

**NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY
BOARD OF DIRECTORS
MEETING MINUTES
Tuesday, January 15, 2019
10:30 a.m.**

An Interactive Conference Technology Meeting will be held between the following three locations:

**NELHA OceanView Conference Room Hale Iako
73-970 Makako Bay Drive
Kailua-Kona, HI 96740**

Members / Designees

Linda Rosehill (Gov. Appointee)
Mary Alice Evans (DBEDT)
Dr. Vasilis Syrmos (U of H)
Alan Hilton (RAC Chair)
Dr. Gerry Cysewski (Tenant Rep)
William Mielcke (Gov Appointee)
Daniel Jacob (Deputy AG)
Gregory Barbour (NELHA)

Guests / Staff Present

Laurence Sombardier (NELHA)
Jan War (NELHA)
Dr. Alex Leonard (NELHA)
Keith Olson (NELHA)

**County of Hawaii - Research and Development Conference Room 25
Aupuni Street, Suite 1301
Hilo Hawaii 96720**

Members / Designees

Ron Whitmore (Mayor Rep / Gov Appointee)

Guests

Pat Tummins (Environment Hawaii)
Rodrigo Romo (PISCES)

**Department of Land and Natural Resources Conference Room
Kalanimoku Building
1151 Punchbowl Street, Room 121
Honolulu, HI 96813**

Members / Designees

Robert Masuda (DLNR)

Dr. John Morton (HTDC)

Members / Designees: Not Present / Excused

Dr. Jim Wyban (RAC Secretary)

Neil Sims (Tenant Rep)

1. Call to Order.

The meeting was called to order at 10:32 am.

2. Approval of November 20, 2018 NELHA Board of Directors' Meeting Minutes.

Chair Rosehill entertained a motion to approve the November 20, 2018 minutes. Director Evans made the motion to approve the November 20, 2018 NELHA Board of Director's meeting minutes and Director Hilton seconded the motion.

Director Hilton pointed out a minor correction that was needed on page 8, second paragraph of Section 8 – Executive Director's Status Report indicating that it was he, not Karl Fooks who asked a question concerning any noticeable impact of Puna Geothermal Ventures (PGV) being offline because of the eruption.

At this point in the meeting the video coverage of the conference call failed, and the meeting proceeded with audio only.

Chair Rosehill indicated that a motion was made by Director Evans and seconded by Director Hilton to approve the November 20, 2018 minutes with one correction to as noted by Director Hilton. A vote was taken, and the motion passed unanimously, 9-0.

At this point in the meeting a motion was entertained by Chair Rosehill to amend the agenda by having the PISCES presentation (item 5b) next, followed by a presentation by Taylor Shellfish Company (item 5a). The motion was made by Director Mielcke and seconded by Director Hilton. A vote was taken, and the motion to amend the agenda passed unanimously, 9-0.

5b. New Business

Discussion and Decision-Making regarding a Memorandum of Understanding between the Pacific International Space Center for Exploration Systems (PISCES) and NELHA for Cooperation Relating to the Planning and Execution of Lunar/Mars Simulated Analog Missions and Robotic Competitions/Challenges.

NELHA Executive Director Barbour introduced Rodrigo Romo, Executive Director of PISCES and indicated that a MOU with PISCES has been drafted.

NELHA staff Laurence Sombardier proceeded to give summary of the PISCES project. PISCES has approached us to hold an international robotics competition at NELHA in early 2020 for college age groups. The event would also be open to public viewing.

A site has been identified within the northern property that meets the requirements of the Parties with the added advantage of the high level of infrastructure at NELHA

for logistical support, office space, communications, proximity to airport, sea port and hotels.

The general approach is to create a PISCES-led program at NELHA, using the existing world-class facilities, to attract space agencies, universities, and research companies to conduct analog test site experiments and robotics events. It is expected that up to 15 teams will be participating in the robotics event with robots made to simulate mining and roving conditions on the moon or Mars. Aside from PISCES, one of the partner/sponsors will be Caterpillar Inc., who will be funding the bulk of this event. NASA is also associated with the project.

