

June 2019

Kaua'i Island Utility Cooperative

CURRENTS

KIUC's Landscapers On Duty



Inside:

*Profile: Key Accounts Executive Ed Nakaya
Is It Getting Windy? Be Prepared*



Aloha Island Team



KAREN L. AGUDONG, REALTOR(B)

RB-17447

808-652-0677 • email: karen@alohaisland.com



HOOKENA AT PUHI #802, LIHUE

Very nice 3 bed / 2.5 bath townhome with single car enclosed garage and outdoor Lanai. Great location overlooking the Grove Farm Greenbelt! \$465,000(fs). Call: Karen L. Agudong, REALTOR(B) 652-0677 or email: Karen@Alohasland.com.



COMING SOON!

5070 NONOU ROAD, WAILUA HOUSELOTS

2 Homes in Wailua Houselots located near the park!

Great opportunity to live in one and rent the other! 1 bed / 1 bath & 2 bedrooms / 1 bath. On the market as of June 1. \$595,000(fs). Call: Karen L. Agudong, REALTOR(B) 652-0677 or email: Karen@Alohasland.com.



IN ESCROW

HALELANI VILLAGE #A104, LIHUE

2 bedroom, 2 bath ground floor condominium unit near the Community College and shopping. Great opportunity! \$319,500(fs). Call: Karen L. Agudong, REALTOR(B) 652-0677 or email: Karen@Alohasland.com.



IN ESCROW

1389 HONO OHALA PLACE, KAPAA

Beautiful location along a country road in Wailua Homesteads on a small cul-de-sac street. Seller is under contract to install a water meter before the close of escrow at Seller's expense. \$289,000(fs). Call: Karen L. Agudong, REALTOR(B) 652-0677 or email: Karen@Alohasland.com.



YOUR PROPERTY HERE!

Looking to sell your home? Inventory is low and buyers are looking to purchase property before the interest rates go up. Please contact Karen for a FREE comparative market analysis of your property.

EXP REALTY • KAREN L. AGUDONG • MAILING ADDRESS: PO BOX 3255, LIHUE, HI 96766

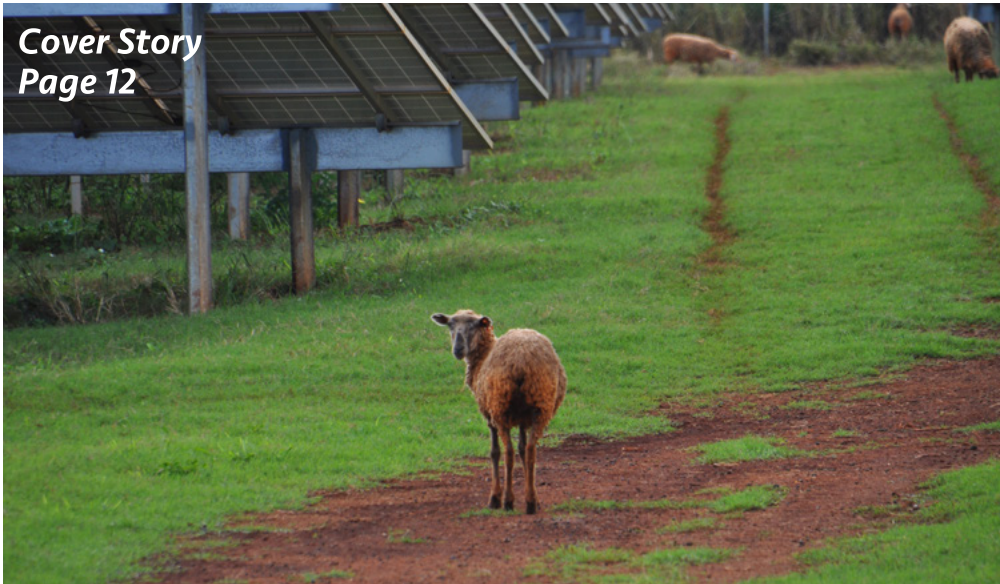
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KAREN L. AGUDONG, REALTOR(B) "ALOHA ISLAND TEAM" EXP REALTY (808) 652-0677.

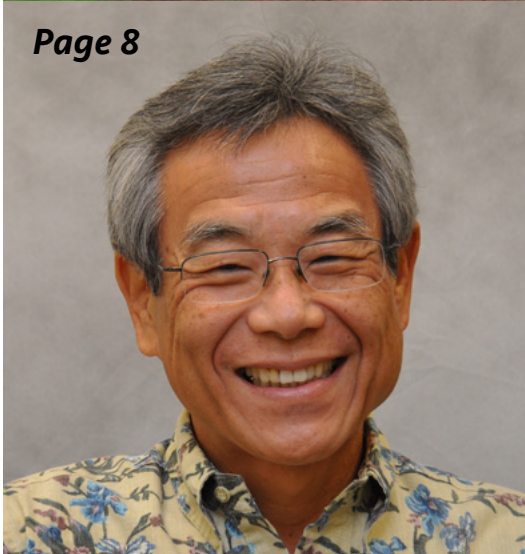
Corporate Address: 2970 Kele St. Suite 118 Lihue, 96766

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EDITOR

Beth Tokioka

CONTRIBUTORS

Jennifer Brown, Amy Doubet-Devitt, Karissa Jonas, Carolyn Larsen, Ron Mizutani, Shelley Paik, Jan TenBruggencate, Peter Yukimura

ON THE COVER

Hundreds of sheep help KIUC and its partners keep solar facilities in top shape. Cover photo by Christian Kahahawai of Kahahawai Photography.

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.



Only active KIUC members will be mailed KIUC Currents. KIUC Currents can be found online at www.kiuc.coop under News and Currents.

KIUC is an equal opportunity provider and employer.



From the Chairman

On a recent sunny day, representatives from KIUC, AES Distributed Energy and the Pacific Missile Range Facility gathered in Kekaha to participate in a blessing and kick off construction on Kaua'i's next major renewable project. It was obvious to all that this is an ideal place to harvest energy from the sun and take another leap toward our goal of reaching 70% renewable by 2030.

At the same time, our various work groups were busy making preparations for hurricane season. This ritual is familiar to our island community and one that I know we all take very seriously.

Planning for the sun and preparing for the rain is a practice that serves all of us well, particularly here at your cooperative. Equal energy must be applied toward meeting our aspirational goals and being ready to deal with challenges along the way. Our members depend on us to provide power that is clean and reliable. These are foundational elements of your board of directors' strategic plan, and we are committed to following our plan.

We are in the process of reviewing progress on the strategic plan (which can be found under the "About KIUC" tab on our website), and we look forward to sharing that with you in the coming months. In the meantime, you'll have the perfect opportunity to hear from the cooperative and interact with board and staff at the Annual Membership Meeting on July 31. We encourage you to attend.

As we move into summer, we hope that you find time to enjoy life's many blessings with family and friends. Before you venture out, make sure you're prepared with sunscreen and an umbrella—that way you'll be covered no matter what happens. You can be assured we'll be doing the same.

