

**REGULAR MEETING OF THE BOARD OF DIRECTORS
KAUA'I ISLAND UTILITY COOPERATIVE**

Held Via Zoom Webinar

On September 23, 2022

MINUTES

Meeting called to order by Chair Smith at 1:00 p.m.

1. Roll Call

- 1.1. Directors present: Allan Smith (Board Chair), Jan TenBruggencate (Vice Chair), Calvin Murashige (Secretary), Peter Yukimura (Treasurer), Dee Crowell, James Mayfield, Teofilo Tacbian, Janet Kass, and David Iha; and David Bissell (CEO). A quorum of directors was present
- 1.2. Others present: Stacie Dellamano (CFO), Brad Rockwell (COO), Beth Tokioka (Communications Mgr.), Lisa Ubay (HR Mgr.), Corinne Cuaresma (Controller), Shelley Paik (Public Affairs Specialist), Chris Yuh (Finance Mgr.), Erin Tsuda (Finance Mgr.), Daurice Arruda (Accounting Mgr.), Shelsey Francisco (Financial Analyst), Allison Young (Communications & Public Relations Specialist), Cameron Kruse (Engineer & Technology Mgr.), Laurel Loo (General Counsel), and Teresa Amoy (Executive Administrator); Members of the press (0) and Members of the public (2)

2. Approval of the Agenda

- 2.1. The Board of Directors' Agenda of September 23, 2022 – no action

3. Approval of Minutes

- 3.1. The minutes of August 25, 2022, were approved as circulated

4. President's Report – David Bissell (CEO)

- 4.1. CEO discussed President's Report provided to the Board (attached) – no action taken

5. Financial Report – Stacie Dellamano (CFO)

- 5.1. CFO discussed the Finance & Accounting and the August 2022 YTD Financial Scorecard (attached). Discussion with directors and staff ensued – no action taken

6. NRECA Hawai'i Director Report – Director David Iha update:

- 6.1. Director Iha provided the September NRECA Board of Directors' Report (attached) – no action taken

7. Charitable Foundation Board – Director Teofilo Tacbian update:

7.1. Director Tacbian provided a brief oral report regarding the last Charitable Foundation Board Meeting:

- KEO spent \$300 on one application;
- Makana Program members are up to 343 members
- Authorized payment of \$1000 donation to Kapaa Middle School choir boosters for their backdrop curtains and risers

8. Public Testimony

8.1. Two (2) written testimonies were submitted via email by Phyllis & William Provost and also by Marj Dente (testimonies attached)

9. New Business

9.1. Approval of Strategic Plan Goals Draft Context

9.1.1. A brief background of the draft context was provided by Strategic Plan Committee Chair Mayfield

9.1.2. **MOTION** to request that the board permit the strategic planning committee to go ahead and issue the proposed draft strategic plan via the KIUC website, and also at the same time provide our members the ability to comment on the strategic plan, and also the context for the strategic plan

Discussion:

CEO noted the only changes made were discussed in the committee meetings; included adding a sentence regarding carbon neutrality and couple additional words

[Motion: Mayfield] [Second: Kass]

IN FAVOR: Smith, TenBruggencate, Murashige, Yukimura,
Mayfield, Tacbian, Kass, Iha Total – 8

OPPOSED: Crowell Total – 1

EXCUSED: None Total – 0

Motion carried

10. Calendar

10.1. **October 10, 2022** – HOLIDAY, Discoverers' Day (KIUC Offices Closed)

10.2. **October 18, 2022** – Board Committee Meetings (9:00am, MCR)

10.3. **October 25, 2022** – Daymark Workshop Part II (10:00am, via Zoom)

10.4. **October 27, 2022** – Regular Board Meeting (1:00pm, via Zoom)

11. Executive Session – At 1:28 p.m. the Board recessed the meeting to enter into an Executive Session closed to the public on matters limited to those specified in Section II. A. 2. of Board Policy No. 16. The items to be discussed in the Executive Session are matters of a proprietary or financial nature, public disclosure of which could affect on-going or potential negotiations or legal or administrative proceedings and human resource issues related to the hiring, evaluating, dismissing or disciplining an officer or employee and a matter requiring legal consultation on

issues pertaining to the powers, duties, privileges, immunities and liabilities of the Board of Directors.