The PISCES event is in line with NELHA's STEM focus. We would be providing "in kind" support that would derive other benefits and exposure for NELHA.

The request before the Board is to approve an MOU between NELHA and PISCES. The MOU does not create a binding agreement and is not enforceable in a court of law as a contract. The MOU will not be used to obligate or commit funds, or as the basis for the transfer of funds. The Parties are looking into the liabilities, insurance requirements and waivers that would be needed to protect all participants.

NELHA staff recommends approval of the MOU.

Rodrigo Romo indicated that PISCES is a State agency, also administered by DBEDT. The MOU has already been approved by the PISCES Board. PISCES AG has reviewed the MOU and consulted with NELHA's AG as well. NASA runs a similar competition every year at Kennedy Space Center. Since NASA is no longer allowed to operate international events they have suggested that PISCES and Caterpillar coordinate this event for college level teams. Although this competition was once held on Mauna Kea mountain, PISCES feels that NELHA has a better siter. The robots will be remotely controlled from the NELHA Research Campus, whereas the actual robots will be operating at a site nearly a mile away. PISCES intends that this will be an annual event with Caterpillar being the main sponsor. There may be a separate agreement between PISCES and Caterpillar.

Mr. Romo went on to mention that the MOU goes beyond the robotics competition project. There are other agencies, especially NASA who are looking for sites to conduct some of their planetary research and is considering NELHA as a potential site for future tests.

Chair Rosehill entertained a motion to approve the MOU. Director Evans moved to approve the motion, which was seconded by Director Mielcke.

During the discussion period, Director Evans spoke in support of the motion as she is a member of the PISCES board and has been aware of development of this activity for

several months. This project would offer a good synergy between two DBEDT agencies; one that the Hawaii Senate has encouraged DBEDT to push through. Director Evans went on to say that if the liability issues can be worked out, this will be an excellent demonstration of the unique geological assets at NELHA with PISCES research also benefiting UH students and interns.

Director Cysewski acknowledged his support for the project and mentioned that his primary concern (from the standpoint of Cyanotech Corporation) would be dust control and the condition of the unpaved road to the competition site due to increased vehicle traffic.

NELHA Executive Director Barbour indicated that this concern has been discussed. This is the road that passes the former Cellana facility to the north, which is the 80 acres that NELHA calls "the northern property". The consideration is to have participants park near to and/or within the Research Campus and then use mini vans to transport most of them to the competition site. The plan is to also use tanker trucks to spray water on the road to control dust. Every effort will be made to reduce or eliminate dust resulting from road traffic. This expense will be included in the overall project budget.

Rodrigo Romos of PISCES indicated that they are aware of this concern and that Caterpillar has included water trucks in their budget.

Director Masuda asked if the dust is taken into consideration in relation to the Kona Airport and if the University of Hawaii will be invited to participate. Mr. Romo mentioned that teams from UH Hilo, Hilo Community College and Kapiolani Community College have confirmed their participation. In addition to these, there will be teams from Mexico, Columbia, Australia, New Zealand and potentially teams from Korea, Japan, Canada, the Netherlands, Germany, and Luxembourg.

Mr. Barbour addressed the dust concern and indicated that, due to the measures that will be taken, NELHA does not anticipate any problems with the airport. The dust is primarily a concern for Cyanotech as it impacts their algae culture and processing equipment. Director Masuda mentioned that the airport administrator should be notified. NELHA staff Dr. Alex Leonard mentioned that NELHA is working closely with the airport and will certainly notify them prior to the event.

