Renewable Energy on Kauaʻi
Renewable Energy on Kauaʻi

2010: 7.9%
2011: 9.3%
2012: 9.4%
2013: 11.1%
2014: 13.6%
2015: 27.3%
2016: 41.7%
2017: 44.3%
2018: 43.5%
2019: 55.5%

Hydro | Biomass | Solar
AES Lāwaʻi 20 MW PV
100 MWh Storage
Renewable Energy on Kauaʻi

KIUC Daily Dispatch June 19, 2019

12:00 noon
Renewable Energy on Kauaʻi

KIUC Daily Dispatch June 23, 2019

12:00 noon
Coming Soon..

• AES PMRF - 14 MW PV 70 MWh storage
  – Construction in progress
  – Expected completion mid-2020
  – Facility can be “islanded” to serve PMRF if needed
Coming Soon..

• West Kaua‘i Energy Project – 25 MW
  – Pumped storage hydro
    • First in the world to use solar
  – Allows DHHL to open land for new agricultural homesteads
  – Provides irrigation water for Agribusiness Development Corporation and Kekaha Ag Association tenants

Will bring KIUC to 82 percent renewable
Waiahi Hydro Plants

- KIUC uses the water to generate renewable electricity for the benefit of its member-owners
  - Produces up to 1.5 megawatts
  - Lowest cost generation source
  - Contributes to State mandate: 100 percent renewable by 2045
  - Displaces 675,000 gallons of diesel annually
  - Saves $1.75 million annually versus price of diesel fueled generation

*Upper Waiahi has been upgraded and modernized to achieve maximum efficiency*
Waiahi Hydro Plants
Resiliency

- Kauaʻi’s efforts post ʻIniki (1992) and Iwa (1982) include:
  - 80% of transmission circuits are steel poles
  - 20% remaining circuits have storm guys on wood poles
  - Increased size standards for all wood poles
  - Hardened Līhuʻe circuit
  - Hurricane resistant headquarters
  - Satellite phones
  - AMI and outage management system

- Power plants not exposed to storm surge and have black start capabilities

- KIUC has signed MOU with HECO for mutual aid
April 2018 floods

- Customers out at peak: 14,000
- Customers restored within 24 hours: 90 percent
- Total overtime hours logged (hourly employees): 515.5
- Total damage: $368,000
  - *FEMA reimbursement amount pending*

Hurricane Lane

- Total damage: $59,279
- Total approved FEMA reimbursement: $38,599

As a cooperative, KIUC can apply for FEMA reimbursement of up to 75 percent of eligible costs
What about rates?

• KIUC rates vs. Hawaiʻi’s investor owned utility (HECO)
  – 2002 (June)*
    • Oʻahu +72%, Maui +43%, Hawaiʻi +13%
  – 2019 (June)
    • Oʻahu +8.5%, Maui (1.3%), Hawaiʻi (5.6%)

*Source: Hawaiʻi PUC Annual Report
Rates

• KIUC has not had a general rate increase since 2009
• 2019 rates are expected to be about the same as 2018
• Lower cost renewables replacing higher priced, volatile diesel

2018 Tesla plant savings versus diesel: $708,000
Renewables and Rates
• KIUC Continues to be a financially healthy company
  – Consistently makes a small amount of margin
  – Earns enough money to continue to be credit worthy
  – Puts its own skin in the game by reinvesting margins
Consistently Positive Results

Historical Net Margins

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Margins</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$9,956,112</td>
</tr>
<tr>
<td>2011</td>
<td>$9,656,872</td>
</tr>
<tr>
<td>2012</td>
<td>$11,090,843</td>
</tr>
<tr>
<td>2013</td>
<td>$9,154,055</td>
</tr>
<tr>
<td>2014</td>
<td>$9,448,881</td>
</tr>
<tr>
<td>2015</td>
<td>$5,950,881</td>
</tr>
<tr>
<td>2016</td>
<td>$6,596,917</td>
</tr>
<tr>
<td>2017</td>
<td>$8,983,910</td>
</tr>
<tr>
<td>2018</td>
<td>$8,432,528</td>
</tr>
</tbody>
</table>
Credit Worthy

Debt Service Coverage

<table>
<thead>
<tr>
<th>Year</th>
<th>Debt Service Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1.87</td>
</tr>
<tr>
<td>2011</td>
<td>1.77</td>
</tr>
<tr>
<td>2012</td>
<td>1.82</td>
</tr>
<tr>
<td>2013</td>
<td>1.69</td>
</tr>
<tr>
<td>2014</td>
<td>1.67</td>
</tr>
<tr>
<td>2015</td>
<td>1.45</td>
</tr>
<tr>
<td>2016</td>
<td>1.44</td>
</tr>
<tr>
<td>2017</td>
<td>1.49</td>
</tr>
<tr>
<td>2018</td>
<td>1.47</td>
</tr>
</tbody>
</table>

Lender Requirement: 1.25
Prudent Reinvesting

Equity as Percent of Assets

<table>
<thead>
<tr>
<th>Year</th>
<th>Equity %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>21.1%</td>
</tr>
<tr>
<td>2011</td>
<td>23.2%</td>
</tr>
<tr>
<td>2012</td>
<td>24.9%</td>
</tr>
<tr>
<td>2013</td>
<td>26.8%</td>
</tr>
<tr>
<td>2014</td>
<td>26.6%</td>
</tr>
<tr>
<td>2015</td>
<td>26.2%</td>
</tr>
<tr>
<td>2016</td>
<td>30.3%</td>
</tr>
<tr>
<td>2017</td>
<td>33.1%</td>
</tr>
<tr>
<td>2018</td>
<td>32.8%</td>
</tr>
</tbody>
</table>

Lender Requirement 20%
2018 Financial Results

Weighted Average Cost of Debt

Interest Rate

Average Interest Rate


2018% 4.11% 4.30% 4.32% 4.33% 4.30% 4.27% 4.26% 4.19% 3.89% 3.66% 3.42% 3.05% 2.73% 2.67%
2018 Financial Results

Full Time Employees

- 2009: 161
- 2010: 155
- 2011: 152
- 2012: 152
- 2013: 148
- 2014: 150
- 2015: 143
- 2016: 138
- 2017: 143
- 2018: 139
Patronage Capital

• KIUC has retired $2.5 million in patronage capital related to 2018 financial results.
• Since formation KIUC has retired $40 million to our members in patronage capital retirements.
Strategic Plan

- Adopted January 2017
- Updated previous plan adopted in 2008
- Goals for renewables, reliability, cost containment, financial management
Strategic Plan – Progress Report

• Renewable generation: 70 percent by 2030
  – *AES PMRF and the West Kauai Energy Project will bring us to 80 percent by 2025*

• Reliability factor of 99.96
  – *Improved by 50 percent in 2018*

• Maintain financial stability
  – *Rate stability, debt service, equity, personnel costs*

• Address climate change
  – *Since 2010, reduction of 20 million gallons of diesel per year*
Co-op Connections

Healthy Savings Discounts

Touchstone Energy® Cooperatives’ Co-op Connections® Program helps you save more and live healthier every day! Our highly successful prescription discount program is now joined by discounts on dental, hearing, lab work & imaging, vision, chiropractor visits. Best of all, you can earn cash back for all these great benefits for you and your family.

- Dining
- Shopping & Services
- Things to Do
- My Co-op Card
- Healthy Savings
- Book a Hotel
- Cash Back Shopping
- Event Tickets

The free membership program that gives you incredible discounts on everyday expenses.
Questions?
Mahalo!