

Comment Letters submitted at Planning Commission 11.21.2019 – Humboldt
Wind Project

1. Ben Shepherd
2. Ken Miller
3. Stuart Moskowitz
4. Joan Tippets
5. HSU Students
6. Kent Swatsky
7. Larry Goldberg
8. Katherine Bettis
9. Roger
10. Daniel Chandler
11. David Chang
12. Ruth M. Allen
13. Susan Nissen – Submitted Copy of Letter from NCRWQCB
14. Geneva Wess – Yurok Tribe
15. Rick Pelren
16. Barbara Guest
17. Daniel C. Barton, PhD
18. Larry Bravo
19. Pictures only submitted

Ben Shepherd
PO Box 336
Loleta, CA 95551

November 20, 2019



Honorable Chair and Members of the Planning Commission
County of Humboldt
3015 H Street
Eureka, CA 95501

Re: Objection to Humboldt Wind Energy Project

Honorable Chair and Members of Planning Commission:

I am writing to object to the proposed Humboldt Wind Project for aesthetic and environmental reasons. The Project will be a visual blight on two pristine ridges, given its 600-foot tall structures. I also object to the miles of clear-cutting required as a right-of-way for the 23-mile overhead transmission line. The Project will also cause increased sedimentation in the Eel River, due to a combination of high seasonal rainfall and rapid runoff on unstable soils, which is further exacerbated by the seismic activity in the area. The benefits of the project simply do not outweigh the considerable environmental impacts.

For the foregoing reasons, I object to the Project and request that the Commission DENY approval of the conditional use permit.

Sincerely,

Ben Shepherd

Dear Commissioners,

The Skookumchuck Wind facility in Lewis Wa is in progress and provides a stark and appropriate contrast to TerraGen, as it is the only other such facility directly in the range of the marbled murrelet.

Skookumchuck:

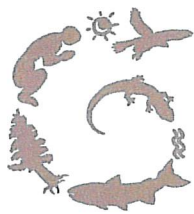
- Curtails turbine activity for 10 WTGs during critical flight times=decreased revenues
- Buys 616 acres of murrelet habitat with conservation easements=\$3,000,000 (HRC has over 2000 acres of murrelet habitat protected until 2049 that could be permanently protected with CEs)
- Removes 91-96 fishing net segments that could entangle murrelets at sea=\$450,000 (Only a potential ill-defined back-up with TerraGen)
- Donates \$17,000 to Yelm Community Schools District
<http://www.skookwind.com/about-the-project/>
- Fully funds a decommissioning plan including removal of subsurface footings to a depth of 3 feet
- Acknowledges “very limited information currently exists to assess potential impacts of climate change on murrelets or eagles.” **7.1.5 Climate Change**

<https://www.fws.gov/wafwo/documents/SWEP/Skookumchuck%20HCP%20submittal%20draft.pdf>

Respectfully submitted in opposition to the Terragen HumWind CUP and Overriding Considerations,

Ken Miller 11/21/2019





Sanctuary Forest

P.O. Box 166
Whitethorn
California 95589

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Biologist - Restorationist

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Retired Teacher

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Mathematics Educator

Michael Torbert
Organic Farmer

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Matthew Knoedelseder
Restorationist

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Retired Teacher

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Anna Rogers
*Education, Development
& Administrative Director*

Brandon Craig
Water & Lands Program Assistant

Walker Wise
Water Program Assistant

Marylou Scavarda
Administrative & Program Assistant

Denise Dills
Bookkeeper & Contract Manager

Phone: 707-986-1087

Fax: 707-986-1607

sanctuary@sanctuaryforest.org

www.sanctuaryforest.org

21 November, 2019



To: Humboldt County Planning Commission

From: Stuart Moskowitz, Lead Monitor Luna Conservation Easement

RE: Proposed Terra Gen Wind Energy Project and its Impact on the Luna Conservation Easement

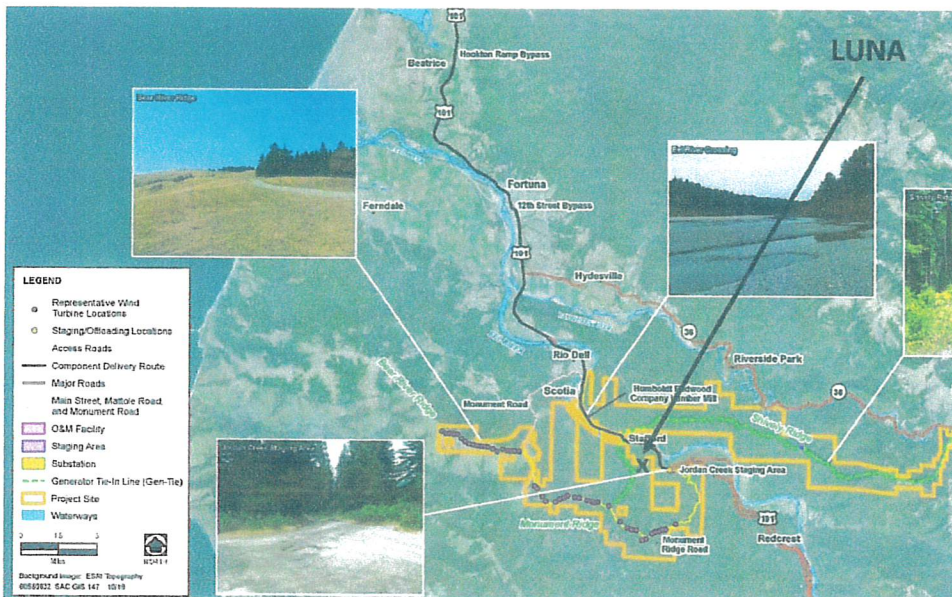
The Luna Conservation Easement was created in 1999 at the conclusion of Julia Butterfly Hill's two year tree-sit in Luna, just below Monitor Ridge. As stewards of this Luna Covenant, it is Sanctuary Forest's responsibility to ensure the protected land remains protected and also that we continue to have access to the protected land.

