Kaua‘i Island Utility Cooperative

Currents

West Kaua‘i Energy Project
Going with the flow and more

Pu‘u Lua Reservoir

Pu‘u ‘Ōpae Reservoir

Mānā Reservoir
2899 Aukoi Street, Lihue


Pikake Lot on Makaa Street, Lihue.

Excellent Location if you are looking for greenery and views in the middle of Lihue! Beautiful level lot with over a quarter acre of land. Located at the far end of the Pikake Subdivision. Very convenient location and just minutes to Kalapaki Beach and close to Kukui Grove Shopping Center and all the conveniences of Lihue! $459,000(fs).

6111 Lokomaikai Place, Wailua Homesteads.


4597 Ehako Street, Lawai

Tons of potential for this large home in Lawai Valley Estates! Very spacious 4 bedroom, 2 bath home with carport and large level yard on a corner lot! Sold As-is. Property needs work but has a lot of potential!! $600,000(fs). As-is.

Plantation Hale A-4

Excellent Opportunity to work from home for an affordable condo on Kauai! Beautiful ground floor corner condominium located on the Coconut Coast! Sold completely furnished and turn key and ready to move in. Existing reservations and bookings to be honored by buyer. $278,000(fs).

4597 Ehako Street, Lawai

Tons of potential for this large home in Lawai Valley Estates! Very spacious 4 bedroom, 2 bath home with carport and large level yard on a corner lot! Sold As-is. Property needs work but has a lot of potential!! $600,000(fs). As-is.
Save postage, get your Currents online

Currents is mailed quarterly to members of Kaua’i Island Utility Cooperative. This issue and back issues also are available online at www.kiuc.coop.

If you would like to help the cooperative save paper and postage, you can receive Currents via email or simply read it on our website. Just send a note to currents@kiuc.coop and we will take you off the mailing list.

We’re also open to story ideas, letters and suggestions. And we’re always looking for new recipes. Thank you for reading Currents.
Chairman’s Message

If you were asked to associate an image or a person with KIUC, chances are you would picture a lineworker. As the most visible employees of the co-op, lineworkers work tirelessly to ensure our community receives uninterrupted power 24/7.

“Lineworker” is listed as one of the top 10 most dangerous jobs in the United States. This is understandable, as they perform detailed tasks near high-voltage power lines. Regardless of the time of day, having to brave stormy weather and other challenging conditions, lineworkers must climb 40 feet in the air, often carrying heaving equipment to get the job done.

Being a lineworker is not a glamorous or easy profession. It takes years of specialized training, ongoing education, dedication and, equally important, a sense of service and commitment. How else can you explain the willingness to leave the comfort of your home to tackle a challenging job in difficult conditions, when most are sheltering comfortably at home? This dedication and sense of service to the community is truly what sets them apart. That’s why we set aside the second Monday in April to celebrate and recognize the men and women who work around the clock to keep the lights on.

While lineworkers may be the most visible employees at KIUC, it’s important to note there is a team of highly skilled professionals working behind the scenes. Engineers provide ongoing expertise and guidance on the operations side of the co-op. Member service representatives are always standing by to take your calls and questions. Our information technology experts continuously monitor our system to help safeguard sensitive data. These are just a few of the folks who work together to ensure we can deliver the service and reliability you expect and deserve. Without them, our lineworkers wouldn’t be able to bring light to our community.

Our dedicated and beloved lineworkers are proud to represent KIUC, and they deserve all the appreciation and accolades that come their way on Lineworker Appreciation Day.

On April 12, and any time you see a lineworker, I hope you will join me in thanking them for their exceptional service. I also hope you remember you have a dedicated team of professionals working behind the scenes at the co-op. Their commitment to service runs just as deep.

Me ke aloha pumehana,
Allan A. Smith

2021 KIUC BOARD OF DIRECTORS ELECTION RESULTS

Incumbent directors David Iha, Janet Kass and Teofilo Phil Tacbian have been reelected to the KIUC Board of Directors and will serve a three-year term ending March 2024.

Merriman River Group, a Connecticut-based election management firm, conducted the election. The firm submitted the official results for the 2021 board of directors election. The results are:

1. David Iha, 3,595
2. Teofilo Phil Tacbian, 3,449
3. Janet Kass, 3,168

KIUC mailed 26,506 ballots and received 4,360 responses, with a 16.45% turnout.

The reelected board members will be inaugurated March 18 via Zoom at the annual meeting of the board of directors.
Below is a summary of some of the actions taken by the KIUC Board of Directors in November and December 2020, and January and February 2021.

### November 23, 2020, Board Meeting
- Motion carried, 2021 board committee and monthly meeting dates.
- Motion carried, Board Resolution 05-20, sale of Isenberg lot.
- Motion carried, 2021 Kaua‘i United Way, KIUC matching donation (member services board approval request form).
- Motion carried, Board Policy No. 4, committees; reviewed, approved with proposed changes.
- Motion carried, Board Policy No. 20, appointments to fill board vacancies; reviewed, approved with proposed changes.
- Motion carried, defined terms for all policies; reviewed, reapproved with strategic plan included.
- Motion carried, board resolution 06-20, Judge Laureta.
- Motion carried, construction work plan, reviewed.

### December 11, 2020, Special Board Meeting
- Motion carried, approval of Board Resolution 90-20, West Kaua‘i Energy Project.

### December 18, 2020, Board Meeting
- Motion carried, approval of Board Resolution 07-20, 2021, results of operations budget.
- Motion carried, approval of Board Resolution 08-20, 2021, capital budget.
- Motion carried, PMRF Substation, additional $1.35 million (engineering, BAR).
- Motion carried, COVID loss gross margin; motion that staff evaluate the options for whether we are required to retire patronage capital on the basis that includes loss gross margins.
- Motion carried, Board Policy No. 4, board committees.

