

HUMBOLDT WIND

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A lot of important issues were raised at the meeting. The most important was the fire safety hazard invariably created by this project. Wind turbines have been known to spontaneously combust. Spinning blades can throw fire and debris hundreds, if not thousands of feet from the turbine. A Scotia firefighter pointed out that when PALCO managed the Monument Ridge area they kept an eye out for any sign of fire with spotter planes. **Cutting a path through forest for transmission lines would not only impact wildlife and ecosystems but would create a corridor for fires to start and spread from the high voltage lines.**

The amount of water needed for the construction of the project *isn't even available* and the pond Terra-gen is proposing to draw from played a crucial part in saving the town of Scotia when a fire broke out in the past.

Vibrations from the turbines have not been addressed. These vibrations will have a tremendous effect on the creatures living in the soil as well as those above and beyond. This low frequency noise or infrasonic waves are known to travel many kilometers depending on weather conditions. These waves cause health issues though they are not audible, the bodies of humans and animals are negatively impacted. Vibroacoustic Disease is known to cause heart arrhythmia or even death.

The near 600-foot-tall mechanisms spinning 250-foot-long, 500-foot-around blades at about 200 mph would seriously alter the weather and the movement of cool air and fog that regularly pass over the ridge and drop in the forest. This patterned movement of cool damp air is a crucial component for the health of both Redwood and Doug Fir trees, as well as other plant species.

And these turbines need to meet FAA standards. That means they will have lights. It was said that the tallest trees on the Ridges measure 145 feet. The tips of the blades will be 450 feet above the tallest trees, with lights spinning round and round. A local citizen recently flew over this area and asked the pilot to fly 600 feet about the ridge. From there, she said, she could see everything in all directions. These turbines will be a visual blight to Humboldt County.

The city of Scotia is proud of their town and believe in Historic Preservation. They make sure that any alterations of building in the town meet historic standards. These huge turbines will tower over the town and reduce property values. Already locals are saying that if they knew turbines were to be installed they never would have bought a house in Scotia or Rio Dell.

Another concern is the impact on the U.S. 101 corridor between Fields Landing and Scotia. Twenty-four bridges and overpasses exist along this stretch of highway. All these overpasses are only 15-foot high, which is too low for mostly

all of the turbine equipment to pass under. Alterations would have to be made to the highway by making new off ramps and on ramps or modifying existing ramps to accommodate the enormous loads that would pass through.

Trees would be removed, roadside vegetation eliminated, earth modified and none of that work has had any environmental or wildlife surveys to state whom and what could be killed or destroyed. Some bridges simply cannot be avoided, and these bridges also may not meet the requirements to handle the amount of weight that would pass over them. The towers are broken into three pieces - that's 180 trips carrying 100 foot or more steel tubes weighing hundreds of thousands of pounds. Then you have 180 blades measuring 225 feet in length, along with 60 nacelles. Here are some examples of the weight of the components that would be transported down the 101. These are numbers for a smaller turbine, a 415-foot turbine. Obviously these numbers would be even higher for the Humboldt Wind Project. These figures came from a construction video shown by Natalynne DeLapp:

5,760,000 lbs of rebar; 3,180 loads of concrete - if those trucks hold 10 yards (they probably hold 15), then that's 31,800 yards of concrete; 90,000 yards of backfill; 60 blades at 173 feet (smaller than Terra-Gen's blades) equals 1,620,000 lbs of carbon fiber; 480 truckloads to deliver turbine components; 60 Nacelles is 10,860,000 lbs; 60 Base towers is 5,847,540 lbs; 60 Mid towers is 6,935,220 lbs; and 60 Top Towers is 6,250,020 lbs.

Could our highway even handle all that? If you think this would all be over in 18 months, you are wrong. These are very intricate machines that require tons of maintenance and monitoring. If a part were to break or wear out, they'd have to get the new parts up to the ridge and the whole highway-impact process would be repeated. Just getting a crane out there large enough to handle the equipment would be a huge endeavor.

Please consider all this next time Terra-Gen tries to convince you that their project would be good for Humboldt County.

The Wiyot Tribe recommends that the project be denied on the grounds of unmitigable impacts to Tsakiyuwit - its culturally important sites, flora, fauna, and the remainder of Wiyot territory that is within its viewshed.

