



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
Tuesday, November 20, 2018
11:00 a.m.

An Interactive Conference Technology was held between the following two locations:

Honolulu Location

DBEDT Conference Room
250 South Hotel Street, Suite 436
Honolulu, HI 96813

Kailua Kona Location:

NELHA Executive Conference Room
Keena Hana Building
73-987 Makako Bay Drive
Kailua-Kona, HI 96740

Kailua Kona Location

Member/Designees

Ron Whitmore (Mayor Rep) (Gov Appointee)
Dr. Gerry Cysewski (Tenant Rep)
William Mielcke (Gov Appointee)
Dr. Jim Wyban (RAC Secretary)

Guests/ Staff Present

Laurence Sombardier (NELHA)
Jan War (NELHA)
Keith Olson (NELHA)
Dr. Alex Leonard (NELHA)
Hiroshi Arai (BIAC)
Hiroto Maeda (BIAC Guest)
David Anton (Observer)
Jerrae Miranda (NELHA)

Honolulu Location

Linda Rosehill (Gov. Appointee)
Mary Alice Evans (DBEDT)
Dr. Vasilis Syrmos (U of H)
Robert Masuda (DLNR)
Alan Hilton (RAC Chair)
Mike O'Malley (HSDC)

Gregory Barbour (NELHA)
Karl Fooks (HSDC)
Daniel Jacob (Deputy AG)

Members /Designees Not Present/Excused

Dr. John Morton (HTDC)
Neil Sims (Tenant Rep)

1. Call to Order.

The meeting was called to order at 11:00 am.

2. Approval of September 18, 2018 NELHA Board of Directors' Meeting Minutes.

Director Evans made a motion to approve the September 18, 2018 NELHA Board of Director's meeting and Director Masuda seconded the motion. A vote was taken, and the motion passed unanimously, 9-0.

3. Financial Report. Approval and Decision Making.

The NELHA Executive Director (ED) presented the NELHA Financial summary report covering the period from July to October 2018 of fiscal year 2019. A chart was presented comparing revenue for FY 2018 and FY 2018 for the past six years. The track is stable throughout the year. Revenue in FY15 was higher when NELHA received an infusion of funds from HNEI for the hydrogen facility construction. The chart shows that total revenue was \$1.65M for the first two months of this fiscal year and up (\$162,000) or 11% as compared with the same period last year.

Of note is that lease revenue is up by \$110,000 or 26 percent, mainly due to collection of \$100,000 in arrears from the sale of Cellana's facility to Cyanotech. Most of the revenue increase in this fiscal year is from this sale and collection of other arrears. Another major contributor to the revenue increase is office rent which continues to increase, with Hale Iako now at full occupancy and up \$36,000 or 76%.

Another contributor to an increase in revenue is percent rent is up by \$22,000, with receipt of late payments from last fiscal year. Electric reimbursements are up by \$44,000 or 32%. It was noted that electricity rates continue to rise and are back to where they were four years ago (2014), at around \$0.33/kwh. This is even more incentive for NELHA to further consider renewable energy installations to bring electrical costs down. This reimbursement is a pass through and causes other utility related costs to go up as well.

The next financial chart presented covered FY 2019 expenditures compared to FY 2018 for the same six-year period. Expenditures are a little higher than the same period last year. This is more of an accounting anomaly whereby an electrical payment flipped over from last year to this year. If this extra electrical bill is taken out, then expenditure tracking more closely follows previous years.

Environmental monitoring costs increased by \$15,000 or 32 percent, mainly due to personnel costs and the method of coding NELHA staff Keith Olson's labor. Mr. Olson has been spending more time on the SCADA system and coding this to environmental monitoring. Again, this is an anomaly since the overall administrative costs are down by a similar amount.

Administrative costs are down mainly due to the completion of renovations of the Hale Kaa building, which this year was about \$15,000. This attributes to most of the additional administrative costs, as well as other decreased in personnel costs. OHA Ceded Land Assessment is down by \$30,000, primarily due to last month's payment being made after the end of the month.

