for the organizational interests in a multifaceted social and political milieu.
- A history of success in building strong, diverse leadership teams and demonstrating accountability and performance, including recruitment, development, and retention of management, staff, and personnel.
- Work experience in developing commercial projects, managing a business, or managing a complex program or activity. Such experience must have included responsibility for supervising other professionals and must have required application

of knowledge of two or more of the following areas:
public administration, economic or financial
analysis, marketing, real estate management,
project management, or negotiating development
agreements.

Other Qualifications: Effective written and oral communication skills;
ability to understand material of a complex and/or technical nature; ability
to understand and appreciate diverse perspectives and effectively
communicate with businesspersons, professionals, government officials,
community members, lineal descendants, tenants, and the general public.
Position requires Big Island residency or willingness to relocate to Big
Island.

NELHA Executive Director Search Process

- 1) August 27, 2024 (scheduled BOD meeting): PIG reports to NELHA Board and presents updated position description (PD) and proposed process to hire new ED.
- 2) September 3, 2024 (special BOD meeting): Obtain Board approval for Position Description (PD) and process at special Board meeting.
- 3) September 3, 2024, through October 4, 2024: NELHA staff to post ad on the following platforms for a minimum of 30 days.
 - HireNet: <https://www.hirenethawaii.com/vosnet/Default.aspx>
 - State Website (executive branch non-civil service job listing): [Non-Civil Service Jobs | Sorted by Job Title ascending | State of Hawai'i, Executive Branch \(governmentjobs.com\)](#)
 - Indeed: <https://www.indeed.com/?from=gnav-homepage>
 - NELHA website: <https://nelha.hawaii.gov/>
 - Social Media
 - Email lists: NELHA/DBEDT and Others
- 4) October 5, 2024, through October 17: PIG reviews CVs and creates ranked list of candidates. Criteria is primarily how well candidate meets the qualifications listed on the PD. The list will be established by consensus.
- 5) October 17, 2024, through November 5, 2024: PIG conducts initial interviews with a maximum of 8 top suitable candidates. PIG may decide to conduct interviews via zoom or in person. The PIG will determine interview questions as well as the composition of the interview committee. The PIG will conduct follow on interview work as needed to arrive at the best possible ranking of the topmost candidates and will select the top 3 candidates.
- 6) November 19, 2024 (scheduled BOD meeting): PIG recommends top 3 candidates at the regularly scheduled November Board meeting. The 3 candidates will be presented at the Board meeting. The 3 candidates will be interviewed by the full Board in executive session.
- 7) December 3, 2024 (special BOD meeting): Board discusses and selects the final candidate.
- 8) December 4, 2024: Board Chair makes offer to the candidate selected by Board. If offer accepted, candidate to start ASAP.

Updated 8/20/2024

Item 5
New Business

- a. Discussion and Decision Making for a 1 kton/year Direct Marine Carbon Capture Demonstration Project by Captura Corporation.

Agenda Item 5a.
Approval for Captura Corporation 1kton/year Direct Marine Carbon Capture Demonstration

DATE: August 20, 2024

SUBJECT: Request for approval for a 2-3 year project to build and operate a 1kton/year marine carbon capture pilot demonstration plant in the makai research campus.

A. SUMMARY AND REQUEST

Captura Corporation (Captura) is requesting an approval to utilize NELHA facilities for a two-to-three-year timeframe to demonstrate 1 kton/year direct ocean carbon capture pilot system with the aim of validating Captura’s technology.

B. BACKGROUND AND DISCUSSION

Captura Corporation (Captura) is a Caltech spinout formed in 2021 (<https://capturacorp.com/>). The startup aims to use their proprietary membrane technology to develop a carbon removal solution to address climate issues using seawater. Per the Intergovernmental Panel on Climate Change (IPCC), reducing CO2 emissions will not in itself be sufficient to fully address the world’s climate challenges and large scale engineered solutions will be necessary to adequately reduce atmospheric CO2. Captura believes its solution for carbon dioxide removal can be fielded sustainably at large scale as it uses only the ocean and electricity, requiring no consumable material and producing no by-products.

In just two years since their inception, Captura has completed a 1 ton/year proof of concept and currently operates a 100 ton/year pilot facility on a barge in the Port of Los Angeles. The company is poised for its subsequent step, a 10X or 1kton demonstration. They have the funding and have completed the design, most of the procurement and fabrication, with much of the long lead time equipment ready for delivery. Captura uses their patented technology and actively conducts R&D to optimize their system components and processes. It is expected that the 1kton demonstration plant layout will allow swap out for new generations of critical components.

Captura is a leader in the field of marine carbon capture. Their technology uses only seawater and electricity which, on future commercial systems, will be from low carbon footprint renewable sources. Nothing is added to the seawater, and the only products of

the process are carbon dioxide gas and decarbonated seawater. Conceptually, the Captura solution is straightforward. A small amount (<1%) of seawater intake is diverted and split into an acid and a base using electrolysis. The acid portion is returned to the seawater stream causing the dissolved inorganic carbon to turn into dissolved CO₂ which is subsequently extracted using a proprietary selective membrane and vacuum pressure. The base is then added back to the sea water, restoring it to its initial state except for being slightly less acidic because of CO₂ removal. The extracted CO₂ is purified and compressed to liquid for storage and can be sequestered, or, as in the case of the present proposal, used by aquaculture companies that would otherwise purchase the product produced on the Mainland and shipped to Hawaii. The seawater discharged from Captura's process is beneficial for aquaculture, especially for shellfish. The process does not use any chemicals and has no problematic by products.

The Captura carbon capture plants are scalable and work well alongside desalination plants as utilizing the brine can potentially reduce the seawater requirements by half. There are however no desalination plants at HOST Park that can provide sufficient brine on a continuous basis. Therefore, Captura will utilize seawater. Once the demonstration work is complete, Captura plans to license the technology so that rapid deployment of plants based on the pilot demonstrated at HOST Park can collocate with existing facilities that pump seawater or larger plants can be built as stand-alone facilities.

Captura is one of 20 finalists for the Elon Musk Foundation carbon removal \$100M XPRIZE (<https://www.xprize.org/prizes/carbonremoval>) and one of only two engineered marine solutions in the running. Captura believes that they have a reasonable chance of winning the grand prize of \$50M or a share of the runner-up prize pool of \$30M. Should a prize be won based on a demonstration at NELHA, this could be a high-profile project in an area with great opportunities for Hawaii. This prize opportunity, however, does mean that the project is on a fast track.

The project utilizes significant amounts of seawater and electrical power, but NELHA can provide these resources with some infrastructure modifications that would be funded by Captura. Captura has hired a local construction firm, Nan Inc, to assist with evaluation of the electrical and pipe work needed. This firm is experienced and, having built the HNEI Hydrogen fueling station, is specifically familiar with the NELHA makai research campus - which is where staff has determined would be the best location from a resource delivery and process water disposal perspective.

While the Captura technology can utilize both deep and surface sea water, NELHA's surface water is preferred for several reasons. This includes the fact that surface seawater is more similar to the waters available to future commercial plants planned elsewhere in the World, and it also better addresses the primary intended outcome which is to remove CO₂ directly from upper ocean (making room for more CO₂ uptake by the oceans) - as opposed to remobilizing "old" CO₂ that is already stored away from the atmosphere in the deep ocean.

The Captura project is very well aligned with NELHA's mission to facilitate innovative ocean sciences and energy projects. This project addresses energy issues in that it aims to provide solutions that can offset CO2 production from traditional energy generation and other "hard to decarbonize" industrial sectors such as transportation. It also fits the park's ocean sciences emphasis. This is an area that not only has clear climate benefits but is also attracting a lot of research and investment funds currently. Staff believes this is a space where Hawaii could play a significant role. A small marine carbon capture R&D project took place in the research campus in 2022. The company, Heimdal (<https://www.heimdalccu.com/>), which has a direct air capture project in North Kohala, on Hawaii Island, conducted R&D on precipitating bicarbonates out of the ocean water to create construction industry products.

The project's environmental impact is very similar to Makai Ocean Engineering (MOE)'s OTEC's impact. The seawater volumes (corresponding to approximately 8,000 gpm) are on the same order of magnitude. And as with OTEC, the seawater will not be changed in any significant manner before disposal. Disposal will take place in the existing basin North of the campus which was developed for OTEC pilot work.

NELHA's current infrastructure would not be able to deliver or dispose of seawater at a rate sufficient for both MOE and Captura systems to operate simultaneously at full capacity. However, Captura has assured NELHA and MOE that their technology is "dispatchable" such that they can and will coordinate the timing of their operations with MOE, and would shut down or scale back as needed so as to not impede MOE's use of the seawater infrastructure, or hinder MOE's OTEC R&D goals and grant commitments.