Chair Rosehill asked if the event were to take place on a "high water day" (large ocean swell day) if this would impact the project. NELHA staff Jan War mentioned that during large swell periods that marine aerosol would be present in the shoreline area, although due to the distance that the competition site will be from the shoreline, impact from ocean swells should not be a problem. The shoreline in the competition area is quite steep and this serves to break the waves and prevent them from running very far inland. The competition would be tentatively held in February 2020.

Chair Rosehill proceeded with the vote to approve the motion to accept the MOU. The vote was unanimous (9-0) and the motion was carried.

5a. New Business

Discussion and Decision-Making regarding Taylor Shellfish Company Inc. Sublease K-21 term extension.

NELHA staff Laurence Sombardier presented a brief introduction of Taylor Shellfish Company's activity at NELHA. Taylor operates a hatchery/nursery for clams, oysters and mussels on property consisting of 6-acres within the area known as the Farm Compound, which is adjacent to the NELHA Research Campus. The company is at the end of a 10-year sublease with terms that expire in April 2019. They have requested to extend the lease for another 20 years. The company has been with NELHA for more than ten years, is in very good standing, and has been a steady source of revenue.

An updated business plan from Taylor has been submitted and reviewed by NELHA staff. No significant changes of operation are being proposed by the company for the 20-year period. The lease extension will be brought in line with other 30-year leases. Taylor is currently at market rate. Annual Price Performance Index (PPI) adjustments will be made on an annual basis. As requested by Taylor, the lease extension includes a casualty clause that would allow them to terminate the lease in case of a major disaster beyond their control. NELHA staff recommends approval of the least extension.

Mr. Barbour mentioned that Taylor is one of the leading shellfish companies in the United States and based in Washington State. Much of their oyster seed is started at NELHA.

Chair Rosehill entertained a motion to accept Taylor Shellfish Company's lease extension. The motion was moved by Director Evans and seconded by Director Mielcke. A vote was taken, and the motion carried unanimously (9-0).

3. Financial Report. Approval and Decision Making.

The NELHA Executive Director presented the NELHA financial summary report covering the period from July through November 2018 for FY19. A chart was presented comparing Special Fund Revenue for FY14 to FY19. The track shows that revenue for the period is higher than for the past four years. Only in FY15 was revenue higher, primarily due to grants obtained that year. The financial summary details show that total revenue was \$2.06M for the first five months of this fiscal year. This is up by \$216,000 or 12% as compared with the same period last year. This is the second highest five-month period in the last five years. Drilling down into the numbers further Barbour noted that:

- Seawater revenue during the period was essentially flat.
- Lease base rent revenue is up by \$100,000 or 19%; mainly due to collection of \$100,000 in arrears payments from the sale of Cellana's facility to Cyanotech. Otherwise, rent is up slightly despite the loss of revenue from the Puna facility, which was approximately \$25,000 a year.
- Office rent continues to increase with Hale Iako now running very close to full occupancy. This revenue category is up by \$47,000 or 83% over the last year. Some late percentage rent payments were received, which also accounted for part of this increase.
- Electrical costs continue to rise. Rates continue to increase, especially for large utility users such as NELHA. Rates are up 20% over the past year. HELCO changed to a new rate schedule in October 2018. This has increased NELHA's cost by about a 10% in the past two months. This is further testimony that NELHA should continue to focus on the development of a micro grid and more renewable energy installations.
- There has also been some miscellaneous income from the Energy Storage Conference. The details of this are in Appendix A of the Board Packet.

Chair Rosehill commented on success of the Energy Storage Conference, which was well attended. The results of this conference are even better than the first conference held last year.

On the expenditure side, a chart was included in the Board Packet comparing FY19 to FY18. Total expenses for the first five months of FY19 is at \$1.93M or \$248,000 (15%) higher compared to the same period last fiscal year. Expenditures continue to be closely monitored. As indicated in the November 2018 board meeting, a portion of the expenditure increase is attributable to a posting anomaly that occurred at the end of FY17 because of \$135,000 in electric bills being posted in FY18. Drilling down into the numbers further Barbour noted that:

- Electrical costs for the seawater system are higher by approximately \$200,000 over the same period last year. About 50% of this is related to the

posting anomaly mentioned above. Of this, approximately \$40,000 is attributable to the electrical portion of tenant utilities. Costs through November have not increased.