I write to you, the Humboldt County Planning Commission because the protection of the Luna Covenant needs to be considered as decisions are made about the proposed Terra Gen Wind Energy Project. So we write this letter to bring it to your attention. I am attaching a map of the impacted area and I've indicated Luna's approximate position with an X. While Luna is not on Monument Ridge, it is very close to the Tie-In Line that will move the power from Monument Ridge to Bridgeville and it is also very close to the access road from Jordan Creek up to the ridge. I realize that the map I have found is low resolution and not completely clear, but it does appear that, at the least, our access roads to Luna could be impacted.

If further information is needed from Sanctuary Forest, please contact me directly at 707-502-0363 or at stuart@humboldt.edu, or our Executive Director, April Newlander at 707-986-1087 or at april@sanctuaryforest.org

Thank you for considering this impact as you make your decision,

Stuart Moskowitz



My name is Joan Tippetts. I am speaking here tonight as a fourth generation native of Humboldt County, the blink of an eye compared to the Wiyot People who have been here so much longer but nonetheless one who has my roots here and truly appreciates it in depth and know that it's not mine to despoil just so we can continue to consume electricity at an unrealistic level. I earned a degree in botany from UC Davis, and taught high school level biology, and environmental science on the Navajo Nation for fourteen years.

One can be seduced by the idea that technology will solve the very problems that it has created in the first place, but all technologies are not created equal, and all sites to accommodate the technology are not equally suitable either. We need to and can arrive at a combination of non-destructive power generation, conservation, and reduced consumption, and I also recommend that everyone research the adverse effects of existing wind projects before extolling the so-called benefits.

This proposed wind project is not the solution to our climate crisis but will in fact worsen it by its devastation to our surroundings, and our rural way of life. It will cause hardship for anyone who lives near it including all the wildlife that cannot speak for itself here at this meeting. It would destroy the heart of what Humboldt County has to offer as a buffer against the onslaught of climate change, a significant carbon sink and host to biodiversity found few other places. Do we really want 140 acres of permanent concrete pads on top of a sacred ridge that also sequesters carbon and provides homes for our native plants and animals? I think not.





Environment and Community M.A. in
Social Science graduate program
Humboldt State University
1 Harpst St.
Arcata, CA 95521

November 20, 2019

Humboldt Wind Project Planner
County of Humboldt
Planning and Building Department, Planning Division
3015 H Street, Eureka, CA 95501
CEQAResponses@co.humboldt.ca.us

To the Humboldt County Planning Commission and Board of Supervisors,

We, the undersigned students, alumni, and faculty of the Environment and Community M.A in Social Science graduate program at Humboldt State University wish to express our support for the position of the Wiyot Tribe in opposing the Humboldt Wind Energy Project.

As expressed in a June 14, 2019 letter from Adam Canter (Tribal Botanist) and Ted Hernandez (Wiyot Tribal Chairman), "The environmental, physical, and spiritual impacts that [the project] would have upon the cultural landscape and cultural sites of the Wiyot Tribe, and greater community, are unmitigatable, and it is the recommendation of the Tribe that the project be denied, and the County select the "No Project" alternative."

The response to tribal comments in the Final EIR is to essentially affirm that there are "significant and unavoidable impacts" and those impacts could only be avoided by *not placing* turbines on Bear River Ridge. On these points, it appears that the project proponents and opponents are in agreement.

We urge the County Planning Commission and Board of Supervisors to choose the "No Project" alternative. We agree with the many people who have brought attention to this desecration of Bear River Ridge. The current project is a clear endorsement of the ongoing theft and colonization of Indigenous lands.

We agree that reducing CO2 emissions is urgent and we believe that with collaborative local leadership an approach to generating renewable energy in Humboldt County can be developed that will be environmentally, socially AND culturally resilient.

Signed,

Janelle Adsit
Riley Allen
Mox Alvarnaz
Erik Arndt
Megan Awwad
(please see page 2 for other signatories)

Mark Baker
Kayla Begay
Cynthia Boshell
Renée Byrd
Nikki Caputo
Leena Dallasheh
Theodora Doyon
Yvonne Everett
Kelly Fortner
Nikola Hobbel
Erin Kelly
Meriel Melendrez Mees
John Meyer
Christi Nash
Hailee Nolte
Aneika Perez
Charley Reed
Cutcha Risling Baldy
Maxwell Schnurer
Marlon D. Sherman
Alexia Siebuhr
Anthony Silvaggio
Prineet Kaur Sohal
Vanessa Tenorio
Carrie Tully



- 1. Amaranth Farms Special Permit
 Record Number: PLN-10897-SP
 Assessor's Parcel Number: 108-033-014
 1020 Windy Ridge Lane, Honeydew area

Project Description: Amaranth Farms seeks approval of a Special Permit (SP) to allow 10,000 square feet (sf) of existing outdoor cannabis cultivation. Cultivation occurs in four greenhouses and one outdoor area. The irrigation water source is a Point of Diversion (POD) from a spring that is tributary to East Fork Honeydew Creek. A Special Permit is also requested in compliance with Humboldt Code Section 314-55.4.11(d) to allow a relaxation of the six hundred-foot (600') setback requirement from the King Range National Conservation Area. A Special Permit is requested per the Streamside Management Area Ordinance for the continued use and maintenance of a diversion from a spring used for irrigation water.

Staff Recommendation: Continue the project to the December 5, 2019 Zoning Administrator hearing.

- 2. Amaranth Farms Special Permit
 Record Number: PLN-11268-SP
 Assessor's Parcel Number: 108-033-004
 1010 Windy Ridge Lane, Honeydew area
 Honeydew area

Project Description: A Special Permit (SP) to allow 10,000 square feet (sf) of existing outdoor cannabis cultivation. The irrigation water source is a diversion from a fully-contained spring. A Special Permit is also requested to allow a relaxation of the 600-foot setback from the King Range National Conservation Area. A Special Permit is also being considered for development within the Streamside Management Area (SMA) to allow the continued use of the diversion that supplies irrigation water.

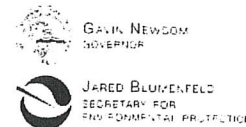
Staff Recommendation: Continue the project to the December 5, 2019 Zoning Administrator hearing.