Several NELHA clients have expressed interest in utilizing the CO2 captured which will replace CO2 currently purchased at very high cost from AirGas/Air Liquide. In addition, Captura has an extensive monitoring plan for ocean health and CO2 removal pathways. A description of Captura's monitoring, reporting and verification (MRV) practices is included in Appendix A of the Business Plan (Attachment 2 of this recommendation). Staff have determined an EA is not needed for this project.

The project is relatively short (2 years with a possible 1-year extension). Equipment will be on skids to facilitate installation and removal. The main improvements needed – to be paid for by Captura - will be to provide sufficient electrical power to the site (they will be utilizing on the order of 350,000kWh/month), and installing a new 24-inch diameter discharge pipe along NELHA's existing pipe corridor on the Makai side of the Research campus (up to 8,000 gpm will be utilized and discharged).

Since this is a short-term project, the request is for final approval as opposed to a two-step process (approval in concept followed by final approval), which is usually reserved for long term commitments or for projects that don't fit NELHA's mission as clearly. An introductory slide deck and Captura's preliminary proposal and business plan are

provided as Attachments 1 and 2. Captura has been very forthcoming and prompt with staff information requests. Staff believes that all the major pieces for this project have been assembled. Specific plans such as electrical upgrades, seawater connections, equipment placement and other items, will be further reviewed and approved by NELHA staff.

As with all projects, there are some concerns. While the team appears very competent, the timeline might be overly optimistic with a stretch goal of starting operations January 2025. Captura acknowledges that NELHA has made best efforts to represent campus utility capabilities. Captura also acknowledges that the campus facility infrastructure has supported many projects and that some relevant information impacting the upgrades may not be known until the project implementation. Captura is however well funded and has the cash flow balance to address unanticipated issues and perform this work in the next 2 years, noting that an additional year is currently built in for contingencies.

While the makai research campus was the preferred site from a utility perspective, it did pose some challenges as far as meeting the proposed facility area requirements which ideally would be approximately 22,000 sq ft. The proposed location (see Attachment 3) would occupy the west corner of the campus where 4 clients are currently located. Two of these (Pacific Filtration Systems and Integrated Offgrid) already had plans to vacate. The Nature Conservancy prefers a larger and more protected area and staff is in the process of accommodating that change. Finally, the artist in residence Catherine di Napoli has moved and sold her container and deck to another artist (Makai Arts). It is expected that Captura would purchase the containers from the new artist to use as project office space and we would find another suitable location for the new community artist.

Captura has agreed to the boiler plate short term rental agreement which has also been reviewed by NELHA AG. Base lease rent will be on the order of \$110,000/year. While there is a % rent clause in line with other pre-commercial lease agreements, no % rent is expected to be due. Captura will pay for sea water and electricity at rates established by policy. No freshwater is needed for this project. A summary of the lease agreement terms and the draft lease are provided in Attachment 4. Any changes to NELHA's infrastructure will be covered by Captura.

The RAC has had the opportunity to review the lease agreement and the project has received favorable reviews with no major issues to be addressed other than making sure adequate resources can be provided. Outreach has taken place with clients in the selected campus area as well as park clients that may have interest in using the CO2.

Depending on results from this 1kton project, there may be opportunity for a larger system. But any such commercial-scale system would be located elsewhere in HOST Park and likely would need to have an environmental assessment completed as the volumes of water being treated would be larger.

C. NELHA STAFF RECOMMENDATION

Staff recommends that the NELHA Board provide an approval for the Captura project to proceed as proposed, and direct NELHA staff to finalize and execute the rental agreement.

ATTACHMENT 1: CAPTURA INITIAL SLIDE DECK (CONFIDENTIAL)

**ATTACHMENT 2: CAPTURA PRELIMINARY PROPOSAL (CONFIDENTIAL)
AND BUSINESS PLAN (CONFIDENTIAL)**

ATTACHMENT 4: DRAFT RENTAL AGREEMENT

DRAFT TERM SHEET – V3

CAPTURA CORP.

Sublessor	Natural Energy Laboratory of Hawaii Authority ("NELHA")
Sublessee	Captura Corp. ("Captura")
Purpose and Use	Direct Ocean Capture 1kton/year demonstration project
Premises to be leased	Approximately 22,620 sq ft in Makai Research Campus. Exact final area still under discussion.
Term	2 years with ability to extend 1 additional year. Start date: September 1, 2024
Fixed Monthly Rent	Outdoor research campus space: $\$0.40 * 22,620 = \$9,048/\text{month}$ To be adjusted according to final area.
% Rent	2.5%
Annual Rent Adjustment	Annual CPI adjustment (in line with other NELHA short term leases).
Rent Reopening	Short term agreement. No rent reopening. Lease may be extended upon mutual agreement.
Utilities supplied by NELHA (sub-metered)	Power: 1200KVa to 1500kVa. Upgrades are needed and will be funded by Captura. Surface Seawater: 6,000-8,000 gpm. Upgrades are needed and will be funded by Captura. Captura acknowledges the requirement to coordinate with MOE OTEC project from seawater usage perspective. Freshwater: None needed for project. Captura acknowledges that NELHA has made best efforts to represent campus utility capabilities. Captura also acknowledges that the campus facility infrastructure has supported many projects and that some relevant information impacting the upgrades may not be known until the project implementation. NELHA shall not be responsible of time delays associated with such new unanticipated information.
Utility Connections	Sublessee is responsible for making necessary connections to the research campus infrastructure.
Utility rates	Sublessee is responsible for covering utility costs at the NELHA published rates in accordance with NELHA policies.
Disposal of process water	Need to dispose of 6,000 to 8,000 gpm. Existing system can accommodate up to 8,000gpm. Captura shall coordinate with NELHA and MOE w/r to MOE sump usage and basin usage. Sublessee shall be responsible for installing the necessary piping to connect their system to the point of water discharge.
Facility modifications	Facility modifications costs (for safety or any other purposes) shall be borne by the Sublessee. No modifications allowed without prior NELHA approval. Facility modifications include grading and utility infrastructure upgrades.
Other tenants	Some portions of the proposed Captura space are currently under lease by other tenants. NELHA will make accommodations to relocate these tenants.

8/7/2024

	No modifications can be allowed to the space leased by other tenants until the tenants have been relocated. It is expected that all tenants will have relocated by September 1.
Permits	Sublessee shall be responsible for any permitting required.
Compliance with Laws	Sublessee shall comply with all applicable federal, State of Hawaii and County of Hawaii laws and regulations, including applicable reservations and restrictions of the State Department of Transportation, Airports Division, related to operations of the Kona International Airport at Keahole. Sublessee shall also comply with Sublessee's rules and regulations for its tenants.
Subject to Master Lease	The Agreement shall be subject to the NELHA's Master Lease with the Department of Land and Natural Resources (DLNR).
Terms and Conditions	Standard NELHA rental agreement boiler plate terms apply.
Project Decommissioning	Captura will return property to its initial state (including removal of all Captura equipment) at the end of the project.

STATE OF HAWAII

NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

NELHA LEASE NO. RA-0048

RENTAL AGREEMENT

This AGREEMENT, made this _____ day of _____, 2024, and superseding all prior agreements related to the subject property, by and between the NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY, a body corporate and politic and an instrumentality and agency of the State of Hawaii organized pursuant to Hawaii Revised Statutes, Chapter 227D, hereinafter “NELHA,” whose business and post office address is 73-4460 Queen Kaahumanu Hwy., #101, Kailua-Kona, HI 96740, and Captura Corporation, a Delaware corporation, whose business and post office address is 2585 Nina St., Pasadena, CA 91107, hereinafter referred to as the “TENANT”;

WITNESSETH:

WHEREAS, the TENANT desires to utilize certain facilities of NELHA located at Keahole Point, Kailua-Kona, Island of Hawaii in order to build and operate a 1kton/year marine carbon capture pilot plant as generally described in Exhibit ‘C’ attached hereto;

WHEREAS, NELHA is the Lessee, and the Board of Land and Natural Resources is the Lessor under that certain master lease No. S-5619; and

WHEREAS, at a meeting of the Board of Land and Natural Resources held on June 22, 2001, the Board authorized its chairperson to review and approve on behalf of the Board requests made by NELHA to enter into subleases (including Facilities Use Agreements), and related matters;

WHEREAS, at a meeting of the Board of Land and Natural Resources held on June 23, 2006 and October 27, 2006, the Board has approved the amendment to General Sublease S-5619 for the purpose of waiving the lease requirement to obtain prior

approvals for subleases, from the Board of Land and Natural Resources, its Chairperson, or its authorized representative.