- In relation to Tenant Utilities, the large expenditure of \$43,000 for the first two months was due to a dispute settlement with the Department of Water Supply over a broken water meter. The dispute was settled in July and paid in August last fiscal year.
- In FY18, NELHA focused on the renovation one of its older buildings (Hale Kaa) in the Research Campus. This building will be the base of the Aquaculture Accelerator. The \$20,000 for labor and repair cost to upgrade this building was coded to Administration costs last year; whereas the personnel who worked on this renovation are coded this year to grounds maintenance costs. As such, Administration costs declined by \$57,000 or 9% this fiscal year.

The next financial chart discussed compares the Special Fund Balance from FY14 to FY19 through December 31, 2018. NELHA continues to make slow and steady progress to increase the balance of this account. The current balance is \$532,000, which is an increase of \$140,000 over last year for the same period. The chart shows a linear projection if the present pace continues. Special Fund Balance is expected to be \$740,000 by the end of the fiscal year, assuming no arrears in accounts receivables.

The next chart discussed covered Customer Revenue. Further details of this are in Appendix D. There was relatively no increase in the Water Bottling sector. The Aquaculture sector shows an increase of 6%, due to late payments of percentage rent. In the Energy sector, revenue is up slightly due to arrears payments made by Cyanotech that we attributable to Cellana. Drilling down into the numbers further Barbour noted that:

- The Research/Office revenue category is higher by 47% due to occupancy in the Hale Iako building, conference room rental, and rental of lab space.
- The Miscellaneous Customer Revenue is higher by \$35,000 due to funds received for the Energy Storage Conference. Seawater and electric reimbursables are very similar to last year.

Concerning the Arrears Report (Appendix E), as of December 31, 2018 the outstanding total was approximately \$208,000. The majority of this is due to Cellana. Cyanotech has purchased the Cellana facility and recently paid off \$140,000 of the arrears amount due.

Destiny Deep Seawater LLC continues to make payments, although they are not bringing down their arrears balance to zero. Their arrears are presently around \$50,000. They presently have a “for sale” (or lease) sign posted at their entrance. The sign has been up for a couple of months now. At the November board meeting it was mentioned the Destiny was approached by a local brewing company about subleasing their facility. The comments and desire of the board from the November meeting were expressed to Destiny in the form of an offer. In the offer, NELHA indicated that if Destiny paid to move the main entry gate to a location below the entrance to their facility (about 300’ away) that would allow the brewery to be open for business after 8:00 p.m., agreed to pay current lease rates, and pay off their arrears balance, we would be willing to entertain a proposal for the micro-brewery. We have not heard back from Destiny since this offer was proposed.

Regarding Appendix G, which shows Budgeted vs. Actual Revenue, revenue is below the amount budgeted by \$2.5M for the first five months of the fiscal year. This is mainly due to planned revenue from the sale of the former HDMI building, which has been delayed. The HDMI building was put up for sale last year and a \$3M offer was received from Kowa Premium Foods Hawaii Corporation (formerly Big Island Abalone Corp).

Kowa has changed their corporate business plan to focus more on aquaculture at NELHA. We have recently been in contact with them and have been told that they are still reviewing their offer internally. NELHA has been holding this property for them now for nearly a year. Although the building is about 1/3 rented, we are losing potential revenue waiting for Kowa to decide. When HDMI leased this property, NELHA received approximately \$150,000 a year in revenue. It is important that we move this along, especially with the potential sale or lease of the Destiny property next door, which may have an impact the sale of the HDMI site. It was suggested in a prior discussion between Mr. Barbour and Director Mielcke that we consider asking Kowa for a non-refundable deposit. If a 5% deposit could be negotiated this would amount to approximately \$150,000 or the equivalent of one year’s worth of former rental income from this property. This way we could continue to negotiate with Kowa to keep them engaged for a prescribed time period. Greg Barbour will discuss this proposal with Kowa and report the results back to the board at the next meeting.