Mahalo nui loa,

Allan Smith

Board Actions

Below is a summary of some of the actions taken by the KIUC Board of Directors in March and April 2019.

March 26, 2019 Board Meeting

Motion carried 2019 Budget Amendment, Asplundh 2019-2024 tree-trimming contract, additional \$150,000.

Motion carried 2019 Budget Amendment, Asplundh 2019 specialty climber contract, additional \$50,000.

Motion carried Board Policy No. 12, code of ethics development and management, reviewed no substantive changes.

March 26, 2019 Annual Meeting of the Board of Directors

Motion carried reaffirm the board officers along with the board committee chairs and members, to match what has been in place since March 2018.

April 23, 2019 Board Meeting

Motion carried 2018 final audit report.

Motion carried Resolution 01-19, 2018 patronage capital retirement of \$2,534,014, reviewed, amended as noted, approved as amended.

Motion carried Board Policy No. 16, access to cooperative information, reviewed, amended provision of cost of copies.

Motion carried Board Policy No. 22, information flow to directors, reviewed, no substantive changes.



KIUC Surpasses Renewable Energy Goal

By Jan TenBruggencate

Directors Jan TenBruggencate (center) and Peter Yukimura chat with U.S. Sen. Mazie Hirono at a recent visit to the AES Lāwa'i solar plus storage facility.

It was just nine years ago that KIUC adopted an impossibly aggressive renewable energy standard.

It was a standard our cooperative surpassed this year—by a lot, and years early.

In those days, KIUC was running 6 to 8% renewable energy. More than 90% of our electricity was generated from fossil fuels.

In its 2008 strategic plan, the KIUC Board of Directors adopted an ambitious new renewable energy goal, which would be embedded within nearly every aspect of its strategic planning.

That goal was to use renewable resources to generate at least 50% of Kaua'i's energy by 2023. That target far surpassed all statewide clean energy goals in place at the time.

No one at KIUC knew if that goal was achievable or how to do it. We just knew we were committed to figuring it out.

A decade later, the KIUC team has figured it out. With a diverse mix of hydroelectric power, solar power, batteries and biomass—along with an aggressive energy-efficiency program—we crossed that 50% threshold this year. As this is written, we're running at about 55% renewable, with more coming.

One of the goals a decade ago was to reduce carbon emissions to below 1990 levels. We did that a few years ago. Those emissions are still dropping as we use less and less fossil fuel.

Our updated strategic plan goal today is to reach 70% renewable by 2030. We think we'll probably hit that one early as

well, and we have a better idea how to do it than we had in 2008.

Now we have a big new challenge. The ultimate goal is 100% renewable, and we don't yet know what that looks like.

At first glance, it looks like solar power plus batteries might get us there, but what do you do about a couple of weeks of cloudy weather when the solar panels won't recharge the batteries? It doesn't look fiscally responsible right now to build weeks of battery storage.

For now, we have our old fossil fuel plants as backup. We are aggressively scanning the landscape for new and better solutions that meet our goals of clean, affordable, reliable electrical power for our members. ♻️



Save the Date

Kaua'i Island
Utility Cooperative's
Annual Meeting 2019

Wednesday, July 31, 2019

Kaua'i War Memorial
Convention Hall

Doors open at 5 p.m. with music by Kūpaoa
Meeting at 6 p.m.

For more information, call 246.4300 or visit www.kiuc.coop

2019 BON DANCE SCHEDULE

May	17	Mahelona Hospital
May 31-June 1		Kauai Soto Zenshuji Temple
June	7-8	Koloa Jodo Mission
June	14-15	WKH - Hanapepe
June	21-22	Lihue Hongwanji
June	28-29	Waimea Shingon Mission
July	5-6	*** NO BON DANCE, have a safe July 4th ***
July	12-13	Kapaa Jodo Mission
July	19-20	Waimea Higashi Hongwanji
July	26-27	Kapaa Hongwanji
August	09	Kauai Veterans Memorial Hospital

All Bon Dance start@ 7:30 p.m., unless otherwise noted & Obon services are held prior





By the Numbers

by Peter Yukimura

My friends and colleagues have always considered me to be a “numbers” guy. For most of my professional life, I managed small- and medium-sized businesses on Kaua’i. As a business person, if you don’t have a handle on numbers, you won’t survive.

That’s why numbers recently shared with the KIUC Board of Directors by senior management gave us great confidence and hope for the future. Allow me to share them with you:

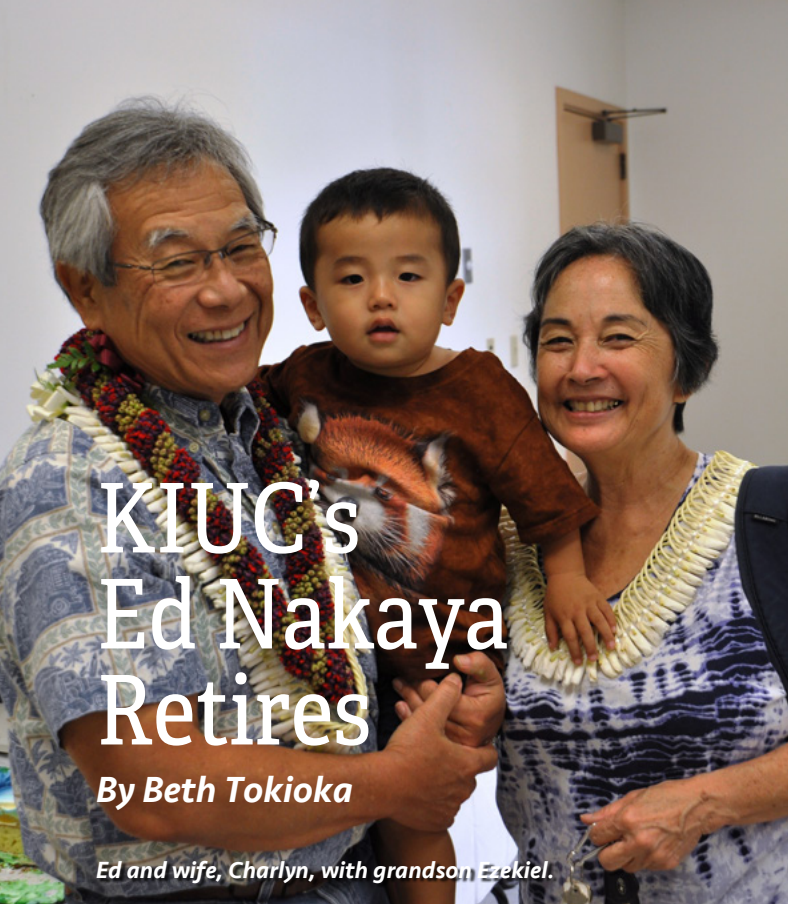
- **Reliability.** In 2018, KIUC had the best reliability statistics in the state. Average outage hours per customer on Kaua’i were 11% lower than O’ahu, 52% lower than Hawai’i Island, and 76% lower than Maui.
- **Renewable generation.** KIUC closed 2018 having generated 43.5% of its electricity from renewable sources. So far in 2019, we have increased renewable generation to 55%.
- **Solar penetration.** We have more than 100 megawatts in solar generation capacity on Kaua’i. Roughly 36% of that total comes from distributed sources (i.e., rooftop solar), both residential and commercial.
- **Patronage capital retirements.** Based on 2018 financial results, the KIUC board will retire \$2.5 million in patronage capital to members this year, bringing the total retirements to \$29.8 million since the cooperative was established. A full 21% of KIUC’s margins earned since formation have been returned to members via patronage capital retirements.