WHEREAS, NELHA recognizes TENANT's benefits to the public and NELHA;
NOW, THEREFORE, the parties mutually agree as follows:

1. Description of Property. NELHA shall provide the facilities and services as generally outlined herein and in Exhibits "A" and "B" attached hereto. Alterations in the project scope and alterations in the use of the facilities, utilities, resources, and services requirements as outlined herein shall be requested in writing and approved in advance by NELHA's Executive Director.
2. Quiet Enjoyment. Upon the observance and performance of each of the terms, covenants and conditions herein, the TENANT shall peaceably and quietly hold and enjoy the premises for the duration of the lease without hindrance or interruption by NELHA.
3. Term. The term of this lease shall be from **September 1, 2024** to and including **August 31, 2026** unless sooner terminated as hereinafter provided, **with an option to renew the term for a period of an additional year upon written notice by TENANT to NELHA at least three (3) months prior to the scheduled expiration date.**
4. Facilities Use Fees. In consideration of the facilities and services provided by NELHA, TENANT agrees to pay to NELHA:
 - (a) Fixed fee.

A fixed rental fee, calculated at a rate of **FORTY CENTS (\$.40)** per square foot per month or **FOUR DOLLARS AND 80/100 (\$4.80)** per square foot per year for the open space occupied, payable in advance, without notice or demand, in twelve equal installments on the first day of each and every month. The fixed rental fee shall be based upon the entire area of the rental space, as shown on the map attached hereto as Exhibit "B". Based upon the area of **22,620 square feet of open space** as shown on

Exhibit "B," TENANT shall pay a total monthly fixed fee of **NINE THOUSAND AND FORTY-EIGHT DOLLARS AND 00/100 (\$9,048.00).**

The percentage rent shall be subject to the following:

- (i) If two and a half percent (2.5%) of TENANT's gross sales for any calendar year exceeds the amount of fixed rental fees already paid by TENANT for such period, then TENANT shall pay Percentage Rent equal to two and a half percent (2.5%) of TENANT's gross sales less the amount of fixed rental fees already received by NELHA for said calendar year. The amount of fixed rental fees to be subtracted from the percentage rent due in any calendar year shall not exceed an amount equal to twelve (12) months of fixed rental fees.
- (ii) For purposes of this agreement "gross sales" shall be defined as all income and revenue derived by TENANT (or any of TENANT's subsidiaries, sister companies, parent company, related companies, affiliates, officers, directors, shareholders, investors, owners, principals, managers, members, employees, partners or joint venturers) from, relating to, or connected with the production, operation, sales, or services rendered under this Agreement as described in the project proposal attached hereto as Exhibit "C" and incorporated herein, whether for cash or credit, whether paid or unpaid, and whether the income or revenue is generated on or off of the subleased premises, or whether the order is placed by mail, telephone, fax, internet or otherwise; provided, however, the following shall be excluded from the computation of gross sales; (i) shipping costs to a foreign destination from the State of Hawaii; (ii) import tariffs; (iii) brokerage commission for foreign sales; and (iv) the State of Hawaii general excise tax.
- (iii) Within ninety (90) days of the end of each calendar year during the rental term, TENANT shall submit to NELHA an annual report prepared by its certified public accountant (or an independent public accountant that is acceptable to NELHA) showing its gross sales calculations less any exclusions as provided herein. TENANT shall also submit to NELHA any other information and evidence requested by NELHA related to

TENANT's gross sales. TENANT shall within one hundred and twenty (120) days of the end of each subject year pay NELHA any percentage rent due without further notice or demand. TENANT shall also submit to NELHA a copy of the completed annual State of Hawaii general excise tax form for each calendar year included within the term of this Agreement which shall be due at the same time it is due to the State of Hawaii.

(b) Variable charges.

In addition, TENANT agrees to pay NELHA accumulated variable fees which are based on actual and/or estimated TENANT usage multiplied by the rates established by NELHA, subject to change by NELHA Board action, plus applicable common area maintenance charges.

(c) Other fees and charges.

TENANT shall pay a penalty fee of 1% per month (12% per annum) plus a service charge of FIFTY AND NO/100 DOLLARS (\$50.00) per month for each month of delinquency will be charged on any unpaid balances which are thirty (30) days past due. TENANT shall also pay a service fee of FIFTY AND NO/100 DOLLARS (\$50.00) for each check returned due to insufficient funds.

(d) Invoices.

Invoices will be mailed after the 15th day of each month beginning on the commencement date of this Agreement and are payable within thirty (30) days. All payments shall be made at, or mailed to, NELHA business office in Kailua-Kona. Checks shall be made payable to: State of Hawaii/NELHA.

5. Annual rent review. Monthly rent may be reviewed annually against fair market value rent and costs to NELHA and may be increased annually as of July 1 of every year; provided, however, in no event shall an increase in monthly rent be more than at a rate equal to the 12-month change in the Honolulu consumer price index or five percent (5%), whichever is greater.

6. Holdover. Any holdover at the expiration of the lease, with the consent of NELHA, shall be on a month-to-month basis, which tenancy may thereafter be terminated as provided by the laws of the State of Hawaii. During such holdover tenancy, the TENANT agrees to pay rent monthly to NELHA. The rental rate shall increase by 5% every month until an extension or a new agreement has been executed.

7. Security Deposit or Performance Bond. TENANT shall provide NELHA with either a security deposit or evidence of a performance bond, as described below, prior to entry and use of the premises or within fifteen (15) days from the effective date of this Agreement, whichever is sooner.
 - (a) TENANT shall deposit with NELHA a security deposit of an amount equal to the cost of two months' rent. The whole or a portion of the deposit will be returned to the TENANT upon termination of this Agreement, but only after all of the terms and conditions of this Agreement have been observed and performed to the satisfaction of NELHA.

 - (b) TENANT shall, at its own cost and expense, procure and deposit with NELHA and thereafter keep in full force and effect during the term of this Agreement, a good and sufficient surety bond, conditioned upon the full and faithful observance and performance by TENANT of all the terms, conditions, and covenants of this Agreement, in an amount equal to two times the sum of the fixed annual rental fee, the estimated annual accumulated variable charges, and estimated additional rental then payable. The bond shall provide that in case of a breach or default of any of the Agreement terms, covenants, conditions, and supplemental agreements, the full amount of the bond shall be paid to NELHA as liquidated and ascertained damages and not as a penalty.

7. Installation Costs. TENANT agrees to pay any costs incurred by NELHA that result from the installation of TENANT's seawater systems, utility systems, metering and monitoring devices. These costs will be billed to the TENANT in monthly invoices

described in paragraph 4 of this Agreement and are payable on the same date as the payments described in said invoices.

TENANT understands that TENANT is responsible for covering the costs necessary for upgrading any utility infrastructure needed to accommodate TENANT's project and desired electrical and seawater.

TENANT acknowledges that NELHA has made best efforts to represent campus utility capabilities. TENANT also acknowledges that the campus facility infrastructure has supported many projects in the past and that some relevant information impacting the upgrades may not be known until later in project implementation process. NELHA shall not be responsible for time delays associated with such new unanticipated information.

9. Service and Utilities. TENANT shall at its own expense bear any and all service and utility costs and expenses connected with the TENANT's use of the premises and right herein granted, including but not limited to, utility charges, waste or garbage disposal and other similar charges. The service and utility charges shall be determined by NELHA from time to time to reflect increases in fees or charges.

10. Compliance with Laws. TENANT shall observe and comply with all laws, ordinances, rules and regulations of the federal, state, municipal or county governments (including, but not limited to the observance of and compliance with the Americans With Disabilities Act) affecting the premises or improvements. NELHA will provide the TENANT with a copy of its Facilities Use Manual (FUM) which outlines the day-to-day operating policies, guidelines and procedures, and expected conduct at NELHA. All discharges including waste discharges from the TENANT's project shall be included in and comply with existing NELHA permits at the site. TENANT shall obtain and be responsible for all required species importation permits and copies of all permits shall be submitted to NELHA prior to introduction of any species to the premises.

TENANT shall comply with and obey all policies, guidelines and procedures pertaining to the use and enjoyment of the premises and facilities, including, but not limited to, the full compliance with NELHA's Facilities Use Manual and the Aquatic Species Health Management Program, as may be amended from time to time. NELHA may, in its sole and absolute discretion, amend any existing policies, guidelines and procedures, and promulgate or otherwise impose additional policies, guidelines and procedures at any time. TENANT's breach of any of the aforesaid policies, guidelines and procedures shall be deemed a material default under this Agreement, and NELHA may, in its sole and absolute discretion elect to terminate this Agreement.