A chart was presented showing the Special Fund tracking for the past six years. The Special Fund balance is slowly making progress over last year mainly due to arrears payments. The SF balance is now at \$470,000. The SF balance should be healthier by the end of the fiscal year, especially if the sale of the HDMI property to KOWA occurs. KOWA is going through a major reorganization and increasing their emphasis on aquaculture. NELHA staff Laurence Sombardier mentioned that KOWA has visited the HDMI site several times. They continue to be very interested in acquiring the property and are expected to deliver a proposal to NELHA early next year. No set date has been confirmed.

If NELHA obtained full payment of the total arrears due, the Special Fund balance would be over \$700,000.

Total customer revenue is up over 11%. Water bottling and aquaculture sectors are flat and show no change. Energy sector revenue is up significantly, mainly due to the arrears payment from Cellana. Research and office rental is higher by 35% due to the rental of conference and meeting rooms in Hale Iako and the laboratory building. Miscellaneous revenue is a little higher mainly due to funds coming in from sponsors of the Energy Storage Conference. Other reimbursables are the same as last year.

Chair Rosehill announces that Mike O'Malley
has just joined the meeting in Honolulu.

An updated hand out was given to board members of the Arrears Report. Of note, is that Kowa Premium Foods Hawaii Corporation made a large payment a little late that was due on November 15th. DLNR was thanked for their expedient handling of the lease assignment for Cyanotech to take over Cellana's lease. This process was initially expected to take four months. Laurence Sombardier

reported that all the documents are in the process of being executed and signatures from Cellana and Cyanotech are expected shortly.

When NELHA negotiated the payment terms for Cyanotech to settle the arrears balance upon execution of the lease assignment, it was originally anticipated to take four-months. Due to the fast tracking of this process, Cyanotech requested that the amount due (\$179,000) be paid over four installments; which NELHA agreed to. Cyanotech will be paying an interest rate of prime plus 1% for these installments.

Reference was made to the recent West Hawaii Today headline article concerning a downturn in Cyanotech's revenues. Director Cysewski indicated that the information in the article resulted mainly from press releases of their fourth quarter financial report and not from personal interviews. Director Cysewski mentioned that the downturn in revenue was primarily the result of cloudy weather and volcanic haze, which both reduced the amount of available sunlight. Spirulina cultures grew very poorly during this period and ultimately needed to be reinoculated. Production was down, and costs correspondingly increased for over two months. Cyanotech is now back on track and up to normal seasonal production levels. This situation further resulted in Cyanotech's request to make progress payments.

The main arrears now concern Destiny Deep Sea Water. They are trying hard to sell their building. They have one potential buyer and is a micro- brewery, who also wants to open a bar and restaurant. The company is Ola Brewing, a local company. NELHA has expressed several concerns. Namely, that a brewery would be more appropriate for the Ocean Centerpiece/Economic Driver location of NELHA than Destiny's location. Allowing a bar/restaurant into the property would likely also change the operating hours of the park and set a precedent for similar proposals. Chair Rosehill indicated that there should be ways to make this work, create more revenue which would make NELHA more self-sustaining. Another matter to consider is that some breweries have waste management challenges. NELHA staff member Keith Olson was asked to comment on this matter and indicated that high suspended solids and biological oxygen demand (BOD) levels often prevent brewery waste from being allowed into waste water treatment plants without pretreatment. Director Wyban commented that a new startup company called Calysta uses brewery waste to create a fishmeal substitute for aquaculture feeds. This is an example of brewery waste that could potentially be turned into a positive outcome and byproduct.

Laurence Sombardier indicated that the Destiny site as a brewery is considered by the County to be too close to the West Hawaii Explorations Academy school,

although went on to indicate that there is a process to obtain a variance. Chair Rosehill and Director Masuda requested that before this potential proposal comes before the board that all these issues and concerns be investigated. Director Masuda expressed further interest in the potential down stream uses of brewery waste for aquaculture; especially considering the proposed Aquaculture Accelerator program.

NELHA Executive Director Barbour, went on to say this would be a sub-lease of the Destiny building. Destiny was a former bottling facility (built by Enzamin USA) and has been struggling for several years. Approximately four years ago Destiny asked NELHA for permission to sub-let their building. The company who ultimately leased the building (Amcor) manufactured pre-forms for manufacturing plastic bottles and sold them to Koyo USA. Amcor has ceased operations and is expected to move back to the mainland in the next six months. Destiny is looking for another sub-lessor or to sell the building.

