

Renewable Energy—Stop Burning Stuff

Henry Curtis

I am sitting on my lanai, listening to the wind rustling in the swaying branches, hearing the birds, observing nature.

How did we get here? Where are we going? Age-old questions made more relevant by the COVID-19 pandemic that stripped away the veneer, exposing the social weaknesses of our overdependence on tourism and imports. The pandemic propelled the planting of residential food gardens. I am digging in the dirt, pulling weeds, respecting nature about what to grow where.

We must talk about bias. We all have biases. Self-examination is critical. The future needs to focus on sustainable lifestyles with far less inequality. Racial tensions are less than many other places, but only haoles think racism doesn't exist on the islands. The future needs to be based on aloha, laulima (working together), mālama 'āina (caring for the land), pono (right, just), and kūlike (equity).

I grew up in the 60s. It was a time for questioning, for challenging authority, for looking beyond inaccurate governmental pronouncements. I traveled throughout California, door-to-door, talking to people about pesticides, pollution, and other environmental issues. For the past quarter-century, I have represented Life of the Land in more than fifty administrative, regulatory, and contested case proceedings before the Hawai'i Public Utilities Commission, where we have been admitted into far more electric and gas proceedings than all other environmental and community groups combined. We encourage others to intervene.

Energy is what enables change. In a general sense, we eat food to provide us with energy. We see light energy. We hear noise energy. We smell aromatic energy. The funny thing about energy is it can't be created or destroyed. It exists forever, although it often changes form.

The other funny thing is since energy can't be created or destroyed, there is no such thing as renewable energy. We give names to several types of energy to make it easier to grasp. We have clean energy, dirty energy, blue energy, green energy, and renewable energy, with no clear definitions of what is meant by any of them.

When we talk about energy, we often mean something useful that we can move from one place to another, like gasoline, kerosene, propane, jet fuel, and electricity. We also sometimes mean the infrastructure, such as transmission lines, wind turbines, and power plants.

In a very general sense, renewable energy can be thought of as something we can get directly from nature, while fossil fuel is vegetation that died eons ago and over time has become coal, gas, or petroleum. This analysis is from the 30,000-foot level. If we dive into the weeds, then we would find that every government has a unique political definition of what is and isn't renewable energy. Hawai'i legislators have produced at least five fundamentally different definitions of renewable energy in the past twenty years. Currently, the Hawai'i definition of renewable energy includes chopping down the Amazon rainforest, flying the trees to Hawai'i, and burning the wood. State law says this is carbon neutral. Obviously, it's not!

Burning anything creates air pollution that impacts the health of all living things and releases greenhouse gases. Burning biomass and garbage often generates more greenhouse gases per unit of electricity produced than burning coal. We must stop burning stuff.

Life of the Land supports community-friendly, non-combustion energy sources. We strongly believe that any solution needs to be real and not pit communities against each other. Energy facilities should be part of the community they are placed in. Together, we must find ways that allow all people to have access to clean water, local food, reliable energy, and equity.

I have sought to bring the community perspective and values into energy proceedings. Life of the Land advanced the Public Utilities Commission's understanding of electronic filings, equity, justice, climate change, cultural impacts, geographic impacts, and competing land uses.

Our path forward must be influenced by recent events.

Hurricane Maria hit Puerto Rico in September 2017. The cyclone cut diagonally across the island from the southeast to the northwest, separating the major population areas from the major power plants. Resilience requires the generation of energy to be located near where it is needed.

Hurricane Lane barreled towards O'ahu in August 2018. The Hawai'i Emergency Management Agency determined that if the storm had maintained its strength for another twenty-four to forty-eight hours, the economic damage would have exceeded \$10 billion, more than 10 percent of the state population would have required short-term shelter, and over eight million tons of debris would have needed to be cleared from roads.

Currently, Hawai'i has a three-day supply of medicine, a five-day supply of food (excluding prepackaged military meals), and a thirty-day supply of fuel. Only Moloka'i has more than a one-day supply of freshwater. The other islands depend upon electricity for water pumping.

The COVID-19 pandemic is changing how energy is used. Meetings and conferences are being held via videoconferencing. Working at home is on the rise. Our economic future must be diversified rather than dominated and controlled by tourism. Building a social safety net so that everyone has enough food, water, and internet access is critically important.

The cyclones and pandemic have created the opportunity to rethink our future. We can design and build local sustainable communities that power themselves with local power and local microgrids. By working together and learning from each other, we can grow our own food, produce our own energy, rebuild the social safety net, and create a more just and equitable society.

Community is important. Together, each community must address where food and electricity are generated. We must work together to find community solutions for many issues: health, food, education, affordable housing, climate change. Too often in the past, site selection was based on mainland capitalists seeking profit maximization, and rural communities were run over.

The phenomenal growth in rooftop solar has enticed dreamers to realize that a new future is possible. Life of the Land believes that the electricity scenario must be based on low-cost, low-impact, local energy sources: solar, wind, hydro, ocean. Each moku and ahupua'a can generate its own electricity and handle its own waste. Ground and marine transportation must be powered by electricity. The amount of energy needed to power a car using gasoline is nearly three times greater than the amount of energy needed to power a car by electricity. Cars should be powered by electricity made without burning things.

In the last fifteen years, Hawaiian Electric has signed contracts for imported rainforest palm oil biodiesel, for clear-cutting Hawai'i forests to generate electricity, for microwaving Ka'u crops into biofuel, and for creating intrusive Kahuku wind-based electricity. In each case, Life of the Land fought the proposal. We won some; others are ongoing disputes. Life of the Land also filed the first two climate change cases before the Hawai'i Supreme Court. We won both, forcing the Public Utilities Commission to analyze greenhouse gas emissions for all proposed gas and electric facilities.

The state should examine renewable energy projects holistically to see how they interface with job training, local employment, and climate change. We must subsidize construction and job opportunities in economically-challenged areas—for example, building solar-powered affordable housing and community centers with community gardens.

The technology exists for buildings, electric grids, and vehicles to share electricity, with any one of them providing power to the other two. Rooftops are an excellent place for solar panels and microturbines. Propellers on the floor of gravity-fed storm drains and canals can provide power during rain events, when not as much solar is available.

Tax breaks should be provided for people who do not own a fossil fuel-powered vehicle, regardless of whether the person owns an electric vehicle or has no vehicle at all. The government should also offer free electric-powered bus service, with expanded routes on all islands.

I am a firm believer in the rights of nature as well. Plants and animals do not exist on this planet merely to meet our needs, or so we can observe them. They have

their own right to exist. Sustainability requires reimagining and rethinking the entire ecosystem—the plants, animals, water, rocks, agriculture, energy, and educational systems.

We need to expand interdisciplinary thinking, cutting across silos to see and develop the big picture. This will require an engaged community. All voices must be at the table, including seniors and young people. Competing ideas make us stronger. Superficial sound bites should be replaced with deep analyses of viable alternatives.

The fires of change require friction. I am an optimist.

We can make the change. We must make the change. We will make the change.

We are the change!

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