



# FRIENDS OF THE EEL RIVER

*Working for the recovery of our Wild & Scenic River, its fisheries and communities.*

June 14, 2019

Humboldt Wind Project Planner  
County of Humboldt  
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RE: Humboldt Wind Energy Project

Dear Planners:

Please accept these DEIR comments on the Humboldt Wind Energy Project from Friends of the Eel River (FOER). While FOER is supportive of the development of clean, renewable energy generally, the construction and maintenance of such a large infrastructure project in an ecological system as important - and sensitive - as the Eel River watershed has the potential for significant environmental impacts. We detailed these concerns both in person and in writing during the scoping period and are distressed to see that most have either not been adequately addressed and/or are so significant as to be incapable of being truly mitigated. We are particularly concerned that the impacts and risks of the transmission corridor did not even make it onto the list of “Known areas of controversy.” 

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Friends of the Eel River’s assessment, as detailed in this letter, is largely focused on the problems associated with the transmission line corridor, possible directional drilling under the Eel River, and other aquatic impacts, as other entities are better positioned to analyze avian and terrestrial impacts associated with the construction and maintenance of the core site. However, we would like to specifically note that we share the concerns expressed by the Wiyot Tribe and allied conservation organizations (EPIC, Humboldt Baykeeper, Audubon Society) and local communities (Scotia and Rio Dell) that are outlined in the second section. 

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### Primary Concerns Directly Impacting Eel River Watershed Health

1. Drilling under the Eel River: It is unclear at this time as to whether the preferred alternative is to continue with the proposal for directional drilling under the Eel or to incorporate Alternative 2’s alternative gen-tie alignment into the final preferred alternative. This alternative should be more fully evaluated as a part of the larger ‘environmentally superior’ alternative. It is possible that the impact from bird collisions from a new line across the river might rival the potential aquatic risks from directional drilling. To be clear, additional environmental impacts to the Eel river from the crossing should be avoided. We need more

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information to accurately assess the impacts. Even under Alternative 2, there could still be water contamination from the build-out of infrastructure to facilitate the crossover.

Due to the many decades of timber processing adjacent to the proposed drilling site, it is likely that soils are contaminated (penta, fuerons, and dioxin are the most common legacy pollutants). We previously recommended that soils near the proposed drill site should be tested for contaminants, which does not appear to have been done. Should the project move forward, it should minimize soil disturbance due to both the potential for chemical contamination and erosion. 

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2. Transmission corridor/Gen-tie: Our assessment suggests that the approximately 30-mile-long transmission line from the turbine site to the sub-station in Bridgeville would have significant and unavoidable environmental impacts that far exceed the estimates in the DEIR. A 75-100 foot buffer is proposed to be cleared and maintained for overhead power lines in the Eel and Van Duzen River watersheds. Most of the land the lines would pass over is forested, and some of it old-growth. There is not yet a timber harvest plan to facilitate this clearing, nor is there a vegetation management plan, so it is also not yet clear what the full impacts would be. There are multiple streams along the way that host protected salmonid species. Transmission lines also kill birds. We know that murrelets occasionally collide with power lines with fatal outcome. Two murrelets died in collisions with local utility lines in Prairie Creek State Park several years ago.

However, the DEIR's analysis of this corridor seems to be little more than a perfunctory add-on to its impact analysis and proposed mitigations for the primary site. The two proposed avian mitigation measures for the gen-tie line are likely to be difficult to adhere to, so the DEIR proposes a (likely useless) subsequent mitigation measure of design characteristics to drive protected species away from the area. While this (theoretically) might reduce the risk of collision with lines/electrocution, it would actually worsen the habitat degradation from the project. Furthermore, the "Marbled Murrelet mitigation plan" described in 3.5-2c doesn't appear to actually exist yet and provides no real basis for magically 'creating' the 20.86 murrelets it anticipates killing. Its focus on improved trash facilities at nearby parks seems like a distraction at best, and certainly should not be something that a for-profit entity claims as its core mitigation measure when it is something that the County/State should already be doing anyway. Also, mitigation measure 3.5-14 does not even  mention the gen-tie's operational impacts or how they might go about mitigating them.

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The gen-tie's construction and maintenance impacts on listed fish is potentially significant, but it is also not mentioned in the summary of project impacts and mitigation measures. The Eel River watershed (which includes the Van Duzen) is one of the most erosive watersheds in the country, but with the exception of the impacts analysis of the directional drilling proposed for the mainstem Eel in some of the alternatives, this geologic reality is given short shrift. 