Your KIUC Board of Directors is steadily moving forward with a strategic plan seeks to improve the quality of life for

KIUC’s members by safely providing reliable, clean power that is competitively priced, while encouraging conservation and protecting our environment. We are proud of the progress we’ve made and know there is much work to be done.

Member support and involvement is critical to our continued success. We hope to see you at our annual membership meeting in July to share more information and have the opportunity to hear directly from you. 🌱





KIUC's Ed Nakaya Retires

By Beth Tokioka

Ed and wife, Charlyn, with grandson Ezekiel.

It was November 1982, and Ed Nakaya was a few short months into a newly created position at Kaua'i Electric. Then fate—or perhaps more accurately, Mother Nature—stepped in.

“My job was brand new at Kaua'i Electric, involving consumer services and system improvements,” Ed recalls. “Then Hurricane Iwa hit. The next day, I was tasked with setting up a phone bank to manage the influx of customer calls.”

Within days of the storm and in the midst of a massive recovery effort, Ed became the voice of Kaua'i Electric, providing periodic updates on radio station KTOH with Kaua'i's legendary deejay, the late James “JK” Kennedy. It's a role Ed embraced again in 1992 following Hurricane 'Iniki.

After four decades of service, with a company ownership change and two major hurricane restorations under his belt, Ed is looking forward to retirement next month.

“I was fortunate to be given an opportunity at KE/KIUC, where as an unlikely electric utility worker, I could add value by showing up, listening, learning and serving,” he says.

Being a link between Kaua'i's electric utility and the community has been central to Ed's work throughout the years. Whether he is consulting with large customers on their energy use,

making presentations in schools or collaborating with partner agencies, Ed's commitment to service and love for his work is evident.

In the immediate aftermath of Hurricane 'Iniki in 1992, Ed played a critical role in restoring power to medical facilities in Līhu'e and Kapa'a, according to Troy Branstetter, director of facilities management for Wilcox Health Systems.

“Mr. Nakaya was also a pioneer that helped pave the way to many improvements on the Wilcox campus, both with reliability and technology,” Troy says.

Ed was born in Waimea and raised in Pakala. He earned a bachelor's degree in psychology and sociology from University of Hawai'i at Mānoa, with the goal of becoming a clinical psychologist. After working for several years in the health services field on O'ahu and Kaua'i, his career track led him to KE/KIUC, where, Ed quips, “I'm still a social worker.”

He went on to earn both a bachelor's and master's degree in business administration from UH.

A self-proclaimed lifelong learner and advocate for educational opportunity, Ed has devoted significant energy to his role on the Kaua'i Economic Development Board's Education Committee since 2005.

“Ed Nakaya is a true champion, supporter and friend to our Keiki and 'ohana in education,” says Kaua'i Complex Area Superintendent Bill Arakaki. “He understands the needs of our schools, administrators, teachers and staff. His involvement with KEDB and many other community initiatives has inspired youth to pursue their dreams through a quality education.”

“I'm grateful that I've been allowed to do fulfilling work in alignment with my personal values,” Ed says. “Not everyone gets that chance.”

Anticipating retirement with more time for family, learning and community engagement, Ed reflects fondly on his years with KIUC.

“All of this was unexpected,” he says. “I never sought it. Nevertheless, I'm grateful. Somehow it's been a good fit.” 🌺



Ed discusses key accounts with Energy Service Supervisor Debra Santiago.

LIHEAP

LOW INCOME HOME ENERGY ASSISTANCE PROGRAM

Do you need help with your utility bill? The federal Low Income Home Energy Assistance Program (LIHEAP) assists low income households with a one-time annual credit on their electric bill. Kaua'i Economic Opportunity (KEO) will be accepting applications from June 1st through June 29th. You must meet certain criteria to qualify.

Please call KEO at 245-4077

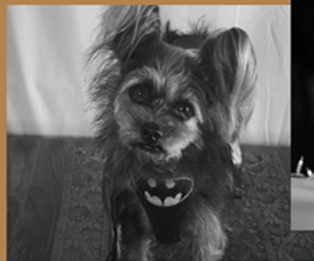


PAWS for celebration

Dinner · Auction · Pet Fashion Show · Awards Ceremony

September 28th, 2019 at 5pm
Kaua'i Marriott Resort

Sponsorship Opportunities and Tickets Available -- bit.ly/pawsforcelebration



kauaihumane.org

Prepare for Hurricane Season

By Shelley Paik

Hurricane season begins June 1 and ends November 20, but can occur before and after the official season. Don't wait until a warning is given to begin making your plans. Know the difference between a hurricane watch and hurricane warning. Have your survival kit ready and know where emergency shelters are located.

Hurricane watch means hurricane force winds may occur within 48 hours.

Hurricane warning means a hurricane is expected within 36 hours.

Tropical depression is a rotating low-pressure weather system that has organized thunderstorms but no fronts with maximum sustained surface winds of less than 39 mph.

Tropical storm is a storm with sustained winds of 39 mph or higher.

Hurricane is an intense, compact cyclones that form over warm, tropical waters and have maximum sustained winds of 74 mph and higher.

Category One: Winds 74 to 95 mph.

Category Two: Winds 96 to 110 mph.

Category Three: Winds 111 to 130 mph.

Category Four: Winds 131 to 155 mph.

Category Five: Winds 155 mph and higher.

Hurricanes affect the ocean surface and lower atmosphere over tens of thousands of square miles, causing strong winds, high surf, heavy rains and tornadoes.

Know the procedures for emergency conditions. If you live in a flood zone or think your home cannot withstand the force of a hurricane, have an evacuation plan ready and share it with your family.

Before leaving home, turn off the electricity and shut off your gas. Take your survival kit and other essential items. If you have a pet, plan ahead and contact the Kaua'i Humane Society for information on people/pet sheltering.

Stay informed and tune in to local media for further instructions. KIUC will post updates on Facebook and be in contact with radio stations with special advisories. General emergency preparedness information can be found on the Kaua'i Emergency Management Agency's website: www.kauai.gov/KEMA.

Also located on the KEMA website is a portal where you can sign up for the County of Kaua'i's Blackboard MyConnect, which will allow you to receive voice, text and/or email notifications about emergency situations and other public alerts within the County of Kaua'i.

Be safe, have a plan in place.