11. Construction within NELHA. The TENANT shall not make or cause to be made any additions, alterations, or improvements, or install or cause to be installed any buildings, structures, electrical, or plumbing fixtures, except upon the prior review and written consent of NELHA. All allowed structures or improvements shall comply with applicable County building codes and construction permits. Copies of all required permits shall be submitted to NELHA prior to initiating any construction activities. Upon the expiration, surrender or termination of this Agreement all improvements shall, at the option of NELHA, remain and become the property of NELHA or shall be removed by the TENANT at TENANT's expense. All buildings, structures, and landscaping shall express the island character and be of high quality, but natural in appearance emphasizing the outdoor environment. The TENANT shall provide sufficient landscaping, satisfactory to NELHA, to make the project site visually attractive.

The TENANT shall not at any time during said term construct, place, maintain and install on said premises any building, structure or improvement of any kind and description whatsoever except with the prior written approval of the Department of Transportation, Airports Division, and upon such conditions as the Board of Land and Natural Resources may impose.

12. Repairs to Improvements. TENANT shall, at its own expense, keep, repair and maintain all buildings and improvements now existing or hereafter constructed or installed on the premises in good order, condition and repair, reasonable wear and tear excepted.

13. Taxes and Assessments. The TENANT shall pay when due all taxes and assessments which may be assessed to the premises or any improvements during the term of this lease.

14. Inspection by TENANT. The TENANT acknowledges that it has examined the premises prior to the execution of this lease, and knows the condition thereof, and that no representation as to the condition or state of repairs of the premises has been made by NELHA, except those which are specifically stated in this lease. TENANT hereby accepts the premises in the condition existing on the date of the execution of this lease and hereby releases and discharges NELHA of and from any and all claims, demands or causes of action which the TENANT may have arising or alleged to arise out of the condition in which the premises are provided or turned over to the TENANT.

15. Covenant Against Discrimination. The use and enjoyment of the premises shall not be in support of any policy which discriminates against anyone based upon race, creed, sex, color, national origin, religion, marital status, familial status, ancestry, physical handicap, disability, age or HIV (human immunodeficiency virus) infection.

16. Utilities. NELHA will make reasonable efforts to accommodate TENANT's requirements for utilities at the site. NELHA shall not be responsible for the inability to provide utilities to TENANT. In the event that the electrical power furnished to TENANT must be interrupted or diminished by NELHA on a scheduled basis, NELHA will provide TENANT with reasonable notice thereof.

TENANT recognizes that potable water is in limited supply in the North Kona-Kohala area and shall be conserved whenever possible. Provision of potable water will be on

a non-guaranteed basis and is subject to the provisions of the County Department of Water Supply. NELHA will attempt to provide TENANT with reasonable notice in the event that potable water furnished to TENANT must be interrupted or diminished. NELHA shall not be liable for any and all claims, loss, costs, damages, or expenses arising out of any interruption or diminution of utility services to TENANT.

TENANT may install its own telephone equipment using existing utility conduits.

17. Seawater, Brackish Water, Potable Water and Groundwater. NELHA will make reasonable efforts to maintain seawater flow at the times and rates required by TENANT, but because of the unpredictable conditions relating to the seawater delivery, NELHA does not guarantee a continuous delivery of seawater. NELHA shall not be responsible for inability to provide seawater to TENANT. NELHA shall not be liable for any and all claims, loss, costs, damages, or expenses arising out of any interruption or diminution of utility services to TENANT.

TENANT acknowledges that NELHA cannot warrant, guarantee, or represent that the quality of its seawater, brackish water, potable water and groundwater is free from contamination. TENANT agrees that it assumes all risk of loss for personal injury or property damage which may result from contamination of seawater, brackish water, potable water and groundwater.

TENANT acknowledges that TENANT is considered a large volume seawater user. As such, TENANT shall coordinate seawater usage with NELHA. Specifically, TENANT agrees to coordinate with OTEC projects to ensure that OTEC R&D can continue and complete their planned R&D. Coordination may include curtailing or stopping the intake of seawater for limited periods of time.

18. Seawater Systems and Utility Connections. It shall be the responsibility of the TENANT to make the necessary connections to the existing NELHA seawater, potable water, electrical, process air and utility systems. All connections and service lines shall

be installed in accordance with all applicable rules, regulations, laws and codes. TENANT shall discuss with and obtain the written concurrence of NELHA or its designated representative as to the method proposed for each connection and line, and the days and time that any proposed connection may cause disruption to NELHA's operations, utilities or services. NELHA shall inspect and approve the installation of all connections and service lines.

19. Equipment and Apparatus. All equipment and apparatus provided and operated by the TENANT shall be the sole responsibility of the TENANT and not NELHA. All equipment and apparatus that will be connected to the seawater systems and the electrical systems at the facility shall be inspected by NELHA or its designated representative prior to any connection. The testing of equipment and apparatus shall be accomplished in accordance with applicable standards, regulations, codes and sound engineering practice. NELHA or its designated representative may request inspection and certification by outside experts, professional engineers, or both. TENANT shall, at its own expense, keep, repair and maintain its equipment and apparatus in good order, condition, and repair, reasonable wear and tear excepted.

20. Seawater Discharges. It is the intent of NELHA to minimize adverse environmental effects in the return of water to the ocean. TENANT shall submit discharge water quality and quantity characteristics to NELHA for review and approval. Return ocean water discharged into any disposal system shall meet the basic water quality criteria applicable to waters as described in the State Department of Health rules relating to water quality standards. TENANT shall be responsible for pretreating its return ocean water discharge to meet these standards.

NELHA may require the TENANT to monitor, record and report the quality of the TENANT's return ocean water discharge, and NELHA may enter the TENANT's premises at any time for the purpose of taking samples of the TENANT's return ocean water discharge for independent water quality analysis. In the event that monitoring by the TENANT or NELHA indicates the discharge of substances or water quantities

at levels which exceed the predetermined water quality standards, NELHA shall have the authority to order the TENANT to cease operations until the discharge problem has been corrected to the satisfaction of NELHA. TENANT shall be liable for any property damage or environmental damage that may result from such action.

TENANT shall be responsible for installing the necessary systems to connect their project to the point of water discharge. TENANT shall coordinate with NELHA and OTEC projects as far as the optimal usage of existing sumps and basins.

21. Hazardous Materials. TENANT shall not cause or permit the escape, disposal, or release of any hazardous materials except as provided by law. Unless the TENANT requires the use of any hazardous materials in the ordinary course of TENANT'S business, the TENANT shall not allow the storage or use of any hazardous materials on the premises or allow any hazardous materials to be brought onto the premises. In the event TENANT requires the use of any hazardous materials in the ordinary course of TENANT's business, TENANT shall provide written notice to NELHA that identifies the hazardous materials required, and TENANT shall secure prior written consent from NEHLA before bringing the hazardous materials on to the premises or using the hazardous materials on the premises. NELHA reserves the right to withhold consent at its sole and absolute discretion. If any lender or governmental agency shall ever require testing to ascertain whether or not there has been any release of hazardous materials by TENANT, the TENANT shall be responsible for the costs thereof. In addition, TENANT shall execute affidavits, representations and the like from time to time at NELHA's request concerning TENANT's best knowledge and belief regarding the presence of hazardous materials on the premises placed or released by TENANT.

TENANT agrees to indemnify, defend and hold NELHA harmless, from any damages and claims resulting from the release of hazardous materials on the premises occurring while TENANT is in possession, or elsewhere if caused by TENANT or persons acting under TENANT. These covenants shall survive the expiration or earlier termination of the Agreement.

For the purpose of this Agreement, "hazardous material" shall mean any pollutant, toxic substance, hazardous waste, hazardous material, hazardous substance, or oil as defined in or pursuant to the Resource Conservation and Recovery Act, as amended, the Comprehensive Environmental Response, Compensation, and Liability Act as amended, the Federal Clean Water Act, or any other federal, state, or local environmental law, regulation, ordinance, rule, or by-law, whether existing as of the date hereof, previously enforced, or subsequently enacted.

22. Level One (1) Hazardous Waste Evaluation. Prior to the termination of this Agreement, TENANT shall conduct a Level One (1) Hazardous Waste Evaluation and conduct a complete abatement and disposal, if necessary, satisfactory to the standards required by the Federal Environmental Protection Agency and the Department of Land and Natural Resources. The termination will not be approved by the Board of Land and Natural Resources unless this evaluation and abatement provision has been executed. A Level One Hazardous Waste Evaluation shall not be required prior to termination if the tenant facility is located within the Research Campus.