### January 28, 2021, Board Meeting
- Motion carried, Kaua‘i Brewers revolving loan fund loan, $465,000 (member services, BAR).
- Motion carried, budget variance request for 2020 HCP OPEX, additional $120,000 (other, BAR).
- Motion carried, budget variance request for 2021 HCP OPEX, additional $500,000 (other, BAR).
- Motion carried, Board Policy No. 4, board committees; reviewed, approved with proposed changes.
- Motion carried, decision to refund Ulupono’s investment of $100,000 for the West Kaua‘i Energy Project.

### February 25, 2021, Board Meeting
- Motion carried, donation of a KIUC utility pole to the County of Kaua‘i for the North Shore Police Station for them to install.
- Motion carried, 2020 corporate performance results.
- Motion carried, 2021 corporate performance targets.
- Motion carried, 2021 69kV transmission insulator replacements, $400,000 (transmission and distribution department, BAR).
Be Prepared and Be Safe

By Cal Murashige

Recent severe weather events on the mainland—and the resulting extended utility outages—remind us it’s important to always be prepared. Fortunately, we’re buffered from winter storms like those that swept through much of the continental United States in February. However, as we all know, we’re still vulnerable to catastrophic events. With hurricane season right around the corner, it’s a good time to revisit basic preparedness tips.

Preplanning is the key:

- Know the procedures for emergency conditions and if your home is in an inundation or flood zone.
- Make a plan to shelter in place or have an evacuation plan.
- Secure important documents and keep them in a safe place.
- Cut back trees and shrubs and secure or store loose objects around your home.
- Have an emergency kit with a minimum of 14 days of food, water and other supplies.
- Keep in mind that power outages are always possible, and plan accordingly:
  - Protect your appliances and sensitive equipment from power outages and surges that may occur because of bad weather by using surge protectors.
  - During a storm, turn off and unplug all unnecessary appliances or equipment.
  - If you must evacuate, turn off the electricity and shut off your gas before you leave.
  - Keep a portable battery-powered radio and flashlights on hand with extra batteries.
  - When the power comes back on and is steady, gradually plug in your appliances.

In the event of high winds, objects can come into contact with overhead lines and electrical equipment, causing power interruptions. Sometimes during high winds, power lines are knocked down. If you see any lines from utility poles on the ground, stay at least 30 feet clear, assume they are dangerous and call 911.

Look for more preparedness tips on KIUC’s website under “Storm Sense” on the Community page, and on the Kaua‘i Emergency Management Agency’s website at www.Kauai.gov/KEMA.
Sharing of Aloha Gives Back to Community

The Hawai‘i Foodbank of Kaua‘i, Kaua‘i Independent Foodbank and Malama Kaua‘i are recent recipients of KIUC’s Sharing of Aloha funds.

Sharing of Aloha committee members presented each nonprofit with a check for a little more than $2,100.

“In 2020, applications were down, so at the end of the year we had additional funds,” says SOA Committee Chair Steve Tangalin. “The committee brainstormed what to do with the remaining funds. We decided that because of the pandemic, the monies would do the most good at the food banks and Malama Kaua‘i to support their food hub project.”

Sharing of Aloha keeps with one of the seven cooperative principles, “Commitment to Community,” and exists to help various local nonprofit organizations that contribute to Kaua‘i’s quality of living. It consists of an employee committee that meets monthly to review applications for the benefit of our community.

In 2020, some of the groups who were awarded monies from SOA were:
- All Saints Episcopal Church
- Chiefess Kamakahelei Middle School
- Department of Education – Kaua‘i District
- Flow Kākou Inc.
- Friendship House
- Hawai‘i Children’s Theatre
- Historic Waimea Theatre & Cultural Arts Center
- Island School
- Kalāheo Missionary Preschool
- Kapa‘a High School Project Grad
- Kaua‘i Animal Education Center
- Kaua‘i High School Boosters, Inc.
- Kaua‘i High School Project Grad
- Kaua‘i Planning & Action Alliance Inc.
- Kaua‘i Sail Association
- Kaulana Kīlauea
- Park Rats Baseball
- UH Foundation (Kaua‘i Community College)
- Waimea Project Graduation
- West Kaua‘i Business & Professional Association

The Kaua‘i Independent Foodbank and the Hawai‘i Foodbank of Kaua‘i serve our food infirm community. Malama Kaua‘i’s food hub helps our local farmers and community by providing a place to be sustainable for our island.

Applications for Sharing of Aloha are available at kiuc.coop under Community. ☛
Kaua`i Humane Society
Free & Low-Cost Community Services
808-632-0610 | www.kauaihumane.org

- Spay/Neuters starting at $25
- Microchips $20
- Low-cost vaccines starting at $15
- Flea treatment starting at $15
- County pet licenses starting at $17
- Pet Food Pantry
- Animal control services
- Dog park memberships & day passes
- Pet Boarding
- End of life services

Save Our Shearwaters

Initiated by the Hawai`i Dept. of Land and Natural Resources in 1979 to respond to the annual grounding of light-attracted fledgling shearwaters and petrels. SOS is predominantly funded by Kaua`i Island Utility Cooperative and based out of the Kaua`i Humane Society. Visit @SaveOurShearwaters on Instagram/Facebook to learn more about SOS and the native species they care for!
Small Steps Lead to Big Progress

By Jan TenBruggencate

KIUC’s leadership in renewable energy isn’t news anymore. For years, our community has been a national champion for its aggressive shift away from fossil fuels.

That leadership continued in 2020. We reached an annual rate of renewable energy generation of at least 60%, twice the state’s mandate of 30% and outpacing our own strategic goal of 50%.

That’s the average across the year. To get there, we ran at 100% renewable during daytime hours when our many solar facilities were pumping energy. We did that on 280 separate days—often for five or more hours each day—for a total of 1,497 hours.

Meanwhile, our reliability—measured in outage hours per member—was the best in the nearly 20-year history of Kaua‘i Island Utility Cooperative.

We are moving forward and improving our renewable statistics.

We had a full year of production from the 20-megawatt AES Lāwa‘i solar plus battery project, and construction was completed on the 14-megawatt AES solar array and substation at the Pacific Missile Range Facility. Both have robust battery capacity, allowing renewable dispatch at night.

Our membership is also doing its part. KIUC led the state in new rooftop photovoltaic permits in 2020, with 1,006. That represents an increase of 57% from 2019.