Hurricane Preparation Checklist

- Trim trees around the home, especially those with weak limbs.
- Know where all important documents are.
- Be certain your survival kit is complete.
- Have a carrier for each pet and maintain at least a one-week supply of pet food, cat litter, special medications and other necessary supplies.
- Tie down or store all loose objects.
- Remove and store lanai furniture.
- Store all propane tanks.
- Board up windows.
- Wrap cameras, computers, stereos and other electronic equipment in waterproof sheeting.
- Freeze water to fill up all available freezer space. In the event of a lengthy power outage, frozen foods will stay cold longer in a fully loaded freezer.
- Fill up the gas tank of your vehicle.
- Thoroughly clean and disinfect bathtubs with bleach. Fill with water.
- Fill as many clean containers as possible with water. Do not use milk containers, which have milk residue that makes drinking water unpleasant.
- Line garbage cans with plastic trash bags and fill with water. This water can be used later for non-potable purposes such as flushing toilets.

Survival Kit

In the event of a long-term storm or power outage, everyone must take personal responsibility and have an action plan. To better cope without electricity, make sure your home and office are equipped with power outage kits. Include the following:

- Portable radio.
- Extra batteries.
- Flashlight(s) and candles.
- Manual can opener.
- Sleeping bags or blankets.
- First aid kit, special medications and extra pair of eyeglasses, if you wear them.
- Individuals with special needs should plan ahead for their appropriate medical conditions.
- 14-day supply of non-perishable, ready-to-eat food; an ice chest and ice packs.
- Containers of water; minimum 1 gallon per person per day.
- Change of clothing for each family member.
- Matches or lighter.
- Camp stove, lantern and fuel.
- Masking tape for windows.
- Personal hygiene, sanitary supplies, diapers.
- Bleach.
- Plastic sheeting and garbage bags.
- Whistle.

Important documents

- Identification card or driver's license.
- Credit/debit card numbers.
- Bank account information.
- Medical insurance cards.
- Advance health care directives.
- Copy of title/deed to property.
- Copy of prescriptions (medicine, hearing aids, glasses, etc.)

Important Phone Numbers

KIUC	246-4300
Emergency police, fire, ambulance	911
Kaua'i Emergency Management Agency	241-1800
American Red Cross	245-4919
Hawaii Gas	245-3301
Department of Water Trouble Calls	245-5444
After hours	241-1711
Hawaiian Telcom Repair Services	611
Spectrum	643-2100
Kaua'i Humane Society	632-0610



KIUC's Landscapers

By Beth Tokioka

Some of KIUC's hardest workers have never taken a customer call, read a meter or repaired a line. But they're on duty around the clock and make an important contribution to the cooperative's sustainability goals.

"We have roughly 400 sheep providing landscape maintenance at three of our solar facilities, and they get the job done," says KIUC's Power Supply Manager Brad Rockwell. "Perhaps more importantly, they demonstrate that renewable energy can help agriculture flourish, and vice versa."

Sheep were introduced into the KIUC family in 2014, when the cooperative opened its first utility-scale solar field in Kōloa. Local rancher Daryl Kaneshiro was contracted to manage landscaping operations, which includes a flock of up to 150 sheep. In addition to supporting agriculture, the move was designed to further reduce greenhouse gas emissions by minimizing use of gas-powered landscaping equipment.

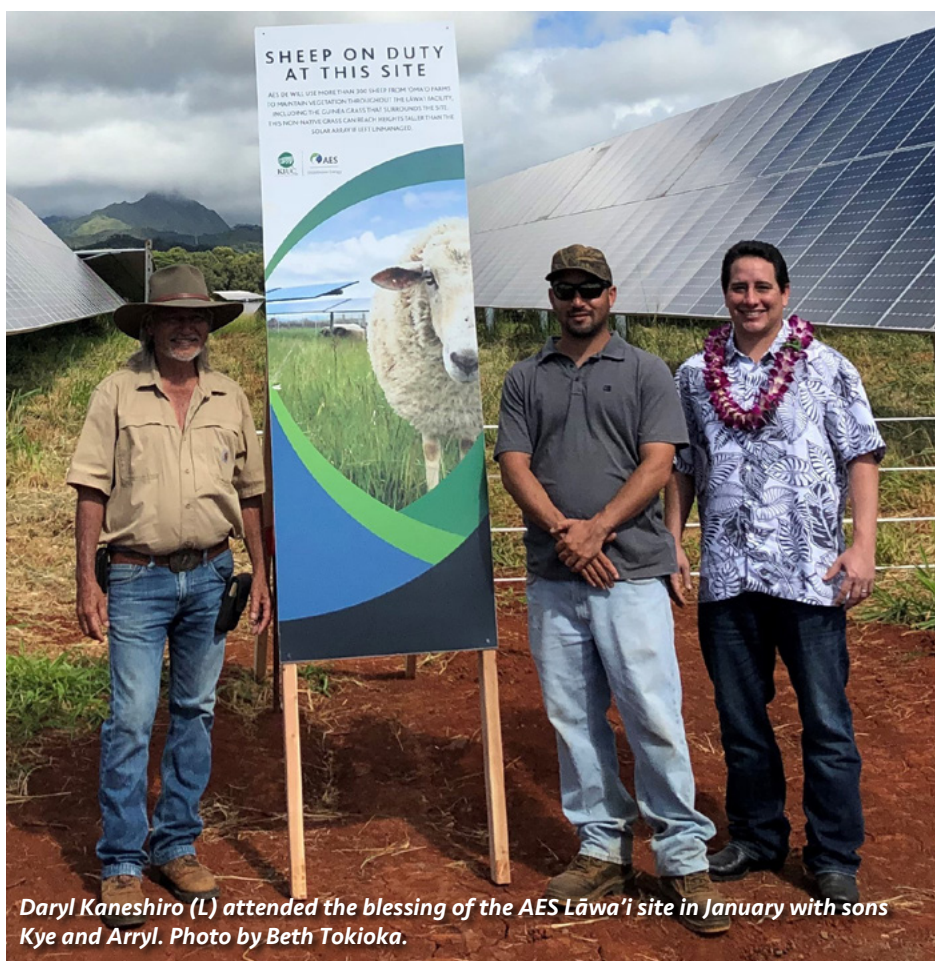
One year later, a similar-sized facility in Anahola on property owned by Department of Hawaiian Home Lands was completed. KIUC hired Anahola resident Jamie Simmons of Jamie's Yard Service to manage the eastside flock, which totals roughly 100.

"We have a number of residential and commercial customers, but the solar facility is my favorite job," Jamie says. "It's quiet, no outside traffic, just the sheep."

Daryl's company, 'Ōma'o Ranch Lands, was contracted by Tesla in 2017 to populate its 50-acre site in Kapaia with up to 150 of the four-legged landscapers during peak operations.

"The size of the flock can fluctuate throughout the year depending on how fast the grass is growing," Daryl says.

He estimates sheep provide roughly 70% of the labor while the rest of the work is completed with mowers and hand tools. Electric fences are used



Daryl Kaneshiro (L) attended the blessing of the AES Lāwaʻi site in January with sons Kye and Arryl. Photo by Beth Tokioka.

to create paddocks—generally four paddocks per site—and the sheep are rotated among the paddocks on a weekly basis.

