June 2017

Kaua'i Island Utility Cooperative

Ta

# unnen

Inside: Tiny Houses, Big Future Have You Claimed Your Refund?

ON A POLE

### Karen L. Agudong, REALTOR, BIC Aloha Island Team



#### ISLANDER ON THE BEACH #125, KAPAA

EXCEPTIONAL OCEANFRONT GROUND FLOOR unit. Unobstructed White Water Views from your Own Living Room and Lanai. Fully furnished with Island Style Decor, Travertine Flooring and Air conditioning. \$270,000(fs) Call: Karen L. Agudong, REALTOR(B) 652-0677 or email: karen@ alohaisland.com.



REGENCY HULEIA #17 2 bed / 2.5 bath with gorgeous upgrades. End location enhancing privacy. \$499K. Call: Karen L. Agudong, REALTOR(B) 652-0677.



3591 HANAPEPE ROAD Vacant lot zoned General Commercial. Great opportunity for growing Hanapepe town! \$239,000(fs). Call: Karen L. Agudong, REALTOR(B) 652-0677 or email: karen@alohaisland.com.



2117-B MANAWALEA STREET #47, LIHUE

Beautiful and immaculately maintained 3 bed / 2.5 bath townhome at Halemalu. Wonderful fenced-in yard and 2 car garage. \$495K(fs). Call: Karen L. Agudong, REALTOR(B) 652-0677 or Kay DeFranceaux Leonard(RS) 634-8697.



SUN VILLAGE B407

Highly desirable 4th Floor, 2 Bed, 2 Bath condominium at Sun Village with OCEAN VIEWS and MOUNTAIN VIEWS! Beautiful Open Beam Ceilings! This is an End unit with breezy trade winds & Privacy. Sold FULLY FURNISHED. \$225,000(lh).



PIKAKE SUBDIVISION
Wide Mt. Haupu views AND on the golf course! Located
on Pilimai almost at the very end of the cul-de-sac.
\$385,000(fs).



#### 2984 HOOLAKO STREET, LIHUE

Very spacious two story home with 4 bedrooms, 3 baths located on a corner lot in Lihue Town Estates. Gas stove and Fenced Yard. Wonderful opportunity for spacious living in the heart of Lihue. Sold As-is. \$540,000(fs) Call: Karen L. Agudong, REALTOR(B) 652-0677 or email: karen@alohaisland.com.



5410 PUULIMA STREET, KALAHEO

Owned by "Fairy Artist" Mary Baxter, this magical property boasts whimsical walkways throughout the 2.5 acres. 3 Bedrooms, 2 baths with an open floor plan. Separate office/game room building with bath on property. \$1,199,000(fs) Call: Karen L. Agudong, REALTOR(B) 652-0677 or email: karen@alohaisland.com or Kay DeFranceaux Leonard(RS) 634-8697.

IF YOU WOULD LIKE TO SUBSCRIBE TO MY NEWSLETTER WITH MARKET UPDATES, PLEASE EMAIL TO: KAREN@ALOHAISLAND.COM

KW KAUAI, KELLER WILLIAMS REALTY • 2970 HALEKO ROAD, SUITE #205, LIHUE, HI 96766 808-652-0677 • WWW.ALOHAISLAND.COM • EMAIL: KAREN@ALOHAISLAND.COM

Karen L. Agudong, REALTOR(B) "Aloha Island Team" KW Kauai, Keller Williams Realty (808) 652-0677.

### Kaua'i Island Utility Cooperative

# irrents

**Cover Story** Page 8



### 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.

### **Table of Contents**

From the Chairman4
Board Actions4
Tiny House, Big Future6
Get the Most Out of Your PV System7
The Anatomy of a Utility Pole
We're Looking For You11
Recipes12
Annual Fuel Mix Disclosure
Statement of Operations15

EDITOR Beth Tokioka

#### **CONTRIBUTORS**

Jennifer Brown, Amy Doubet-Devitt, Jessica "Jessie" Hedstrom, Karissa Jonas, Shelley Paik

#### **ON THE COVER**

Troubleshooter Scott Otto and Apprentice Lineman Lei Maglinti work on replacing a pole along Kūhiō Highway after an auto accident.