11.1. The open session of the Regular meeting was reconvened at 1:48 p.m.

12. Adjournment

12.1. Meeting adjourned at 1:48 p.m.

Calvin Murashige

Calvin Murashige (Oct 28, 2022 08:50 HST)

Calvin Murashige

Board Secretary



President's Report

September 23, 2022

David Bissell, President and CEO

President's Report

David Bissell, President and CEO
September 23, 2022

Safety (August)

	<u>Month</u>	<u>2022 YTD</u>	<u>2021 YTD</u>
Recordable Incidents	0	2	2
Days Away/Restricted	31	203	0

Availability and Reliability:

	<u>Month</u>	<u>2022 YTD</u>	<u>2021 YTD</u>
Reportable Outages	3	14	23
Average Outage Hours Per Customer	0.16	1.24	1.11

Efficiency

	<u>Month</u>	<u>2022 YTD</u>
Net Plant Heat Rate	9,175	9,162
Peak Demand (MW)	76.6	76.6

Residential Rates:

September 2022	\$0.371/kwh down \$0.004 from August
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Update Items

- KIUC rates remain lowest in state for fifth straight month
- West Kauai Energy Project
 - Revised draft EA published
 - Comments accepted until October 10, 2022 at westkauaienergyproject.com.
- Rate case
 - Preparatory work continues
 - Outreach ongoing
 - Board workshop held on September 13.
- Endangered species
 - Habitat Conservation Plan public draft expected in December
- New CFO- Stacie Dellamano
- New Energy Services Supervisor - Scott Sato starts October 3



Mahalo!

4



The power of human connections®

F&A Committee Financial Presentation

August 2022

Regulatory, Finance and Accounting and Warehouse Monthly Summary

Regulatory

- Request for Lost Gross Margin (LGM) Entries to be finished as of July 1, 2022 was granted by the PUC.
- May meetings in preparation for Rate Case filing
 - Load Forecast has been updated with August Actual Numbers
 - TY 2023 Budget is being updated for Sr. Staff review next week and then once completed off to Daymark for Revenue Requirements to be run.
 - Met with Consultants and Attorneys Kent, Bill, and Stan at Daymark to develop consistent TY 2023 numbers which will reflect LGM recovery, Pension recovery, and depreciation rates from 2017 depreciation study.
 - Met with PUC Chair to introduce the team and tell the COOP story along with timing of the rate case filing for PUC readiness.

Finance and Accounting

- Final D8 Loan Draw Completed and Invested in CFC Funds with Interest ranging from 3.8-4% for some ST Investments.
- Will be getting myself and team up to speed on Indenture Requirements.
- Met with Bank as they visited from Oahu.
- Training with new staff on ERAC, Regulatory, NISC and all accounting and financial aspects of KIUC (3 new staff members).

Finance, Accounting, Regulatory and Warehouse Monthly Summary

Finance and Accounting Continued..

- Prep Work being done for Preliminary 2022 Audit in October
- Property Tax Exemption Filings Completed

Warehouse

- Material moved to Anahola Yard (Poles)
- All Cycle Counts Performed
- Cycling of Materials in Hurricane Material storage reviewed

Financial Scorecard - YTD August 2022

MWh Sales

Class	YTD Prior Year	YTD Actual	Percent Change
Residential (D)	121,844	126,460	3.8%
Small Comm (G)	39,165	42,550	8.6%
Large Comm (J)	31,801	33,614	5.7%
Lrg Pwr Primary (L)	25,518	28,924	13.3%
Lrg Pwr Secondary (P)	63,363	68,443	8.0%
Street Lighting (SL)	514	503	-2.0%
Irrigation	667	1,578	136.5%
Total	282,872	302,072	6.8%

Equity Ratio

■ Liabilities as a % of Assets
■ Equity as a % of Assets

Key Results

Category	YTD Prior Year	YTD Actual
Operating Revenue	102.2	116.5
Commodities Expense	47.5	49.5
Expenses	51.9	56.7
Non Operating Margins	3.1	0.4
Net Margin	(0.3)	(0.5)