Director Masuda asked about NELHA's Special Fund. Executive Director Barbour mentioned that all receivables are deposited into a First Hawaiian Bank account on a weekly basis and then to a TDR, deposit receipt transfer. NELHA has a separate special trust fund for the OHA payments. 20% of NELHA's rent revenue comes off the top goes into this account for OHA.

Chair Rosehill entertained a motion the approve the Financial Report. Director Evans made the motion, which was seconded by Director Hilton. A vote was taken, and the motion passed unanimously, 10-0.

NELHA staff Sombardier announces that three members representing NELHA tenant Kowa Premium Foods Hawaii Corp. have joined the meeting. The members are Hiroshi Arai, Professor Maeda and Dr. Maeda's wife. Chair Rosehill welcomed the new guests.

4. Old Business

- a. Approval and Decision-Making on the NELHA Executive Director Performance Review **

At 11:30 a.m. Director Evans moved that the board go into executive session to take up the approval and decision making of the NELHA Executive Director's performance review pursuant to section 92-5(a)(2), HRS to consider the evaluation of its executive director where considerations of matters affecting privacy will be involved. William Mielcke seconded the motion.

The meeting reconvened at 11:45 a.m. Chair Rosehill announced that the committee has made a decision. ***Director Evans moves that the Board adopt the performance review of the NELHA executive director for FY18, including a pay adjustment. Director Evans goes on to include in her motion that the committee finds, and the board agrees that the Executive Directors performance has been excellent and that they are very pleased and very grateful for his efforts in the past year. Director Masuda seconded the motion. A vote was taken, and the motion passed unanimously, 10-0.***

Executive Director Barbour thanked the board and acknowledges that it is really a team effort at NELHA. Mr. Barbour indicates that he has an excellent team and thanks Laurence Sombardier, Jan War, Alex Leonard and Keith Olson. Ms. Jerrae Miranda is also a key part of the team and was introduced as the new Business Manager.

5. New Business

NELHA Executive Director Barbour indicates that good progress has been made on the aquaculture initiative since the last board meeting. Thank you to Director Evans for helping to bring this together with HSDC, UH, NELHA to develop the Request for Interest (RFI) and strategic agreement. The Governor has released \$475,000 from the General Fund appropriation to offset the operation of the accelerator. NELHA now has access to that funding and has agreed to provide up to \$500,000 of “in-kind” matching support over the next three years in terms of office space, workshop space, equipment, seawater, power, and communications. Karl Fooks of HSDC was able to re-work his EDA grant to be for three co-recipients (UH, NELHA and HSDC) with additional matching funds from UH. This adds another \$625,000 to the total funds available.

There are three parts to the program. These are to (1) hire an entity or operator that would have access to the funds to run the accelerator, (2) find interested businesses, and (3) to create an investment fund of \$2M—20M. A well-represented video-conference call was made last week with participants from the HATCH aquaculture accelerator in Norway, an accelerator in Nova Scotia, participants from the San Francisco Bay and Los Angeles areas, and several accelerators and startups in Hawaii. Director Wyban was also involved in the call. RFI proposals are due by December 15th with selection early next year.

A MOU was presented at the meeting listing the parameters for each agencies role in the program to raise Hawaii’s global visibility in marine aquaculture and to capitalize on commercial opportunities available globally. We are waiting for final review from the NELHA AG.

Chair Rosehill entertained a motion to consider adoption of the MOU. Director Evans moved to authorize the NELHA Executive Director to finalize the MOU, subject to AG

and all-party approvals of the draft presented to the board. Director Hilton seconded the motion. A vote was taken, and the motion passed unanimously, 10-0.

Chair Rosehill indicated that the Senate has announced new legislative committees and new chairmanships of existing committees. Director Evans indicated the known Chairs of Committees that are of interest to NELHA. Chair Rosehill went on to suggest that NELHA brief the important Legislators in advance to introduce them to the aquaculture accelerator MOU and other matters of NELHA interest to garner their support. Director Masuda agreed with Chair Rosehill's suggestion and to the importance of making the committees aware of NELHA's objectives. It was also suggested that key legislators be made aware of NELHA Energy Storage Conference, if they are not already participating.