Our West Kaua‘i Energy Project is the next step and should bring us to more than 80% renewable in a few years. This project’s key feature is the connection of legacy sugar plantation reservoirs and using solar power to pump water from lower to higher elevation reservoirs in the daytime, then run that same water back down through a generator at night. This water battery system is called pumped storage. In 2020, we filed permits for the project with the Public Utilities Commission are proceeding with needed environmental studies.

By working together, we will continue to make significant progress in 2021.

Aerial view of the AES Lawai solar plus storage facility. Photo courtesy of AES.

Aerial view of the Tesla solar plus storage facility in Kapaia. Photo courtesy of Tesla.
KIUC Solar Water Heating Rebate and Interest-Free Loan Process

A water-heating rebate or interest-free loan is available to KIUC members who want to replace an existing electric water heater or an existing solar water heater that is nonfunctioning and more than 15 years old. New construction does not qualify. To start the process and qualify, you must call a participating contractor.

**Rebate**

*Obtain Bid(s)/Sign Rebate Application*

You are not required to get multiple bids, but it is recommended. Once you choose a contractor, have them complete an incentive application form. This form needs to be signed by the legal property owner, and the landlord/tenant information must be provided, if applicable. Your contractor will submit the following to KIUC:

- Rebate application form signed by property owner.
- System bid signed by contractor.
- Form 1 (solar system sizing form).
- Solar system schematic (drawing of proposed system).

*Receive Authorization Letter*

The authorization number on the letter will commit program funds to your solar system for 45 days. If the system has not been installed by the expiration date, your rebate application will be canceled, and the funds will be made available to other participants. In some instances, a rebate application may not be accepted. If so, you will receive a letter explaining why your application was denied.

*Schedule System Installation with Your Contractor*

Call your contractor, tell them you have received your authorization letter and schedule a date to have your system installed.

*SCHEDULE A POST-INSTALLATION VERIFICATION*

When your system is completed, call KIUC at 246-4300 to schedule a post-installation verification. You will be notified if your system has met program specifications. Systems with deficiencies must be corrected by your installing contractor within 30 days to receive approval for the rebate.

**Interest-Free Loan**

KIUC partners with Gather Federal Credit Union to offer co-op members an interest-free loan for those who want to install solar water heating. The loan funds for the solar system are provided through Gather FCU, and KIUC will pay the loan interest charges for qualified borrowers. The loan must be paid back by the applicant/borrower within a five-year period.

*Contractor Bid/Credit Application*

Contact KIUC’s participating contractors to obtain a bid for your solar system. Once you know how much the system costs, complete a credit application from Gather FCU and return it to them.

*Loan Approval*

Loan approval is based on a combination of factors, including income, credit and employment history. Gather FCU will let you know if you meet their standards and qualify for the loan.
**System Installation**

You will be notified in writing when your loan is approved. Contact your contractor, who will complete a KIUC incentive application, which you must sign. They will forward the application to KIUC. Once KIUC receives the application, an authorization letter will be mailed to you. Upon receipt, contact your contractor and arrange for the solar system installation.

When your system is completed, call KIUC at 246-4300 to schedule a post-installation verification. You will be notified if your system has met the program specifications and is approved. Systems with deficiencies must be corrected by your contractor within 30 days.

**Loan Payments/Billing**

You will be billed monthly by Gather FCU. Loan payments must be made directly to them. Payments for the loan will not appear on your KIUC electric bill. Loan payments for solar systems should not be mailed to KIUC or paid in our office.

**Frequently Asked Questions**

**Q: May I participate in both the rebate and loan programs?**

*A: You may participate in either the rebate or the interest-free loan program but not both.*

**Q: How do I receive my $1,500 rebate?**

*A: Your contractor will deduct the rebate from the total cost of the installed system. The rebate should appear on both your contractor’s invoice and the incentive application as a reduction to the cost of the total system, including parts and labor.*

**Q: Do I have to make a down payment for the interest-free loan?**

*A: You are not required to pay the contractor a down payment for the system. KIUC’s program offers 100% financing through Gather FCU according to no interest to qualifying members. The contractor will be paid the full amount for the system after KIUC has verified it has met program specifications.*

**Q: Am I required to get multiple contractor bids?**

*A: You are not required to submit multiple contractor bids to KIUC. However, you may want to interview more than one contractor to learn as much as you can about solar water heaters and shop around for the best price.*

**Q: Does the contractor need to pull a permit?**

*A: Yes, according to County of Kaua‘i building codes.*

**Q: May I choose a contractor who is not on the list?**

*A: If the contractor is not a participating contractor with KIUC, your rebate or loan will not be approved. However, you may want to interview more than one contractor to learn as much as you can about solar water heaters and shop around for the best price.*

**Q: Who may I call if I have questions about either process?**

*A: Call KIUC at 246-4300.*

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**Heat Pump Water Heater Rebate Process**

Are you considering a heat pump water heater instead of solar? A heat pump is not as efficient as rooftop solar, but may be a cheaper option to install and still save money on your electric bill. It is a viable alternative when considering your budget or when solar isn’t practical. The ideal location for a heat pump is a room that is at least 10-by-10-by-7-feet, or any open area, such as a carport or garage.

Use this checklist to help you through the heat pump rebate process.

- Have an existing electric, solar water heat pump water heater. Propane water heaters and new construction do not qualify.
- Buy a qualifying heat pump water heater and have it installed by a licensed plumber and participating contractor.
- Go to kiuc.coop to download a rebate application.
- Complete the application. Return it to KIUC with a copy of the invoices showing purchase and installation prices.
- KIUC will process your request and mail you a rebate check for $500 within 30 to 60 days.

All rebates are contingent upon the availability of program funds. KIUC reserves the right to adjust or discontinue rebates at any time without notice.