Expenses

Category	YTD Prior Year	YTD Actual
Sal & Benefits	14.7	14.9
Depreciation	10.2	10.5
Taxes	8.6	8.9
LTD Interest	4.3	4.4
Other O&M	14.1	14.5

TIER

DSC

Liquidity & Available Funding

(In Millions)	YTD Actual
Cash	-\$0.3
Short-Term Investments	\$39.6
Cushion of Credit	\$8.5
Total Cash & Investments	\$47.8
Line of Credit Available	\$40.0
Line of Credit Drawn	\$0.0

September Report

Fall 2022



Significant Policy Achievements

- Infrastructure and budget reconciliation bills provide co-ops unprecedented opportunities for investment
- Infrastructure bill: 27 federal funding programs of interest to co-ops
- Budget reconciliation bill: direct pay incentives and \$9.7 billion for rural energy transition
- NRECA is working with federal agencies to shape new programs



Advocating Co-op Priorities



Reliability

- Engaging government leaders and the media
- Expressing the need to focus on reliability in regulatory proceedings and advocating for increased coordination by EPA



Supply Chain

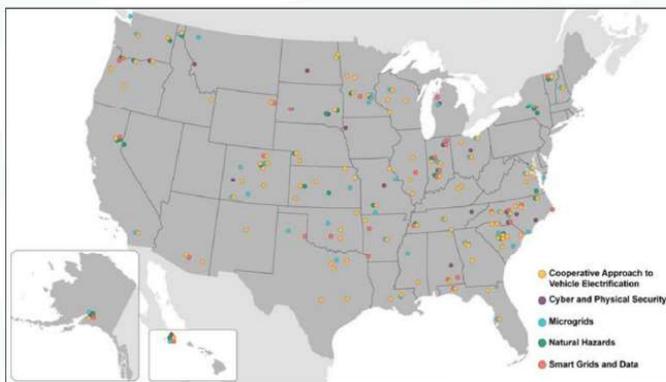
- Ongoing discussions with the White House, DOE and Congress
- ESCC advisory team assessing solutions for transformers, conductors and poles

Infrastructure Strategic Approach

Infrastructure Resource Hub on cooperative.com contains new resources to help co-ops take advantage of funding opportunities:

- Guidebook to navigate the federal funding process
- Portal for co-ops looking for grant writing assistance
- On-demand webinars

172 member co-ops from 41 states are participating in NRECA consortia



New Offerings from NRECA

NRECA Broadband

- 56 co-ops participating in new service
- Benefits include access to information on regulation law, public policy, and compliance
- NRECA Broadband Leadership Summit Nov. 17-18 in Washington, D.C.
- New director training course free for NRECA Broadband participants

Media Training

- Fee-for-service media training module that provides co-op leaders with skills and tools to present a compelling message that boosts credibility
- Tailored to electric co-ops; available as half- or full-day session for groups of 10-35

To: testimony@kiuc.coop
Subject: Tree trimming on the North shore
Date: Friday, September 9, 2022 4:23:28 PM

CAUTION: This email originated outside of the KIUC organization. Do not click links, open attachments or respond unless you recognize the sender and know the content is safe. Contact IT for help.

Aloha,

We are 35 year residents of Wainiha who want to share a critical concern about frequent power outages that occur because the trees and branches are overhanging the power lines in many areas. When it rains, which it has recently, the heaviness of the foliage on the lines send sparks and crackling on the roadways , and ultimately, power outages, which require a crew from Lihue to make the long excursion out here. Most recently, in our east Wainiha neighborhood on Ananalu rd that has an overgrowth of Hau. As you drive around this area and on out to Haena, there are several potential ‘hortspots’ that could be targeted for tree trimming, especially as we are in the middle of hurricane season and a wet winter coming on.

Years ago (as recently as 3-4 years) we would regularly see the company Asplundh Hawaii maintaining the overgrowth of foliage on the lines, over the roadways (not on private property). Recently, there has been little or no pruning activity. It seems to us that the expense of frequent emergency visits would out weigh a simple proactive approach of regularly mapping the problem areas and clear the linage before the wind and rain breaks off branches, cutting off our power. Perhaps this company is not available, but there are many local tree trimmers who could do the job just as well. The issue of insurance/ liability would need to be addressed.