23. Title. Title to any and all leasehold improvements and furniture, fixtures, furnishings, equipment and other personal property of the TENANT constructed or installed by the TENANT at its own cost and expense shall remain in the TENANT during the term of this lease. At the expiration or termination of this lease, the title to any and all leasehold improvements shall vest in NELHA, and the disposition of the personal property of the TENANT shall be pursuant to Section 35 hereof. Nothing contained in this paragraph shall prevent the TENANT from removing all office machines and equipment and trade fixtures customarily used in its business.

24. Leasehold Improvements.

1. Definition. For the purposes hereof, the term "leasehold improvements" shall mean and include any installation of walls, partitions, doors and windows; any electrical wiring, panels, conduits, service connections, receptacles or lighting fixtures attached

to walls, partitions, ceilings or floors; all finish to floors, walls, doors, windows, or ceilings; all wall or floor treatments or coverings (other than draperies or carpeting) that are affixed to the surface.

For the purposes hereof, the term "personal property" shall mean and include any and all trade fixtures, furniture, furnishings, carpeting, draperies purchased or installed by the TENANT, and any other items not defined as leasehold improvements above.

2. Cost Accounting. Within thirty (30) days after the commencement of the operations of the business, or promptly after the subsequent construction or installation of any leasehold improvements by the TENANT, the TENANT shall submit to NELHA a certified statement of the in-place cost of any and all leasehold improvements constructed or installed by the TENANT at its expense on, or at any portion of the premises.

25. Signs. No signs or symbols shall be placed in or upon the premises, except on the main entry into the office. The number, type, size and design of any signs or symbols shall be subject to the approval of NELHA or its designated representative. Any signs or symbols placed on the premises shall be removed by TENANT at the expiration or sooner termination of this lease. TENANT shall repair, at the TENANT's expense, any damage or injury to the premises caused by the placement of any sign or symbol. If TENANT fails to remove any sign or symbol as required in this agreement, NELHA may have the signs or symbols removed at TENANT's expense.

26. Access. NELHA shall during the term hereof (except when the TENANT may be in default) furnish to TENANT, its permitted officers, employees and invitees the right to ingress to and egress from (a) the building in which the premises are located during reasonable business hours, and (b) such other areas as may be necessary, provided that such persons shall be required to carry or wear appropriate identification devices to be provided by NELHA and shall be subject to such examination as Federal or State officials may deem necessary.

27. Rights of Entry Reserved. NELHA, by its officers, employees, agents, representatives, and contractors shall have the right at all reasonable times to enter upon all portions of the premises for the purpose of inspecting the same, for observing the performance of the TENANT of its obligations under this lease, and to service, post or keep posted thereon notices provided by any law or rules or regulations of the State of Hawaii which NELHA deems to be for the protection of NELHA and the premises.
28. Maintenance. All portions of the premises shall at all times be maintained in good repair and in a clean, orderly and sanitary condition. All repairs and replacements shall be made with the material and workmanship by and at the expense of TENANT. If, however, the said premises is not kept in good repair and in a clean, sanitary and orderly condition by the TENANT, as aforesaid, NELHA, by its officers, employees or agents, may enter the premises without causing or constituting a termination of this lease or an interference with the possession of the premises in order to repair, replace or restore the premises to the previous condition, cleanliness, orderliness and healthiness. TENANT agrees to pay to NELHA, in addition to the rent, the expenses of any repair, replacement or restoration. Title to any replacements shall vest in NELHA at the time of replacement.
29. Independent Contractor. TENANT shall be considered an independent contractor. All persons hired or used by TENANT shall be considered TENANT's agents and employees, and TENANT shall be responsible for all services performed by its agents and employees. Further, TENANT intentionally, voluntarily, and knowingly assumes the sole and entire liability for any of its agents and employees, and to third persons for all loss, cost, damage, or injury caused, either directly or indirectly, by TENANT's agents and employees in the course of their employment.
30. Indemnity. TENANT shall indemnify, defend, and hold the State of Hawaii and NELHA as Lessor harmless from and against any claim or demand for loss, liability, or damage including claims for bodily injury, wrongful death, or property damage, arising out of or resulting from: (1) any act or omission on the part of TENANT relating

to TENANT's use, occupancy, maintenance, or enjoyment of the premises; (2) any failure on the part of TENANT to maintain the premises and sidewalks, roadways, parking areas and drainage facilities adjacent thereto in TENANT's use and control, including any accident, fire or nuisance, growing out of or caused by any failure on the part of TENANT to maintain the premises in a safe condition; and (3) from and against all actions, suits, damages, and claims by whomsoever brought or made by reason of TENANT's non-observance or non-performance of any of the terms, covenants, and conditions of this Agreement or the rules, regulations, ordinances, and laws of the federal, state, municipal or county governments.

31. Costs of Litigation. In the event NELHA and the State of Hawaii as Lessor are, without any fault on its part, made a party to any litigation commenced by or against TENANT (other than condemnation proceedings), TENANT shall pay all costs, including reasonable attorney's fees, and expenses incurred by or imposed on NELHA and the State of Hawaii as Lessor. Furthermore, TENANT shall pay all costs, including reasonable attorney's fees and expenses which may be incurred by or paid by NELHA and the State of Hawaii as Lessor in enforcing the covenants and agreements of this Agreement, in recovering possession of the premises or in the collection of delinquent rents, taxes and any and all other charges.

32. Liability Insurance. TENANT shall procure and maintain, at its sole cost and expense and acceptable to NELHA, in full force and effect throughout the term of this Agreement, commercial general liability insurance, in an amount of at least \$1,000,000.00 per person per occurrence and \$2,000,000.00 aggregate, and commercial general property damage insurance in an amount of at least \$50,000.00 for each occurrence and \$100,000.00 aggregate, with an insurance company or companies licensed to do business in the State of Hawaii. If surplus insurance is obtained by the Sublessee for liability insurance, Sublessee shall procure the surplus insurance in accordance with the applicable laws of the State of Hawaii. The policy or policies of insurance shall name NELHA and the State of Hawaii as additional insured. The insurance shall cover the entire premises, including buildings, improvements, grounds

and all roadways, sidewalks and drainage facilities on or adjacent to the premises in the use or control of TENANT. TENANT shall provide a copy of any insurance policy required by this agreement to NELHA upon demand.

TENANT, prior to entry and use of the premises or within fifteen (15) days from the effective date of this Agreement, whichever is sooner, shall furnish NELHA with a copy of the insurance policy or policies obtained, and a certificate for each policy showing the policy to be initially in force. TENANT shall keep all certificates during the entire Agreement term, and furnish a copy of the insurance policy and a certificate upon each renewal of any policy. The insurance shall not be canceled, limited in scope of coverage, or nonrenewed until after thirty (30) days' written notice has been given to NELHA.

TENANT agrees that, with respect to any contractors or subcontractors performing services on TENANT's behalf on the premises, the aforementioned liability insurance requirements shall also apply. The TENANT shall provide copies of the required insurance policy or policies and any certificates of insurance to NELHA prior to the commencement of those services.

NELHA shall retain the right at any time to review the coverage, form and amount of the insurance required by this Agreement. If, in the opinion of NELHA, the insurance provisions in this Agreement do not provide adequate protection for NELHA, NELHA may require TENANT to obtain insurance sufficient in coverage, form, and amount to provide adequate protection. NELHA's requirements shall be designed to assure protection for and against the kind and extent of the risks which exist at the time a change in insurance is required. NELHA shall notify TENANT in writing of any changes in the insurance requirements, upon which TENANT shall have thirty (30) days to provide NELHA with copies of an acceptable insurance policy or policies and any certificates thereof.

The procuring of any required policy of insurance shall not be construed to limit TENANT's liability under this Agreement nor to release or relieve TENANT of the indemnification provisions and requirements of this Agreement. Notwithstanding any policies of insurance, TENANT shall be obligated for the full and total amount of any damage, injury, or loss caused by TENANT's negligence or neglect connected with this Agreement.

It is agreed that any insurance maintained by NELHA will apply in excess of, and not contribute with, insurance provided by TENANT's policy.

33. Withdrawal. NELHA shall have the right to withdraw at any time during the term of this lease all of the premises or any portion thereof with reasonable notice and without compensation when required by legislative or executive mandate.

