

David Bissell

The president of Kauai's cooperatively owned electric utility is clear-headed about balancing renewable energy goals with lower rates

By Vicki Viotti

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COURTESY KAUAI ISLAND UTILITY COOPERATIVE

David Bissell: President and CEO of Kauai Island Utility Cooperative.

David Bissell, president and chief executive officer of Kauai Island Utility Cooperative, knows all about two of the Garden Island's great resources — the sun and the rain.

Both, as harnessed by solar photovoltaic cells and hydroelectric generators, are close to pushing the electric utility to its goal of 50 percent renewable energy, ahead of its 2023 goal date.

Bissell, 50, posed for the portrait shown here a year ago at the solar array in Koloa, and now can envision a similar scene adjacent to KIUC's plant in Kapaia. The co-op has just signed a power purchase agreement with SolarCity to develop a 13-megawatt "daylight to night" system, complete with battery storage, funneling solar power to the grid when it's most in demand, when the sun doesn't shine.

KIUC, which bought the utility from Kauai Electric Co. in 2002, seems to have weathered some early challenges making the transition to a co-op, including some protests over "smart meters" being installed in homes. But now 93 percent have them, Bissell said, and the smart grid has enabled rates that flex depending on the time of electricity use.

Bissell joined the co-op in 2006 from the Midwest, earning his master's in business administration at Indiana University. He was manager of financial forecasting for the Ohio-based Cinergy Corp. and worked as a tax and audit manager at an Indiana utility cooperative as well.

He now lives in Wailua with his wife and daughter and a "varying count" of dogs, including rescue animals. Working with the Kauai Humane Society is a family interest.

With Hawaiian Electric Industries facing a potential sale to Florida's Next-Era Energy, Bissell realizes that some critics are viewing the co-op model as an attractive alternative.

"I don't buy that you have to be a huge \$50 billion-plus entity to deliver lower cost energy in Hawaii," he said. "You've got to be managed well, you've got to have a strategic plan oriented toward the needs and resources of each island and you've got to execute. There's no reason a co-op can't do that on the other islands."

QUESTION: Has there been another Hawaii project like the "daylight to night" solar installation you're doing?

ANSWER: I don't think anywhere is there something of this scale, utility scale. We call that "dispatchable solar."

Q: Is the battery technology becoming more affordable now, making the whole operation less expensive?

A: Yes, the pricing on this one is 14.5 cents a kilowatt hour, which, even at today's low cost of oil, is much lower than our cost it will be displacing.

Actually, the neat thing about this is we're going to be able to directly change to cheap solar in the battery, bring it out at our peak time, when energy is the most expensive. ... It's a really good way to use the energy in the most cost-efficient manner.

Q: Are you still on target for your strategic plan goal of 50 percent green energy by 2023?

A: We're right on target. With this project signed, we have projects either in service or under contract that will meet our 50 percent renewable energy target. So we're there, as long as this project gets approved and built.

Q: Are there plans by the co-op to push that goal out further to a higher percentage?

A: We're evaluating internally. And, of course, the state's now got this 100 percent goal RPS (renewable portfolio standard). And we're looking internally; our board was committed to 50 percent by 2023 and they delivered ... we wanted to enjoy making that happen for a little bit.

Q: There had been community concern about plans for hydroelectric generation. Has the landscape changed on that?

A: We've kind of honed in on one project on the west side, and we're looking at a couple of different routes for that project. It would be primarily a pump-storage hydro project, moving water back and forth between reservoirs. Basically, it just becomes a big battery, pumping back and forth, as opposed to the chemical composition of a battery.

Q: Does that idea avoid some of the community concern about this?

A: There's always going to be concern on Kauai and in Hawaii generally anytime you're dealing with water.

We've learned a lot about community concerns and dealing with the community. We've been very up front talking about this project, even while it was in the very preliminary stages.

And the community has been very supportive of this project. They understand we've got an issue with solar penetration, that we've got such a high penetration that we have to do something.

Like the concept of using our resources, but the real resource is the topography out there, where we've got about a 3,000-foot drop. We've got legacy reservoirs we can put back into service for this project, so that the community is very positive toward it.