**Energy Wise Participating Solar Contractors**

- Arroyo’s Plumbing: 808-634-5635
- Capitol Solar Energy: 303-907-5748
- Poncho’s Solar Service: 808-422-4266
- Sun King: 808-245-6579 or 877-786-5464
- Tome’s Plumbing: 808-335-3550

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**Energy Wise Guys**

*Kyle & Makani*
The power of partnerships was on full display as a small group gathered near the Anahola Solar Field on a sunny day in December. The COVID-compliant event brought together representatives from KIUC, the Department of Hawaiian Home Lands and the Anahola Hawaiian Homestead Association to break ground on KIUC’s new east-side service center.

“Moving out of the current location in Kapa’a has been a goal for several years,” says KIUC President and CEO David Bissell. “The Anahola Service Center will help us better serve these areas in a facility that meets our operational needs, and also provides benefits for the community of Anahola.”

The facility will be built on 4.5 acres of land leased from DHHL adjacent to the KIUC substation serving the Anahola Solar Farm. In addition to providing more space than the Kapa’a Service Center, the new facility will include a community meeting room that may be used by the beneficiaries of the Hawaiian Homes Commission Act and the Anahola community.

“We appreciate the support from DHHL in relocating the service center, as well as our continuing partnership with the Anahola Hawaiian Homestead Association and the Homestead Community Development Corporation,” David says. “The Anahola Solar Farm has been a true collaboration that continues to benefit this community and all of our cooperative members.”

Kaua‘i-based Cushnie Construction Co. was awarded the bid for completion of site improvements. Locally owned Kalani Construction will build the facility.

“We’re so pleased the work is staying on Kaua‘i during this time when our economy needs the boost,” David says.

“We’ve been operating out of the current location in Kapa’a for more than 60 years, and it’s no longer able to meet our needs,” says John Cox, KIUC’s transmission and distribution manager.
The new center will serve as a staging area for T&D operations and will house KIUC’s distribution planning team. The expanded site will serve as a storm preparation area and equipment depot for hurricane season. John notes response times to outages on the north shore should improve when the impact of Kapa’a traffic congestion is eliminated.

The center will include:
- 6,600 square feet of garage and workshop space.
- 5,500 square feet of office space, which will include offices, storage, a utility room, an information technology room, a workroom for KIUC’s distribution planners, a workroom for KIUC’s line crew and a community conference room.
- 3,200 square feet for a materials and tools warehouse.
- 44,000 square feet for a driveway and parking lot.
- 24 employee parking stalls.
- 24 guest and public parking stalls.
- 6,400-square-foot pole storage area.

The community conference room will measure 20-by-50-feet. It will be available during regular business hours by advance scheduling and subject to KIUC policies. The room will have a separate entry to ensure the community has access without interfering with KIUC’s utility operations or compromising utility security. The room will include separate restrooms and a small kitchen, as well as video monitor and Wi-Fi capability. Tables and chairs will accommodate seating for approximately 50 people.

The project includes installation of a new waterline along Kuhio Highway, with a fire hydrant next to the building to enhance firefighting capabilities in the immediate area. Traffic impacts will be mitigated via a 20-foot-wide, double-lane entrance and exit from Kuhio Highway.

KIUC expects the project to cost approximately $9 million, and for construction to be complete later this year.
It’s a reliable and renewable energy technology that has been employed around the globe for more than a century. But on Kaua’i, it’s getting a brand-new twist. “Coupling pumped storage hydro with solar and storage hasn’t been done before, and we feel we can show the world that it can work—right here on Kaua’i,” says KIUC President and CEO David Bissell.

The West Kaua’i Energy Project has been in development for nearly a decade. It involves the use of legacy plantation irrigation infrastructure—three reservoirs and the ditches that connect them—to bring water down from the mountains of Kōke’e to the plains of Mānā for hydropower production. The key to this project is using solar coupled with battery energy storage to pump the water back uphill during the day, then release it at night for a controlled flow leading to an influx of firm, renewable energy to the grid.

The project took a big step forward in December. That’s when KIUC signed a development agreement and power purchase agreement with AES Clean Energy and filed both documents with the Hawai’i Public Utilities Commission, putting WKEP in motion for a targeted completion date in 2024.

“WKEP is so important to KIUC and our members throughout the island,” David says. “It’ll not only bring us to more than 80% renewable production, it will also open up agricultural lands, protect our natural resources and enhance recreational experiences in Kōke’e.”

How Does It Work?

WKEP involves the use of three state-owned reservoirs from Kōke’e to Mānā. Starting from the top of the system, water from streams in Kōke’e will be delivered to Pu’u Lua Reservoir to be stored via a ditch system. Water will then be delivered via several miles of buried pipeline to a Pu’u ‘Ōpae Reservoir. A 4-megawatt hydroelectric turbine at Pu’u ‘Ōpae will provide flow-through power generation.

The water will continue downhill through more buried pipeline to Mānā Reservoir, where a 20-megawatt hydroelectric turbine will produce the bulk of the project’s electricity. Adjacent to the Mānā Reservoir, a 35-megawatt solar plus battery storage system will generate the power to pump water from Mānā back up to Pu’u ‘Ōpae during the day. At night, pumped water stored at Pu’u ‘Ōpae will be released to produce firm, renewable power.

“Pu’u ‘Ōpae acts as a battery,” says Brad Rockwell, KIUC chief of operations. “It gets filled—or charged—each day so the stored energy can be used overnight or across a period of days in times of emergency or extended periods with no sunlight.”

Community Benefits

The project has a relatively small footprint, but spans miles of land owned by three state agencies: the Department of Land and Natural Resources, the Department of Hawaiian Home Lands and the Agribusiness Development Corporation.
At the highest elevation is DLNR’s Pu’u Lua Reservoir, a popular seasonal fishing resource. Pu’u Lua will be refurbished to increase the capacity and provide a more accessible and user-friendly experience for the public.

Further down the system, DHHL’s Pu’u ‘Ōpae Reservoir will be refurbished and placed back in service, delivering irrigation water to agricultural lands, allowing greatly expanded use for farming and homesteading.

At the bottom of the system, Mānā Reservoir, owned by ADC, will be rehabilitated to augment agricultural production on the Mānā Plain. As a bonus, firefighting capabilities on the west side and in Kōke’e will be enhanced by the availability of reservoir water.