D. ITEMS PULLED FROM CONSENT

E. PUBLIC HEARINGS

F. ADJOURNMENT

Persons wishing to file documentation on any agenda item for the official record must submit an original and four (4) copies of each document to the Zoning Administrator Clerk at the Planning and Building Department, 3015 H Street in Eureka.



North Coast Regional Water Quality Control Board

November 21, 2019

Mr. Michael Richardson
 Director of Scotia Cogeneration Operations
 Humboldt Redwood Company
 P.O. Box 37
 Scotia, CA 95565
MRichardson@hrcillc.com

Dear Mr. Richardson:

The Humboldt Sawmill Company (HSC) is currently regulated by the North Coast Regional Water Quality Control Board (Regional Water Board) under Waste Discharge Requirements, Order No. R1-2012-0065 (2012 Permit). The 2012 Permit also serves as a National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0006017). The 2012 Permit includes Discharge Prohibitions and Reclamation Specifications (Recycled Water). The 2012 Permit is set to be renewed in 2020. Re-use of industrial process water for the uses described in the Humboldt Wind Energy Project EIR documents was not indicated in the in submitted application for renewal of the 2012 Permit receive by Regional Water Board staff.

Regional Water Board staff have reviewed the Final Environmental Impact Report (FEIR) for the Humboldt Wind Energy Project and we have concerns regarding the proposed use of industrial process water from the Scotia Cogeneration Plant, which is part of the HSC facility, for "dust suppression, backfill compaction, and cement mixing."

Section 2.3.16 (Water Supply and Usage) of the Humboldt Wind Energy Project FEIR, Revisions to the Draft Environmental Impact Report (DEIR), states, "*Most of the project's water use would occur during the construction phase for dust suppression, backfill compaction, and cement mixing. These activities are expected to require 62 acre-feet of water over the duration of construction. This water demand would be met by the use of water sourced from the nearby Scotia Community Services District's wastewater treatment and cogeneration facilities and from HRC who would sell the water before it discharges into the "Log Pond" located in the town of Scotia. Potable water required at the O&M building would be provided by a groundwater well.*"

Section 3.8 of the DEIR has been revised in the Final EIR to state, "*An estimated 62 acre-feet of water would be required for construction-related activities. Most of this water would be used during construction of wind turbines, transmission lines, the project substation, and related facilities; for dust suppression; for compaction of soil backfill;*"

VALERIE L. QUINTO, CHAIR | MATTHIAS ST. JOHN, EXECUTIVE OFFICER

5550 Skylane Blvd., Suite A, Santa Rosa, CA 95403 | www.waterboards.ca.gov/northcoast

SEE PAGE 2



Mr. Michael Richardson

- 2 -

November 21, 2019

and for manufacture of concrete. Construction-related water demands would be met by ~~water treated wastewater discharged from the Scotia Community Services District's wastewater treatment facility to Humboldt Redwood Company's~~ water purchased by HRC from the Scotia potable water supply for use in the HRC cooling towers of the cogeneration plant. HRC discharges this water into the Log Pond. Under an arrangement with HRC, the applicant will collect water before it is discharged into the Log Pond. This water, prior to discharge into the Log Pond, is the property of HRC who has rights to the use of this water and can sell the water for use in the proposed project. (Pers. communication, Dennis Thibeault, Humboldt Redwood Company, L.L.C., June 25, 2019). Treated effluent Water would be delivered to the project site via water truck. The use of water to meet the demands for project construction, therefore, would not constitute a groundwater extraction or a surface water diversion.

Although the 2012 Permit authorizes the use of secondary treated effluent from the Log Pond for use on HRC Sawmill property for dust suppression, there is no authorization for the use of untreated industrial process water for the proposed uses listed in the Humboldt Wind Energy Project (dust suppression, backfill compactions, and cement mixing). The 2012 Permit also includes prohibitions (Discharge Prohibitions III.E, III.I and III.J) that would prohibit the proposed uses listed above.

As a technical matter, the proposed uses of untreated industrial process water raise a number of water quality concerns related to the presence and potential discharge of metals such as chromium, zinc and chlorine. The water quality concerns are related to threats to surface water from potential process water runoff, threats to soil contamination and ground water impacts from the percolation of process water. It also raises regulatory issues as recycled water use requires that the water is first treated to the equivalent of tertiary treatment and must be properly permitted and monitored to evaluate impacts to surface and ground water.

Thank you for your consideration of these comments. If you have any questions, please contact Justin McSmith at 707-576-2082 or at Justin.McSmith@waterboards.ca.gov.

Sincerely,

Justin McSmith

Justin McSmith
Water Resource Control Engineer

191121_JM_er_Humboldt Wind Energy Project Use of Cooling Tower Water

Certified-Return Receipt Requested

RePower Humboldt

The Redwood Coast Energy Authority's Comprehensive Action Plan for Energy

Testimony of Larry Goldberg, Trinidad resident.