With 25 years of ranching under his belt, Daryl has a highly efficient system in place. By training them with a distinctive call, the sheep know they're headed for greener pastures and are herded easily to the next paddock.

"They can get under and around the panels better than any mechanical equipment we could use," he says.

Both Daryl and Jamie cite predator control—namely wild pigs and dogs—as a major challenge in maintaining a robust flock. Both rely on hunters to minimize losses. Otherwise, they say, the operations are fairly routine and predictable.

Pairing renewable energy with agriculture is one of the main drivers behind Kauaʻi's move from 8%

renewable generation in 2008 to more than 50% today.

"There's so much fallow agricultural land on Kauaʻi, and utility scale solar requires large acreages," Brad says. "Connecting capable partners like Tesla and AES Distributed Energy with landowners like Grove Farm and Alexander & Baldwin has made all the difference in making these projects feasible and affordable."

AES recently completed construction of a 125-acre solar facility in Lāwaʻi, and plan to use sheep as well.

Approval from the State of Hawaiʻi Land Use Commission was a requirement for most of the projects.

"Creating an agricultural nexus for solar production on these ag lands was important to the LUC and important to KIUC," Brad says. Helping landowners put fallow lands into productive use is a win for all involved, he adds.

Kauaʻi's solar sheep have garnered a following even beyond our shores. On a recent trip to the Garden Island, U.S. Sen. Mazie Hirono toured the AES Lāwaʻi and Tesla facilities and was intrigued by the novel landscaping model they employ.

"I'm impressed with the care and thought put into developing creative solutions, like the use of sheep, to further reduce the carbon footprint of the facility as it comes online, and commend KIUC for their leadership in embracing a renewable future for our state," she said.

Journalist Molly Seltzer, based in Princeton, New Jersey, featured Daryl's 'Ōmaʻo Ranch Lands and its solar facility operations in a story for Smithsonian Magazine last year.

"This project showcases how the community has tapped into the business opportunities that renewable energy projects present," Molly says. "In this case, the solar farm is helping continue the tradition of agriculture, and I loved that aspect of the story."

There's no doubt that this marriage of agriculture with renewable energy has numerous benefits. While Daryl no longer raises sheep for meat production, he donates some to the Kauaʻi 4-H Livestock Club. This allows aspiring young ranchers to gain experience handling the animals, as well as selling meat to raise funds.

Jamie, whose flock is used strictly for grazing, was new to this business when he took it on in 2015. He says Daryl was extremely generous in taking the time to show him the ropes. He credits his work tending the solar farm for growth in his landscaping business and his own family farming operation.

"It's pretty simple from my point of view," Jamie says. "You take care of the land, and the land takes care of you." 🌱

KAUAI BRANCH



By Ron Mizutani, president and CEO, Hawaii Foodbank

The faces of hunger are as diverse as the faces of our beautiful Kaua'i. Hunger can be difficult to see, but it does not mean it is not affecting people around you.

When most of us think about hunger, we visualize a starving child in a third-world country or a homeless man living on a beach, but the face of hunger has changed on Kaua'i. Every day, thousands of Garden Island residents struggle to make ends meet, and many struggle to feed their families.

"We're seeing more and more people in need of food every day on Kaua'i," says Wes Perreira, director of operations on Kaua'i. "Being hungry is not something people ever expect to experience, but it's real and that's why we are here."

Hawaii Foodbank - Kaua'i Branch provides food to more than 13,000



island residents every year, including more than 4,000 keiki and 1,100 kupuna. Last year, Hawaii'i Foodbank - Kaua'i Branch distributed more than 1.4 million pounds of food on Kaua'i, including 178,000 pounds of fresh produce.

Economic hardships can happen any time. We saw it last April during the epic storm that battered Kaua'i's North Shore with nearly 50 inches of rain, and again during the recent government shutdown. These two events reminded us no one is immune to crisis or hunger. "Our government workers appreciated our weekly distributions during the shutdown, and we're still delivering food weekly to 80 North Shore families because people need help," Wes says. "Hawaii Foodbank - Kaua'i Branch has provided about 330,000 pounds of food since last April, and we'll continue to do so until our services are no longer needed."

The organization recently held its 30th annual Food Drive Day at seven sites across Kaua'i, including Princeville



Center, Safeway Kaua'i Village, Safeway Hōkūlei Village and Big Save in Kōloa, 'Ele'ele and Waimea. Wes is grateful for the 130 volunteers who spent their day giving back to the community.

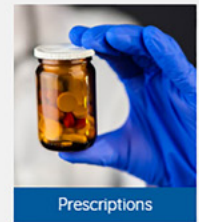
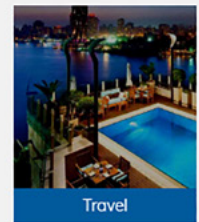
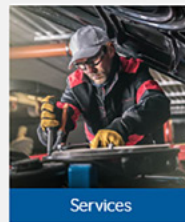
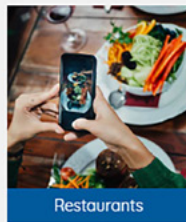
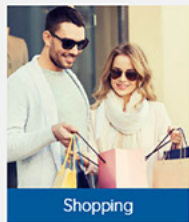
"We had the Girl Scouts and Boy Scouts out there, the Leo Club, our partner agencies and members of the Hawaii Foodbank Kaua'i Branch Advisory Board," Wes says. "Last year, just a few days after the storm, Kaua'i residents and businesses donated nearly 16,000 pounds of food on food drive day. This year, Kaua'i responded with nearly three tons of food. We are so grateful and blessed."

For more information on how you can help, visit www.hawaiifoodbank.org/kauai or call 808- 482-2224. 🌱

Welcome to Co-op Connections®

The free member benefit program that gives you incredible discounts on everyday expenses.

As a valued member of our electric cooperative, we welcome you to Co-op Connections! We're excited to provide you with this exclusive, free membership that has countless benefits. Here are just some of the ways to save - Enjoy!



Download the mobile app.

Take savings with you wherever you go.



You can even print a paper Co-op Connections Card if you like!

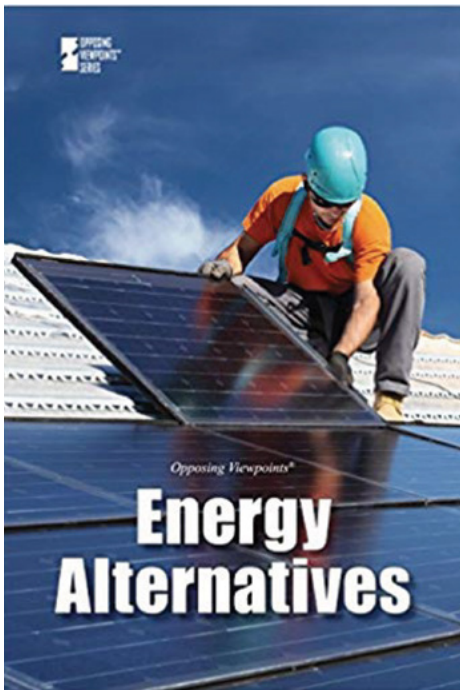


Go to www.connections.coop and Start Saving Today!