The Wiyot experienced mass genocide and were robbed of most of their sacred lands around Humboldt Bay and the lower Eel River. Much of their ancestral land has been developed and the native vegetation types the Wiyot helped to shape and tend have been converted to alien pasture grasses and weeds. In the spectrum of impacted landscapes, Tsakiyuwit has persisted to the present as a special gem of native coastal prairie that still holds the signs of the Wiyot's caretaking and stewardship. We have the opportunity to protect this iconic cultural landscape, this majestic gateway to Humboldt Bay, for

future generations to be able to look up and see the wind blowing the checkerblooms in the fields and the birds gliding freely in the sky, without the stamp of human greed and destruction - just the way that Wiyot ancestors experienced this amazing place.

The obvious rational alternative to these capital intensive, ecologically questionable mega energy projects is small-scale, decentralized, locally-produced power systems.

The Rio Dell City Council met on the evening of June 4, 2019 to discuss a response to the Draft Environmental Impact Report, After careful consideration, the Council voted 4-0 (Council member Wilson recused) to issue a strongly worded response to the DEIR officially opposing the project and recommending the "No Project" alternative.

The close of the public comment period for the Draft Environmental Impact Report (EIR) for the Humboldt Wind Energy Project has been extended from June 5, 2019 to **June 14, 2019.**

All comments on the Draft EIR must be received by the county no later than 5 pm on June 14, 2019. Comments can be mailed to:

Humboldt Wind Energy Project Planner
County of Humboldt Planning Department
3015 H Street
Eureka, CA 95501
Or sent via email to CEQAResponses@co.humboldt.ca.us

The Draft EIR and other project materials remain available here for public review and download:

<https://humboldt.gov.org/2408/Humboldt-Wind-Energy-Project>

Printed copies of the document are available for public review at the following locations during normal business hours:

Humboldt County Public Library Branches
- Rio Dell: 715 Wildwood Avenue, Rio Dell, CA 95562
- Ferndale: 807 Main Street, Ferndale, CA 95536
- Eureka: 1313 3rd Street, Eureka, CA 95501

Scotia Community Services District, 400 Church Street, Scotia,
The Multi-Generational Center, 2280 Newburg Road, Fortuna,
County of Humboldt Planning and Building Department, 3015 H Street, Eureka

The information in this article was put together with the help of Dave Grant of Petrolia

and Adam Cant of the Wiyot Natural Resources Department. Many thanks to you both!



Feeling the Heat

This year in Alaska, an abnormal rise in temperature has, as in much of the north, disrupted isolated communities, upset subsistence hunting patterns, and even led to some deaths.

Alaska in March is supposed to be cold. Along the north and west coasts, the ocean should be frozen farther than the eye can see. In the state's interior, rivers should be locked in ice so thick that they double as roads for snowmobiles and trucks. And where I live, near Anchorage in south-central Alaska, the snowpack should be deep

enough to support skiing for weeks to come. But this year, a record-breaking heatwave upended norms and had us basking in comfortable - but often unsettling - warmth.

Across Alaska, March temperatures averaged 11°C (52°F) above normal. The deviation was most extreme in the Arctic where, on March 30, thermometers rose almost 22°C (71.6°F) above normal - to 3°C (37.4°F). That still sounds cold, but it was comparatively quite hot.

"It's hard to characterize that anomaly, it's just pretty darn remarkable for that part of the world," says Rick Thoman, a climate specialist with the Alaska Center for Climate Assessment and Policy in Fairbanks. The state's wave of warmth was part of a weeks-long weather pattern that shattered temperature records across our immense state, contributing to losses of both property and life. "When you have a slow grind of warming like that, lasting weeks or months, it affects people's lives," Thoman says.

In Alaska, ice is infrastructure. For example, the Kuskokwim River, which runs over 1,100 km (684 miles) across southwestern Alaska, freezes so solid that it becomes a marked ice road connecting dozens of communities spread over 300 km (300 miles). In sparsely-populated interior Alaska, frozen rivers are indispensable for transporting goods, visiting family, and delivering kids to school basketball games.