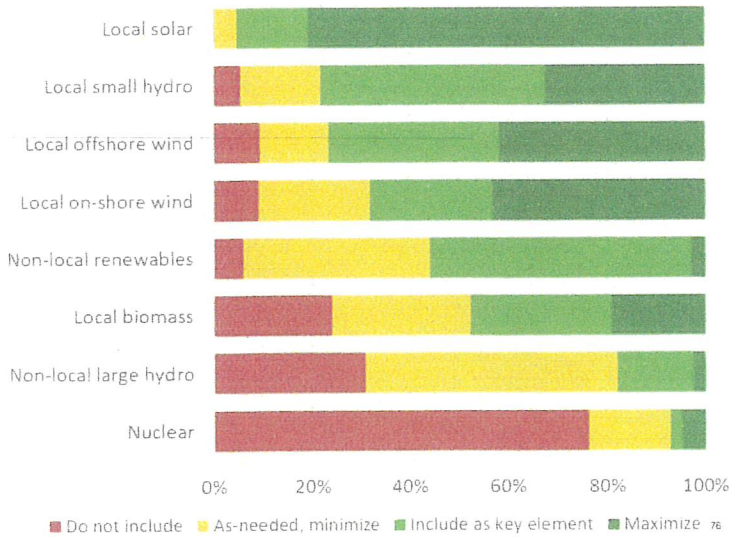
Nov. 2019



2019 UPDATE – DRAFT 2.0a

10-21-19

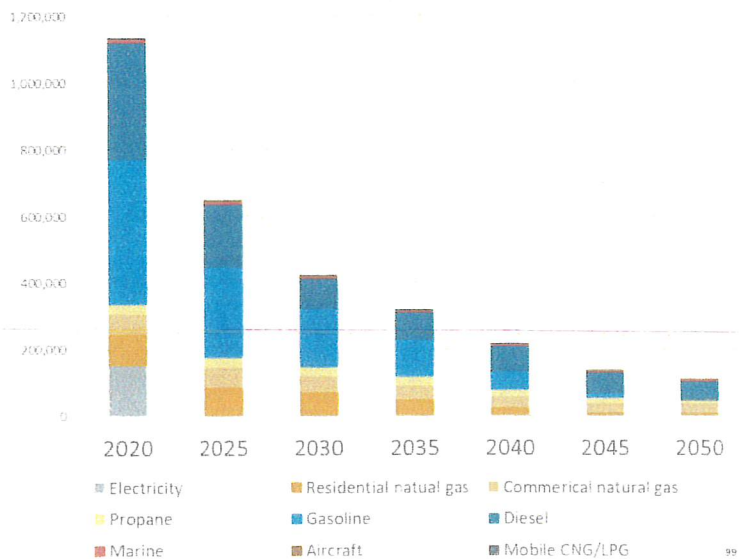
RCEA Power Mix



In public meetings held throughout Humboldt in 2019, the overwhelming number of people agreed that local solar, small hydro, offshore wind and on-shore wind were preferred alternatives for our energy for 2030.

Drastic reductions in fossil fuel energy is going to be required to meet our goals of fossil-free energy by 2030.

Energy End-use Emissions Reduction Targets



2030 Local Power Generation Targets

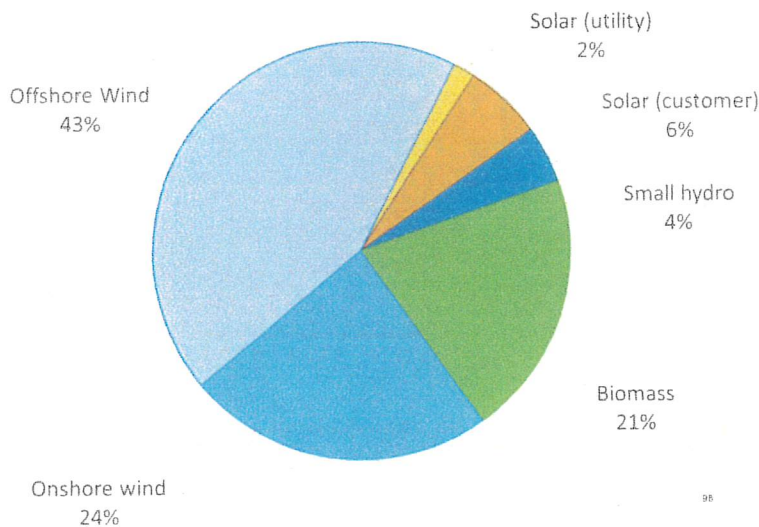
Target installed capacities:

Solar (utility):	8 MW
Solar (customers’):	50 MW
Offshore wind:	150 MW
Onshore wind:	125 MW
Biomass:	50 MW
Small hydro:	21 MW

Local power generation targets include **local** solar, wind, biomass and small hydro to meet our future energy needs.

97

2030 Local Power Generation Targets



Onshore wind generation targets is 24% to meet our future energy needs.

98

Building a local clean energy sector is critical to our 2030 energy plan.

Regional Planning & Coordination



Goal 3: Build the clean energy sector into a cornerstone of the local economy through a breadth of strategies that include innovation, research and development, local energy-related business development, and Humboldt Bay as the primary west coast hub for the offshore wind energy industry.

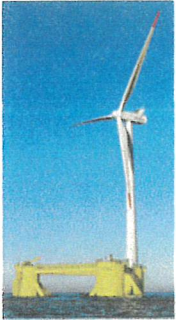
Regional Planning & Coordination



Goal 2: By 2030 Humboldt County can affordably and reliably meet its local energy needs with local resources and has the robust local capabilities and infrastructure necessary to effectively respond to any energy emergencies or disruptions in energy supply.

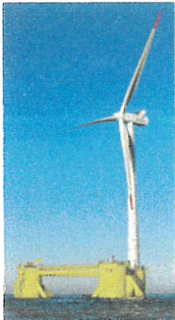
Stated Goals for 2030 RePower Plan for energy independence

Energy Generation & Utilities Services



Goal 1: By 2025 100% of RCEA's power mix will be from a combination of state-designated renewable energy sources—solar, wind, biomass, small-hydroelectric, and geothermal—and state-designated net zero carbon emission existing large hydroelectric facilities.

Energy Generation & Utilities Services



Goal 2: By 2030 Humboldt County will be a net exporter of renewable energy and RCEA's power mix will consist of 100% local, net-zero-carbon-emission renewable sources.

Integrated Demand Side Management



Goal 1: Support the wide-spread installation of customer solar energy systems, with a target to increase installation to a rate of one system every day for the next decade to reach 30MW of customer solar installed by 2025 and 50MW installed by 2030.

Integrated Demand Side Management



Goal 3: Implement expanded efficiency and electrification programs to reduce greenhouse gas emission from natural gas use by 20% by 2030 and establish and maintain a trajectory to reduce emission from natural gas by 90% by 2050.