There are several larger expenditures that NELHA has budgeted for that will not be implemented until the sale of the HDMI building and least of the property to Kowa or some other investor is finalized. This is the primary change that has occurred in the Revenue of Budgeted vs. Actual category. As far as expenditures, we are currently at 32% of projection or 8% below budget. The projected revenue is at 40%

in the first five months, which is also slightly below projection.

Chair Rosehill entertained a motion to accept the financial report. Director Evans made the motion to do so, which was seconded by Director Cysewski.

Hearing no further comments or questions, Chair Rosehill asked for vote on the motion to accept the financial report. A vote was taken, and the motion was carried unanimously, 9-0.

4. Old Business

a. None

5c. New Business

Create a Special Investigative Committee for the purpose of preparing and delivering to the Board the annual performance evaluation of the NELHA Executive Director.

Chair Rosehill asked for volunteers from the board to serve on the Special Investigative Committee. Director's Evans, Cysewski, and Mielcke volunteered to serve on the committee. The committee will review the annual performance of the NELHA Executive Director for the FY19 period.

Chair Rosehill entertained a motion to create a Special Investigative Committee with the members noted above. The motion was made by Director Evans and seconded by Director Mielcke. A vote was taken, and the motion carried unanimously, 9-0.

5d. New Business

Discussion and Decision-Making regarding meeting dates for the NELHA Board of Directors meetings in 2019.

Chair Rosehill mentioned that she and NELHA ED Barbour previously discussed the frequency of the meetings, particularly in relation to when the legislature is in session and board members may have difficulty or scheduling conflicts to attend the meetings. Looking over the agenda from the last few meetings, there appear to be a few occasions when very little decision making is required by the board or when a quorum is needed. The question was raised by Chair Rosehill as to whether it is necessary to meet every other month (bi-monthly) or whether the board meetings could be scheduled every 3 months (per quarter) to serve the same purpose. The caveat would be that special meetings could be scheduled when

important decisions need to be made or emergencies arise.

During the ensuing discussion, Director Masuda indicated that due to the nature of NELHA's activities, bi-monthly meetings seem to be reasonable and 90 days between meetings may be inadequate or too long. Meetings could always be canceled if no decisions are required. Director Morton indicated that he tends to agree with Director Masuda's rationale and went on to say that much of the business involves lease transactions and other important matters should not be prolonged. Director Morton went on to suggest that it is probably better to have short meetings every other month.

Chair Rosehill summarized the discussions by stating that the consensus of the board is to continue to schedule meetings every other month and that if there is insufficient business that warrants canceling the meeting, a decision can be made to do so.

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

Director Mielcke indicated that there was nothing significant to report, especially this early in the legislative session.

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

Director Evans reported that HTDC Executive Director Robbie Melton has resigned to accept a job working for Mayor Kawakami to head Kauai County's Office of Economic Development. The HTDC board has appointed Len Higashi, a senior economic development specialist as HTDC's acting Executive Director. HTDC is working with a very lean budget attempting to preserve their special fund balance as long as possible. DBEDT is in discussion with the legislature about the potential need for additional funding for the program.

Chair Rosehill asked if the Governor submitted a budget request for HTDC. Director Evans indicated that the Governor submitted four budget requests; one for the additional money for the Manufacturing Grants Program, another request for the Office of Navy Research matching grant program, one for the SBIR phase 2 and phase 3 matching grant programs, and one for the Accelerator Program. The shortfall occurs in the payroll area of the program and that is where DBEDT will be working closely with the legislature for direction.