“Got Energy Literacy?”

By Carolyn Larson, Branch Manager at Līhu'e Public Library.

Knowledge is power. Līhu'e Public Library partners with KIUC to bring you a broad range of book titles on energy topics available through your Kaua'i neighborhood library. While promoting energy literacy, titles will cover many viewpoints and are not meant to reflect the policies of KIUC or the public library.



Energy Alternatives

From the Opposing Viewpoints Series

Edited by Sylvia Engdahl

Call Number: YA 333.794 En

This primer of readings by multiple authors covers several issues surrounding the implementation, use, economics and regulation of fuels alternative to fossil fuels, such as oil, natural gas or coal. Alternate fuels, usually from nature, are considered more renewable and therefore sustainable. They include solar, wind, water, waves and biomass. The book covers multiple viewpoints. Can alternative energy sources effectively replace fossil fuels? Do the benefits of wind power outweigh its disadvantages? Is utility-scale solar power a practical alternative energy source?

Each volume in the Opposing Viewpoints Series provides access to a wide diversity of opinions, but also stimulates readers to do further research. Reading selections are written by experts, policy makers and concerned citizens, and include complete articles and speeches, book excerpts and occasional cartoons. Introductions to the sections raise good questions but offer no slick answers.

Other good primers on the topic available at Līhu'e Public Library include *Alternative Energy Sources* by Kathiann M. Kowalski or *Renewable Energy in Nontechnical Language* by Ann Chambers. ☼



Sandar Keahi Mendonca
Sandy's namesake nephew



Sandra Mendonca
05.15.1978 – 01.25.2006

SUNDAY, AUGUST 4, 2019
OCEAN COURSE HOKUALA

\$120 per player (\$125 after 7/31)

7:30am Shotgun Start

4 Person Modified Scramble

GO TO YWCAKAUAI.ORG

FOR SPONSORSHIP & REGISTRATION

awards luncheon to follow

proceeds benefit the YWCA of Kaua'i

YWCA IS ON A MISSION TO END VIOLENCE AGAINST WOMEN



We're Looking For You!

We're looking for the following *inactive* members with uncashed refund checks.

A review of our accounts indicate the following INACTIVE members did not cash refund checks that were issued during the period of July 1, 2017, to June 30, 2018. To request that a new check be issued, please complete the form below and submit it to us with a copy of your picture ID.

- | | | | |
|-------------------|---------------------|---------------------|-----------------------|
| Jesse D Odell | Gary Sample | Jennifer P Richmond | Daniel J Fuller |
| Clifford Kiilau | Cecelia Aki | Linda Sexton | Brandon C Miller |
| Yasmina Dodi | Steven Baumgardner | Marcelo Rapanot | Marvin Hardcastle-Orr |
| Sadaya Jaret | Jaimie-Lee M Cacal | Barbara Chauvin | Shirley Montiel |
| Raymond H Aiu | Rouch J Hadrien | Levi Leavitt | Doris Kimokeo |
| Jared A Bradley | Keive W Kauakahi II | John E Amaral II | Dave Biederman |
| Reno Rodriguez | Roman Kleinsasser | Sir Jerico A Aceret | Linda K Kaaumoana |
| Craig Abel | Marta L Barreras | Rogelio V Miguel | Danny F Canon |
| Heidi Marney | Thomas Chandler | Melissa M Chipman | Mikela Kaiwi |
| Matthew R Fendall | Gordon K Rosa | Michael Trethewey | |
| Garland Simpson | Spencer Keenan | Richard L Gregg | |

Please Print:

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Telephone Number: _____

Email: _____

KIUC Account Number: _____

Signature of Member _____ Date _____

MAHALO KIUC



Mahalo for your Support

HO'OIKA'KA
Volleyball Club

SOA committee,

Mahalo nui for your generous monetary donation. With this donation we are able to support a more sustainable lunch program for our keiki by purchasing reusable utensils, which will mitigate our waste!

Me Ka hau'oli,
Mālama Kaua'i Staff
&
Kauaikini NCPCS

5/10/19

Dear KIUC,

Thank you so much for your "Sharing of Aloha" grant. We were able to put it to good use. We replaced a 'climate distressed' chromebook, purchased a new chrome license and bought external keyboards and mice, (for editing and other skills).

These were all greatly appreciated and multiple classes have benefited. Also I would like to give a big 'shout out' to the KIUC admin who helped us with a special project during the year. This in turn has benefited the faculty.

Sincerely,

Brad Williamson
Social Studies, Media and Technology Coordinator,
St. Catherine School, Kapaa.

Thank you
KIUC
St. Catherine School

Mālama Kaua'i
'Āina Community Culture

Rabia Mon
Talon
Bia
Jessie
Jaelyn
Anaka

ありがとう (THANK YOU)

Mahalo for your support!
- Elni

John Balbin

BOYS & GIRLS CLUB OF HAWAII
Kauai Branch

Aloha KIUC, Sharing of Aloha Committee,

Mahalo nui loa for your support this year! We hope you have a relaxing holiday and a happy new year.

With aloha,
The Mālama Kaua'i Team



CAK Home Show:
KIUC Controller Corinne Cuaresma, right, accepts the award for best booth design at the 2019 Contractors Association of Kaua'i Home Show.

Rotary Club of Po'ipū Beach: President and CEO David Bissell addresses the Rotary membership with an update on KIUC's renewable efforts.



KUW Annual Luncheon: KIUC's Tracie Jacintho (far left) accepts the award for the No.1 spot in Kaua'i United Way's Top 15 Employee Giving Groups for its 2018 fundraising campaign. Along with campaign Co-Chair Makani Taniguchi, Tracie led KIUC's efforts in raising more than \$35,000, to support KUW's 25 member agencies.

March for Babies: KIUC team members participate in the annual March of Dimes March for Babies fundraiser at Lydgate Beach Park.



Around the Campfire



Turkey Bean & Quinoa Chili

- 1 tray ground turkey
- 1 can black beans
- 1 can kidney beans
- 1 green bell pepper, chopped
- ½ cup quinoa
- 1 can chili beans
- 1 can refried beans
- 1 packet chili powder
- 1 packet taco seasoning
- 1 teaspoon salt
- 1 can diced tomatoes
- 1 can tomato sauce

In a pot, brown ground turkey with chili powder and taco seasoning. Add salt, diced tomatoes, tomato sauce, black beans, kidney beans, chili beans and refried beans. Bring to a boil. Add quinoa and bell pepper. Simmer for 20 minutes. Serve with cheese or your favorite toppings.