Needless to say, the frequency of power outages, is both an enormous inconvenience and a potential set up for accidents of all sorts. If we were able to afford the battery to accompany our photovoltaic panels, we would cancel our KIUC home service, but we are not in a position to do so. So as coop members, we make this testimony and plea to address this problem in a safe and proactive manner.

Mahalo,
Phyllis and William Provost

From: [Mari Dente](#)
To: testimony@kiuc.coop
Cc: [Janet Kass](#)
Subject: TESTIMONY FROM MARJ DENTE
Date: Wednesday, September 21, 2022 7:50:05 AM

CAUTION: This email originated outside of the KIUC organization. Do not click links, open attachments or respond unless you recognize the sender and know the content is safe. Contact IT for help.

BOARD MEMBERS:

I am particularly concerned about the Strategic Plan currently being discussed, and that your process allows for as much personal response as possible to the DRAFT by COOP members, once it is ready to be published.

Having more connection with the membership I hope is one of the GOALS. In my opinion most members are not aware how a COOP operates.

Also, I am glad that Policy #16 has been so carefully updated by Janet Kass and her committee. Thank you Janet.

Thank you all Board members for your consideration.

Marj Dente



STRATEGIC PLAN UPDATE
2023-2033

DRAFT

Introduction

The years 2021 and 2022 will be remembered as a “watershed” period for Kaua‘i Island Utility Cooperative. As it enters its 20th year of existence, KIUC presently leads the state in three key metrics: renewables, reliability and lowest rates. Consider:

- ☀ In 2021, for the third straight year, KIUC had the highest percentage of renewable generation in the state in its annual Renewable Portfolio Standards (RPS) filing for the Hawai‘i Public Utilities Commission (PUC). At nearly 70% renewable generation, KIUC achieved more than double the state-required RPS for 2021 (30%), and nearly met its own Board of Directors’ strategic goal of 70% renewable by 2030 a full nine years early.
- ☀ KIUC achieved this high penetration of renewables – more than two-thirds of which was solar - without negatively impacting reliability. In fact, for the second straight year, KIUC had the best reliability statistics in the State of Hawai‘i, reporting 99.9852% system availability to the PUC, far exceeding the Board of Directors’ current strategic target of 99.96%.
- ☀ For the first time since its formation in 2002, KIUC reported the lowest residential rates in the state in May 2022, and remains the lowest through September 2022. By employing sound fiscal management and replacing price volatile fossil fuel with fixed-price renewables, KIUC closed a 70% gap in pricing with O‘ahu. This achievement is particularly noteworthy since O‘ahu is much larger than Kaua‘i and their utility benefits from economies of scale not available to KIUC.

KIUC’s Board of Directors has always set aggressive goals for the cooperative. The most recent Strategic Plan, adopted in 2016, included the following goals:

- Generate at least 70% of electricity by using cost effective renewable resources by 2030
- Manage technology and price risk by adding new renewable generation sources at no more than 10% of Kaua‘i’s electric usage in any single year
- Hold controllable cost increases at or below the actual level of inflation, and maintain system reliability at 99.96% or better availability
- Continue to address the strategic implications of climate change, including reducing the utility’s contribution to greenhouse gas emissions (GHG), adapting to the direct and indirect impacts locally and developing mitigation measures to protect the cooperative’s assets
- Continue investing in technology to cost-effectively maintain or improve our member service offerings and utility operations, including our smart-grid, in order to continue our transformation towards a 100% renewable future and lower operating costs

Some goals in the 2016 Strategic Plan – such as those listed above – have been met, some are still in progress, and others have either been revised or reconsidered given evolving circumstances. However, enough has been accomplished – and enough has changed in our operating environment – for the Board of Directors to embark on the adoption of a new, bold and well-targeted Strategic Plan for KIUC.

Today's External Environment

Economic Trends

As of 2021, Kaua'i's resident population was recorded at 73,298. Compared to a population of 67,091 in 2010, this indicates a relatively small growth rate of roughly 1% per year. During that same period visitor arrivals experienced significant growth, with the average daily visitor census growing from 19,716 in 2010 to 27,695 in 2019: resulting in a de facto daily population of more than 100,000 and a growth rate of almost 2% per year.