Director Mielcke asked Director Evans to comment on HSDC's budget. Director Evans indicated that the Governor is requesting \$5M in capital improvement project funds. On the recommendation of Budget and Finance, this would be a long-term investment strategy for up to 10-20 years. HSDC does not typically invest all its current appropriation within the same year of the appropriation. HSDC will enter into a co-invest agreement only when there is a strong match from the private sector into a co-investment agreement. It is on this basis and the basis when entrepreneurs in Hawaii need access to capital after investing in the accelerators and incubators, that the

Governor will request \$5M to infuse additional funds into the program.

Chair Rosehill mentioned that it is her understanding that several bills will be introduced looking again at the functions of both entities (HTDC & HSDC). The question is whether there is an overlap and a need to merge or streamline the two agencies and to the extent of determining whether they should even continue to exist. The new Senate Chair is trying to determine what should be done and submitting legislation. The legislation that was submitted by Chairman Luke last will also be resubmitted again. Groups from HSDC are meeting with the new Senate Chair to decide what the new entity might be. This is a situation that should be watched, particularly where NELHA does business with both agencies.

8. Executive Director's Information Status Report

ED Barbour referenced the timeline chart in the board packet that summarizes the major goals and key projects that NELHA is focusing on between calendar years FY18 though FY19. These goals and projects are consistent with the chart submitted to the special evaluation committee last year. The chart is useful to gauge NELHA's progress throughout the year.

Relative to the seawater system NELHA is still at 99.99% uptime for the year. We have begun procurement of several major items. We received approval from the Governor for \$4.9M in reimbursable general obligation bonds. Of this NELHA has approval to expend up to \$500K in equipment upgrades for the seawater system. A new pump for the Interim Surface Seawater station and a variable frequency drive (VFD) unit to control that pump has been ordered.

The project to address the six abandoned Ocean Farms of Hawaii pipelines offshore has commenced. An evaluation committee has been formed to develop a scope of work and to review professional services proposals towards the selection of a contractor. This will be a two-step HlePRO solicitation process. The initial work will involve performing underwater surveys of each of the pipelines to determine their condition and position. Once the survey work is complete, a separate agreement will be established to obtain a contractor to determine how the pipelines might be recovered and/or abandoned.

The Supervisory Control and Data Acquisition (SCADA) system continues to be expanded and upgraded. Approximately \$100K of the \$500K that has been approved for expenditure will be used to purchase new equipment and materials. Most of these items are either on order or will be ordered soon.

Relative to developing strategic partnerships with other state agencies who regulate seawater, this is an ongoing effort. We have identified that we need to work mostly with the Department of Health on matters concerning seawater discharge. The challenge is that there are no standards for regulating seawater disposal. The existing DOH standards primarily apply to the disposal of sewage, stormwater or agriculture waste. NELHA is often caught in the middle between these two extremes. Our position

over the past year is to continue to work with DOH to attempt to establish standards related to aquaculture.

For biosecurity standards and monitoring, NELHA continues to work with everyone involved with these matters. Director Hilton asked if the ongoing water quality monitoring program was to be self-regulating. NELHA staff Keith Olson acknowledged this and indicated that NELHA has been expanding the monitoring program into other areas since its inception. Whereas the initial focus was related monitoring groundwater, ocean transects, anchialine ponds, and offshore biota monitoring for coral cover, fish biomass, etc., ten years ago NELHA began monitoring tenant effluent. From the standpoint of regulation and standards, the question has been asked as to “where do we fit”. We are currently working with the DOH wastewater branch, which is primarily concerned with the monitoring of human sewage. The discharges at NELHA are not classified as sewage or agriculture. For agriculture, the concerns would relate to raising animals or runoff from fertilizing crops and plants. The primary effluent at NELHA is seawater, thus being under the DOH wastewater branch is not a good fit. The thought is that we either need to propose some rules that are specific to NELHA or figure out something else. We have over 30 years of data to support what we have been doing.