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

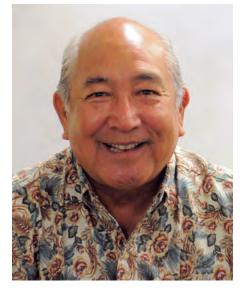
Aloha Members,

Our little co-op in the middle of the Pacific has been in the spotlight, and our success has garnered international buzz with the commissioning of our Tesla solar and storage project. We have been featured on CNBC and CNN, and have had visits from other utilities and agencies who are excited about this technology.

Though we are doing great, we don't want to get complacent. Our board and staff have been working well together and are looking for other ways to benefit our membership. KIUC's SmartHub is one of our member benefits, and I urge you to sign up!

We must not forget our core responsibilities: to provide our membership with safe, reliable and affordable power.

In collaborating and working together, I know we will continue to achieve great results.



Aloha pumehana, Allan A. Smith

### **Board Actions**

Below is a summary of some of the actions taken by the KIUC Board of Directors in March and April 2017.

### March 28, 2017 — Annual Meeting of the Board

Unanimously approved nomination and confirmation of new board officers: chair, Allan Smith; vice chair, Jan TenBruggencate; treasurer, Peter Yukimura; and secretary, Calvin Murashige.

Unanimously approved confirmation of board committee chairs and members.

### March 28, 2017

Unanimously approved Board Policy No. 24; reviewed with no substantive changes.

Unanimously approved to ratify the acceptance of CEO's 2015 performance review.

### April 18, 2017

Unanimously approved to ratify the appointment of Director Tacbian as the Charitable Foundation board president.

Unanimously approved Board Policy No. 28; reviewed with no changes.

Unanimously approved to ratify the decision to approve the CEO's 2017 evaluation and compensation package.

# **SAVE THE DATE**

Kaua'i Island Utility Cooperative's

### Annual Meeting 2017 Thursday, July 27, 2017

Kaua'i War Memorial Convention Hall

For more information, call 808.246.4300 or visit www.kiuc.coop



### BON DANCE SCHEDULE

- June 2 & 3 West Kauai Hongwanji Hanapepe Temple
- June 9 & 10 Lihue Hongwanji Mission
- June 16 &17 Waimea Shingon Mission
- June 23 & 24 Kapaa Jodo Mission
- July 7 & 8 West Kauai Hongwanji Waimea Temple
- July 14 & 15 Kapaa Hongwanji Mission
- July 21 & 22 Waimea Higashi Hongwanji Mission
- July 28 & 29 Kauai Soto Zen (Zenshuji) Temple
- August 4 & 5 Koloa Jodo Mission

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

The 2017 Bon Dance schedule is sponsored by: Kauai Island Utility Cooperative



### **Members and Community**



Top row: Levi Silva; second row from left: Daniel Erickson, Ryan Lomongo; third row from left: Sterling Snyder, Justin Carvalho, Darren Fernandez, Brayden Munar, Kyle Ramey, Jim Andrews, Duke Lang; bottom row from left: Ronald Garania Jr., Stetson Borilez, Danold Tarofmai, Keahi Kahui, Cody Abigania, Zac Gardien, Keith Vea.