Integrated Demand Side Management



Goal 4: Deploy a network of community microgrids and renewable energy back-up power systems across the county to reduce greenhouse gas emissions and to provide energy resiliency and long-duration emergency energy supply at all critical facilities by 2030.

concrete 8% global warming



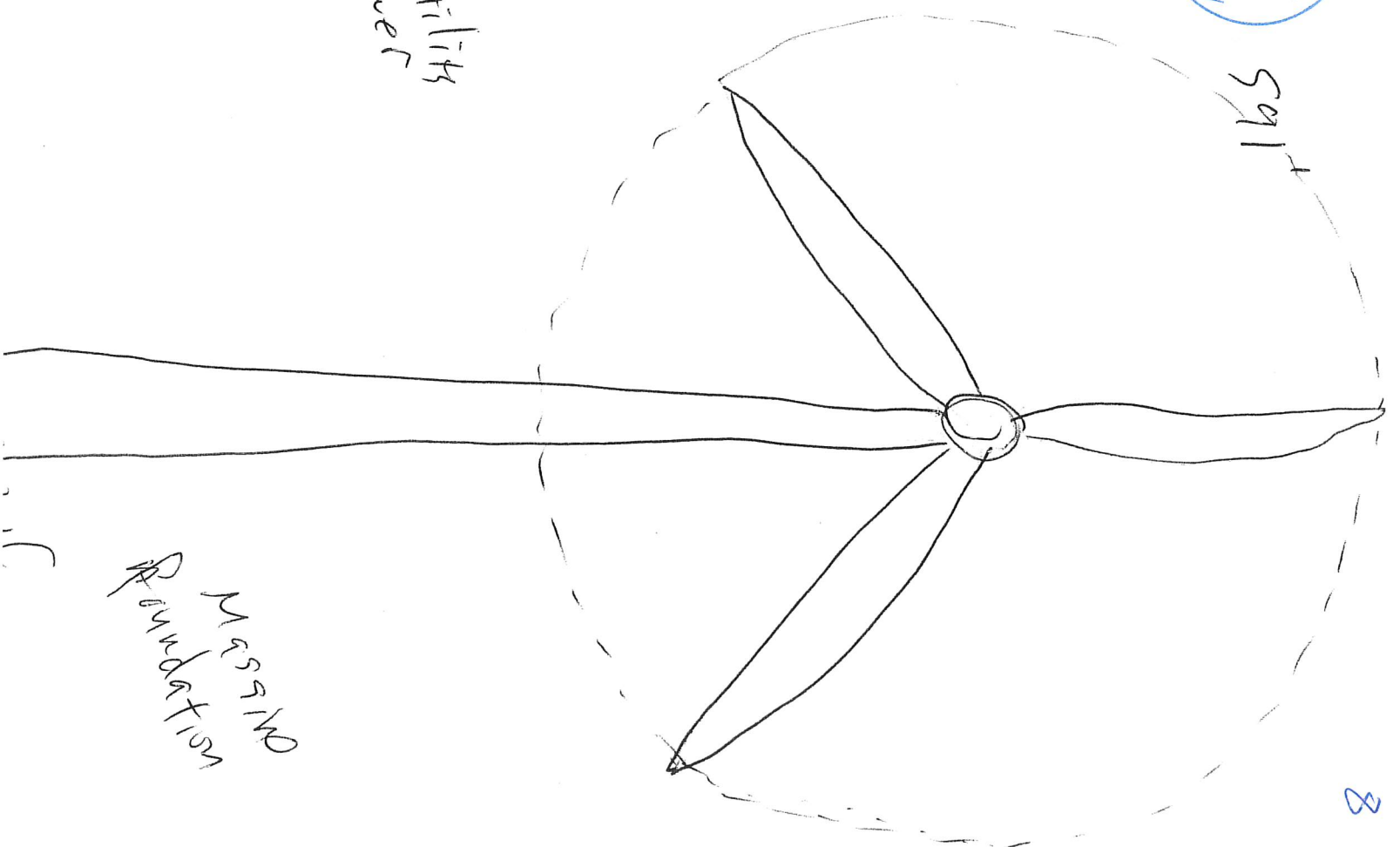
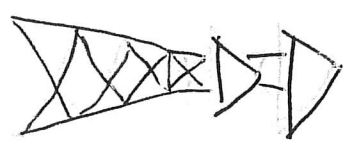
591'

150' utility tower

6' position

40' pinnacole

f



Drill & Grout Foundation





LAST WEEK, WHILE I WAS AWAY INSTALLING A SOLAR SYSTEM FOR COYOTE TRIBAL HOUSING, IT WAS ARRANGED FOR GREG JASO TO READ MY COMMENTS. THAT TEXT HAS BEEN SUBMITTED, AND THE PRESENTATION RESCHEDULED FOR TODAY.

BASICALLY I'M A LIFELONG INSTALLER LABORER OF RENEWABLE ENERGY SYSTEMS (SINCE 1977)... THE MOST PART OF THE LAST 7,655 DAYS PUTTING IN SOLAR SYSTEMS AROUND HERE. SOME PEOPLE ASKED ME TO TALK; SO THIS AFTERNOON OF THIS 7,656 DAY, INSTEAD OF FINISHING UP THE HOUSE ON CHESTER AVENUE, I AM HERE. I'VE TRIED TO THINK OF WHAT IS MOST HELPFUL FOR YOU FROM ME.

I KNOW, FIRST HAND, SOLAR IS REMARKABLY AFFORDABLE. NOW-A-DAYS, WITH A BASE LABOR RATE PAY OF \$35/HOUR, 5 KW RESIDENTIAL SOLAR SYSTEMS ARE COSTING \$10,000 - \$11,000.

IF THE 800 PEOPLE INSTALLING THE PROPOSED WIND TURBINE PROJECT WERE INSTALLING RESIDENTIAL SOLAR SYSTEMS 40 WEEKS/YEAR, THEY COULD DO 32,000 HOMES IN 4 YEARS.

GETTING A GRIP ON THE ELECTRIC WEALTH WE ALREADY HAVE WOULD BE A KEYSTONE OF HEALTHY PLANNING.

I HAVE LITTLE DOUBT THAT BECOMING EXPERTS ON USING WHAT WE ALREADY HAVE WILL GO A LOT FURTHER IN SECURING OUR FUTURE.

AS HAS BEEN SAID, I TO BELIEVE "THIS IS THE WRONG PLACE" AND WE CAN READILY REDIRECT OUR PLANNING SERIOUSLY, SWIFTLY, AND HARMONIOUSLY.

Res
11/21/2019

I SUBMIT THIS MESSAGE WITH MY COMMENTS, AS IT IS
EXEMPLARLY OF MY EXTENDED FAMILY AND CO-WORKERS
WHO WE SHOULD ALL HOLD DEARLY.