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If you choose to move forward with an FEIR (or updated and recirculated DEIR) that fully addresses the environmental problems and deficiencies in this DEIR, you will need to design

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a transmission corridor that minimizes habitat fragmentation from logging, water and wildlife pollution from herbicides, erosion from maintenance, etc. Evaluate an alternative that places the transmission line underground along existing roadways. Should you determine that an overhead line to the Bridgeville substation is still more ecologically appropriate, site poles and any other ground infrastructure as far away from streams as possible to reduce erosion and pollution potential in order to protect listed salmonids. Use existing roads or other clear areas, retain canopy cover to the fullest extent possible, and bar the use of herbicides to manage plant growth. Manual/mechanical clearing should be the method for keeping the right of way clear.

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Better yet, use of the nearby PG&E substation in Rio Dell would be much lower impact, a simple fact that is not even disclosed in the DEIR, much less analyzed. This should have been, at minimum, evaluated as part of the environmentally superior alternative 

3. Fire risk: The DEIR states "*The project site is subject to HRC's logging and silviculture operations. These activities lower fuel loads and understory compared to non-managed lands, thus serving as a method of wildfire management.*" This is a dangerous assumption that does not conform to the facts of wildland fire as we know them. The entire project area is identified by CalFire as having either a high or a very high fire severity rating.

It is a well-established fact that above-ground transmission lines in forested areas increase fire risk. Referencing HRC's logging operations plan, which did NOT evaluate the presence of such transmission lines, is insufficient to demonstrate that fire risk, or public safety, has been seriously evaluated and mitigated.

The DEIR also acknowledges that the core site will have increased fire risk from construction and turbine fires. It is difficult for the public or other agencies to fully assess this risk without the yet-to-be created fire safety and management plan or the vegetation management plan. Humboldt County's Fire Protection Districts are already overburdened and underfunded. The Rio Dell Fire Protection District has stated that it would need additional resources to be able to respond to any wind farm structure fires. However, the DEIR only outlines a vague plan to pay for a portion of the costs, shifting most of the burden to local government and the fire districts.

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PG&E was recently found culpable for some of the fires that devastated entire communities in northern California last year. While the company had previously been directed to begin placing power lines underground to eliminate fire risk, it has failed to meet the targets for doing so. This proposal appears to continue with the high fire risk status quo transmission line infrastructure. 

4. Jordan Creek impacts: Jordan Creek Road would see increased heavy industrial traffic and two staging areas under the construction plan. Road widening and roadside logging would occur as part of the construction phase, yet no maps or descriptions have been provided to show where adverse environmental impacts might occur.

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The primary site envelope is also in the Jordan Creek watershed and would see additional impacts from the site pad(s) and 17 miles of new road proposed. Jordan Creek is a tributary of the Eel River that has been documented to have some steelhead (*O. mykiss*) spawning habitat in recent years and was once a healthy salmon stream. It is now listed by CDFW as an impaired watershed (303(d) listed for sediment and temperature) due primarily to historic logging. The geology is unstable (primarily part of the Franciscan Complex) and prone to heavy erosion. The EIR identifies steep slopes and unstable soils throughout the construction footprint. Cutting all the trees on the access roads may result in landslides in rainy season, which would cause sediment loads to this impaired watershed. This threat is seriously downplayed in the DEIR. Jordan Creek is also a documented northern spotted owl flyway. This project would have dire effects on this struggling watershed, an issue that is insufficiently addressed in the analysis. 

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### Additional Substantive Concerns

Prior to issuing a conditional use permit for the construction and operation of any form of this project, the following must also be addressed in supplemental analyses or through the selection of a different alternative:

1. Impacts to birds: It is well-established that industrial wind turbines kill birds, and while other causes of bird deaths do indeed outweigh the numbers killed by turbines, that does not excuse the industry from its obligation to mitigate its impacts. Proper siting is the most critical factor, and even the inadequate survey period for the main turbine site has shown that it has the potential for significant impacts on endangered and threatened species. Plans will impact or take California State Fully Protected Species including: Marbled Murrelet (*Brachyramphus marmoratus*), Northern spotted owl (*Strix occidentalis caurina*) Brown Pelican (*Pelecanus occidentalis californicus*), Golden Eagle (*Aquila chrysaetos*), Bald eagle (*Haliaeetus leucocephalus*), White-tailed kite (*Elanus leucurus*), American peregrine falcon (*Falco peregrinus anatum*), and the California condor (*Gymnogyps californianus*). However, protocol level surveys for these species is not yet complete. “Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.” ([https://www.dfg.ca.gov/wildlife/nongame/t\\_e\\_spp/fully\\_pro.html](https://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html))

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It also appears that comprehensive wildlife surveys were NOT conducted along the transmission corridor, a significant omission from the analysis. No real mitigation was proposed for raven predation on marbled murrelets in the gen-tie corridor. The project should not be approved until all the biological studies – for birds and other protected species - are complete and those results are incorporated into a revised DEIR (some of them are 2-year studies, such as for marbled murrelets, which will not be complete until fall of 2019). 