### "Great things are done by a series of small things brought together."

~Vincent Van Gogh

#### By Jessica "Jessie" Hedstrom

The people of Kaua'i know the only way to get projects done is to work with a team, no matter how large or small. At Kaua'i Community College, four programs — carpentry, sustainable science management, facilities maintenance, and electrical installation — have combined to build what they call the Tiny House. Justin Carvalho, director of the college's carpentry program, and Instructor Duke Lang are thrilled with their students' teamwork. Justin commented, "We wanted to emphasize the importance of the relationship between the KCC carpentry and maintenance programs, and the industry partners in the community." Jim Andrews, who heads up the electrical installation program, agreed. "The best thing our students learned is to work together with the other trades to be able to install the equipment and complete the project." It wasn't just his words that evoked sincerity; it was the tremendous smile he flashed at his students and the grins that came firing back as they admired the house.

On the last day of class, there were at least a dozen students milling around the Tiny House, laughing with each other, and with good reason, being proud of their work. The sense of dedication that surrounded each one of them was evident. It was easy to see they didn't just want to complete this building for a grade—they wanted to learn from it. More than that, they want to share with others what they have learned. Levi Silva, a student in his second year in the carpentry program, was impressed with his work and with the younger students in the program. "The hardest and scariest part is when we're on the roof and it's pretty high, but doing this with the new guys was a good learning experience. You gotta teach the new guys and give them an experience so they know what to do. If you do these things before you graduate, it's a better learning experience before the real world." His passion for teaching the younger students clearly showed, as did his admiration for his mentors, Justin and Jim.

In this program, relationships aren't just about turning in the next homework assignment; they're about inspiring others and making connections that will last a lifetime. By working in the trades, students learn the value of teamwork in a hands-on way through the projects students do on campus. Students just can't get this kind of experience in most other college programs. And it shows in the way they sit on the edge of the Tiny House, legs dangling off the sides while patting their friends on the back, and smiling wider than the house they built together.

Jessie Hedstrom is a 2015 graduate of Waimea High School and is enrolled in the Liberal Arts program at Kaua'i Community College.



### Get the Most Out of Your PV System

### By Jennifer Brown

A solar photovoltaics system at your home or business is a great way to save on energy costs by taking advantage of a wonderful luxury in Kauai: the sun.

But what's next after your PV system is set up? It's not just sitting back and reaping the rewards of the weather. PV systems need maintenance and attention to make the most of loose debris and cut back trees or overhanging structures to the sun.

Although Nathan Wood of Nathan Wood General Contractor recommends preventative maintenance be performed by a licensed professional due to the danger of heights and the involvement with high voltage wiring, there are ways PV system owners can stay on top of the situation.

First, watch for common signs that the system needs maintenance.

"PV panels showing accumulation of dust, dirt, debris, animal droppings, and salt deposits—systems exposed to salt sea air—will be less efficient since surface contamination blocks sun absorption," Nathan says.

For system owners with online monitoring, reduced solar production over time may be an indication the panels need to be cleaned.

Second, be proactive about keeping the PV system clean before giving a professional a call.

"Owners can rinse their panels with water to remove prevent shading or debris from affecting the array," Nathan says.

In addition to dirt and debris on the panel surface, and shading from nearby trees or structures, system performance also may be affected by faulty wiring or inverters.

For more information on keeping their PV system properly maintained, owners should consult a licensed professional. 🔶



Regular maintenance keeps a PV system functioning at its best potential.

### The Anatomy of a Utility Pole

When you look up at a utility pole, what do you see? Do you ever wonder why there are so many lines and why they are important? To whom do the lines belong?

Utility poles host multiple services: electric, telephone and cable TV. Closest to the ground are the telephone and cable lines. Telephone lines generally have the thickest black cables attached to the utility pole. Cable TV lines are black insulated cable and are a little thinner than the telephone lines.

KIUC's power lines are higher up on the pole. The power lines are made of metal and are aluminum-grayish in color. The distribution lines are lower than the transmission lines, which are at the topmost section of the utility pole.

Power lines do not touch the utility poles. They are attached to insulators, which are made of porcelain or rubber, look like stacked plates and are attached to the crossarms or pole. The insulators prevent energized wires from contacting each other.