Chair Rosehill asked if NELHA has proposed what the rules might be. Keith Olson indicated that we have been communicating with DOH and that it is essentially up to them to determine where we fit.

Chair Rosehill asked if NELHA has enough data to propose rules that would be appropriate for us. It was suggested that we take on a more proactive role in this process to be more in control of the outcome. This would be instead of waiting for an agency to prescribe rules for us that may not be an appropriate fit. Since the DOH has their hands full with matters concerning conversion from cesspools to septic systems and other matters, and since we have the expertise, perhaps we should be more involved in recommending rules that apply to us. Keith Olson went on to indicated will look more closely in to the issue and continue to have dialogue with DOH on these matters.

Greg Barbour went on to give an update of NELHA’s strategic partnerships related to establishing microgrids at the facility. As reported at the last meeting, we have preliminary approval from the government of Korea for a grant of up to \$1.85M. We continue to work with them to develop the goals and objectives of this relationship. We have requested approval from the Governor’s office for the release of \$1.85M of the \$4.9M in reimbursable general obligation bonds. The concept is that we would be repaying the \$1.85M to the Korean government with interest. We believe that the project makes good financial sense.

The current proposal that we have with the Korean government regarding the key deal points is that the microgrid development would a minimum of 0.5 megawatts of PV panels, up to 1MW hours of energy storage and be developed on the 6-acre Research Campus and the adjacent 20-acre area called the Farm Compound. The idea is that

these two areas would be combined under one primary electric meter as a single microgrid. NELHA's goal would be to get off the HELCO grid for up to 12 hours a day. Most of the switchgear and transformers in the two compounds were installed in the mid to late 80's and are very old. The objective is that the electrical upgrades would become part of the overall development strategy. NELHA would not pay for any electric power in the beginning and would retain ownership of the equipment after two years. Our estimate is that the energy generated at the current electrical rates would pay off the grant or the equipment that we would be purchasing in 7.5 to 8.0 years. From NELHA's perspective, we would be upgrading our equipment and making great strides towards achieving our goal of being 100% energy self-sufficient.

Chair Rosehill asked about the potential opportunity for a second grant related to a microgrid installation. Greg Barbour mentioned that NELHA is waiting for a Request for Proposal announcement from the US DOE. Director Hilton asked where the Farm Compound was geographically located. Greg showed a slide of its location and mentioned that the Farm Compound is adjacent to the Research Campus. The triangle area where the PV and battery would be located is just northeast of and adjacent to Farm Compound.

The microgrid initiative is being guided by the Hawaii Natural Energy Institute (HNEI) at the University of Hawaii at Manoa. Mark Glick, who was formerly the manager of the DBEDT Energy Office has taken the lead for HNEI and is working closely with the Korean partners. NELHA views HNEI like a general contractor who has taken the leadership role to steer where these type of renewable energy projects are going. We view them as the experts.

With respect to NELHA's Regional Seawater Air Conditioning (SWAC) planning and design study, a committee has been formed to evaluate 22 professional service proposals. We will negotiate a price with the selected firm to perform the scope of services drafted for this project. This is a \$250,000 CIP funded project.

The Energy Storage Conference was a lot of work to organize, was very successful and well attended by a diverse group of professionals. Major sponsors included the University of Hawaii, Hawaiian Electric, Sandia National Lab, the US Department of Energy, and Ulupono Initiative. A valuable number of connections and relationships were established.

The installation of PV panels in the Research Campus will begin next week. The contractor is Green Path Technologies. They will be installing 168KW of panels between the roofs of the Hale Iako and Keena Hana buildings.

The UET flow battery was installed and ceremoniously dedicated as part of the Energy Storage Conference.

With respect to the Sunshot Solar Desalination project, NELHA has reached out to the DOE program director is waiting for a response and funding confirmation.