It's likely this project would renovate a reservoir that's on Department of Hawaiian Home Lands land, to help fulfill their goal of putting Hawaiians back into farming ... the infrastructure improvements have been so expensive to do. So it's got a lot of benefits.

Q: Has the lower cost of petroleum changed the economics of green energy? Do you see the falling prices as a short-term blip?

A: We have always looked out 20 years forecasting oil. Forecasting oil is a fool's game, for the most part. It's very difficult for anybody to have a reasonable forecast because there are so many variables to go in, geopolitical, supply and demand economics, all kinds of things to go in.

So you really have to look at a wide range of potential outcomes on oil pricing. One of the reasons we originally set our targets at 50 percent was the realization that it was just as likely that the price of oil could drop. And we wanted for our membership that our rates would reflect that, which in hindsight was a pretty good thought process of ours.

Back when everybody was saying it's going to be \$200 (per barrel), we kept saying, "It just as easily could be \$40 ... I mean, up and down on oil, you cannot tell. So you've got to look at ranges, you want to be conservative on your projections. ..."

In my opinion, the best indicator of what oil's going to be a year from now is the price of oil today. That can pretty accurately reflect what it's going to be tomorrow or six months out — less so when you go out five or 10 years or 20 years for the chance to do a renewable energy project, it's just really impossible.

You have to use the best information you can, and you try to do the best projects you can relative to that. Lower prices, whether it's oil or whether it's liquefied natural gas (LNG) that you're looking at as your base for the price to beat, it's probably a good thing. It makes renewables be even more cost-effective.

If you can lock in a lower fuel expectation to beat, that's good.

Q: Since you brought up LNG, what part in your portfolio will that have in the future?

A: I mean, we've been looking at it, been doing assessments on it for the last year-and-a-half or so. We hear loud and clear from our membership that their No. 1 concern is price, and they want our rates to go down. We feel we have an obligation to look at anything that will lower their rates.

And LNG has potential. We can replace some of our older units with more efficient ones, bring in a lower-cost, less-volatile fuel solution that has less CO₂ coming out of it, a cleaner fuel ...

We understand and appreciate where the governor's coming from, not wanting to have another fossil fuel slow down the implementation of renewable targets. But we look at it a little differently. We just see you need to bring in better, more cost-efficient renewables to meet the target.

And we believe that's what our members want. They want the lowest rate. They don't want renewables at any cost.

Q: So, what do you think of the 100 percent goal?

A: The goal is great, I think that aligns with our long-term goals at KIUC, to reach 100 percent. But one of the key parts of that goal is the cost-effective side of it.

The state law has a condition it needs to be done cost-effectively. Our concern is we want the definition of “cost-effectively” to be to the lowest-cost alternative, which would be likely LNG — not setting it to the higher-cost alternative of oil. ...

We need to sort through the governor’s position on LNG. I think his intent is still being kind of worked through the system, on what he really means on that.

It seems he’s backing off, or it’s being explained better. ... He’s concerned that there’s a huge infrastructure investment in LNG, and it takes 30 years to get the return on it.

I think that’s consistent with our outlook. ... If we go with liquefied natural gas, we want the cost reduction to justify a payback over a short period of time.

Q: You think it’s possible to fold in LNG without an enormous, gold-plated system?

A: Absolutely, for Kauai. ... We’re still assessing doing it here. Our board has not made a determination. ... We’re still going forward, looking at all our options. At some point we have to sync up with the governor and we’re not doing anything contrary to the vision for the state.

Q: Do you think the cooperative model is an idea that’s exportable to the other islands?

A: The cooperative model is definitely exportable to the other islands. It would be a challenge for Oahu because of the size, but even Oahu, it’s not impossible to be done there. That would be a very large co-op, on an integrated basis. But Maui, the Big Island, it certainly could be done there.

There are a lot of advantages to a co-op. The biggest advantage is really the sense of control that the members have. They get to elect the board and really be part of the decisionmaking and setting the direction of the co-op. That’s what people like.