**Protecting Natural Resources**

As part of the project, KIUC will modify existing diversions to meet interim instream flow standards as prescribed by Commission on Water Resource Management through a mediation agreement. The agreement, approved by CWRM in April 2017, amended the instream flow standards for the Kōke’e diversions from the Waimea River and its tributaries, ensuring enough water remains in the streams to protect the health of these water resources. The amount of water use for WKEP was included in the mediation agreement.

The key parties in this mediation agreement were KIUC, Po’ai Wai Ola/West Kaua’i Watershed Alliance, the Agribusiness Development Corporation, the Department of Hawaiian Home Lands and the Kekaha Agriculture Association.

WKEP will reduce fossil fuel use by more than 8 million gallons a year on Kaua’i, with an estimated annual reduction of about 80,000 tons of carbon emissions.

**Building on Success**

“We’re pleased to be working with KIUC on a third renewable energy project,” says Woody Rubin, AES clean energy chief development officer.

Two AES solar plus storage facilities—one in Lāwa’i and one at the Pacific Missile Range Facility, Barking Sands—have helped bring Kaua’i to more than 60% renewable generation in the past two years.
“AES has extensive experience developing and operating hydro facilities in addition to solar,” Woody says. “To be able to couple solar with pumped storage hydro for the first time is very exciting.”

**What Will WKEP Cost?**

WKEP is expected to save KIUC and its members $157 million to $172 million versus the projected cost of diesel during the 25-year power purchase agreement term. AES will fully fund, develop, own and operate the project. KIUC will buy the solar power from AES at a fixed price per megawatt hour, which is at least 30% lower than any of KIUC’s currently operating utility-scale solar facilities.

A hydropower capacity charge will be paid for maintaining 24 megawatts of firm renewable capacity, along with 240 megawatt hours of long-duration storage daily. In times of emergency, more than 1,300 megawatt hours of storage via water in the Pu’u Lua reservoir can be used.

AES is able to monetize the available federal and state renewable energy tax credits, which are not available to KIUC as a nonprofit cooperative, and pass those savings through in the rate charged to KIUC for the project.

The average annual cost for the operation of WKEP is $150 per megawatt hour.

“WKEP is competitively or lower priced than all other renewable generation sources currently in service for KIUC, and offers many additional benefits to grid operations, the environment and the community at-large,” David says.

**Leaving a Legacy**

By meeting up to 25% of Kaua’i’s energy needs, WKEP will substantially reduce KIUC’s carbon footprint and provide grid stability that can’t be realized with solar alone. The project will be a legacy generation facility. It is expected to serve Kaua’i’s energy needs for 100 years or more while stabilizing rates over time.

KIUC will have the opportunity to buy back the project after tax credits are monetized by AES, making it likely the cooperative will eventually own the project. WKEP will create economic development opportunities for Native Hawaiians and the west-side communities of Waimea and Kekaha.

KIUC’s Board Chair Allan Smith, who was born and raised on Kaua’i’s west side, sums up the project.

“This project should be a point of pride for every member-owner of KIUC,” he says. “It’s the embodiment of leaving a place better than you found it.” ☉

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**Exterior View of the Pu’u ‘Ōpae Powerhouse**
Remember the last airplane ride you took before COVID?

As you fasten your seatbelts you hear from the overhead speakers, “if cabin pressure becomes low, face masks will drop from the ceiling. Please secure the mask on yourself before helping others”

For the next few minutes you will go through a journey learning about what you can do to prevent heart disease so you can be there for your family.

Cardiovascular disease and stroke are the leading causes of death, responsible for an estimated 17 million deaths every year worldwide. In the United States about 1 out of 3 people will die of heart disease. In Hawai`i heart disease is the leading cause of death with almost 4,000 deaths a year due to cardiovascular disease and stroke. About 22 percent of all Hawai`i hospital costs or over 18,000 hospitalizations per year are from heart disease.

The good news is that cardiovascular disease is largely preventable. Start with knowing your risk for heart disease. The more risks you have, the greater your chance of developing coronary heart disease – a common term for the buildup of plaque in the heart’s arteries that could lead to a heart attack. You will learn that some risks cannot be changed but many risk factors can be managed and controlled.

You may be born with certain risk factors that cannot be changed.

• **Increasing Age** - The majority of people who die of coronary heart disease are 65 or older.
• **Male gender** - Men have a greater risk of heart attack than women do, and men have attacks earlier in life.
• **Heredity (including race)** - Children of parents with heart disease are more likely to develop heart disease themselves.

Because you can’t control your age, gender, family history, or race, it’s even more important to control and treat the modifiable risk factors you can.

Major risk factors you can control:

• **Smoking/Vaping** – Cigarette smoking/Vaping is a powerful independent risk factor for sudden cardiac death in patients with heart disease. Exposure to other people's smoke increases the risk of heart disease even for nonsmokers. If you smoke quit. If you need help quitting, ask your doctor for help.
• **High blood cholesterol** – As your blood cholesterol rises, so does your risk of coronary heart disease. Combined with other risk factors (such as high blood pressure and tobacco smoke) increases this risk even more.
• **High blood pressure** – High blood pressure increases the heart’s workload, causing the heart muscle to thicken and become stiffer. The stiffening of the heart muscle is not normal and causes the heart to function abnormally. It also increases the risk of kidney failure, stroke, and heart problems.
• **Physical inactivity** – A sedentary lifestyle is a risk factor for coronary heart disease. Regular, moderate to vigorous physical exercise helps reduce the risk of heart disease. Physical activity can help control blood cholesterol, diabetes, and obesity. It can also help to lower blood pressure in some people.
• **Obesity and being overweight** – People with excess body fat – especially if a lot of it is at the waist – are more likely to develop heart disease and stroke, even if those same people have no other risk factors.
• **Diabetes** – Diabetes is a group of diseases that result in too much sugar in the blood (high blood glucose). Even with glucose levels under control, diabetes increases the risk of heart disease and stroke. The risks become greater if blood sugar is not controlled.
OLIVE OIL
is a heart healthy fat made from smashed olives. Use this in place of butter when cooking!

