Testimony of David J. Bissell
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Before the Senate Committee on Energy & Natural Resources
Subcommittee on Energy
July 13, 2022

Aloha Chair Hirono, Ranking Member Hoeven and members of the Energy Subcommittee.

My name is David Bissell. I'm the President and CEO of Kauaʻi Island Utility Cooperative. KIUC is located on Kauaʻi, the smallest and least populated of Hawaiʻi's four main islands. We provide electricity to 70,000 residents, 20,000 visitors, and 5,000 businesses on a fully isolated grid.

Hawaiʻi has established a rigorous Renewable Portfolio Standard (RPS). According to the RPS, by 2045, 100 percent of a utility's electricity sales must be based on eligible renewable energy technologies.

Kauaʻi's utility was investor-owned until 2002, when a group of local businessmen formed KIUC as a cooperative and acquired the utility. At that time, Kauaʻi's electric rates were by far the highest in the state, more than 70 percent higher than rates on Oʻahu, and were likely the highest electricity rates in the nation. This was a function of having a grid more than 90 percent reliant on imported oil.

KIUC's first elected Board of Directors immediately committed to transitioning as quickly as possible from oil to renewables. Back in the early 2000's this was driven primarily by economics, although the environmental benefits were equally compelling.

In 2008, the KIUC Board set a goal of reaching 50 percent renewable by 2023. At the time, viable renewable energy options were hydro, biomass and waste to energy. Solar was considered too expensive to pursue at the time. However, within six years solar technology became much more affordable with declining equipment pricing and the federal investment tax credit. By 2016, a biomass plant and several utility-scale solar projects had been commissioned, bringing us to 40 percent renewable.

Since then, strategic partnerships with both Tesla and AES have resulted in the addition of three large-scale solar-plus-storage projects, the first of their kind anywhere in the world when they were commissioned. We reached our goal of 50 percent renewable four years early in 2019, and achieved 70 percent renewable last year.

Figure 1 below illustrates the growth in various types of renewables since 2010.

It is notable that KIUC has led the State of Hawaiʻi in both renewables and reliability for the past three years.

The environmental benefits of our transition to 70 percent renewable are easy to measure in significantly reduced greenhouse gas emissions. The transition has also greatly benefited our members financially. Since early 2021 when oil prices started spiking, rates for KIUC members have increased roughly 10 percent. That's compared to increases of between 35 and 45 percent for all of the other

Hawaiian Islands. This is primarily due to bringing on renewables via competitively-priced, long-term power purchase agreements to replace oil, with its associated price volatility.

Figure 2 shows monthly year-over-year increases in residential electrical rates for the six Hawaiian Islands serviced by KIUC (Kauaʻi) and Hawaiian Electric Industries (Oʻahu, Maui, Lānaʻi Molokaʻi, and Hawaiʻi), from July 2021 to July 2022.

For the past three months, we've reached a major milestone: for the first time in its history, KIUC posted the lowest electric rates in the State of Hawaiʻi. A trend of rate stabilization correlating to an increase in renewables on KIUC's system is depicted in **Figure 3**.

I'd like to emphasize how important federal incentives have been to our success. The investment tax credit has indirectly benefited our members through lower rates and purchase power agreements. With inflation and supply chain issues impacting renewable project cost throughout the country we strongly encourage an extension of the credits at the original 30 percent and adding direct pay, with a delay in further phase out until at least 2030. Alternatively, extending the completion of the construction timeline requirement from the end of 2025 to 2030 could at least allow existing projects to receive the credits that were in place when the projects were started.

As a not-for-profit cooperative we also support the direct pay option for not-for-profits to be able to receive the same level of tax incentive as for-profit investor owned utilities and developers. Currently, we have to use very complex project structures, or have for-profit entities build and own our renewable projects to receive essential tax credits. A direct pay option for not-for-profit cooperatives could likely lower costs for our members from the same levels of federal tax incentives.

Cost of capital is another key cost item for a utility. Cooperatives are eligible to borrow from Rural Utility Services (RUS). One problem with RUS borrowing is that it is prohibitively expensive to refinance with RUS when interest rates decline. We support the Flexible Financing for Rural America Act of 2021, which would allow cooperatives to refinance our loans when rates are lower. I would like to express my appreciation that Senators Hirono, Hoeven and other Senators serving on the Energy and Natural Resources Committee have cosponsored this measure.

We believe KIUC has demonstrated that high penetration renewables can be cost effectively integrated into an electric grid without associated reliability issues. We have been fortunate to have many great partners on our renewable energy journey. We appreciate the federal incentives we have received to date and hope that we can continue to receive your support as we move towards a 100% renewable Kauaʻi.

I'd like to thank Senator Hirono for making it possible to testify today. Thank you for your attention, and I'll be happy to answer any questions you may have.