There are two types of construction: one in which insulators are attached directly onto the pole, and the other in which insulators are attached to the crossarms. Crossarms are thick wooden beams bolted to the pole and braced diagonally. These crossarms usually have four wires affixed—one for each phase and a neutral.



It is important to know that the higher on the pole you go, the more dangerous the wires become. The exposed power lines at the top carry the highest voltage.

If you see a hanging wire, stay away and call our 24-hour line at 246-8200 to report it.

One way to tell if the line you are looking at is a transmission or distribution line is by the size of the insulator. The longer the insulator, the higher the voltage.

Each utility pole has a tag. The pole tag is located near the bottom of the pole and has a unique pole number. If you see a damaged pole or street light, take note of the pole number so you can provide that information when you report it. If there is no tag, take note of the nearest address and landmark to make identifying the pole easier for our crews.

### **Providing Power to the People**

KIUC maintains 1,400 miles of power lines attached to utility poles to provide power to our members. Overhead lines provide the most economical way of transmitting power throughout our community.

KIUC's transmission grid is comprised of approximately 171 miles of transmission lines that supply bulk power to substations throughout the island. Transmission lines operate at 58,000 volts and attach to large insulators on tall wooden poles or metal structures.

Electrical energy from the transmission grid is converted at the substation to KIUC's distribution voltage of 12,470 volts (12kV). The energy is then separated into multiple circuits, where it is routed to surrounding communities on distribution lines.

At 12 kV, the voltage is still too high to go directly into your home, so distribution transformers—large canisters mounted on utility poles—step down the voltage again to the level required by your home: 120/240 volts. The 12 kV lines are called primary lines, and the 120/240V lines are called secondary lines.

From the pole-mounted transformer, a secondary service wire—usually an insulated black wire—is connected to your home's meter box. This allows KIUC to measure the amount of energy used.

If you are in an area with underground wires, your transformer will be located in a green metal box mounted on the ground—usually next to a sidewalk. This is called a pad-mounted transformer. Make sure you heed all warning signs on these ground-mounted transformer boxes.

From the meter box, service wires connect to the home's breaker box, which functions as a safety mechanism for your home. It is at this point that your home wiring enables energy to be sent to your outlets and switches at the touch of a button or the flip of a switch.

**Utility Pole** — Partially buried to support all of the equipment. It usually is about 40 feet long and typically made from logs.

### Transmission

**Primary Conductor** — This is the main series of wires that carries electricity from the supplier to the consumer through the distribution system. A threephase line—typically used to serve large power users, such as commercial and industrial accounts has three separate current-carrying conductors. A single-phase line, which serves most homes, has just one current-carrying conductor.

#### Distribution

**Transformer** — Canister that steps down the voltage to a level safe for delivery to the customer, either 120 or 240 volts. Many transformers have a lightning arrestor, which protects them from a strike.

Main Line Neutral — This wire is the neutral conductor in a distribution circuit.

**Crossarms and Braces** — The horizontal piece on the pole that makes the structure look like a cross. It holds the insulators and keeps the lines on a three-phase line from touching one another.

**Guy Wire** — This stranded wire helps stabilize the pole. Hardware connects it to the pole and an anchor in the ground.

Pole Ground Wire — This wire is connected to a metal rod driven 8 feet into the ground. Its job is to ground the system. Fused Cutout — Provides overload protection. A link inside a fiberglass barrel operates the cutout, which isolates the tap from the main line. When a loud blast is heard from a utility pole, it is the fused cutout operating.

**Insulators** — These porcelain or rubber objects support the electric wires and prevent an undesired flow of electricity.

Secondary Tap — This conductor carries electricity between the transformer and the consumer's electric meter.