UNSALTED WALNUTS
are packed with omega-3's and a small handful makes a great tasty snack!

SALMON
is rich in a heart-healthy fat called Omega-3's. Did you know the American Heart Association recommends two servings of salmon or other oily fish every week?

FRESH HERBS
Use these in place of salt with meals to enhance the flavor of your dishes!

BLUEBERRIES
are packed with antioxidants and are so versatile! You may add them to oatmeal, smoothies, baked goods or simply enjoy a handful for a yummy sweet snack!

Food tastes even better when prepared and shared together! ♥

Good nutrition is vital to good health. Eating a healthful diet of vegetables, fruits, healthy fats and whole grains can reduce your risk of obesity and other diseases such as heart disease and diabetes.

Here are my top five favorite heart healthy food picks to include in your diet!

Monica Moore, MS RD
Regional Dietitian, HHSC - Kaua‘i Region
What are the steps we can take?

So now we know about the risks of heart disease, The American Heart Association (AHA) recommends 8 steps to a healthier heart. My practical approach are as follows:

1. **Know your risk.** The AHA refers you to a heart risk calculator “heart.org/ccccalculator”. See your doctor regularly, who can help you understand your heart risks including family history and lifestyle. Your doctor could also review the heart calculator with you to answer any questions you may have.

2. **Eat a healthy diet.** If there is a take away message here, eat more plant based proteins, such as fruits, vegetables, and nuts. Choose lean animal proteins and fish. Avoid sweetened drinks, processed foods with more than 5 ingredients. Read the food labels watching for the sodium and saturated fats, especially avoiding trans fat. If you are someone that need a diet to follow, I recommend the “Mediterranean diet”.

3. **Be physically active.** The current minimum is to strive for 150 minutes of moderate-intensity aerobic activity or 75 minutes of vigorous activity a week. This could be done with 30 minutes of brisk walking for 5 days a week. Activity trackers are becoming more affordable and offer motivation and reminders to keep you active. Everyone should strive for 10,000 steps a day.

4. **Watch your weight.** Ask your doctor about your body mass index (BMI) and where you should be. If you’re overweight, lose weight keeping in mind that exercise alone will usually not offset the amount of food you eat. Sustained weight loss of even 3 to 5 percent could help reduce your heart risks and even help with blood pressure.

5. **Live tobacco-free.** Don’t smoke, vape, or use tobacco products. Ask for help if you can’t quit on your own.

6. **Manage conditions.** When you see your doctor, he or she will most likely start with a blood pressure reading, perform a history and physical exam, and ask you to get some blood tests. This will help identify if you have diabetes, high blood pressure, and/or high cholesterol all heart risks that can be controlled with lifestyle changes, diet, and medications.

7. **Take your medications.** If your doctor prescribes medications to help control blood sugar, cholesterol, and blood pressure, take all medications as instructed. If you are unclear about why you are taking a drug, its side effects, interactions, or need clarification on how to take your medication, you should ask either your doctor or pharmacist. Remember the most effective drug is only as good as your ability to take it.

8. **Be a team player.** Your doctor can provide you a personalized health plan if you participate in your health care decisions. Ask questions. Nurses, pharmacists, community health workers, health coaches, and other professionals can work with you and your doctor to help you achieve your health goals.

So now after about 15 minutes of learning about the heart risks, we know how to help ourselves improve our heart health, so we can offer help to our families by sharing this new information.

Should you feel this journey prompts you to take action, call your provider today! If you don’t have one, call us at (808) 338-8311. Our primary healthcare clinics are located across Kaua`i island for your convenience.

![Contact Information](images)
In early 2020, the KIUC Charitable Foundation granted $2,000 to help kickstart the ‘Ohana Readers project on Kaua‘i’s west side.

“We’re excited to be able to help the ‘Ohana Readers get started on Kaua‘i,” says Teofilo Phil Tacbian, KIUC Charitable Foundation president. “Dolly Parton’s Imagination Library is a nationally recognized program that has partnered with cooperatives throughout our nation. We’re fortunate that we have partners who are helping to provide this service for our keiki and our community.”

‘Ohana Readers was launched by first lady Dawn Amano-Ige on Molokai in October 2019. This literacy program offers free books each month to registered children from birth to age 4 1/2. The program operates in partnership with the Dolly Parton Imagination Library and local organizers, including the Hawai‘i State Library System, Friends of the Library of Hawai‘i and Learning to Grow. The program is free for participants.

The ‘Ohana Readers grant application states, “Research shows that children are ready to learn in their earliest years, and this program provides no-cost opportunities (for families) for learning from birth to 4½. ‘Ohana Readers encourages family read-aloud time, an activity that increases vocabulary and language skills of our children and contributes to their growing knowledge of the world.”

The KIUC Charitable Foundation contribution will pay for mailing the books to Kaua‘i participants. The foundation is governed by 11 directors and comprised of KIUC directors, KIUC employees and community members. The foundation is funded in part by unclaimed refunds that would have previously been turned over to the state, and from the Makana Program. None of these funds come from KIUC assets.

Families with children ages birth to 4½ years old with a mailing address in the Kekaha zip code (96752) should contact the Waimea Public Library at 338-6848 for more information on the ‘Ohana Readers project.

First Lady Dawn Amano-Ige met with KIUC Charitable Foundation board members to talk about the ‘Ohana Readers program.
Where Are They Now?

Kristin Sugihara, Youth Tour 2011

By Beth Tokioka

Q: Tell us about your college experience.
A: After high school, I still wasn’t 100% sure what I wanted to study. I knew wanted to do something creative, so I enrolled in an art school and chose what I thought was the most interesting field off of a list: advertising. One of my ad teachers encouraged me to challenge myself and take some classes at San Diego Portfoli Studio to better my portfolio and start my professional network. During this time, I interned at a couple advertising agencies, entered and won some awards for my student work, and became one of the country’s 50 most promising multicultural students. Overall, it was a great experience. I’m so grateful I was able to find mentors and colleagues who believed in me and helped me figure out what I want to do.