10

Editor:

In regards to your article Green versus Green, I am saddened our community is divided on this issue. It is not easy to decide between what is right and right. It is right to protect the traditions and cultures of native tribes. It is right to protect wildlife and wilderness. It is right to warn of global climate catastrophe. Greta Thunberg is right that our house is on fire, she says: "I want you to listen to the scientists. And I want you to unite behind the science. And then I want you to take real action."

Many have listened to the scientists; we trust their data showing increased greenhouse gasses are leading to catastrophic losses of wildlife, wilderness, and humans. We have heard the scientists warn we must rapidly stop burning fossil fuels. But, how? We rely on fossil fuels for transportation and electricity every single day. Can we unite behind a solution? Who can be trusted to take action?

A decade ago, local energy experts began work on a plan for all of Humboldt County to stop burning fossil fuels for transportation and electricity. I am very proud of our community for working towards this goal. "Key tasks included an assessment of resource and technology options... economic analysis... project development, financing and ownership alternatives... regulatory and political issues. As a crucial part of this effort, the team made a concerted effort to gather input from a diverse group of county stakeholders and include their views... [in] the RePower Humboldt strategic plan." The Humboldt Wind Energy Project is part of this plan. Now, a decade later, will diverse local stakeholders, tribes, scientists, engineers, and environmentalists be able to work together to actually reach the goal and forgo fossil fuels? Please choose to take real action.

Amber Woodworth, Manila
707-777-3360



ENERGY STATEMENT

www.pge.com/MyEnergy

ACCOUNT NO. 000002202-1

Statement Date: 03/31/2015

Due Date: 04/21/2015



Summary of Your NEM True-Up Period Charges

Service For: 330 CYPRESS ST

Service Agreement ID:

Rate Schedule: E6 TH Residential Time-of-Use Service

ANNUAL ELECTRIC USAGE SUMMARY
THIS IS AN EXAMPLE REPRESENTATIVE
OF ALL 26 NEW ALL ELECTRIC SEMI-DETACHED
HOMES JUST BUILT WITH 4KW ARRAYS
ON EACH ROOF.

Flow
:

Summary of NEM Charges

Bill Period End Date	Net Peak Usage (kWh)	Net Part Peak Usage (kWh)	Net Off Peak Usage (kWh)	Net Usage (kWh)	NEM Charges Before Taxes	Estimated Taxes	Total NEM Charges
04/29/2014	0	8	-334	-326	-\$21.05	-\$0.09	-\$21.14
05/29/2014	-231	-171	-184	-587	-96.72	-0.17	-96.89
06/29/2014	-252	-182	-180	-615	-103.93	-0.18	-104.11
07/29/2014	-216	-140	-137	-493	-80.67	-0.14	-80.81
08/28/2014	-188	-111	-72	-372	-63.18	-0.11	-63.29
09/29/2014	-197	-139	-126	-463	-78.17	-0.13	-78.30
10/28/2014	-137	-115	-94	-346	-55.19	-0.10	-55.29
11/30/2014	-16	-4	-211	-231	-20.95	-0.07	-21.02
12/29/2014	0	21	-14	6	0.73	0.00	0.73
01/28/2015	0	21	-202	-181	-15.19	-0.05	-15.24
03/01/2015	0	24	-263	-239	-20.45	-0.07	-20.52
03/30/2015	0	12	-328	-316	-27.68	-0.09	-27.77
TOTAL	-1237	-776	-2145	-4163	-\$582.45	-\$1.20	-\$583.65

Differences in net usage may occur due to rounding

Electric Minimum Charges

Explanation of Calculations

Bill Period End Date	Minimum Charges
04/29/2014	\$2.96
05/29/2014	3.55
06/29/2014	3.66
07/29/2014	3.55
08/28/2014	3.55
09/29/2014	3.78
10/28/2014	3.43
11/30/2014	3.90
12/29/2014	3.43
01/28/2015	3.55
03/01/2015	3.78
03/30/2015	3.43
TOTAL	\$42.57

This is your True-Up statement Since the total Electric Minimum Charges are greater than the total NEM Charges Before Taxes, your balance owed are any current month Electric Minimum Charges in addition to any applicable charges and taxes for the True-Up period.

Since this is your True-Up statement, all electric usage charges and credits are reset to zero starting with your next billing cycle.

Net Surplus Compensation (NSC) This credit occurs on the True-Up statement only if the Net Usage (kWh) of the system has generated more energy than consumed during the overall 12-month billing cycle. The NSC is based on that month's market price for energy (see current calculation under Credit for Net Surplus Compensation (NSC) below).

Based on your Net Usage (kWh), the True-Up calculations are:

Total NEM Charges Before Taxes	
Total Electric Minimum Charges	-\$582.45
Total NEM Charges Due	42.57
	\$0.00
Credit for Net Surplus Compensation (NSC) (-4,161.754390 kWh @ \$0.04587/kWh)	-\$190.07

Please contact the Solar Customer Service Center at 1-877-743-4112 for questions about your NEM charges.

Visit www.pge.com/nembilling for a detailed explanation of NEM billing



November 21, 2019

My name is Daniel Chandler. I have lived here for 30 years. Thank you for hearing my comments.

Despite very considerable efforts, the Humboldt Wind Project will not be able to mitigate *all* consequences of generation of about a third of all the electricity Humboldt uses now. Opponents of the project want you to focus as narrowly as possibly on these admittedly negative impacts of the project. I would ask you to take several steps back.

Let me start with salmon. Just as salmon are associated with California, salmon are also associated with the area of Japan called Hokkaido. In the last 15 year the salmon catch there has declined 70%. There is a cascade of global warming events causing this. Salmon depend on cold water, and the Sea of Okhotsk is the most dynamic factory of sea ice in the world, but that factory is failing. This is because parts of the Sea of Okhotsk have warmed 3 Celsius (5 degrees Fahrenheit) since pre-industrial times. The warming of the Sea of Okhotsk in turn is due to the warming of a wind that travels a thousand miles from northern Siberia, where the temperature has warmed 2.7 Celsius. Global warming is not uniform; there are hot spots and in them we can begin to see the future.