34. Damage or Destruction. If NELHA premises or buildings are damaged by fire or other casualty, and if such damage is not attributable to the negligent, reckless or intentional acts of TENANT, its officers, agents or employees such that no fault lies with said TENANT, its officers, agents or employees, the damage shall be repaired by and at the expense of NELHA, provided such repairs can be made within sixty (60) days after the occurrence of such damage without the payment of overtime or other premiums, and until such repairs are completed the rent shall be abated in proportion to the part of the premises which is unusable by TENANT in the conduct of its business (but there shall be no abatement of rent by reason of any portion of premises being unusable for a period equal to one day or less). NELHA's election to make repairs must be evidenced by written notice to TENANT within thirty (30) days after the occurrence of the damage. If NELHA premises are damaged through the fault of TENANT or its agents, rent shall not abate, and TENANT will have sixty (60) days within which to repair the damage at its own expense and to the satisfaction of NELHA. Failure of TENANT to complete the repairs in the time allotted will give NELHA the right to re-enter the premises, make any repairs and charge TENANT for the cost thereof. However, if TENANT fails to complete repairs within sixty (60) days or if TENANT fails to pay

the costs of any repairs by NELHA, NELHA shall have the option of terminating this lease.

If NELHA does not so elect to make such repairs which cannot be made within sixty (60) days, then either party may, by written notice to the other, terminate this lease. A total destruction of premises shall automatically terminate this lease.

35. Waiver. No waiver granted by either party on account of any violation of any covenant, term or condition of this lease shall constitute or be construed in any manner as a waiver of the covenant, term or condition or right to enforce the same as to any other or further violations.

36. Surrender of Premises. TENANT shall yield and deliver peaceably to NELHA possession of the premises and leasehold improvements thereupon on the date of the cessation of the letting, whether such cessation be by termination, expiration or otherwise, promptly and in a condition similar to that which existed at the commencement of the letting, except for reasonable wear and tear arising from use of the premises to the extent permitted elsewhere in this lease and damage resulting from causes over which TENANT had no control.

Unless required by TENANT for the performance of its obligations hereunder, TENANT shall have the right at any time during the term of this lease to remove, and on or before the expiration or earlier termination of the letting, shall remove its equipment, trade fixtures, and other personal property from the premises in such a manner as to cause no damage to the premises. In the event of any damage, TENANT agrees, at its own cost and expense, to repair the damage. NELHA and TENANT shall agree upon a written inventory of such removable equipment, trade fixtures, and personal property, within thirty (30) days after the commencement of operation of the business and promptly after any subsequent installation thereof. A copy of the list shall be filed with NELHA.

If and in the event TENANT fails or neglects to remove all or any portion of its equipment, personal property or trade fixtures upon the expiration or termination of this lease, NELHA, at its sole option, may either remove and dispose of the same and

charge the cost of such removal and disposal to TENANT, which cost TENANT hereby agrees to pay, or consider the same to be abandoned and take title thereto in the name of NELHA.

37. Early Termination. NELHA or TENANT may elect to terminate this lease early without cause and without liability by providing the other party with thirty (30) days advance notice in writing with the date the early termination will be effective. Notwithstanding the foregoing, paragraph 38 “Termination by NELHA” shall remain in full force and effect. The early termination of this lease shall not relieve the TENANT of its obligations to pay any rent, fees, or charges due and owing, or to perform any act required under this lease, at the time of termination.

38. Termination by NELHA.

A. Termination Events. NELHA shall have the right to terminate this lease if and in the event any one or more of the following events shall occur:

1. TENANT becomes insolvent, or shall take the benefit of any present or future insolvency statute, or shall make a general assignment for the benefit of creditors, or file a voluntary petition in bankruptcy or a petition or answer seeking an arrangement or its reorganization or the readjustment of its indebtedness under the Federal bankruptcy laws or under any other law or statute of the United States of America or of any State thereof, or consent to the appointment of a receiver, trustee, or liquidator of all or substantially all of its property; or

2. A petition under any part of the Federal bankruptcy laws or an action under any present or future insolvency law or statute shall be filed against TENANT and shall not be dismissed within thirty (30) days after the filing thereof; or

3. The letting or the interest of TENANT under this lease shall (without the approval of NELHA) be transferred to, pass to or devolve upon, by operation of law, stock transfer, assignment, or otherwise, any other person, firm or corporation; or

4. TENANT, if a partnership, corporation, LLC, LLP or other entity, is dissolved as the result of any act or omission of its partners or any of them, or by operation of

law or the order or decree of any court having jurisdiction, or for any other reason whatsoever; or

5. By or pursuant to, or under authority of any legislative act, resolution or rule, or any order or decree of any court or governmental board, agency or officer, a receiver, trustee or liquidator shall take possession of all or substantially all of the property of TENANT, and such possession or control shall continue in effect for a period of fifteen (15) days or longer; or

6. TENANT shall voluntarily abandon, desert or vacate the premises, or after exhausting or abandoning any right of further appeal, TENANT shall be prevented for a period of ninety (90) days by action of any governmental agency from using the premises, regardless of the fault of TENANT; or

7. Any lien is filed against the premises because of any act or omission of TENANT that is not discharged or contested by TENANT in good faith by proper legal proceedings, within twenty (20) days; or

8. TENANT fails to duly and punctually pay the rent, or to make any other payment required hereunder, when due to NELHA within the time set forth in subsection 38.A.9 hereof; or

9. TENANT fails to keep, perform and observe each and every other promise, covenant and agreement set forth in this lease, such as the payment of rent, fees, or charges, on its part to be kept, performed or observed, and the failure continues for a period of more than twenty (20) days after delivery by NELHA of a written notice of such breach or default by personal service, registered mail or certified mail to TENANT, provided that where fulfillment of its obligation requires activity over a period of time, TENANT shall have commenced in good faith to perform whatever may be required for fulfillment within ten (10) days after receipt of said notice and continues such performance without interruption except for causes beyond its control. NELHA may terminate this lease without prejudice to any other remedy or right of action for arrears of rent or for any preceding or other breach of lease; and in the event of such termination, all leasehold improvements on the premises shall remain and become the property of NELHA.

B. Prior Events. If any of the events enumerated in Section 38.A hereof shall occur prior to the commencement of the letting, TENANT shall not be entitled to enter into possession of the premises, and NELHA, upon the occurrence of any such event, or at any time thereafter, during the continuance thereof, by twenty-four (24) hours' notice, may cancel the interest of TENANT under this lease. The cancellation will be effective upon the date specified in the notice.

C. Right of Re-Entry. NELHA shall, as an additional remedy upon the giving of notice of termination as provided in Section 38.A hereof, have the right and option to re-enter said premises and every part thereof upon the effective date of termination without further notice of any kind, and may regain and resume possession either with or without the institution of summary or any other legal proceedings or otherwise. Any re-entry, or regaining or resumption of possession pursuant to this section, however, shall not in any manner affect, alter or diminish any of the obligations of TENANT under this lease, and shall in no event constitute an acceptance of surrender.

39. Acceptance of Fees Not a Waiver. The acceptance of any fees under this Agreement by NELHA shall not be deemed a waiver of any breach by TENANT of any term, covenant or condition of this Agreement, nor of NELHA's right to declare and enforce a forfeiture for any such breach. The failure of NELHA to insist upon strict performance of any such term, covenant or condition, or to exercise any option herein conferred, in any one or more instances shall not be construed as a waiver or relinquishment of any such term, covenant, condition or option.

40. Liens.

A. NELHA's Lien. NELHA shall have a lien upon all trade fixtures, furniture and office equipment of TENANT upon the premises to the extent permitted by law for the purpose of securing NELHA for the payment of all sums which may be due from TENANT under this lease. Warehoused goods may not be removed prior to settlement of monetary obligations owed by TENANT to NELHA. In the event that overdue rent, fees, or charges are not paid by TENANT within sixty (60) days after notice of default given by NELHA, NELHA may take possession of any and all property of TENANT

as may be sufficient to pay such rent, fees or charges. A sale under this lien may be made either publicly or privately, upon the notice given to TENANT as herein provided.

B. Other Liens Prohibited. TENANT shall not commit or suffer any act or neglect whereby the premises, including improvements of TENANT thereupon or therein, or the estate of TENANT in the same, at any time during the term of this lease shall become subject to any attachment, lien, charge or encumbrance whatsoever, and shall indemnify and hold harmless NELHA against all liens, charges and encumbrances and all expenses resulting therefrom, including reasonable attorneys' fees. It is expressly understood that TENANT shall have no authority, expressed or implied, to create any lien, charge or encumbrance upon the said premises, or any portion thereof.

41. Notices. NELHA may give notice or deliver any document hereunder to TENANT by mailing the same by registered mail addressed to TENANT's address above or by delivering the same in person to any officer of TENANT. TENANT may give any notice or deliver any document hereunder to NELHA by mailing the same by registered mail addressed to NELHA's address above or by delivering the same to NELHA in person. For the purpose of this paragraph, either party may change its address by written notice to the other. In case of any notice or document delivered by registered mail, the same shall be deemed delivered when deposited in any United States post office, properly addressed as herein provided, with postage fully prepaid.