Q: What did you do after college?
A: After college, I immediately started my career at a San Diego advertising agency, Vitro. I was a junior art director and worked alongside my copywriting partner on accounts such as Caribou Coffee, Brandman University, Adidas Golf, University of California San Diego and more. We quickly learned how to ideate an ad campaign from start to finish and came up with things like TV commercials, billboards, print ads, and all that fun stuff (if you seen Mad Men, it was like a modern day version of that). We had this motto of “Never settle,” which basically means to push and challenge yourself to be the best version of you. My first job was a lot of work, but I definitely came out stronger and it set me up for the rest of my career.

Q: What are you doing now?
A: Now I’m a senior art director at another San Diego advertising agency called Greenhaus. I work primarily on tourism and real estate clients. Because these are more destination clients, I try to travel to different places and enjoy the outdoors by visiting national parks and taking road trips to other states. I’m also heavily involved in a hula and Tahitian dance group in San Diego, and spend a lot of time harassing (I mean playing with) my corgi pup.

Q: How has the COVID-19 pandemic impacted you?
A: Since the pandemic, I’ve been working from home full-time and adapted to online workouts and hula/Tahitian classes. California was hit pretty hard, but this allowed me to take a step back and truly appreciate life and all the
relationships I have. I haven’t been able to go back to Kaua’i since 2019, but thankfully technology has kept me connected to family and friends. I can’t wait until I’m able to hop on a plane again to see my mom, dad, sister, family and eat some ono food!

Q: What are your future goals and plans?
A: I’d love to return back to the islands one day. I want to take what I learned throughout my career and give back to the place that raised me. Ideally, I’d love to help promote the mission of local or cause/nonprofit organizations and help give a voice to the “little guys.” I’m still trying to figure out the best way for me to do that, but for now I’m continuing my advertising journey and learning all that I can.

Q: How has the Youth Tour experience impacted your journey since high school?
A: The Youth Tour impacted my life in many ways. It opened my eyes to a world full of rich history, hope and motivation to create a bigger and brighter future for generations to come. It made me realize that as young as we are, we are the future faces of this country and have the ability to make a real difference in society. I may not be directly involved in U.S. politics, but I’m able to take my skillsets and what I learned in school to try and influence positive change. Visiting D.C. as an impressionable junior in high school was the perfect time to help me see my potential and envision the type of life I want to live.

Q: Can you share any words of wisdom with young people who are soon to graduate high school to pursue a career?
A: A coworker told me, “You have more freedom than you’re using.” To me, that means we create our own limitations. I think growing up on an island has made us very humble and helped us develop strong values, which is an excellent skillset and something we should never lose hold of. But in order to reach your fullest potential or get what you want, you have to do something that scares you and push boundaries. It’s definitely terrifying at first, but so worth it at the end.

Q: Any other thoughts you’d like to share?
A: I’m incredibly grateful for the opportunities and support from my family, friends and all of Kaua’i. The journey to where I am today might’ve not always been clear, but I can confidently say that everyone had a hand in shaping me and helping me become the person I am. It really does take a village to raise a child, and I’m so glad it was all of you. I’m also so appreciative for everything KIUC does to make it feel like we’re all one big Youth Tour ohana, whether we went back in 2011 or 10 years later in 2021. Mahalo! 😊
**Steamed Ulu With Coconut Milk**

1 mature ulu  
1 can coconut milk  
2 tablespoons sugar or less, to taste  

Choose a mature ulu, with sap oozing (not soft or ripe). Cut off the stem, then cut in quarters, keeping the skin on. Steam ulu for 15 to 20 minutes. When you start the timer to steam the ulu, start on the sauce. Pour the coconut milk and sugar into a pot and heat on low. Slice the length of the vanilla bean to expose the inside and add to the coconut milk. If you do not have a vanilla bean, use vanilla extract.

Keep heat low and do not boil. If it starts to boil, turn off heat and let sit while the ulu steams. Stir often. When the ulu is done, remove from steamer. Let rest until cool. Remove skin and spongy center. Cut into small chunks and put on serving platter. Some of the ulu might be mushy and will need to be spooned. It is good to have a mix of both. Remove the vanilla bean from the sauce. Scrape the seeds from inside the bean into the coconut milk and stir. Pour the sauce over the ulu and add a pinch of salt. Serve warm.

*Recipe compliments of Nālani Kaneakua*

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**Instant Pot Veggie Pasta**

1 pound pasta  
1 jar tomato basil pasta sauce  
½ cup red wine  
½ cup water  
1 can diced tomatoes  
1 onion, chopped  

Place Instant Pot in sauté mode. Add olive oil, onion, garlic, spinach and zucchini. Heat mixture for about 4 minutes until onion becomes soft. Add uncooked pasta, pasta sauce, tomatoes, wine and water to Instant Pot. Stir mixture and heat. Hit cancel, then turn to manual high pressure for 6 minutes. Close cover until cooked, then do a quick release.
Lamb Vindaloo

1 boneless leg of lamb, cut into 1½-inch cubes
Salt
Pepper
4 tablespoons olive oil, divided
3 onions, chopped
8 garlic cloves, minced
2 tablespoons paprika
1 tablespoons cumin
½ teaspoon cardamom
¼ teaspoon cayenne
2 cups chicken broth
14.5-ounce can diced tomatoes
2 bay leaves
2 tablespoons red wine vinegar
1 teaspoon sugar
¼ cup flour
4 carrots, cut into ¾-inch pieces
2 zucchini, cut into ¾-inch pieces

Clean lamb, trim fat and dry with paper towels. Season with salt and pepper, and lightly coat with flour. In a skillet, heat 2 tablespoons oil on medium-high heat. Add lamb to skillet and cook until browned. Transfer lamb to crock pot.

Return skillet to medium heat and add 2 tablespoons oil, ½ teaspoon salt and onions. Cook onions until brown, then add garlic, paprika, cumin, cardamom and cayenne. Add chicken broth, tomatoes, bay leaves, vinegar and sugar. Turn on high heat and bring to a boil. Remove from stove and transfer to crock pot.

Cover and cook on low for 6 to 7 hours or on high for 4 to 5 hours. About halfway through, add carrots and zucchini.

