



Clean energy forum looks at obstacles and advances

By Jay Fidell

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This fourth year of the Clean Energy Initiative is a good time for the Hawaii Energy Policy Forum to look at what's working and what's not. That's what HEPF will do at its fourth Clean Energy Day at Laniakea on July 6.

This Clean Energy Day will be the most interesting one so far. HEPF wants to reveal the sea changes and bottlenecks, and to identify the "game changers" that have emerged and also the "long shots" less likely to stay on the field.

After remarks from public officials, the first of four panels will cover liquid natural gas, asking whether it's a transitional or permanent replacement for oil. What are the challenges of bringing it online to fuel our generators?

The second panel will cover wind and geothermal. Can these resources become our clean energy mainstay without an undersea cable and a multi-island grid? What are the best-case, worst-case and most likely scenarios for big renewables?

The third panel will cover biofuel. Can agricultural biofuel be a replacement for oil? How much can be produced and at what price? What about competition with food? How will it compare and compete with LNG?

The fourth panel will cover energy efficiency and our solar and photovoltaic industries, and explore how these relate to each other and how that relationship will play out, particularly when tax credits and PV costs are so uncertain.

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>> What: Fourth Annual Hawaii Clean Energy Day
>> Where: Laniakea YWCA, 1040 Richards St. >> When: July 6, noon to 6 p.m.
>> Fee: \$30
>> Registration: www.hawaiienergypolicy.hawaii.edu/HCED/HCED4.html

I'm pleased to be a member of HEPF and a moderator of this program. It will provide a great framework to let us get a bearing on where we are. To get ready, let's take a look at some sea changes the panels might consider:

» Big Wind, our biggest project, is stuck because of opposition on Molokai and Lanai. The bill that passed this year to facilitate the cable might help, as might the pending request for proposals process with Hawaiian Electric Co., but it's still an uphill battle.

» There are three wind farms on Maui and two on Oahu. Maui Mayor Alan Arakawa favors a direct cable between Oahu and Maui. Public Utilities Commission approval, permitting, environmental impact statement and construction will take years. How will it come out?

» Solar water heaters and PV have offered energy independence to thousands of homeowners, although production is small against the big renewable projects. So far, the industry has protected the tax credits, but what about next session, and what about the PV trade wars?

» Without utility-scale storage like pumped hydro, wind and PV can never be firm enough to replace the generators. With a multi-island grid, one big reservoir system could change everything. Even without a cable, pumped hydro could change each island. What's holding us up?

» Geothermal is in irons. It has to wait for better cable technology to cross Alenuihaha Channel. Another impediment is that we charge royalties on geothermal — the only renewable so taxed. This is hardly an incentive.

» After the PUC's rejection of Aina Kona Pono, agricultural biofuel has to catch up. Pacific Biodiesel is making progress on Hawaii island, but the Legislature did not expand the old ethanol tax credits to cover biofuel. Can we grow enough to supply the generators and transportation?

» Since we are a long way from replacing the generators, we should look at using biofuel or LNG to fuel them in the interim. The Gas Co. can get cheap, plentiful LNG from the mainland to use instead of oil. LNG is fossil fuel, but it's not foreign, burns cleaner and is much cheaper than oil.

The plan is in the timing, and any plan must allow for trial and error to adjust for new technology and changing times. For firm renewables, we need to wait for storage. For a statewide renewables grid, we need to wait for development of the cable. For local utility-scale biofuel, we need to wait for development of an agricultural infrastructure. In short, there are delays behind every door.

To keep the lights on, satisfy the public's demand for reduced electricity prices and give us time to build an infrastructure for big renewables, we should use transitional fuels to keep the generators going. LNG could be transitional, but for how long? We should not use it to forestall real decisions on clean energy.

These sea changes remind us that Hawaii is on an epic journey, one the world is watching. We still have the advantage but it's ours to lose. Every so often, we need to refocus on this. That's why Clean Energy Day is so important.

Jay Fidell, a longtime business lawyer, founded ThinkTech Hawaii, a digital media company that reports on Hawaii's tech and energy sectors of the economy. Reach him at fidell@lava.net.