We are entering a period where the predictions of science are increasingly dire at a time when scary past predictions have already been shown to be overly optimistic. Up to 150 million climate refugees and the political destabilization they bring, heat stress in New York City greater than Bahrain today, drought and starvation, unbreathable air, and poisoned oceans are only a few of the phenomena we are likely to see in this century. This is the frightening and overwhelming reality that has changed my thinking about the relative value of the unmitigable impacts of the Wind Project versus a large amount of fossil free energy. We still have a chance if we can move rapidly away from fossil fuels.

All of us need to make paramount the prevention of the worst effects of global warming around the world--but also right here in Humboldt, where the greatest sea level rise on the west coast is anticipated. I know you have heard the projections of a 3-foot sea level rise by 2070 or before, which could result in inundation of 62% of our agricultural land and 30% of our industrial/commercial properties by that date.

Please support the Humboldt Wind Project. If this kind of critical fossil-free energy can be developed rapidly, there is at least a chance of preserving a livable world for the grandchildren of everyone who has testified.

Daniel Chandler
436 Old Wagon Road
Trinidad, Ca 95570
707 677 3359



1 DAVID CHANG, RIO DELL RESIDENT RESIDING OUTSIDE CITY LIMITS

2 The question of a decommissioning bond has been brought up to the applicant, a limited liability corporation, on
3 numerous occasions. The last known detail on this issue is that the residents of Humboldt County will not be covered by
4 a decommissioning bond. When a presentation of the Draft Environmental Impact Report was made to the Rio Dell City
5 Council on May 7, 2019 by Director Ford and Beth Burks, a public comment addressed the lack of bond language in the
6 report. The only decommissioning bond language per the applicant is an agreement with the landowners of the project.
7 This bond to the landowners will be purchased 10 years into the project and not up front. On that evening Director Ford
8 showed surprise and indicated that he would be looking into it. On November 14, 2019 Beth Burks indicated that the
9 resolutions, already written for presentation to this commission tonight, did not include any decommissioning bond
0 language protecting the people of Humboldt County and that this would be the correct location for this type of wording
1 not the FEIR. This is a very important issue for your consideration.

2

3 Letter I-176 in response to the Draft Environmental Report addressed radar switching for the mandatory FAA lighting as
4 required by other wind farm communities and the response was that any FAA mandated lighting would be used. The
5 applicant has indicated that this enhancement will not be considered. We will have red/white blinking lights at all hours
6 to be seen for at least 20 miles.

7

8 Last week this commission, by submission, was presented print out copies of projected viewsapes created by the
9 applicant from a property two miles from the Bear River Ridge proposed site (as presented by applicant on November 7,
0 2019) and a printed out copy of a photo taken with a phone camera representative of the view with the naked eye from
1 downtown Burney California with wind turbines six miles away and smaller in stature. Please consider the
2 enhancements made by the applicant and related visual discrepancy.

3

4 The FEIR indicates that decommissioning/dismantling of the site should be addressed in a separate permit. This is
5 irresponsible. Language could include a new permitting process based on factors not known at this time without
6 negating known environmental impacts on decommissioning/dismantling this project by today's standards. True
7 environmental impacts on the back end of the project are real and must be considered in order for this to be a viable
8 environmental impact report. Also addressed in letter I-176.

9

0 Humboldt County Zoning Regulations needing to be addressed:

1 6.6.2 Requires written certification from permitting agencies. In part, "No development permit or variance shall be
2 issued until the Department has written certification from all applicable jurisdictional agencies".

3 69.1.5 Does not allow for windmills that produce energy for export off the property.

4

5 Thank you for the opportunity to place this into the records of this proceeding.

6

7

8

9

According to Steve Warner at Humboldt County Planning Department, there will be 47 wind turbines (instead of 60) located on Monument and Bear River Ridge, each producing 2.5 MW of electrical power. That's a total of 120 MW for the Humboldt Wind project. This is a far cry from the 155 MW claimed in the applicant's original estimates.

There will be a 20% line loss in the transmission of power to the Bridgeville substation, and another 30% line loss from the Bridgeville substation to the cities of Fortuna and Eureka. So now we are talking about 50% line loss, not the 20% that was stated in the DEIR.

Okay, let's do the math:

120 MW - 50% line loss equals 60 MW. That is enough power for about 20,000 homes, AND THAT IS ONLY IF THE WIND IS BLOWING. Many days, the wind does not blow at all.

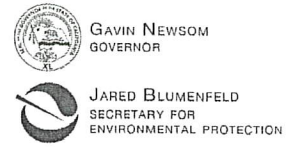
Do we really want to trade all that forested area for 60 MW of power?

Ruth M. Allen





13



North Coast Regional Water Quality Control Board

November 21, 2019

Mr. Michael Richardson
Director of Scotia Cogeneration Operations
Humboldt Redwood Company
P.O. Box 37
Scotia, CA 95565
MRichardson@hrcllc.com

Dear Mr. Richardson:

The Humboldt Sawmill Company (HSC) is currently regulated by the North Coast Regional Water Quality Control Board (Regional Water Board) under Waste Discharge Requirements, Order No. R1-2012-0065 (2012 Permit). The 2012 Permit also serves as a National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0006017). The 2012 Permit includes Discharge Prohibitions and Reclamation Specifications (Recycled Water). The 2012 Permit is set to be renewed in 2020. Re-use of industrial process water for the uses described in the Humboldt Wind Energy Project EIR documents was not indicated in the in submitted application for renewal of the 2012 Permit receive by Regional Water Board staff.

Regional Water Board staff have reviewed the Final Environmental Impact Report (FEIR) for the Humboldt Wind Energy Project and we have concerns regarding the proposed use of industrial process water from the Scotia Cogeneration Plant, which is part of the HSC facility, for "dust suppression, backfill compaction, and cement mixing."