JUNE 2017

## NEVER FORGET SANDY G

### YWCA 10th Annual GOLF TOURNAMENT

HOLE-IN-ONE PRIZE \$25,000 Split with YWCA of Kaua'i

Sandar Keahi Mendonca Sandy's Namesake Nephew go to ywcakauai.org to be a sponsor or register

### SUNDAY, AUGUST 6, 2017 HOKUALA GOLF COURSE

\$120 PER PLAYER

7:30AM SHOTGUN START 4 PERSON MODIFIED SCRAMBLE 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 are 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, 2016, to April 30, 2017. 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.

ADLINA YONEYAMA AL HAYNES ALIKA MAYER ALLEN C KNICELY ANDREW DILLON ANTON M HOL BERNHARD SCHONFELDER BRANDON IBAAN **BRIANA CYR BRITTANY L HEATH** CHANCE COUFAL CHERYL OBATAKE CLAYTON JENSEN COLE NEIFERT COMPLETE PROPERTY SERVICES LLC DAMON OWENS DANIEL D LOGSDON

EDITH M STADIG ELIJAH L YOUNG ERIKA DUARTE-PERREIRA ESTEBAN GUTIERREZ FAAMOEMOEGA ALAIAFUNE FILIFILI LEASAU FRANCOIS JOUAUX JAKOB RUSSELL JAMES FREELAND JR JAMES JONES JASPREET SINGH JEREMY BRICCO KAUAI SUNRISE FARMS LLC KYREN RAPACON LARAINE MAILA K TYLOR LOUISE ZWEBEN MARIO R HERRERA

MARTHA KITCH-SIMPSON MATTHEW C FULMER MAY ORLANDO MCKENNA R DORAN MICHAEL ARNOLD MIRIAM BROWN MORGHAN VOIGHT NAOMI ANDERSEN NOEL E GILLIS PAIGE PAKU PATRICK MCCLUSKEY PLEASANT B LAVEZZARI POMAIKAI J HARRIS RACHEL A PA RAIN K CRUZ ROLLY D LIBERATO SR RYAN C LEE

SHASTON OSHIRO SHAWN K LEWIS SHERYL SMITH STANLEY OANA JR STEAMING VAULT ELECTRONIC STEPHANIE NG SUMMER BAKER TAKUYO TAKAHASHI TOMMY T ISHIKUNI UNITED CHURCH OF TONGA VECTOR TOBACCO INC WILLIAM CARAWAY WILLIAM PENNYCUFF WILLIAM WEISS

### **Please Print:**

Name:		
Mailing Address:		
City:	State:	Zip:
Telephone Number:		
Email:		
KIUC Account Number:		

### Recipes



These recipes were submitted by staff and board members of the Kaua'i United Way, serving 29 member agencies on Kaua'i with the mission of providing leadership to unite the people of Kaua'i by sharing resources to better care for one another. Recipes contributed by: Lori Almarza (staff), Barbara Nagamine (board member) and Jimmy Sone (board member).

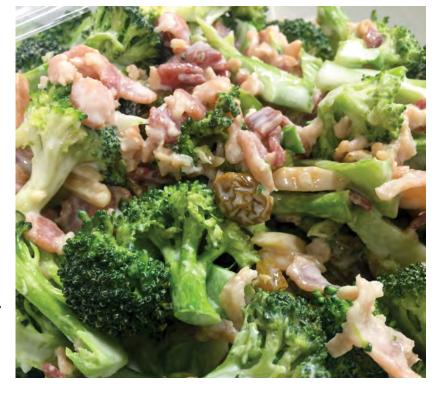
### Fresh Broccoli Salad

- 2 heads fresh broccoli crowns
- $^{1\!\!/_{\!\!2}}$  sweet onion or red onion, thinly sliced
- $\frac{1}{2}$  pound bacon
- <sup>3</sup>⁄<sub>4</sub> cup raisins
- 3⁄4 cup toasted slivered almonds
- 1 cup mayonnaise
- <sup>1</sup>/<sub>2</sub> cup white sugar
- 2 Tablespoons red wine vinegar

Slice bacon into small strips. Place in a skillet and cook over medium heat until evenly brown and crispy. Remove from bacon grease and let cool.

