

# Public Comment

Agenda Item 5.4  
Review of Updated CAPE/  
RePower Humboldt Draft

November 9, 2019

Redwood Coast Energy Authority Board Members  
633 3<sup>rd</sup> Street  
Eureka, CA 95501

Dear Board Members,

First of all, thank you for serving on this board, and therefore serving your community. With the recent power outage debacle, our local energy production is on the minds of many more of our local citizens. I know I have recently had many discussions about our sources of energy, and how we should proceed in the future.

I believe that the State of California should support each county, both monetarily and intellectually, in developing its own power sources and micro-grids. The brightest minds in renewable energy development should be hired to help develop these systems, individualizing each system to fit the resources, needs, and climate of each county.

Here in Humboldt County, I think we need to develop more solar micro-grids, such as the one at the airport. I do NOT support the Terra Gen Wind Project, as I feel the costs to our county both environmentally AND culturally far outweigh the benefits. Terra Gen is a for-profit company that has NO real interest in Humboldt County, other than plunder. I think we need to research offshore wind projects, such as those that are being used in the North Sea, and if that seems like a good fit, then we should pursue that technology.

I also wonder about the possibility of installing solar panels on awnings in existing parking lots (private/public partnerships). I have seen several examples of that recently, both at a junior college in Bakersfield, and at the Medford Airport in Oregon. This seems to be a win-win situation, as valuable land is not used up for the panels, and cars parked under the awnings benefit from the shade.

I also do NOT support creating energy from biomass, and I strongly urge the RCEA to abandon its support of this form of energy. Several years ago, I attended a local talk about biomass energy production throughout our country, and though I cannot remember the details (sad, but true) I remember leaving the talk feeling like biomass fuel and its byproducts are a major source of air and water pollution. We CANNOT add to our ever-increasing carbon production!

I realize that, as a board, you have an extremely challenging task. As a community, we all need to be involved in the difficult decisions you are trying to make. Thank you for letting me share my thoughts.

Sincerely,



Lisa Bethune

[REDACTED]  
Arcata, CA 95521  
[REDACTED]

November 19, 2019

RCEA Board Chair and Members:

RE: RePower Humboldt (CAPE 2019 Update) Comments

As a RCEA CCE ratepayer, I do not support specific parts of the Energy Generation section, namely Biomass and On-shore Wind.

If RCEA CCE continues to offer only REpower with 23% biomass and REpower+ with 12% biomass, I will opt out and switch to PG&E's solar choice, even if this costs me more money. I realize that the Scotia and Fairhaven biomass plants will continue to operate, but if enough Humboldt County residents opt out, and certainly if RCEA does not renew the contracts, these plants will close. Globally, we have a decade to reduce carbon emissions to avoid an increasing rate of global warming. Burning biomass emits carbon 24/7 and seedlings planted to replace harvested trees do not grow fast enough to sequester the amount of carbon emitted by biomass burning, especially within the decade we have to reduce carbon emissions and because we continue to harvest the biggest trees, those that have the most photosynthetic surface area to sequester the most carbon. This is like continually harvesting the biggest fish, those that have reached reproductive age, and wondering why the fish population is decreasing.

Biomass burning emits fine particulates that lodge in our lungs and enter our blood stream, increasing risk of asthma, heart attacks, cancer and early death. Why are we consciously subjecting ourselves to this risk?

Biomass is more expensive than solar, wind, and battery storage, and dirtier as well as more expensive than natural gas, a better transition fuel than biomass. The ratepayer money given to Humboldt Sawmill Corporation and EWP Corporation could be used to build leverage funds to develop solar micro-grids, battery storage, off-shore wind, wave energy converter buoys and making Humboldt County energy independent.

As a person who has invested in roof top solar, I was angered and dismayed to hear a RCEA Board member and a Schatz Lab employee downplay the value of roof top solar, not address the possibilities of a network of solar micro-grids and battery storage, and speak of off-shore wind as far off and maybe not possible when they extolled the benefits of on-shore wind at the Humboldt County Planning Commission meetings I attended. Off-shore winds are stronger and more consistent than on-shore winds. The ocean area set aside for wind turbines can also provide space for wave energy converter buoy power stations (Oregon is already testing OE 35 buoys, made in Portland, OR, off the coast of Newport, OR). Off-shore wind and waves can produce much more energy than on-shore wind; this will provide more benefits for both Humboldt County and California. Off-shore wind is described as being at least 5 years away from fruition; on-shore wind is expected to be completed in 18 months. The sovereign Wiyot nation has not reached agreement with Humboldt County on the on-shore project and the EIR process and product are likely to initiate law suits; these aspects may extend the completion time line and increase the costs.