S'mores Dip

- 1 box graham crackers
- 1 bag chocolate chips
- ½ cup peanut butter chips
- 2 tablespoons butter
- ½ bag miniature marshmallows

Heat oven to 350 F. Add the butter to an 8-inch by 8-inch pan and place in the oven. When butter begins to melt, add chocolate and peanut butter chips. Bake for approximately 5 minutes until the chips begin to melt. Top with marshmallows and bake until marshmallows puff up or are golden brown and toasty. Serve with graham crackers.



Tin Foil Cod

- 3 cod filets
- ¼ cup butter, cut into slices
- Garlic salt, to taste
- Lemon pepper, to taste
- Top each filet with a slice of butter. Wrap in foil, and bake for 30 minutes.

Rick's Camp Surprise

- | | |
|---------------------------------------|-----------------------------------|
| 1 can Spam, cut into cubes | 4 cloves garlic, chopped |
| 3 dill pickle spears, cut into chunks | 1 small onion, chopped |
| 1 can chili | 1 can green olives, drained |
| 1 can green beans, drained | 1 teaspoon garlic salt |
| 1 can black beans, drained | 1 teaspoon lemon pepper |
| ¼ cup sliced jalapenos | 1 teaspoon Tabasco |
| 1 can corn, drained | 1 tablespoon Worcestershire sauce |
| 1 bottle salsa | |

In a pan, saute Spam, onions and garlic. When browned, add all other ingredients. Simmer until bubbling.



Tin Foil Salmon Cocktail

- | | |
|--------------------------------|------------------------|
| 4 salmon filets | 4 ounces horseradish |
| 10 ounces spicy cocktail sauce | 1 bulb garlic, chopped |

Combine cocktail sauce, horseradish and garlic. Spoon a layer of sauce on foil, top with fish and cover completely with sauce. Wrap in foil. Grill for 30 minutes or until fish is cooked through.



Canned Hash

- | | |
|-----------------------|-----------------------------|
| 1 can corned beef | 1 pound red potatoes, diced |
| 1 round onion, sliced | |
| | 1 tablespoon shoyu |

In a skillet, saute the corned beef with onions and diced potatoes. Add shoyu to taste. If the corned beef begins to stick to the pan, add a splash of water to deglaze the pan. Cover and heat on low until potatoes are cooked through. Serve.

Every year, KIUC is required by law to provide our ratepayers annual fuel mix and average electric cost information.

HRS [§269-16.4] Annual Fuel Mix Disclosure

- (a) Beginning June 1, 2004, and every June 1 thereafter, each retail supplier of electricity shall disclose fuel mix information by generation category to its existing and new retail electricity customers for the prior calendar year.
- (b) Beginning June 1, 2004, and every June 1 thereafter, each retail supplier of electricity shall state the average retail price of electricity (per kilowatt-hour) for each rate class of service for the prior calendar year. The average retail price of electricity for each rate class of service shall be determined by dividing the total electric revenues for each rate class of service by the total kilowatt-hours sold to each respective rate class.
- (c) The disclosure required by this section shall be:
- (1) Printed either on the customer's bill or as a bill insert; provided that this disclosure requirement shall not result in increased costs to ratepayers; and
 - (2) Posted and updated on the suppliers Internet website, if any.
- (d) As used in this section, the term "fuel mix" means the electricity sold to retail electricity customers expressed in terms of percentage contribution by generation category. The total fuel mix included in each disclosure shall total one hundred percent. [L 2003, c 147, §2]

REVENUE

Rate Class of Service	Schedule	2014	2015	2016	2017	2018
Residential	D	\$68,457,684	\$55,512,573	\$55,787,615	\$58,459,375	\$65,170,080
General Lighting Service	G	\$26,487,476	\$21,661,344	\$21,287,562	\$22,238,251	\$25,055,505
General Lighting Service	J	\$20,541,391	\$16,404,878	\$16,783,317	\$16,437,111	\$17,696,698
Large Power	P	\$43,467,971	\$32,883,320	\$32,657,931	\$34,047,916	\$36,406,460
Large Power	L	\$18,163,410	\$15,063,959	\$15,205,417	\$15,341,807	\$16,782,895
Streetlight	SL	\$1,594,732	\$1,362,924	\$1,268,893	\$708,102	\$719,376
Irrigation		\$38,762	\$59,629	\$16,264	\$143,182	\$361,634
Total Revenue		\$178,751,426	\$142,948,627	\$143,006,999	\$147,375,744	\$162,192,648

KWH SALES

Rate Class of Service	Schedule	2014	2015	2016	2017	2018
Residential	D	159,151,338	161,826,042	163,958,718	169,346,334	174,726,470
General Lighting Service	G	60,426,103	61,801,021	61,187,770	62,824,313	65,473,099
General Lighting Service	J	50,187,490	50,791,819	52,044,639	50,282,542	49,854,166
Large Power	P	109,838,487	104,433,662	106,753,049	108,943,412	107,098,228
Large Power	L	47,426,575	50,125,564	52,481,360	51,926,563	51,409,785
Streetlight	SL	2,768,844	2,780,067	2,564,454	878,661	852,640
Irrigation		124,668	319,884	97,972	896,148	1,699,665
Total KWH Sold		429,923,505	432,078,059	439,087,962	445,097,973	451,114,053

AVERAGE RETAIL PRICE

Rate Class of Service	Schedule	2014	2015	2016	2017	2018
Residential	D	\$0.430	\$0.343	\$0.340	\$0.345	\$0.373
General Lighting Service	G	\$0.438	\$0.351	\$0.348	\$0.354	\$0.383
General Lighting Service	J	\$0.409	\$0.323	\$0.322	\$0.327	\$0.355
Large Power	P	\$0.396	\$0.315	\$0.306	\$0.313	\$0.340
Large Power	L	\$0.383	\$0.301	\$0.290	\$0.295	\$0.326
Streetlight	SL	\$0.576	\$0.490	\$0.495	\$0.806	\$0.844
Irrigation		\$0.311	\$0.186	\$0.166	\$0.160	\$0.213

Fuel Mix Generation*	2014	2015	2016	2017	2018
Biomass	0	5,712,000	5,777,705	48,129,375	51,818,445
Fossil Fuel	373,392,469	350,287,271	291,388,281	287,976,993	299,244,542
Hydro	35,556,586	35,163,744	35,767,255	32,044,403	30,750,088
Photovoltaic**	36,840,330	60,414,488	78,911,992	95,611,554	92,197,763
Total	445,789,385	451,577,503	457,845,233	463,762,325	474,010,838

* Gross Generation kWh

** Prior reports included own-use from customer-sited generation. Starting from the 2012 calendar year report, prior and current data revised to include only surplus energy from customer-sited generation.