Instant Pot Mashed Potatoes

6 medium gold potatoes, washed and cut in quarters
½ cup whole milk
2 teaspoons sea salt
½ stick butter
Salt
2 teaspoons sea salt

Place cut potatoes in Instant Pot with water and salt. Water should cover the bottom of the pot at least ¼ inch. Place on manual high pressure for 10 minutes with the pressure valve closed. Allow the pressure to naturally release for 3 to 5 minutes, then do a quick pressure release. Drain water from pot. Add milk and butter, and mash to desired consistency. Add salt to taste.
Like many organizations on Kaua‘i, KIUC continues to be affected by the loss of sales due to the coronavirus pandemic. The year-to-date electricity use on the island is 16% lower than in 2020. In addition, payment delinquencies, which would have resulted in service limitations or disconnections as of the end of February, were nearly 18 times higher than average. KIUC has suspended service limitations and disconnections through May 31, 2021, in response to COVID-19 financial impacts to members. However, in its latest order, the Hawai‘i Public Utilities Commission has indicated that, as of June 1, 2021, the suspension will be lifted and all members with past due balances of 60 days or more must pay their outstanding balance or be on a payment plan.

KIUC is doing everything it can, while maintaining safety and reliability, to reduce costs in various areas to operate efficiently and effectively and continue to maintain a strong financial position. The cooperative’s financial team continues to work closely with its lenders and regulators to mitigate the financial effects of the coronavirus pandemic. As a result of these actions, revenues, expenses and net margins totaled $23.5 million, $22.6 million and $0.9 million, respectively, for the two-month period ending February 28, 2021.

As is the case for all electric utilities, the cost of power generation is the largest expense, totaling $11.8 million or 50.2% of revenues. Commodities, which are fuel and purchased power costs, are the largest component of power generation, totaling $9.8 million or 41.5% of revenues. Fossil fuel is the largest component of commodities, totaling $3 million or 12.7% of revenues. Other commodities include hydro power, totaling $1.8 million or 7.7% of revenues; solar power, totaling $2.6 million or 11% of revenues; and biomass power, totaling $2.4 million or 10.1% of revenues. The remaining $2 million or 8.7% of revenues represents the cost of operating and maintaining the generating units.

The cost of operating and maintaining electric lines totaled $1.2 million or 5.3% of total revenues. The cost of servicing our members totaled $0.4 million or 1.8% of revenues. The cost of keeping our members informed totaled $0.1 million or 0.4% of revenues. Administrative and general costs, which include legislative and regulatory expenses, engineering, executive, human resources, safety and facilities, information services, financial and corporate services, and board of director expenses, totaled $3.6 million or 15.3% of revenues.

Being capital intensive, depreciation and amortization of the utility plant costs $2.5 million or 10.5% of revenues. Although not subject to federal income taxes, state and local taxes amounted to $2 million or 8.4% of revenues. Interest on long-term debt, at a favorable sub-5% interest rate, totals $1 million or 4.4% of revenues. Nonoperating net margins added $0.03 million to overall net margins. Revenues less total expenses equals margins of $0.9 million or 3.8% of revenues. Margins are allocated to consumer members and paid when appropriate.

### PERCENTAGE OF TOTAL REVENUE

- **Commodities-Fossil Fuel** — 12.7%
- **Commodities-Hydro** — 7.7%
- **Commodities-Solar** — 11.0%
- **Commodities-Biomass** — 10.1%
- **Production, Operation and Maintenance** — 8.7%
- **Transmission & Distribution Operation & Maintenance** — 5.3%
- **Member Services** — 1.8%
- **Communications** — 0.4%
- **Administrative & General Net of Non-Operating Margins** — 15.2%
- **Depreciation & Amortization** — 10.5%
- **Taxes** — 8.4%
- **Interest** — 4.4%
- **Net Margins** — 3.8%
Suspension of Disconnects Extended

In light of continued economic hardship for some members caused by the coronavirus pandemic, the Hawai‘i Public Utilities Commission has ordered the continued suspension of service disconnections for Kaua‘i Island Utility Cooperative members through May 31, 2021. The suspension of service disconnection will apply to both residential and commercial customers.

Please note, bill payments have not been waived, and past-due amounts will grow over time if no payments are made. In its latest order, the PUC has indicated that, as of June 1, 2021, the suspension will be lifted and all members with past-due balances of 60 days or more must pay their outstanding balance or be on a payment plan.

Members with a past-due balance are encouraged to contact the Member Services department as soon as possible to set up a payment plan. Call 246-4300 during regular business hours, Monday through Friday from 8 a.m. to 4 p.m.; or email info@kiuc.coop.

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Get instant online and mobile access to your KIUC account with SmartHub.

Using our SmartHub is quick, easy and secure!

Considering a career in civil, mechanical or electrical engineering, construction management or architecture?

SCHOLARSHIPS AVAILABLE

Contractors Association of Kaua‘i (CAK) Scholarship Program

Applications available at Waimea High, Island School, Kaua‘i High, Kapa‘a High, Kamehameha Schools Kaua‘i region office, Kaua‘i Community College trades program staff, or by calling the Contractors Association of Kaua‘i at (808) 246-2662.

Application deadline: Tuesday, April 27, 2021

Applicants: High school seniors intending to major in a construction related field of study, college undergraduates with a declared major in a construction field of study or post-graduate students doing advance degree work in a construction related field. Construction related field of study includes: civil, mechanical or electrical engineering, construction management, architecture, landscape architecture or design, construction trades.
Storm Recovery Efforts

KIUC members can prepare themselves for the impacts of storms and possible power outages as follows:

- **Protect your appliances and sensitive equipment from power outages and surges that may occur because of bad weather by using surge protectors.**
- **During a storm turn off and unplug all unnecessary appliances or equipment.**
- **Keep a portable battery-powered radio and flashlights on hand with extra batteries.**
- **In case of loss of power, when the power comes back on and is steady, gradually plug in your appliances.**

Line crews repaired faulty transformers in Hanalei despite weather-related road closures that limited access to the area.