42. Governmental Permits. TENANT shall comply with all applicable federal, state and county permitting requirements including those relating to shoreline management area, shoreline setback requirements, state conservation district requirements, subdivision permits and building standards. NELHA does not warrant or guarantee that the applicable federal, state or county authority will permit the construction or installation of improvements that may be required by TENANT. All costs associated with obtaining the building and other permits or approvals shall be borne by TENANT.

43. Archaeological Sites. In the event any unanticipated sites or remains such as shell, bone, charcoal deposits, human burials, rock or coral alignments, pavings or walls are found on the premises, TENANT and TENANT's agents, employees and representatives shall immediately stop all land utilization and work and contact the Historic Preservation Office in compliance with Chapter 6E, Hawaii Revised Statutes.

44. Environmental Regulations. TENANT shall comply with all applicable federal, state and county environmental impact regulations, including but not limited to Chapter 343, Hawaii Revised Statutes, as amended, and regulations governing historic preservation.

TENANT shall also comply with NELHA's Aquatic Species Health Management Program, as may be amended from time to time in NELHA's sole and absolute discretion. The current version of NELHA's Aquatic Species Health Management Program is attached hereto as Exhibit "D" and incorporated herein by this reference. A violation of NELHA's Aquatic Species Health Management Program shall be deemed a material default under this Agreement, and NELHA may, in its sole and absolute discretion elect to terminate this Agreement.

45. Devolution of Covenants. The covenants, terms and conditions of this lease shall be binding upon the successors and permitted assignees of the parties hereto.

46. Assignment and Subletting. TENANT shall not mortgage, hypothecate or otherwise encumber or assign the rights herein created, nor shall TENANT sublet or sublease the premises in whole or in part without the prior consent of NELHA. Any attempted assignment, mortgaging, hypothecation or encumbering of the rights, or any subletting or subleasing of the whole or any part of the premises, or other violations of the provisions of this section shall be null and void and shall confer no right, title or interest in or to this lease, or right of occupancy of the whole or any portion of the premises, upon such assignee, mortgagee, encumbrancer, pledgee or other lienholder, subtenant, successor or purchaser.

47. Force Majeure. NELHA shall not be liable for any failure, delay or interruption in performing its obligations hereunder due to causes or conditions beyond its control, including, but not limited to, fires, flooding, acts of God, strikes, boycotts, picketing, work slowdowns, work stoppages, or labor troubles of any other type (whether affecting NELHA, its contractors or subcontractors).

NELHA shall be under no obligation to supply any service or services if, and to the extent and during any period that the supplying of any such service or services, the use of any component necessary therefor shall be prohibited by any federal, state, or municipal law, rule, regulation, requirement, order or direction, and if NELHA deems it in the public interest to comply therewith, even though such law, rule, regulation, requirement, order or direction may not be mandatory on NELHA as a public agency.

No abatement, diminution or reduction of the rent or other charges payable by TENANT shall be claimed by or allowed to TENANT for any inconvenience, interruption, cessation or loss of business or other loss caused, directly or indirectly, by any present or future law, rule, requirement, order, direction, ordinance or regulation of the United States of America, or of the state, county or municipal governments, or of any other municipal, governmental or lawful authority whatsoever; or by priorities, rationing, or curtailment of labor or materials, or by war or any matter or thing resulting therefrom, or by any other cause or causes beyond the control of NELHA, nor shall this lease be affected by any such causes.

Nothing in this section contained shall preclude nor be construed to preclude the enforcement by TENANT of any of its rights contained in Sections 34 hereof.

48. Amendments. This lease shall not be amended in its terms by any oral agreement or representation, or otherwise except by an instrument in writing of subsequent date hereto executed by both parties by their respective officers or other persons duly authorized.

49. Nonliability of Individuals. Neither the Director of the Department of Business, Economic Development, and Tourism, his designated representative, the Executive Director of NELHA or any such governmental agency of the State as may succeed to

- the duties, powers, or functions of such Division, nor any agent, officer, or employee of such agencies, shall be charged personally by TENANT with any liability, or be held liable to TENANT under any term or provision of this lease, or because of its execution or attempted execution, or because of any breach, or attempted or alleged breach, thereof.
50. Accord and Satisfaction. No payment by TENANT or receipt by NELHA of a lesser amount than the monthly rent herein stipulated shall be deemed to be other than on account of the earliest stipulated rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and NELHA may accept such check or payment without prejudice to NELHA's right to recover the balance of such rent or pursue any other remedy provided in this Agreement.
51. Entire Agreement. This Agreement and the Exhibits attached hereto and forming a part hereof set forth all the covenants, promises, agreements, conditions and understandings between NELHA and TENANT concerning the premises, and there are no covenants, promises, agreements, conditions or understandings between them other than what is set forth herein. Unless otherwise provided for herein, no subsequent alteration, amendment, change or addition to this Agreement shall be binding upon NELHA or TENANT unless reduced to writing and signed by all parties.
52. Governing Law. This Agreement shall be construed, interpreted, and governed by the laws of the State of Hawaii.
53. Exhibits - Incorporated in Agreement. All exhibits referred to are attached to this Agreement and hereby are deemed incorporated by reference.
54. Partial Invalidity. If any term, provision, covenant, or condition of this Agreement should be held to be invalid, void, or unenforceable, the remainder of this Agreement

shall continue in full force and effect and shall in no way be affected, impaired, or invalidated thereby.

55. Time is of the Essence. Time is of the essence in the performance of each and every provision of this Agreement.
56. Headings. The article and paragraph headings herein are inserted only for convenience and reference and shall in no way define, describe or limit the scope or intent of any provision of this Agreement.
57. Extension of Time. Notwithstanding any provision contained herein to the contrary, wherever applicable, NELHA may for good cause shown, allow additional time beyond the time or times specified herein to TENANT, in which to comply, observe and perform any of the terms, condition and covenants contained herein.
58. No Warranties. TENANT agrees that the facilities covered by this Agreement are provided “AS IS” and “WITH ALL FAULTS.” TENANT acknowledges that no warranties of fitness or merchantability for any particular purpose are to be implied in this transaction.
59. Public Relations. Any publicity related to TENANT’s project, and this Agreement will be agreed between TENANT and NELHA before release of such publicity. TENANT agrees that information presented at the NELHA Board meetings which are open to the public does not constitute publicity.
60. Agreement subject to master lease. This lease is subject to the terms and conditions of the master lease S-5619 between the Board of Land and Natural Resources of the State of Hawaii and NELHA, copies of which are attached hereto as Exhibit “E.” Any conflicts between the provisions of this lease and the forgoing master lease shall be resolved in favor of the master lease.

DEFINITIONS

61. The use of any gender shall include all genders, and if there is more than one TENANT, then all words used in the singular shall extend to and include the plural.
62. As used herein, unless clearly repugnant to the context:
- (a) "County" means the County of Hawaii and any governmental agencies or authorities thereof.
 - (b) "TENANT" means and includes the tenant, its officers, employees, invitees, successors or permitted assigns.
 - (c) "Holder of a security interest" means any person who is the owner or possessor of a security interest in the subject land and who has filed with the Natural Energy Laboratory of Hawaii Authority and with the Bureau of Conveyances of the State of Hawaii a copy of such interest.
 - (d) "Premises" means the subleased land and all buildings and improvements now or hereinafter constructed and installed on the subject land.
 - (e) "Common area property" means those areas of NELHA property not leased to a tenant, such as utility corridors and common roadways.
 - (f) "Improved land" is defined as land that has been leveled or filled to allow the construction of tenant facilities. The installation of utilities into the property is not a requirement to categorize the property as improved.
 - (g) "Unimproved land" is defined as land that has not been leveled or filled to allow the construction of tenant facilities. The installation of utilities to the boundary of the property alone does not categorize the property as improved.

- (h) “Upstream” means the direction towards NELHA supply source when describing NELHA seawater and potable water supply systems.

- (i) “Downstream” means the direction away from NELHA supply source and/or towards the tenant’s property when describing NELHA seawater and potable water supply systems.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

NATURAL ENERGY LABORATORY OF
HAWAII AUTHORITY

By _____
LAURENCE SOMBARDIER
Its Interim Executive Director
Date: _____

APPROVED AS TO FORM:

Deputy Attorney General
Date: _____

CAPTURA CORP.
A Delaware Corporation
By _____
STEVE OLDHAM
Its Chief Executive Officer
Date: _____



7/21/2024

TO: Greg Barbour
Exec. Director, NELHA

Dear Greg,

I am very pleased to be able to write this letter in strong support for Captura joining our R&D community at NELHA.