Fuel Mix Percentage	2014	2015	2016	2017	2018
Biomass	0%	1%	11%	10%	11%
Fossil Fuel	84%	78%	64%	62%	63%
Hydro	8%	8%	8%	7%	7%
Photovoltaic	8%	13%	17%	21%	19%
Total	100%	100%	100%	100%	100%

Statement of Operations

For the period 01/01/2019 – 04/30/2019

We are pleased to report that the KIUC results of operations through April 30, 2019 are favorable. The year-to-date electricity usage on the island is 3% lower than in the prior year. Even with the decrease in sales volume, KIUC is still doing everything we can, while maintaining safety and reliability, to reduce costs in various areas in order to operate efficiently and effectively, and continue to maintain a strong financial position. Revenues, expenses, and net margins totaled \$46.9 million, \$44.6 million, and \$2.3 million, respectively, for the four-month period ending April 30, 2019.

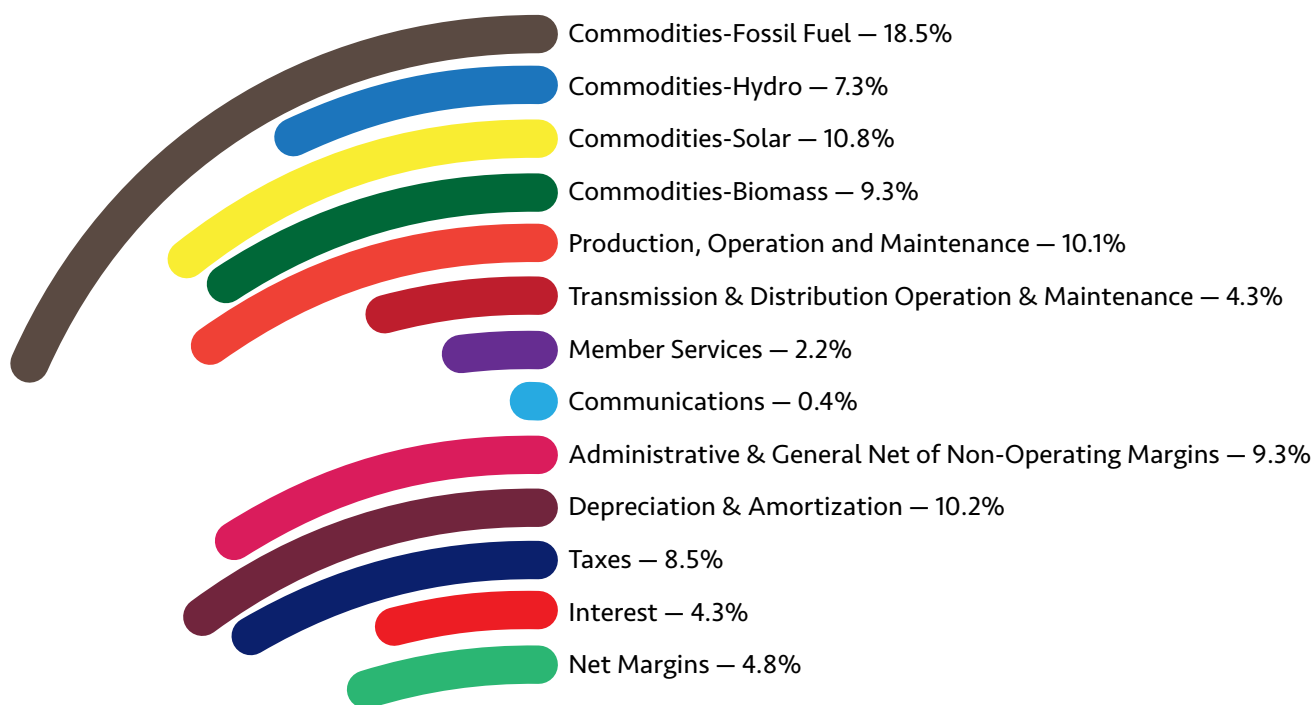
As is the case for all electric utilities, the cost of power generation is the largest expense, totaling \$26.3 million or 56.0% of revenues. Commodities, which are fuel and purchased power costs, are the largest component of power generation totaling \$21.5 million or 45.9% of revenues. Currently, fossil fuel is the largest component of commodities totaling \$8.7 million or 18.5% of revenues. Other commodities include hydro power totaling \$3.4 million or 7.3% of revenues, solar power totaling \$5.0 million or 10.8% of revenues, and biomass power totaling \$4.4 million or 9.3% of revenues. The remaining \$4.8 million or 10.1% of

revenues represents the cost of operating and maintaining the generating units.

The cost of operating and maintaining the electric lines totaled \$2.0 million or 4.3% of total revenues. The cost of servicing our members totaled \$1.0 million or 2.2% of revenues. The cost of keeping our members informed totaled \$0.2 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 \$4.9 million or 10.5% of revenues.

Being very capital intensive, depreciation and amortization of the utility plant costs \$4.8 million or 10.2% of revenues. Although not subject to federal income taxes, state and local taxes amounted to \$4.0 million or 8.5% of revenues. Interest on long-term debt, at a very favorable sub-5% interest rate, totals \$2.0 million or 4.3% of revenues. Non-operating net margins added \$0.6 million to overall net margins. Revenues less total expenses equal margins of \$2.3 million or 4.8% of revenues. Margins are allocated to consumer members and paid when appropriate. 🌱

PERCENTAGE OF TOTAL REVENUE



June 2019
Volume 16, Number 2

David Bissell
President and CEO

KIUC Board of Directors

Chairman: Allan Smith
Vice Chairman: Jan TenBruggencate
Treasurer: Peter Yukimura
Secretary: Calvin K. Murashige
Board: Dee Crowell, David Iha, Janet Kass,
Jim Mayfield, Teofilo Phil Tacbian

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Members: Calvin K. Murashige, Allan Smith,
Peter Yukimura

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Members: Janet Kass, Jim Mayfield

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Members: Dee Crowell, David Iha

International

Chairman: David Iha
Members: Teofilo Phil Tacbian,
Jan TenBruggencate

Member Relations

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Members: Janet Kass, Jan TenBruggencate

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Chairman: Dee Crowell
Members: Jim Mayfield, Calvin K. Murashige

Strategic Planning

Chairman: Jim Mayfield
Members: Dee Crowell, Janet Kass



4463 Pahe'e Street, Suite 1
Līhu'e, Hawai'i 96766-2000
808.246.4300 ■ www.kiuc.coop
currents@kiuc.coop



American Red Cross

Be a Red Cross volunteer!

Our volunteers touch lives in the community every day. They are the heart and soul of the Red Cross and represent every age, gender, religion, race and ethnicity.

There are so many ways you can help. Start your Red Cross story today.



From hurricanes to house fires, the Hawaii Red Cross responds to disasters statewide every 4 days. Whether it's one displaced family or thousands of disaster victims, Hawaii Red Cross volunteers are there to help. This is what the Red Cross is about- neighbor helping neighbor- down the street, across the nation, and around the world. All disaster training and services are provided free of charge.

If interested in becoming a Red Cross volunteer, the first step is to register online at redcross.org/hawaii. To register, 1) click on 'Volunteer' and then 2) click on 'Becoming a Volunteer'. Once applications are completed through the Volunteer Connection system, the Red Cross will contact interested individuals about signing up for basic disaster classes.



Start your Red Cross story by visiting redcross.org/hawaii