Visitor arrivals during the COVID-19 impacted period of 2020-2021 took a steep decline; however, numbers quickly rebounded to near "normal" levels when Kaua'i re-entered the so-called "Safe Travels" program in April 2021. With the ensuing steady increase in travel to Kaua'i and no current travel restrictions or other limiting mandates, Hawai'i appears to be continuing its recovery from the long-lasting effects of the pandemic. The number of travelers to Kaua'i has been consistently equal to or exceeding 2019 pre-pandemic levels and hotel performance data reflects an increase in occupancy and room rates, respectively.

While current economic indicators continue to point to an overall favorable trend as compared to 2020 and 2021, it remains unclear when a full economic recovery will take place on Kaua'i. The severity and duration of the economic impacts of the COVID-19 pandemic on the island of Kaua'i and on KIUC remain unknown, as both will continue to be impacted by many variables, including but not limited to, the rate at which employment will return to more normalized levels, the ability of tourism to continue rebounding and maintaining or exceeding pre-pandemic levels, the number of bankruptcies and closures of various small and large businesses, the continued distribution and availability of the COVID-19 vaccines and boosters to the public, vaccination rates and their impact on the number of active COVID-19 infections, the continuation and severity of COVID-19 variants, and, ultimately, how all of these impacts resulting from a world-changing pandemic will permanently change customer usage patterns even after all variables are known and the health risks from the COVID-19 pandemic are deemed under control.

Federal Legislation:

In November 2021, President Biden signed a \$1 trillion bipartisan infrastructure package into law. There is approximately \$110 billion in the Bipartisan Infrastructure Law (BIL) that the National Rural Electric Cooperative Association and its members identified as relevant funding opportunities for co-ops and the communities they serve. Funding opportunity topics include grid modernization and resiliency, clean energy, electric vehicle charging infrastructure, cybersecurity and broadband¹. KIUC will monitor and,

¹ From NRECA, Infrastructure Bill Funding Opportunities. A Guidebook for Preparing Electric Cooperatives, July 2022.

where appropriate, participate in applications for funding opportunities available under BIL. The law also provides increased incentives for electric vehicles and charging infrastructure.

In August 2022, the Inflation Reduction Act was signed into law by President Biden. This law represents the largest commitment in U.S. history towards fighting climate change and includes almost \$400 billion in tax incentives towards renewable energy and other efforts towards reducing carbon emissions. Of particular interest to KIUC are provisions to extend the Investment Tax Credit (ITC) for solar projects by ten years, allowing standalone battery storage to be eligible for ITC, and provisions that make electric cooperatives eligible for direct payment of ITC.

Global Impacts:

Political unrest leading to the war in Ukraine created uncertainty in global oil markets, effectuating a spike in oil prices not seen in more than a decade. These events happen far from our shores but have proven catastrophic to KIUC members in the past, with wildly escalating electric bills wreaking havoc on household and commercial budgets. Between the summer of 2021 and the summer of 2022, the rest of the State experienced electric rate increases as high as 50% due to the global oil crisis, while KIUC's rates increased only a fraction of that amount: roughly 10%. The key to KIUC's success in this regard was the accelerated adoption of new renewable generation sources since 2010, placing the majority of the utility's generation on the shoulders of facilities with fixed-priced power purchase agreements. It's estimated that since 2010, KIUC's members have saved \$35 million as a direct result of increased renewable generation.

Supply chain disruptions due to the pandemic coupled with geopolitical unrest have impacted the financial health of businesses across all sectors of the economy. These challenges are exacerbated for Hawai'i due to our geographic isolation and the relatively small size of our economy compared to other countries/regions that are competing for the same, limited resources.

Climate change continues to be one of the foremost challenges facing our planet, with no solution in sight. A 2017 report published by the Environmental Protection Agency on Climate impacts on islands within the United States noted: "Many islands are especially vulnerable to the risks of climate change because of their small size, low elevation, remote geographical location, and concentration of infrastructure along coastlines." Temperatures in Hawai'i are expected to rise by 1.5°F to 3.5°F by mid-century, and precipitation is expected to decrease in the Pacific Islands, according to the report. Climate change will impact the availability of water resources and threaten coastal infrastructure: all things KIUC must monitor closely.