Along Alaska's west coast, the frozen waters of the Bering Sea also act as infrastructure. Each winter, frigid air transforms much of the Bering between Russia and Alaska into sea ice. As it fastens to shore, the ice provides platforms for fishing and hunting, and safe routes between communities. It also prevents wave action and storm surges from eroding the shores of coastal villages.

The steady decline of sea ice is old news, but 2019 brought exceptional conditions. In January, a series of warm storms began breaking apart the ice, which had formed late and was thinner than usual. By late March, the Bering Sea was largely open, at a time when the ice usually reaches its maximum for the year, which historically has been as much as 900,000 square km (348 square miles; more than twice the size of the province of Alberta). In April, U.S. federal scientists reported coverage was even lower than the unprecedented low extent of 2018. By mid-May, ice that should have persisted into June was almost entirely gone.

Declining sea ice and melting permafrost are having devastating impacts on Alaskan villages. Since 2003, the United States Government Accountability Office has identified at least 31 communities at risk, with erosion imperiling homes, roads, and drinking water sources. Three villages - Kivalina, Newtok, and Shishmaref - must relocate soon or cease to exist, a traumatic reality brought into sharper focus by the warm 2019 winter.

In an added hardship, disappearing ice cuts off access to hunting and fishing routes, and the warming ocean is changing where fish and marine mammals can be found. This has real nutritional consequences in a land where many residents still rely on subsistence hunting and fishing. Commercial crab, cod, and pollock fleets also wrestle with the changes.

Beyond the immediate impacts on people and infrastructure, less ice in the Bering and in the neighboring Chukchi Sea to the north have far-reaching atmospheric effects in Alaska. As Thoman explains, the massive area of newly open water creates warmer air temperatures and provides more moisture to storms. It can increase coastal erosion and winter rain or even produce heavier snow far inland. Researchers are also investigating whether disappearing sea ice is affecting continental weather patterns.

Meanwhile, hundreds of kilometers south of the Bering, the balmy winter contributed to above-average sea surface temperatures in the Gulf of Alaska. Scientists say the gulf is certain to warm further during the upcoming summer. For many, including Rob Campbell, a biological oceanographer with the Prince William Sound Science Center, it stirs unpleasant memories of the Blob, an enormous patch of warm water that formed in the Gulf of Alaska in 2013. It lasted over two years and upset ecological norms across our region.

"Today we don't see as much heat in the gulf as we had beginning in 2013," says Campbell. "But in general, the northern gulf is 1.5°C (34.7°F) above average. It's a big anomaly heading into summer."

Campbell finds the conditions worrisome. "Continued warmth like this has cascading effects," he says. "And we may not understand the consequences for species like salmon for years to come."

As spring rolls into summer, temperatures have moderated somewhat, but above-average warmth still dominates across much of Alaska. It's especially true in the Arctic, where May temperatures at some locations have been higher than normal nearly every day, sometimes by as much as 10°C. As a result, sea ice and snowpacks are at record lows. To scientists, village elders, and others, it is the latest indication of the transformational changes accelerating across the north.

Tim Lydon
hakaimagazine.com

Meanwhile Down Under



Icy conditions have swept across eastern Australia, bringing snow to areas as far north as subtropical Queensland. Severe weather warnings have also been issued for a 1,000 km (620 miles) stretch of coast which includes Sydney.

People have been urged to stay indoors amid heavy rain and gale-force winds.

Meteorologist Lachlan Stone said the snowfall in Queensland, driven by colder air from the south, was an unusual occurrence in a state with a subtropical to tropical climate. "But in the south of the state, particularly near the New South Wales border, it's quite mountainous and in the elevated areas it can get quite cold," Stone reported. Authorities said that snow had fallen near the

town of Stanthorpe, 220 km (137 miles) south-west of Brisbane. The town recorded near-freezing temperatures on Tuesday, said Mr Stone.

Up to 5 cm (2 inches) of snow also blanketed the Blue Mountains region, west of Sydney, prompting road closures and travel warnings. The weather bureau said strong winds along the New South Wales coastline had been blowing in excess of 90 km/h (55 mph).

The nation has just experienced its hottest summer on record and recent extreme weather events including drought, floods and bushfires. Australians are more concerned about climate change than at any point in the past decade, a recent poll by the Lowy Institute found.

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