

Isn't it time to stop making electricity more expensive?

(Honolulu Star-Advertiser Insight Article, March 20, 2023)

By Clint Churchill and Ed MacNaughton

In his January 15th letter to the editor, Peter Turcsik asked “How about making electricity affordable?” Yet policy after government policy set us on a path for just the opposite, all in the name of 100% renewable energy.

Turcsik encapsulated a key issue: “I have 21 solar panels and battery backup for my home. The past few weeks, with the rain and overcast days, my panels did not produce enough energy to charge my battery. I was on the grid most of the time.”

Even if we were to set aside significant land-use implications and achieve 100% renewable on a sunny day in 2045, how will we get reliable power from intermittent solar?

Stand-alone utility scale battery farms are one option, but they are essentially a new middleman in electricity delivery without adding a single kilowatt of actual power generation.

Hawaiian Electric estimates that the new battery farm at Kapolei will cost Oahu ratepayers some \$500 million over the next 20 years; but the farm will hold less than 3% of one day's demand. Will it take more than 20 of these farms and more than \$10 billion to ensure reliable electricity for just two overcast days? Or \$20 billion to cover four overcast days? It's becoming obvious that utility-scale solar plus battery storage just isn't practical.

The reality is that Hawaiian Electric will need a source of “thermal” power to make solar production reliable. Biomass and biofuel depend on net zero reasoning that CO₂ absorption during feedstock growth will offset CO₂ released when the fuel is burned. Biomass, or burning trees, is inconsistent with current PUC policy. As for biofuels, a key study concluded that “carbon uptake associated with crop growth offsets only 37% of CO₂ emissions” tied to biofuel use.

Policymakers and ratepayers alike should closely scrutinize Hawaiian Electric's current "firm renewable" request-for-proposal process; will this option result in both higher cost to ratepayers vs. proven options and be a climate mistake?

How about hydrogen? A January 25, 2023 Star-Advertiser editorial headlined "Hawaii a good fit for hydrogen fuel." Hawaii should seek every federal grant possible, including competing for a Hydrogen Hub. We wish the consortium success. But hydrogen is practical only when there is a low-cost energy source for production. The process to "crack" hydrogen from water using electrolysis is hugely energy intensive; it takes more energy to produce electrolytic hydrogen than hydrogen provides when it is converted to useful energy. How could there possibly be sufficient inexpensive electricity on Oahu to produce affordable hydrogen? Hydrogen might have a role on the Big Island using curtailed geothermal power, but we ask if hydrogen is remotely practical as a strategy to achieve reliable electricity from utility solar farms on Oahu.

To move on from burning fuel oil, isn't liquified natural gas (LNG) the most practical choice as both a transition fuel to 2045 and as backup for overcast days thereafter? Despite Hawaiian Electric's estimated ratepayer savings of as much as \$3.7 billion over 30 years, Governor Ige opposed LNG in 2015, stating "it's time to focus all of our efforts on renewables." Should we be placing a higher priority on making an infinitesimal dent in the CO2 in the world's atmosphere vs. the cost of electricity for our people?

We're missing out on potential rate reductions from converting to natural gas vs. oil—a policy costing ratepayers at least \$100 million per year, year after year. Isn't it time to put the financial needs of our people first, by coupling maximum practical renewables with a cleaner and cheaper energy source for both the transition to 2045 plus reliable electricity thereafter?

Retired businessmen Clint Churchill and Ed MacNaughton represent the Practical Policy Institute of Hawaii.

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INSIGHT

Is Hawaii ready for all-renewable energy?

NO

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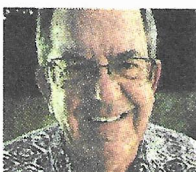
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ISLAND VOICES



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