Cut broccoli crowns into bite-size pieces. Combine with the bacon, onions, raisins and almonds. Mix and set aside.

To prepare the dressing, mix the mayonnaise, sugar and vinegar together until smooth. Stir into the salad mixture and mix until broccoli pieces are coated well. Place in refrigerator to chill before serving.





### Namasu

- 3 Japanese cucumbers, cleaned
- 3 large carrots, cleaned and peeled
- 1 can ajitsuke clams
- 1 Kamaboko
- ½ cup Japanese vinegar
- ½ cup sugar
- Salt

Cut off the ends of the cucumber. Use a mandolin to thinly slice the cucumbers and carrots into separate bowls. Liberally sprinkle both with salt, mix and cover with plastic wrap. Let sit on countertop for 30 minutes.

After 30 minutes, squeeze out the water of both carrots and cucumber; combine. Slice Kamaboko into thin strips and add to bowl. In a separate bowl, whisk vinegar and sugar, then add to first bowl. Add clams, including juice. Mix, chill and serve.

### **Easy Fried Noodles**

5 3-ounce packages ramen noodles, any flavor
2 eggs, beaten
1 can Spam, thinly sliced
1 package fish cake, thinly sliced
5 green onions, thinly sliced
Vegetable oil
Pepper

Boil ramen noodles for 3 minutes or until softened, without flavor packets. Reserve flavor packets. Drain noodles and set aside.

Heat 1 tablespoon oil in a small skillet. Scramble eggs in a bowl. Cook and stir in hot oil until firm. Cut into slices and set aside.



Cook and stir Spam in same skillet for 4 to 5 minutes or until hot. Transfer to a separate dish and set aside. Combine  $\frac{1}{2}$  cup water with the five reserved ramen seasoning packets in a container. Shake to mix.

Add 2 tablespoons vegetable oil in a separate skillet, preferably a wok. Fry noodles in oil for 3 to 5 minutes over medium heat, turning regularly. Add diluted ramen seasoning over noodles. Add pepper to taste and toss to coat for 5 minutes or so.

Top with sliced egg, Spam, fish cake and onions. Turn off heat and let sit for 5 minutes before serving.

### **Sweet Ham and Swiss Cheese Slider**



24 King's Hawaiian sweet rolls 24 slices honey ham 12 slices Swiss cheese, cut in half ¼ cup mayonnaise 1 to 1½ Tablespoons Dijon mustard 8 Tablespoons butter, melted ¼ to ½ teaspoon onion salt ½ teaspoon Worcestershire sauce ¼ cup brown sugar

Heat oven to 400 degrees.

Cut sweet rolls in half. Use a rimmed baking sheet, place bottom half of sweet rolls in pan. Top with one slice of ham and half slice of Swiss cheese (folded to fit roll). Spread mayonnaise on the other half of the roll and place on top of ham and cheese. You want the rolls to be snug together, kissing just a bit so the sauce can soak up into all of the nooks and crannies.

In a small bowl, combine the mustard, melted butter, onion salt, Worcestershire sauce and brown sugar. Whisk together until well incorporated, then pour evenly over the assembled rolls.

Cover with foil and bake for 10 minutes. Remove foil and bake an additional 5 or 10 minutes or until the tops are brown and cheese is melted.

www.kauaiunitedway.org

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 100 percent. [L 2003, c 147, §2]