For the aquaculture accelerator, NELHA continues to make good progress. We have received several proposals in response to the Request for Information that was issued. Interviews will start later this week. A final selection is expected to be made in next two weeks. The proposals look good and are very well written. A formal agreement with the finalist is expected sometime in March.

Obtaining a consultant to write the RFP for the Economic Driver development has been delayed until the sale of the HDMI building has been completed.

The project to increase NELHA's potable water allocation is proceeding. We have completed and published the Notice of Finding of No Significant Impact as part of the Environmental Assessment process to develop a new resource well for the Department of Water Supply. There were no challenges or comments during public review process by the end of December deadline. NELHA has applied for a permit from the DLNR, Commission on Water Resource Management, although will be asking for a two-month delay to obtain additional information. This will be the last permit that is needed in order to begin grading and drilling the well.

A break in the meeting was taken at 11:56 a.m. Director Whitmore announced that he is leaving the meeting.

Chair Rosehill announced that the NELHA Executive Director's report will continue.

Greg Barbour indicated that several proposals have been approved for small projects in the Research Campus. No large area proposals are under consideration at this time. NELHA is committed to performing an annual survey of all the tenants and clients to determine how we are doing; where we are doing well and where we may need to make improvements. We have entered into an agreement with The UH Economic Research Organization to perform another economic impact study. They have completed two studies for us in the last six years. The current study is expected to be completed in the next several months.

In the administration area of the Executive Director's report, it was mentioned that NELHA is attempting to increase the efficiency and automate the billing system in the fiscal office. Hiring a consultant to assist us with this process was being considered. We have been meeting with and discussing this with the DBEDT Administrative Services Office; in particular Carl Nagasako, who is familiar with processes used by the banking industry. Mr. Nagasako looked at how we are doing our billing and indicated that in his opinion our system is probably the most efficient way to do this right now. NELHA's process is not ideal for creating certain financial reports. We will continue to explore how the process could be more efficient and automated.

Relative to the FEMA application, NELHA has obtained the results of a replacement cost study performed by ACM. This is the estimated cost required to relocate and construct the three buildings lost in Puna at the Kona facility. The results of this draft study indicate that it will cost \$6.621M. Of this, the direct costs would be approximately \$4.3M and indirect costs would be a little over \$2M. The study will be finalized and

submitted to FEMA shortly. We continue to work the insurance issue with the State of Hawaii, although do not know how this is going to work out. NELHA will be following an expedited, alternative funding process with FEMA. The risk with this process is that it is a fixed amount. If the relocation cost is higher than our consultant estimates, we would have to obtain the additional funds to cover the difference. None the less, we are comfortable with the cost estimate that we have received from our consultant. The overall process of replacing the buildings looks good, although is likely to take some time to sort out.

Director Cysewski asked how large the Puna Visitor's Center and Warehouses 1 & 2 buildings are in terms of square footage. Mr. Barbour responded by saying the Visitor's Center is approximately 1,000 sq. feet and would be reconstructed adjacent to the northwest end of the the public beach complex parking lot of in Kona. The Visitor's Center could be by the Friends of NELHA during the day for NELHA tours and rented to the local community in the evenings or on the weekends for weddings, baby luaus, graduation ceremonies or other special functions. Warehouse #1 (former power plant building) is approximately 2,500 sq. ft. and Warehouse #2 (former research center building) is approximately is about 3,500 sq. ft. All in all, we are very pleased with the assistance and professional support we have received from FEMA.

The next printing of the NELHA Annual Report is in progress.

In relation to the legislature, NELHA has no bills or budget requests to submit this session. Greg Barbour has been meeting with several key legislators and will continue meet with key committee chairs throughout the session to keep them informed of our activity and major projects.

9. Announcements

No announcements were given.

10. Adjournment

Chair Rosehill entertained a motion to adjourn the meeting. Director Evans moved this motion, which was seconded by Director Hilton. A vote was taken, and the motion passed unanimously, 8-0.

The meeting was adjourned at 12:18 p.m.