Since my first correspondence with Christene and her team, they have exemplified an enthusiastic approach to collaboration with us, and other NELHA companies. Christene provided us – at very short notice – with a critical cost-share commitment for a recent grant application, for Captura to provide our macroalgae research with CO₂ from their project. We understand that they are also discussing providing CO₂ to other companies at NELHA, from their Direct Ocean Capture demonstration.

We see tremendous potential for expanding these collaborative opportunities with Captura, both in scale-up of macroalgae using their CO₂, or macroalgae or bivalve cultures using their high-pH effluent surface seawater.

Sincerely, with aloha

Neil Anthony Sims, CEO

cc. Christene Banda, Captura

Date: 19 August 2024

To: Chair, NELHA Board of Directors

From: Alan C. Hilton, NELHA Research Advisory Committee (RAC) Chair

Re: RAC Evaluation of proposal from the Captura Corporation.

NELHA has received a proposal from Captura Corporation, an R&D company based in California, currently positioned to leverage prior experience and successes in research aimed at extracting CO₂ from seawater as a means to sequester atmospheric CO₂ in support of climate sustainability goals, and/or, to substitute the seawater CO₂ as a replacement for fossil-derived sources currently used in a wide variety of industries (including by several tenants with current operations at NELHA/HOST Park). Captura's overall process leverages the natural buffering capacity of seawater as a sink for atmospheric CO₂. Their process uses only natural seawater and electricity as inputs, temporarily separating some of the chemical components of seawater and processing the altered seawater to extract dissolved CO₂, then recombining the chemical components to return the seawater to a natural state, but depleted of dissolved carbon. The release of such seawater back to the ocean essentially provides for 're-use' of that volume of seawater as a sink for additional atmospheric CO₂ through natural processes. Captura's proposal to install and operate a pilot plant at NELHA capable of removing 1000 tons of CO₂ from the ocean annually also creates a capacity for the ocean to absorb a similar amount of CO₂ out of the global atmosphere, representing a sustainable cycling of carbon using a process that does not depend upon unnatural chemical additives or result in negative environmental impacts that might accompany other carbon-extraction technologies. Due to the problem of global climate change, the sequestration of atmospheric carbon is increasingly seen as a necessary part of the solutions that will be needed to tackle this global problem in the coming decades. Captura's process has already proven very promising, due to its completion of Phase I milestones and selection as a Phase II finalist in the Elon Musk Foundation's XPRIZE competition for Carbon Removal. Successful execution of the proposed project for a 1000-ton pilot plant demonstration at NELHA is the next step required for Captura to advance in the XPRIZE competition.

Summary of RAC member inputs:

A RAC review of the Captura preliminary proposal and final business plan was requested by the NELHA ED. Five current RAC members responded to this request for review, with their inputs summarized below.

The NELHA staff is recommending a fast-track approval of the Captura proposal (fast-track being necessary for the schedule of the XPRIZE competition deadlines) and this is supported by all RAC reviewers, to the extent that NELHA staff can resolve any lingering questions on technical requirements for the proposed seawater usage, electricity, and permitted means of release of carbon-depleted seawater back to the ocean. So long as those basic requirements are deemed supportable by NELHA, delays for further Board approvals to enter into a lease for space in the Makai Research Campus and get started on the project can be avoided if that approval to proceed is granted now. RAC reviewers found that the company appears well-positioned with the necessary organizational and financial support to accomplish its objectives for the 1000-ton pilot demonstration plant at NELHA. The principals in the project team, including the developer of the enabling technology, all appear to have superior experience and successful track records in the relevant fields involved, and the proposed technology is well aligned with the NELHA's appropriate use categories, including the spin-off uses for recovered CO₂ by other NELHA tenants.

Additional positive comments from RAC members noted the following:

>>> I fully support the project. Carbon capture is a new and growing industry and the project would place NELHA in leadership role. Especially interesting is the lack of environmental impact and possibilities for cross industry use of the generated CO₂.

>>> I have read over the Captura Corporation materials for the proposed 1000-ton carbon dioxide removal plant . I find the materials well written, comprehensive and impressive. The system looks very doable and would be a big boost to the international visibility of NELHA if Captura were to win the XPrize, for which they seem to have at least a fighting chance.

>>> The idea of ocean sequestration of carbon is very innovative and seems to have been proven to be viable, at least on a small scale. Part of the beauty of these Captura plants is that they are scalable and can be put in almost anywhere in the world where ocean access is available. For NELHA this is a perfect low-risk, high visibility project with almost no downside. This Board should approve it, assuming the needed electricity and water supply can be made available.

>>> The team at Captura has extremely impressive credentials and is large enough to cover all the bases they could confront. The front-line folks are world-class, and there is a solid back bench behind them. The level of funding in hand is substantial as well as the international stature of the funders, such as Equinor, Aramco, Japan Airlines and Maersk among many others . This stature of funders means that due diligence has been done.

>>> The fit with NELHA is superb. The water source is not harmed for most other users by reducing its CO2 content. This means that after Captura uses the water it can still feed other businesses. In addition, several thriving businesses at NELHA could use the CO2 produced. This means no waste, a useful product and carbon credits to sell. It is hard to imagine how a situation could be a better fit for NELHA .

>>> I believe that as the weather effects of climate change get more dire there will be first a call and then a mandate to control carbon emissions . It only makes sense that hard-to-change carbon emitters such as airlines will seek a low-cost carbon offset. Ocean carbon capture is efficient and measurable and certainly is a highly viable option.

>>> This project is a great fit for NELHA, and for the State. I'm sure the State's Greenhouse Gas Sequestration Task Force, and the targets under Act 15 (2018) for Hawaii to "sequester more atmospheric carbon and GHG than emitted" by 2045, will have an opportunity to look at the Captura project at NELHA very favorably if it proves to be a success. Any option to enhance the vast oceanic sink for carbon that surrounds our islands, even just a little, could be a great strategy the State could potentially implement and take credit for in the future.

>>> I have reviewed both the commercial preliminary proposal and the final business plan for the Captura Corp installation at NELHA and I agree with staff that it seems to be an excellent "fit" for NELHA. They certainly have an excellent and experienced team to implement the plan and a very robust group of investors behind the effort. And it has potential synergy with other NELHA tenants.

RAC members also provided some additional comments on concerns and open questions that align with those being worked through by NELHA staff. These should be addressed if this project moves forward with these items being considered as needed. These comments include the following:

>>> I know NELHA has a "master permit" that allows all or most projects to avoid the multi-year permitting process that almost all development in Hawaii must suffer through in order to do anything. Are we sure the NELHA master permit covers all of the things they plan to do?

>>> They plan to try to use local construction and support talent in Hawaii to build and operate their facility; but most businesses in Hawaii are still scrambling to find staff of almost any kind, and this is especially true of higher-level science, engineering, and technical staff – the kind that are leaving Hawaii in droves every year for the past 8 years. Again, their very aggressive implementation plan – start-up the machine in January!! – could stall on finding enough talent – although they have the funds to fly in talent from the mainland if need be, I guess.

>>> The technical goal seems feasible and has a high likelihood of success. Their financial goals are deadline driven and their startup schedule could be spoiled by environmental permitting requirements and the very long times required to obtain said permits if they are not able to utilize capacity that is possibly available under existing UIC/NPDES Permits ... Any direct discharge to the ocean should likely require a NPDES Permit which will require a significant amount of time to obtain from the Hawaii Dept of Health Clean Water Branch. And per the question, and discharge to groundwater will likely require a UIC permit.

>>> The Captura proposal appears to call for use of NELHA deep seawater rather than surface seawater, for the carbon removal process. Deep seawater generally contains a higher concentration of dissolved CO₂ (due to temperature, pressure, and no biological removal from photosynthesis, as occurs in the shallower sunlit waters), so the recovery rate of CO₂ might be improved for the Captura process. But deep seawater also contains a higher load of other nutrients and minerals that are naturally less concentrated in surface seawaters. Whether the subsequent release of such water in the surface layer of the ocean presents any potential issues related to changes in local concentration of those minerals and nutrients should be given due consideration.

Recommendations:

RAC reviewers support the NELHA staff recommendations for a fast-track approval process of the Captura proposal to install and operate a pilot plant for CO₂ capture from seawater in order to keep on track for the XPRIZE competition deadlines, so long as the NELHA staff can resolve any current questions on technical requirements for the proposed seawater usage, electricity, and permitted means of release of carbon-depleted seawater to groundwater or direct to the ocean.

Item 6
Informational
Presentation

- a. Overview and State of the NELHA Seawater System

No Handout

Item 7.
Announcements

- a. Date of next regularly scheduled NELHA Board of Directors meeting is Tuesday, September 17, 2024, at 10:00 am.

Item 8.

Adjournment

Item 11.

Adjournment