Rate Class of Service	Schedule	2012	2013	2014	2015	2016
Residential	D	\$70,785,142	\$69,870,560	\$68,457,684	\$55,512,573	\$55,787,615
General Lighting Service	G	\$27,353,872	\$26,633,998	\$26,487,476	\$21,661,344	\$21,287,562
General Lighting Service	J	\$22,168,732	\$21,676,632	\$20,541,391	\$16,404,878	\$16,783,317
Large Power	Р	\$47,797,928	\$45,649,059	\$43,467,971	\$32,883,320	\$32,657,931
Large Power	L	\$18,487,842	\$18,943,198	\$18,163,410	\$15,063,959	\$15,205,417
Streetlight	SL	\$1,647,004	\$1,616,931	\$1,594,732	\$1,362,924	\$1,268,893
Irrigation		\$58,037	\$82,525	\$38,762	\$59,629	\$16,264
Total Revenue		\$188,298,557	\$184,472,903	\$178,751,426	\$142,948,627	\$143,006,999

### REVENUE

### **KWH SALES**

Rate Class of Service	Schedule	2012	2013	2014	2015	2016
Residential	D	157,278,152	157,866,897	159,151,338	161,826,042	163,958,718
General Lighting Service	G	59,663,973	59,077,990	60,426,103	61,801,021	61,187,770
General Lighting Service	J	51,607,028	51,396,701	50,187,490	50,791,819	52,044,639
Large Power	Р	115,389,124	112,213,941	109,838,487	104,433,662	106,753,049
Large Power	L	46,285,546	47,900,542	47,426,575	50,125,564	52,481,360
Streetlight	SL	2,759,910	2,758,039	2,768,844	2,780,067	2,564,454
Irrigation		175,336	264,086	124,668	319,884	97,972
Total KWH Sold		433,159,069	431,478,196	429,923,505	432,078,059	439,087,962

### **AVERAGE RETAIL PRICE**

Rate Class of Service	Schedule	2012	2013	2014	2015	2016
Residential	D	\$0.450	\$0.443	\$0.430	\$0.343	\$0.340
General Lighting Service	G	\$0.458	\$0.451	\$0.438	\$0.351	\$0.348
General Lighting Service	J	\$0.430	\$0.422	\$0.409	\$0.323	\$0.322
Large Power	Р	\$0.414	\$0.407	\$0.396	\$0.315	\$0.306
Large Power	L	\$0.399	\$0.395	\$0.383	\$0.301	\$0.290
Streetlight	SL	\$0.597	\$0.586	\$0.576	\$0.490	\$0.495
Irrigation		\$0.331	\$0.312	\$0.311	\$0.186	\$0.166

Fuel Mix Generation*	2012	2013	2014	2015	2016
Biomass	0	0	0	5,712,000	51,777,705
Fossil Fuel	405,945,791	394,496,741	373,392,469	350,287,271	291,388,281
Hydro	40,587,648	34,919,235	35,556,586	35,163,744	35,767,255
Photovoltaic**	5,284,135	22,353,471	36,840,330	60,414,488	78,911,992
Total	451,817,574	451,769,447	445,789,385	451,577,503	457,845,233

\* 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	2012	2013	2014	2015	2016
Biomass	0%	0%	0%	1%	11%
Fossil Fuel	90%	87%	84%	78%	64%
Hydro	9%	8%	8%	8%	8%
Photovoltaic	1%	5%	8%	13%	17%
Total	100%	100%	100%	100%	100%

### **Statement of Operations** For the period January 1, 2017, to April 30, 2017

We are pleased to report the KIUC results of operations through April 30, 2017, are favorable. The Tesla dispatchable solar plant is built and expected to be in full operation providing renewable energy to KIUC by the end of May.

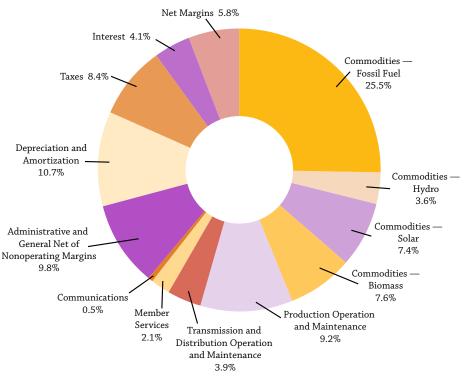
The year-to-date electricity use on the island is 3 percent higher than in the prior year. Even with the increase in sales volume, KIUC is still doing everything we can, while maintaining safety and reliability, to reduce costs in various areas in order to operate efficiently and effectively, and continue to maintain a strong financial position. Revenues, expenses and net margins totaled \$47.2 million, \$44.4 million and \$2.8 million, respectively, for the four-month period ending April 30, 2017.