Preparing for and preventing cyber-attacks has become a core function of utilities around the globe. According to an April 2022 report by WSJ Pro, energy is one of the top three sectors targeted for attack in the United States. KIUC has invested heavily in its technology infrastructure in recent years, and significant investments are expected to continue.

Alignment with Other Plans:

The State of Hawai'i's Office of Planning and Sustainable Development's Statewide Sustainability Program recently updated the Hawai'i 2050 Sustainability Plan to serve as the state's sustainability and climate strategic action plan; align the State's goals, policies, and actions with the United Nations Sustainable Development Goals; and recommend sustainability and climate change actions for 2020–2030. Among the goals identified in the Plan are:

- Ensure access to affordable reliable, sustainable, and modern energy for all. The Plan notes that the energy sector is largest source of emissions in Hawai'i, accounting for 87% of total GHG emissions, with transportation accounting for the largest share of energy sector emissions.
- Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. The Plan asserts Hawai'i has an opportunity to incorporate green infrastructure as an adaptation strategy by adopting design concepts such as installation of more vegetation and permeable surfaces, which can decrease urban temperatures, reduce carbon emissions, improve air quality, increase urban tree canopy, and capture water to replenish the water table.
- Take urgent action to combat climate change and its impacts. Hawai'i anticipates an estimated 3.2 feet of sea level rise by 2100. Climate change impacts, such as sea level rise and more frequent and intense extreme weather events (hurricanes, flood, droughts), pose an increasing threat to infrastructure and communities.
- End hunger, achieve food security and improved nutrition and promote sustainable agriculture. While promoting food security is not a core mission of electric utilities, there are ways to support agricultural goals through strategic development of renewable projects. For example, the West Kaua'i Energy Project will allow for expansion of agriculture in addition to significantly increasing renewable energy production.

Closer to home, the County of Kaua'i Planning Department is developing a Climate Adaptation Plan (CAP) (www.kauaiadaptation.com).

The CAP will build upon the County of Kaua'i 2020 Multi-Hazard Mitigation and Resilience Plan, which assessed natural hazards that may affect the island. The Climate Adaptation Plan will further analyze this information, focusing on factors such as:

- ✓ Sea Level Rise, Coastal Flood and Erosion
- ✓ Tropical Cyclone and Other High Winds
- ✓ Extreme Rainfall and Inland Flooding
- ✓ Extreme Heat and Drought
- ✓ Wildfire

Current Challenges and Opportunities for KIUC

In addition to considering the external factors that impact our cooperative, it's important to carefully examine what's happening within our cooperative before setting strategic goals. Over the past 20 years, KIUC has made great progress realizing the benefits of the cooperative ownership and governance structure. Moving from zero percent equity in 2002 to nearly 35% equity in 2021, retiring more than \$40 million in patronage capital to members, increasing renewables from 10% to nearly 70% in a decade, and achieving the lowest rates in the state while maintaining the best system reliability are but a few of our most significant accomplishments.

And yet many challenges remain. Consider the following:

- **Financial stability** is critical to maintaining a rate structure that is as affordable as possible for members. Financial stability can be impacted by many things, and recent years have presented numerous challenges to stability, such as:
 - Supply chain disruptions, especially those created by circumstances beyond our control, impacted the financial health of KIUC as well as businesses across all sectors of the economy.
 - Costs associated with compliance with the Endangered Species Act have escalated significantly over the past ten years, and will continue to be a significant part of KIUC's annual budget for the foreseeable future. KIUC does not currently have a mechanism for absorbing this additional expense through its rate structure, which has caused erosion of net margins over the past decade.
 - Inflation has driven up the cost of doing business significantly over the past 13 years, however, growth in electric sales has not kept pace and KIUC's base rates have not increased since 2010. KIUC's request for a base rate increase, the first in 12 years, is scheduled to be filed with the Hawai'i Public Utilities Commission (HPUC) in late 2022.
 - Distributed generation and storage can be beneficial to KIUC's members from both a reliability and a cost of energy standpoint. However, these technologies also provide a challenge to KIUC as they can result in lower energy sales which could result in higher energy costs for members unable to self-generate.
 - KIUC has traditionally experienced employee retention rates well above the national average, reducing the cost of turnover and stabilizing operations. Similar to other employers, COVID-19 and the associated economic downturn changed the landscape for KIUC on employee retention, particularly with "early" retirements being taken by long-term employees. Competing for employees is time consuming and costly, creating new financial strain for KIUC.
- **Reaching 100% renewable generation** is a priority for KIUC and we are on track to reach that mark well ahead of the State of Hawai'i mandated deadline of 2045. KIUC has been careful to pace the adoption of new renewable sources to benefit from evolving technology, while capturing available tax credits by creating partnerships with industry leaders, in order to contain