Meals were served at this time as an integral part of the meeting

6. Hawaii Strategic Development Corporation (HSDC) Information Status Report

Karl Fooks announced that a meeting of the Hawaii Venture Capital Association was held this morning to present a report of the venture capital activity in Hawaii from 2010 to 2018. During 2012 to 2016 when HSDC had an active program, field flow and investment activity increased dramatically; largely focusing on software and other industry sectors that were also funded. Since 2017, after the program was pulled back and funding for pitch events, start-up weekends, conferences, accelerator programs, etc. activity dropped dramatically. What this shows is that investments in accelerators and investment funds do contribute a lot to creating new start-ups and venture activities in Hawaii. There was about \$250M of venture capital investing in the state of Hawaii during those years. This is about \$20M a year now in steady state investing and about 128 companies.

7. Hawaii Technology Development Corporation (HTDC) Information Status Report

Director Evans submitted the HTDC status report. The HTDC board has looked at the account balances since the shift of the Manoa Innovation Center rent to UH. Funds have been found that can be used to cover the corporation's payroll and other current expenses through FY19 and FY20. The current request is for General Funds for FY21 during the second year of the biennium and the conversion of seven positions that are still 50:50 financed by a combination of General Funds and Special Funds into General Funds. If the legislature is willing to provide General Funds for payroll and grant programs as they have done so in the past, HTDC will be able to continue to its work. It will not be known until the Governor's package comes out on December 15th and the Legislative final approval of the budget for next fiscal year will be completed in early May.

8. Executive Director's Information Status Report

Executive Director Barbour began with a chart of monthly historical electrical rates for the main pump stations from 2012 to date. NELHA's seawater rate is \$0.2062/kgal. When the electrical cost component of this rate exceeds the electrical rate of \$0.2916/KWH as established in 2007, then NELHA charges a surcharge that brings NELHA to a break-even situation. Electrical costs are rising and now near the levels reached 4-5 years ago. There is usually a three-month lag between the price of oil and electrical rate adjustments and the current cost of oil is going down and we could see a decrease soon.

Alan Hilton asked if there has been a noticeable impact of the Puna Geothermal Ventures (PGV) power plant going offline as a result of lava inundation. Executive Director Barbour indicated that he was not aware of any noticeable impacts of the influencing electrical rates. A majority of the power purchased from PGV was tied to the cost of oil.

Executive Director Barbour went on the recap the major goals and key projects timeline, that was also listed as the goals established in the beginning of the fiscal year for his performance review.

NELHA continues to maintain a 99.99% uptime and has increased the efficiency of the seawater system by 5%.

The pipeline removal project is to perform a survey and develop a design for the removal of the abandoned Ocean Farms of Hawaii (OFH) pipelines. Funding and Governor's approval has been obtained. NELHA is determining how to proceed with this project and whether to split the project to perform a survey with an ROV and asking for additional funds to develop a design. A committee will be formed to develop a scope of services for the survey. The objective is to perform the survey to determine the exact location of each pipeline in the April/May 2019 timeframe, when the ocean is the calmest. Once the survey is complete, a design and cost estimate to remove or abandon the pipelines will be determined. The ideal plan would be to have this ready by August to request funds from the Legislature to remove the pipelines. If this schedule is not achieved, then NELHA would have to wait until next year to obtain funds for the removal and would be subject the pipelines breaking loose in the meantime.

Securing the three nearshore OFH pipelines that remain accessible on the reef has also been scheduled to be performed in the April/May 2019 timeframe.

NELHA has received approval to expend CIP funds to continue upgrading the seawater system and has ordered approximately \$100,000 in parts and components thus far. The primary focus is to upgrade the SCADA system and instrumentation to continue automating the distribution systems.

Strategic partnering with other State agencies involved in regulating seawater effluent continues. The Department of Health has held meetings in the Kona area. NELHA will be preparing a position paper for board review with recommendations. The objective is to develop special standards that more appropriately apply to NELHA that are not classified as human or animal waste as for farming, which is not a good fit for NELHA.