2. Impacts to condor reintroduction: The Yurok Tribe will likely soon be proceeding with reintroducing the California condor to the North Coast. The project site area is identified as high-quality condor habitat. The DEIR proposes to modify the reintroduced birds’ tracking systems so that they can detect proximity and shut down operations as needed, but then goes

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on to say that it hasn't even identified the actual technology needed to facilitate it. Nor does it discuss what the long-range response would be should condors elect to regularly inhabit the area. 

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3. Impacts to bats: Bats are perhaps even more sensitive to turbine disturbance, as fatalities can be caused not only by direct collision with blades but also by a phenomenon called barotrauma, in which proximity to the blades causes (often fatal) tissue damage to air-containing structures, such as lungs, from rapid or excessive pressure change. Local hoary bat populations look to be particularly vulnerable. The DEIR acknowledges this but fails to adequately address it. The proposed CEQA mitigation of a post-construction technical advisory committee to recommend additional mitigation measures is insufficient. No mitigation was proposed for Western red-bat (SSC). Suggested mitigation for taking adult Townsend's Big-eared Bats is slashing the bases of old-growth trees to make fake nesting cavities. This was not supported by any scientific citations and would create a secondary impact. One absolute baseline to protect bats is that nighttime turbine speeds need to be limited to less than 5 meters/second. 

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4. Other wildlife impacts: Several state-listed species may be taken by the project. Terra Gen seeks to comply with the California Endangered Species Act through an incidental take permit via Fish and Game Code 2081, which requires that:

- The taking is incidental to otherwise lawful activities;
- The impacts of the authorized taking are "fully mitigated" and the mitigated measures must be "roughly proportional in extent to the impact of the authorized taking on the species;"
- The applicant must "ensure adequate funding" to implement the mitigation measures and to monitor effectiveness and compliance with these measures; and
- The taking will not, based on the best available science, jeopardize the continued existence of the species.

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These obligations have not been met in the DEIR. 

5. Tribal concerns: The Wiyot Tribe has expressed serious concerns about impacts on tribal cultural areas. While Alternative #4 partially addresses the most serious of the cultural impacts by limiting turbine placement to Monument Ridge, even this alternative will have significant impacts on sacred cultural sites. 

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6. Impacts to sensitive plant communities: There are 400 acres of sensitive plant communities (particularly coastal grasslands) and eight acres of sensitive plants in the project area, but Terra Gen hasn't completed the plant surveys. The deferred mitigations are not justifiable or sufficient. The DEIR also failed to address Rank 3 and 4 species or invasive species management in conjunction with road upgrades, new road construction, or the gen-tie corridor. 

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7. Local community impacts: As detailed in the comments from the City of Rio Dell and the Town of Scotia Company, the project would significantly alter the character of these small

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communities, adversely affecting their viewshed, night skies, wildlife viewing, soundscape, and property value. 

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8. Viewshed/impacts on Wilderness values: Assessments of viewshed impacts have focused on residences in the Rio Dell area. And while this is an important, and troubling, aspect for residents and property owners in the area, natural viewsheds have been given even shorter shrift. Humboldt Redwoods State Park, Grizzly Creek State Park, and Van Duzen County Park are all within five miles of the proposed site and host thousands of visitors seeking a nature experience. Although the DEIR failed to incorporate modeling, it is well-established that the site would be visible from Humboldt Redwoods State Park on the Thornton Multi-Use Trail, the Peavine Multi-Use Trail, The Peavine Ridge Spur at Prairie Road, parts of the Grasshopper Trail and Grasshopper Peak, all within the park areas of special natural significance. Viewshed impacts on these and other recreation areas must be evaluated and minimized. 

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9. Forest impacts and procedures: Timber Production Zones are supposed to take ten years to come out of zone, or have a special process and a payment to remove them. Habitat Conservation Plans (such as that with Humboldt Redwood Company) are meant to guide operations. However, the DEIR readily admits that the proposed plan does not comply with the HCP but offers no real plan to rectify this. Additionally, no Timber Harvest Plan has been provided for the 100 foot-wide by up to 25-mile Gen-Tie corridor 300 plus acre clear cut. To move forward, this project needs to be in compliance with all laws, agreements and plans covering the footprint & transmission lines. *Timber land is not supposed to be taken for electrical generation purposes.* \*\* (CALIFORNIA CODES GOVERNMENT CODE SECTION 51100-51104 California Timberland Productivity Act of 1982). 

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10. Cumulative Impacts: The suite of impacts outlined above and acknowledged in the DEIR together with the historic harms to the project area from deforestation and the cannabis industry, rise to the level of serious concern from a CEQA perspective. In particular, the assertion that the project will not contribute to any potential significant cumulative impacts related to wildfire risks or water pollution is simply unsubstantiated. The DEIR needs to be revised to include well-recognized cumulative watershed effects models. 