the cost of investment. While a feasible path for KIUC to 100% renewable is becoming clearer, challenges remain:

- KIUC is actively developing the West Kaua'i Energy Project (WKEP) which would provide longer duration storage for solar and hydro-based generation, addressing the gap in renewables currently experienced during non-solar hours. It is anticipated that WKEP could move KIUC towards 90% renewable sourced generation.
 - KIUC's peak load in 2022 hovers around 75 megawatts, and the all-time peak demand occurred in 2019 at 80 MW. In order to serve the peak, in addition to renewable resources such as batteries, KIUC maintains 105 megawatts of conventional generators that currently operate on petroleum (naphtha and ultra-low sulfur diesel), but could also run on a renewable fuel like biodiesel.
 - Ultimately, even with WKEP, as we approach 100% renewable generation for the island, it is likely that conventional generators will continue to be part of our energy mix, although perhaps fueled by biofuels rather than petroleum. Liquid-fueled generators are not weather dependent and can store weeks of fuel in a very small footprint. KIUC's conventional generators' average age is 46 years and some units are losing manufacturer support for parts and services. KIUC will evaluate replacement of some of these older generators with new units that could provide high-efficiency, reliability, and the continued ability to serve the peak demand without relying too heavily on weather-dependent sources like solar and hydro.
 - Emerging technologies, such as hydrogen for electric generation will also be closely monitored and considered as a potential fuel source.
 - An increasing number of companies are considering goals toward carbon neutrality: i.e., neutralizing their carbon footprint via a combination of reducing emissions and taking other measures such as investing in offsets for emissions. KIUC focus remains on renewable energy generation as the most impactful way to reduce our carbon footprint. However, KIUC should monitor trends and actions being taken by utilities in relation to carbon neutrality, with the possibility to establish future strategic goals in this area.
- **Reliability** of our electrical service remains of key importance, and new technology such as electric vehicles and battery storage will present many challenges and opportunities for our grid. The ability to reliably provide electricity to Kaua'i depends upon having sufficient generation, transmission, and distribution resources available at all times. With respect to generation, KIUC must ensure that it not only has adequate generating resources, but that it also maintains sufficient storage to power those resources continuously when the unexpected happens. With respect to transmission, KIUC should ideally have at least two transmission lines serving all portions on the island, and must maintain those lines to avoid unnecessary outages. Kaua'i's North Shore reliability remains a challenge for the cooperative with limited transmission service, remote and environmentally sensitive access. KIUC anticipates significant infrastructure investments to improve North Shore reliability in the coming years. With respect to distribution,

KIUC will continue to review all outages that occur with the goal of reducing and eliminating unnecessary outages.

- **Mitigating climate change impacts** to KIUC's infrastructure will be critical to ensure the reliable delivery of electricity to members in future decades. KIUC has identified vulnerabilities and is already being proactive by relocating the Kapa'a Service Center to a new site in Anahola. The Kapa'a switchyard remains at this location, and options for relocation are being developed. We continue to monitor evolving predictions relating to sea level rise to identify any additional infrastructure that may become vulnerable in the future.
- **State and federal regulation** impacts our operations in many ways. KIUC continues to be regulated by the PUC and our financial stability and our progress towards 100% renewable energy generation is ultimately tied to receiving positive outcomes from our various regulatory proceedings. Our relationship with the PUC has historically been constructive. However, cost and time commitments associated with PUC regulation continues to be of concern. KIUC is also subject to federal oversight from the Rural Utilities Service (RUS) which is one of our major sources of capital for funding our operations. KIUC's relationship with RUS has also been constructive. In 2019, KIUC entered into an Indenture of Mortgage with RUS which shifts certain RUS compliance requirements to a trustee and substantially reduced the regulatory burden associated with RUS borrowing.
- **Cybersecurity**, as mentioned previously, remains one of the biggest threats to utilities across the globe. KIUC continues to invest in its technology infrastructure to address cybersecurity.