Off-shore wind infrastructure will provide new surface area habitat for ocean critters that need to attach themselves to a substrate; these organism are lower in ecosystem food chains and will provide more food for fish, and the area set aside for wind turbines may serve as a marine sanctuary and enhance fish populations.

An off-shore wind project will not alter/violate Wiyot cultural and sacred sites; will not cover land based habitat with concrete pads; will not require stream crossings and wetland disturbance; will not require permanent access roads that eliminate vegetation and habitat; will not require removal of trees for new transmission lines; will not create visual blight – the wind turbines and flashing lights for planes will not be visible on land 20 miles away; Hoary bats do not have a mating hot spot over the ocean; carbon sequestration in ocean water will not be reduced compared to the reduction caused by the on-shore project; thirty years of land lease costs will be avoided; construction and maintenance will not cause highway traffic flow problems. For these reasons I strongly support rapid development of off-shore wind energy and reject on-shore wind energy development in Humboldt County.

Thank you for considering my comments.

Diane Ryerson



Arcata, CA 95521

**EIA final data CY 2018 by type wood diesel and natural gas**

Wed, Nov 20, 4:19 PM

U.S. Department of Energy, The Energy Information Administration (EIA)  
 EIA-923 Monthly Generation and Fuel Consumption Time Series File, 2018 Final Revision  
 Sources: EIA-923 and EIA-860 Reports

Plant Id	Plant Name	Reported Fuel Type Code	Physical Unit Label	Year-To-Date	
				Total Fuel Consumption Quantity	Net Generation (Megawatthours)
10052	Fairhaven Power	NG	mcf	45,318	
10052	Fairhaven Power	WDS	short tons	100,690	2,054 2018
50049	Humboldt Sawmill Company	DFO	barrels	1,238	37,566 2018
50049	Humboldt Sawmill Company	WDS	short tons		271 2018
				209,140	109,860 2018

2018 final fuel report  
 Fairhaven 7 months of data  
 Diesel fuel equals 37,759 gals

**EIA 923 Interim Report CY 2019 Jan - Aug fuel type diesel and wood**

Wed, Nov 20, 4:31 PM

U.S. Department of Energy, The Energy Information Administration (EIA)  
 EIA-923 Monthly Generation and Fuel Consumption Time Series File, 2019 August  
 Sources: EIA-923 and EIA-860 Reports

Plant Id	Combined Heat And Power Plant	Plant Name	Reported Fuel Type Code	Physical Unit Label	Year-To-Date	
					Total Fuel Consumption Quantity	Net Generation (Megawatthours)
50049	Y	Humboldt Sawmill Company	DFO	barrels	738	220 2019
50049	Y	Humboldt Sawmill Company	WDS	short tons	130,054	84,352 2019

HSC diesel total for CY 2019 Jan - ~~Feb~~<sup>Aug</sup> was 22,509 gals.  
 Fairhaven data is missing; it is mandatory by Feb 2020

The following comments were made by Chair Michael Winkler during discussion of agenda item 5.4 - Review Updated RePower Humboldt/Comprehensive Action Plan for Energy Planning Document Draft.

### **Fundamental Challenges in Moving from Fossil Fuels to Local Renewable Energy Sources**

For more than 300 years, fossil fuels have delivered many valuable properties that industrialized economies and our community depend on:

- Highly concentrated
- Portable
- Steady and unvarying
- Available instantly, in almost unlimited quantities, during any time of day and any time of year when we need them

Even with these valuable properties and the trillions of dollars that we have already invested in developing fossil fuels, the increasing build-up of the negative impacts of using fossil fuels, including local pollution, toxicity, war and global conflict and global climate change, make it necessary to rapidly move away from fossil fuels to renewable energy sources.

Our community needs to develop and implement advanced methods and technologies to upgrade and enhance our local renewable energy sources, such as wind, solar and biomass, so that they can provide the valuable properties that we currently derive from fossil fuels. Some of those technologies include energy storage (batteries, thermal, long-term, seasonal), electric heat pumps, electric vehicles and advanced grid management and reliability.

The need for storage can be minimized by prioritizing energy sources, such as biomass, that can provide baseload and dispatchable power and sources, such as wind, whose time of generation most closely matches daily and seasonal consumption patterns in Humboldt County.