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**Procedural Deficiencies**

1. Mitigation measures inadequate: Mitigation measures throughout the DEIR are largely pro forma, and many would only occur after the harm has been caused rather than fully countering it proactively. The DEIR fails to provide a transparent assessment of the likelihood of success for any of its mitigation measures. 

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2. Incomplete surveys: Wildlife surveys remain incomplete, thus making the release of this DEIR premature, as the public is unable to provide sufficiently informed critiques of potential impacts. The company's desire to qualify for the tax-credits that are about to expire would indicate a pre-decisional bias that conflicts with CEQA. 

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- 3. Violation of PalCo’s (now Humboldt Redwood Company’s) outdated Habitat Conservation Plan: The expected take for marbled murrelets exceeds that approved in the HCP. This should trigger a full revision of that 50-year HCP, a process that is not covered in the DEIR. 

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  - 4. Lack of erosion control plan: The DEIR states that the project will implement the wet-weather BMPs of HRC’s HCP, but that plan was not designed to include utility grade wind farms or the infrastructure they require. Thus, the erosion control plan the company plans to submit to the Humboldt County Planning Commission for approval would have to go above and beyond what is described in the DEIR. 

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  - 5. Lack of geotechnical report or grading plan: With the majority of the site containing slopes greater than 30 degrees, the lack of this analysis is a deficiency that needs to be addressed. This is required under the Humboldt County General Plan. Furthermore, this region experiences regular earthquakes and an analysis of the earthquake hazard risk should be included in the project’s evaluation. 

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  - 6. Deferred Fire Safety and Management Plan: This should have been a part of the DEIR rather than a vague promise to comply with mitigation measures that have not yet even been defined. 

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  - 7. Lack of Vegetation Management Plan: Again, the details on vegetation management are very vague. To move forward, a vegetation management plan that includes BMPs to reduce both fire risk and pollution must be provided. Specifically, FOER recommends mechanical treatment for the site pads, Gen-tie and roadsides. Herbicide applications should be avoided to protect protected species, especially salmonids. 

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  - 8. Compartmentalization: Piecemealing the project analysis like this is not allowed under CEQA. The winter operations plan, ITPs, wildlife surveys, and other reports listed above will need to be completed, and the DEIR recirculated for further comment, before the project proceeds. 

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  - 9. Lack of reasonable range of alternatives: The proposal offers no alternatives other than the preferred very large turbines to meet its renewable energy generation objective. FOER requests that alternatives that consider solar (both utility scale and distributed) and less harmful forms of wind generators be analyzed. 

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  - 10. No decommissioning plan: While the DEIR does discuss lifespan of the project, it fails to indicate what the decommissioning plan might be. With renewable energy technology advancing so rapidly, it is not unreasonable to expect that this facility will become outdated. More information is needed. 

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- Friends of the Eel River is a non-profit public benefit corporation with its main office in Eureka, California. FOER’s mission is to work for the recovery of the Wild and Scenic Eel River, its fisheries, and communities. Since 1994, FOER has worked to restore and protect the Eel River and its surrounding ecosystems from excessive water diversions, damaging pollution from roads, timber harvests, cannabis operations, and other sediment pollution sources, and ongoing habitat

degradation and wildlife disturbances. FOER has focused on efforts to protect salmonids threatened with extinction, including Coho salmon, Chinook salmon, and steelhead trout.

FOER's members enjoy the natural environment of Humboldt County, including its many rivers and streams and surrounding forestlands. These members regularly enjoy hiking, watching birds, fishing, observing and photographing plants and wildlife, and otherwise experiencing the County's many watersheds. FOER and its members have a direct and beneficial interest in ensuring that the County fully complies with CEQA and approves projects that do not adversely affect wildlife or plant-life, especially species threatened with extinction like the Marbled murrelet, Northern Spotted owl, Coho and Chinook salmon, and steelhead trout.

FOER strongly supports the transition to a clean, renewable energy economy. However, not all renewable energy is truly green energy, especially when it depletes the landscape around it. We have learned this lesson all too well from our nation's prior obsession with large dams. While we believe that it may be possible to further minimize the project's impacts, we have not yet seen the careful planning and mitigation necessary to ensure it does not harm the Eel River watershed. The only alternative that currently comes close to meeting this goal is Alternative 5 - Reduced Turbine Footprint, Bear River Ridge. However, even it does not address the impacts of a new transmission corridor extending 25-30 miles through the rugged, forested terrain of the Van Duzen River.

For these and the reasons detailed by our colleagues, Friends of the Eel River cannot support a utility-scale wind project at this particular location as it is currently being proposed. 

Sincerely,

Stephanie Tidwell, Executive Director

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(Cont.)