With challenges in mind, it's important that we focus equal attention on the numerous opportunities KIUC could embrace:

- **Exploring possible new revenue streams** beyond our current business model, such as finding a niche in the growing alternative fuel vehicle economy, securing more state and federal grants, and offering new services utilizing existing infrastructure (e.g., middle-mile broadband).
- **Putting the needs of members first** is a basic tenet of the cooperative structure. Our affiliation with the National Rural Electrical Cooperative Association (NRECA) and other cooperative-focused organizations and vendors affords KIUC access to sophisticated software and member-facing applications at prices well below what would be available to us as a small, stand-alone utility. Energy efficiency and rebate programs for both residents and businesses will not only continue, but evolve and expand with the needs of our members. KIUC will also continue to collaborate with government and non-profit entities to ensure financial assistance is available to members in need.
- **Stabilizing rates** by replacing fossil fuel with renewable sources either owned by KIUC or purchased via long-term, fixed-rate agreements will continue to be a key component of our strategy.

- Reducing GHG emissions on an accelerated pace has been a basic tenet of KIUC's previous Strategic Planning efforts. KIUC is already decades ahead of established state mandates for renewable production and has exceeded aggressive goals set by its Board of Directors in 2008 and 2016. Achieving 100% renewable as soon as possible, in a way that doesn't compromise reliability and financial stability, is a goal worthy of pursuit.

Based on the foregoing, the KIUC Board of Directors have identified three primary strategic goals for the cooperative:

Goal 1 – Cost of Electricity

KIUC will deliver reliable electricity at the lowest possible cost.

- *Objective 1.1: Have the lowest electricity rates in Kaua'i while maintaining reliability and financial stability*
- *Objective 1.2: Save members money by:*
 - *Relying more on our elected board of directors and less on state regulators for oversight and decision making*
 - *Expanding the use of technology*
 - *Offering free energy efficiency consultation*
- *Objective 1.3: Lower costs by diversifying and expanding the cooperative's financial resources*
 - *Seek and secure federal and state grants benefiting KIUC and our members*
 - *Seek new business opportunities that align with our assets, operations, goals and - member needs*

Goal 2 – Carbon Footprint

KIUC will contribute to a sustainable Kaua'i by reaching 100% renewable generation by 2033.

- *Objective 2.1: By December 2023, develop a plan with timeline to reach and maintain 100% renewable generation by 2033: 12 years ahead of the State of Hawai'i mandate*
 - *Pursue renewable projects that reduce greenhouse gas emissions AND help stabilize electricity rates*
 - *Plan for replacement of current renewable energy sources*
 - *Execute contracts for renewable fuels that are economically and environmentally justifiable*
 - *Own and operate conventional generating units that are reliable, efficient, and able to utilize renewable fuel sources*

- *Objective 2.2: Be a trusted source for members as they transition to renewables for self-generation, transportation and other daily needs*

Goal 3 – Resiliency and Reliability

KIUC will become more resilient, improve reliability, and be better able to handle operational challenges and threats from cybersecurity, local climate change impacts, and natural disasters such as hurricanes and floods.

- *Objective 3.1: Lead the State of Hawai'i in reliability*
 - *Develop a second transmission line to mitigate North Shore outages associated with the existing single transmission line*
- *Objective 3.2: Develop a plan to move or upgrade electrical equipment threatened by climate change*
 - *Move Kapa'a substation to higher ground or otherwise mitigate potential inundation risk*
- *Objective 3.3: Improve systems and practices to prevent or mitigate the impacts of cyber-attacks to help ensure continuation of electrical service and business functionality*
 - *Develop and adopt a companywide cyber framework to protect the grid from cyber-attacks, ensure protection of company and member data and provide redundancy for access to data in the event of a cyber attack*
- *Objective 3.4: Evaluate micro-grid options and opportunities for high-risk areas on Kaua'i. Implement micro-grids where both economically and technically practical*