As is the case for all electric utilities, the cost of power generation is the largest expense; at KIUC, totaling \$25.8 million or 54.7 percent of revenues. Commodities, which are fuel and purchased-power costs, are the largest component of power generation, totaling \$20.8 million or 44.1 percent of revenues. Currently, fossil fuel is the largest component of commodities, totaling \$12 million or 25.5 percent of revenues.

Other commodities include hydropower, totaling \$1.7 million or 3.6 percent of revenues; solar power, totaling \$3.5 million or 7.4 percent of revenues; and biomass power, totaling \$3.6 million or 7.6 percent of revenues. The remaining \$5 million or 10.6 percent of revenues represents the cost of operating and maintaining the generating units.

The cost of operating and maintaining the electric lines totaled \$1.8 million or 3.9 percent of total revenues. The cost of servicing our members totaled \$1 million or 2.1 percent of revenues. The cost of keeping our members informed totaled \$0.3 million or 0.5 percent of revenues. Administrative and general costs, which include legislative and regulatory expenses, engineering, executive, human

### PERCENTAGE OF TOTAL REVENUE



resources, safety and facilities, information services, financial and corporate services, and board of director expenses, totaled \$4.7 million or 10 percent of revenues.

Being capital intensive, depreciation and amortization of the utility plant costs \$5 million or 10.7 percent of revenues. Although not subject to federal income taxes, state and local taxes amounted to \$4 million or 8.4 percent of revenues. Interest on long-term debt, at a favorable sub-5 percent interest rate, totals \$1.9 million or 4.1 percent of revenues. Non-operating net margins added \$0.01 million to overall net margins. Revenues less total expenses equal margins of \$2.8 million or 5.8 percent of revenues. Margins are allocated to consumer members and paid when appropriate.



### June 2017 Volume 14, 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, Pat Gegen, Jim Mayfield, Teofilo "Phil" Tacbian, Peter Yukimura

#### Executive

Chairman: Jan TenBruggencate Members: Calvin K. Murashige, Allan Smith, Peter Yukimura

#### Finance & Audit

Chairman: Peter Yukimura Members: Pat Gegen, Jim Mayfield

#### Government Relations/Legislative Affairs Chairman: Teofilo "Phil" Tacbian Members: Dee Crowell, David Iha

International

#### *Chairman*: David Iha

Members: Teofilo "Phil" Tacbian, Jan TenBruggencate

#### **Member Relations**

Chairman: Pat Gegen Members: Teofilo "Phil" Tacbian, Jan TenBruggencate

#### Policy

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

#### **Strategic Planning**

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







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



### **Tropic Care Kaua'i 2017**

### Medical Care at No Cost June 12 – 21

CLINIC SITES: WEST: CENTRAL:

EAST:

Ele'ele Elementary School Kaua'i Community College Kapa'a Middle School

SERVICES:

Physical Exams, Eye Exams, Eyeglasses, Dental Exams, Tooth Extractions and Fillings

\*\*MOBILE CLINICS\*\* KILAUEA ELEMENTARY SCHOOL: JUNE 12-15 WAIMEA EASTER SEALS: JUNE 17-21

During Tropic Care June 12 – 21 all KAUA'I BUS service island-wide will be FREE OF CHARGE

If you need more information, an ASL interpreter, materials in an alternate format, or other auxiliary aid support, please contact the Department of Health at (808) 241-3555 or email tckauai2017@gmail.com at least (7) days before the event