Figure 1:

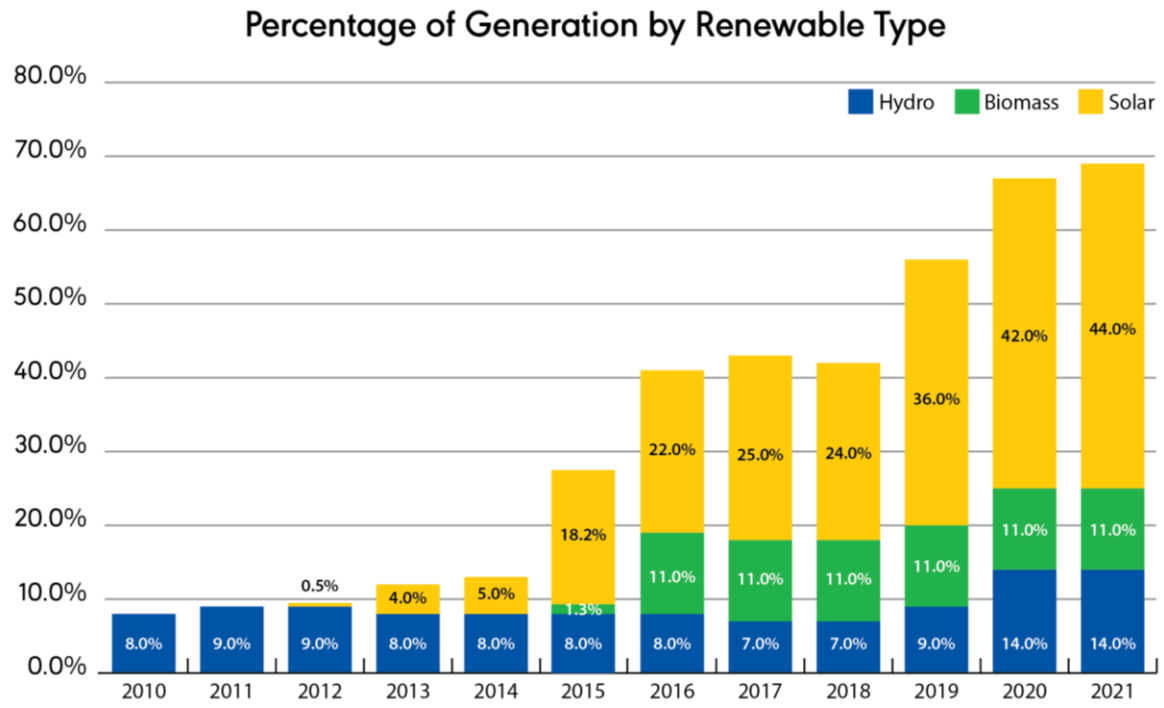


Figure 2:

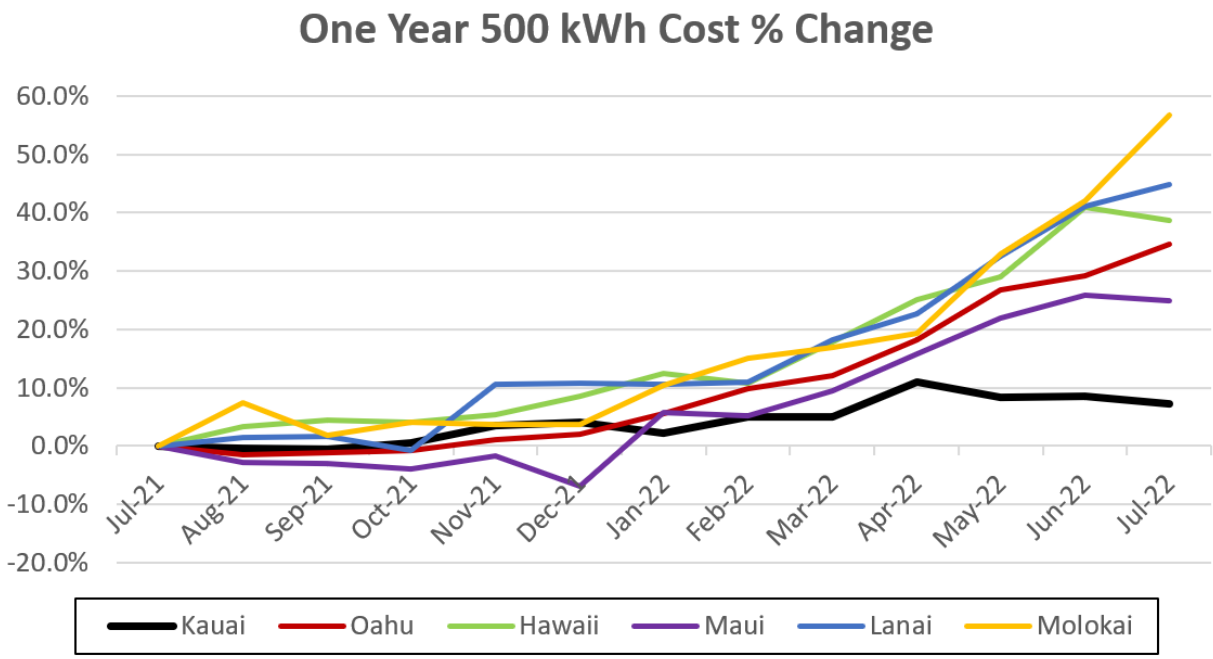
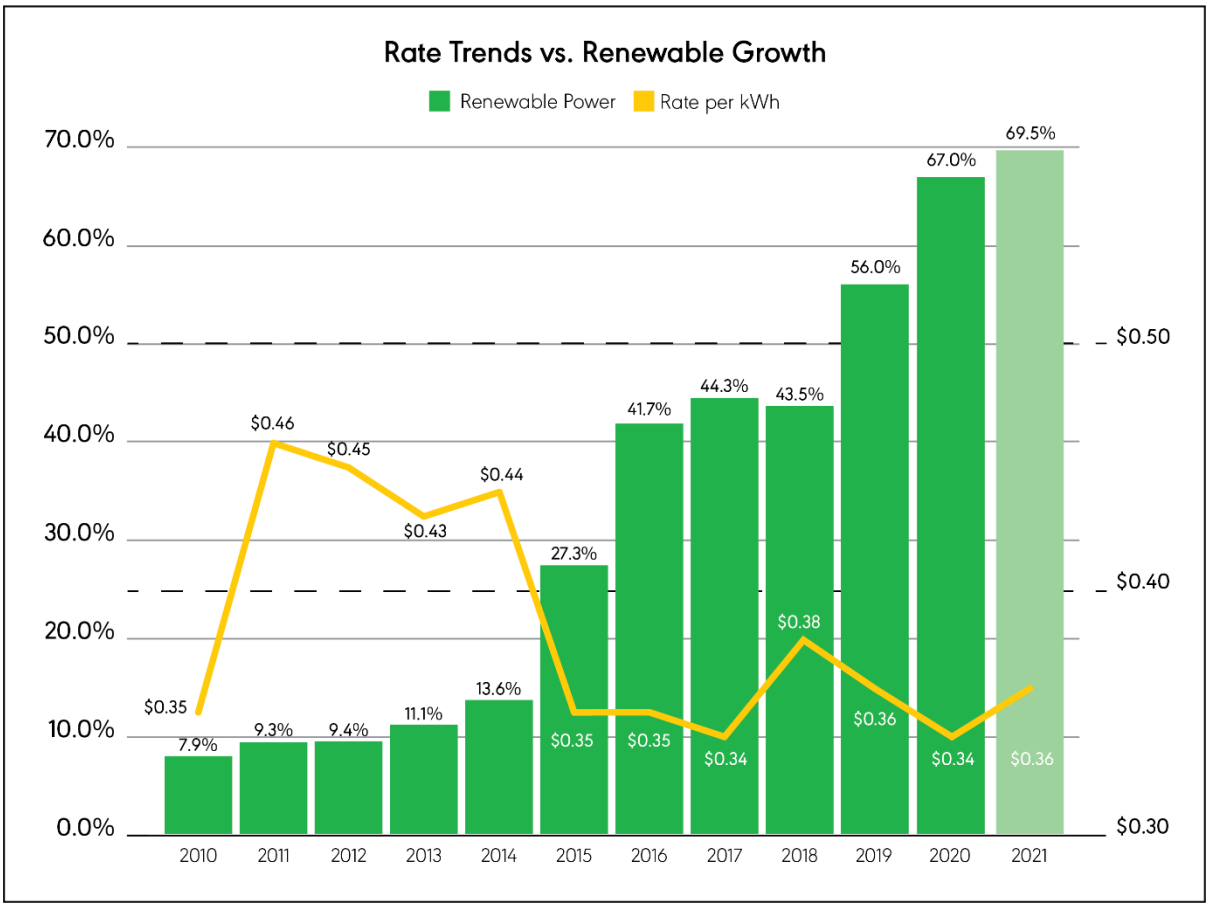


Figure 3:


Rate Trends vs. Renewable Growth
Renewable Power
Rate per kWh
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
$0.50
$0.40
$0.30
7.9%
9.3%
9.4%
11.1%
13.6%
27.3%
41.7%
44.3%
43.5%
56.0%
67.0%
69.5%
$0.35
$0.46
$0.45
$0.43
$0.44
$0.35
$0.35
$0.34
$0.38
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2010
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