In relation to improving strategic partnerships to development a microgrid initiative, it appears that NELHA has received a \$2M grant from the Korean government. UH and HNEI are leading this initiative, as they have a close relationship with an NELHA type organization in Korea called KETEP, who is providing the funding. The current concept is for a 1 mW PV array and 0.5 mWh battery. This could significantly reduce NELHA's electrical costs for the seawater system. NELHA is negotiating an in-kind contribution match. The industry partner is LG, who manufactures high quality panels and batteries. Since NELHA was not sure how the negotiations with the Koreans was going to conclude, it is also working with the Department of Energy to develop a microgrid. Currently, each path is going quite well. Both entities will be at the Energy Storage Conference in Kona on December 5th and 6th. There is still a lot of work to be done to accomplish these goals.

NELHA has received Governor's approval to perform a Regional SWAC planning and design survey and will start this initiative shortly.

The NELHA Energy Storage Conference is coming together and is expected to be well attended with key speakers from Pacific Northwest National Lab, Sandia National Lab, DOE and other notable private and government organizations.

Installation of photovoltaics in the Research Campus is in the permitting phase with the County for 168 kilowatts. Installation is expected to occur in the beginning of the new year.

NELHA continues to negotiate and move ahead with DOE concerning the Sunshot solar desalination system. Conditional approval has been obtained. NELHA is in the process of working out the in-kind cost share details.

Securing a consultant to develop an RFP for the Economic Driver is dependent on obtaining the proceeds from the sale of the HDMI site; which continues to be negotiated.

The potable water well development continues. NELHA has issued a “Finding of No Significant Impact” in the EA process. The EA was published on the 23rd of November. We are in a permitting phase with the County to determine if any additional permits are needed. There is a 30-day challenge period concerning public input of the EA outcome. NELHA is waiting for a response from the State Historical Preservation Division concerning their agreement of the data collection plan and the treatment plan that needs to be approved by the burial council for the one set of human remains that have been identified along the access road. The County has accepted NELHA’s permit application and will wait for input from all other agencies, including the archaeological plan review and Planning Department review before making their determination. It is expected that the review process will take another 90 days. Roadway improvements are expected to begin within six months of all approvals and permits.

Regarding other potable water alternatives, Cyanotech is now purchasing desalinated water from Koyo through a repurposed 4” ductile iron pipeline. Last month Cyanotech purchased 1 million gallons of water from Koyo and will purchase as much as they can obtain. Now that NELHA can demonstrate a reduction in potable water demand, is moving ahead with the forward osmosis desalination project and the resource well development, the plan is to reach out to the Board of Water Supply to determine if they will approve the water connection for the Mats4 LLC retail development. In parallel, NELHA continues to work with the Mats LLC and is very close to finalizing all of the details of their lease arrangement.

To enhance the performance and increase the efficiency of the fiscal accounting system, efforts are being made to include more automation. Recent efforts in this direction has resulted in approximately 85-90% of all seawater flow meter data streaming into the SCADA system. NELHA is hoping to fully automatic this process by the end of this fiscal year.

Regarding the loss of the three buildings at NELHA’s Puna facility, we are working on two fronts to determine where the insurance claim will be processed. Since Puna Geothermal Ventures was leasing the buildings from us we have requested information regarding their insurance policy and claim. PGV could be more responsive. Since the insurance process is very complicated and requires more capability than NELHA has inhouse, we may have to obtain assistance from HI-EMA and/or with the State’s Risk Management Office to help us through this process. On the other front, NELHA is working with HI-EMA to determine if the lost buildings are covered by the State’s insurance policy. FEMA has informed us to keep working with them and to determine the damage estimate cost to replace the buildings. We are working on a process/route with FEMA that would allow us to agree on a replacement cost that would then be capped. This process is more expeditious, although if the cost turns out to be higher,

then NELHA/State would have to cover the additional cost. If the replacement cost ends up being lower, we would be OK and allowed to keep the difference. NELHA has until May 2019 to determine the replacement cost and to have this accepted by FEMA.

Relating to the Legislature, NELHA currently has no proposed new legislation or requests.

9. Announcements

The schedule of NELHA Board meeting is attached to the board packet. Director Mielcke requested that the November 19, 2019 board meeting be moved to November 12, 2019 to prevent a potential conflict with Thanksgiving. This request was acceptable to all Board members.

10. Adjournment

Chair Rosehill entertained a motion to adjourn the meeting. Director Masuda moved this motion, which was seconded by Director Hilton. A vote was taken, and the motion passed unanimously, 10-0.

The meeting was adjourned at 1:00 p.m.