Section 2.3.16 (Water Supply and Usage) of the Humboldt Wind Energy Project FEIR, Revisions to the Draft Environmental Impact Report (DEIR), states, *"Most of the project's water use would occur during the construction phase for dust suppression, backfill compaction, and cement mixing. These activities are expected to require 62 acre-feet of water over the duration of construction. This water demand would be met by the use of water sourced from the nearby Scotia Community Services District's wastewater treatment and cogeneration facilities and from HRC who would sell the water before it discharges into the "Log Pond" located in the town of Scotia. Potable water required at the O&M building would be provided by a groundwater well."*

Section 3.8 of the DEIR has been revised in the Final EIR to state, *"An estimated 62 acre-feet of water would be required for construction-related activities. Most of this water would be used during construction of wind turbines, transmission lines, the project substation, and related facilities; for dust suppression; for compaction of soil backfill;*

VALERIE L. QUINTO, CHAIR | MATTHIAS ST. JOHN, EXECUTIVE OFFICER

and for manufacture of concrete. Construction-related water demands would be met by water treated wastewater discharged from the Scotia Community Services District's wastewater treatment facility to Humboldt Redwood Company's purchased by HRC from the Scotia potable water supply for use in the HRC cooling towers of the cogeneration plant. HRC discharges this water into the Log Pond. Under an arrangement with HRC, the applicant will collect water before it is discharged into the Log Pond. This water, prior to discharge into the Log Pond, is the property of HRC who has rights to the use of this water and can sell the water for use in the proposed project. (Pers. communication, Dennis Thibeault, Humboldt Redwood Company, L.L.C., June 25, 2019). Treated effluent Water would be delivered to the project site via water truck. The use of water to meet the demands for project construction, therefore, would not constitute a groundwater extraction or a surface water diversion.

Although the 2012 Permit authorizes the use of secondary treated effluent from the Log Pond for use on HRC Sawmill property for dust suppression, there is no authorization for the use of untreated industrial process water for the proposed uses listed in the Humboldt Wind Energy Project (dust suppression, backfill compactions, and cement mixing). The 2012 Permit also includes prohibitions (Discharge Prohibitions III.E, III.I and III.J) that would prohibit the proposed uses listed above.

As a technical matter, the proposed uses of untreated industrial process water raise a number of water quality concerns related to the presence and potential discharge of metals such as chromium, zinc and chlorine. The water quality concerns are related to threats to surface water from potential process water runoff, threats to soil contamination and ground water impacts from the percolation of process water. It also raises regulatory issues as recycled water use requires that the water is first treated to the equivalent of tertiary treatment and must be properly permitted and monitored to evaluate impacts to surface and ground water.

Thank you for your consideration of these comments. If you have any questions, please contact Justin McSmith at 707-576-2082 or at Justin.McSmith@waterboards.ca.gov.

Sincerely,



Justin McSmith
Water Resource Control Engineer

191121_JM_er_Humboldt Wind Energy Project Use of Cooling Tower Water

Certified-Return Receipt Requested

cc: Frank Bacik, Town of Scotia, fbacik@townofscotia.com
Leslie Marshall, General Manager Scotia CSD, infoscotiacsd@gmail.com
Ronnean Lund, Division of Drinking Water, Ronnean.Lund@waterboards.ca.gov
John Ford, Humboldt County Planning, JFord@co.humboldt.ca.us
Suzanne McClurkin-Nelson, Environmental Specialist,
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Humboldt Wind Project Planner. Humboldt County Planning,
CEQAResponses@co.humboldt.ca.us
Steve Werner, Humboldt County Planning, SWerner@co.humboldt.ca.us



14



YUROK TRIBE
Office of Tribal Heritage Preservation
190 Klamath Boulevard • Post Office Box 1027 • Klamath, CA
95548
Phone: (707) 482-1350 • Fax: (707) 482-1377

County of Humboldt Planning Department
Attn: Elizabeth Burks, Humboldt Wind Energy Project Planner
3015 H Street
Eureka, CA 95501
CEQAResponses@co.humboldt.ca.us

November 21, 2019

RE: Yurok Tribe's Comments on the Humboldt Wind Energy Project Final Environmental Impact Report.

Dear Elizabeth Burks:

The Yurok Tribe is writing in support of our neighbors, the Wiyot Tribe, and in opposition to the Humboldt Wind Energy Project ("the Project") as it will have a significant impact on Wiyot cultural resources, cultural landscapes, and impact the endangered California condor, a natural cultural resource of the Yurok, Wiyot, and many other Native nations and peoples. The Yurok Tribe has considerable concerns related to the recently released Humboldt Planning Commission 11.21.19 Staff Report ("the Staff Report"). This report purports to address comments raised at the public hearings. We find that responses are either woefully inadequate, or missing altogether. Further, the Final Environmental Impact Report ("FEIR") for the Project fails to provide adequate mitigation measures to avoid the significant harms to Wiyot cultural resources, cultural landscapes, and the California condor, in violation of the California Environmental Quality Act ("CEQA"). The Yurok Tribe urges the Humboldt County Planning Commission ("the County") to reject the Project because of these significant and unavoidable harms.

The Staff Report provides a long list of environmental impacts not mitigated to less than significant level, including impacts to:

- (1) aesthetic resources on Bear River and Monument Ridges;
- (2) exceeding the daily threshold of NOx in violation of the standards set by the North Coast Unified Air Quality Management District;
- (3) the threatened marbled murrelet;
- (4) raptors;

- (5) the Bear River Ridge and Valley Historic Landscape;
- (6) Tribal Cultural Resources of the Bear River Ridge area;
- (7) ethnobotanical Tribal Cultural Resources of the Bear River Ridge area; and
- (8) the Tribal Cultural Resources of the California condor.

The Commission must determine if the benefits of the Project outweigh the unavoidable, adverse environmental impacts. For this Project, the significant environmental harms clearly outweigh any benefits offered by the Project. The benefits listed in the Staff Report can all be achieved by less harmful projects, including localized roof-top solar projects, which would not destroy Wiyot cultural resources and landscapes, harm large numbers of wildlife, or violate air quality standards.

The Staff Report also incorrectly asserts that the Bear River Ridge is “understood *to have been* a sacred high prayer spot...” The use of the past tense “have been” is incorrect because this site is currently and will always be a sacred high prayer spot and significant cultural resource and landscape to the Wiyot Tribe and people. Seeking to diminish its value because Wiyot tribal membership were unjustly excluded from the site due to laws imposed by a colonial government is disingenuous. The site is of continuing high sacred value to the Wiyot people and should be referred to as such out of the respect that the proponents of this project claim to have for Wiyot culture.

Further, the Staff Report identifies significant modification to the Project that trigger the necessity to recirculate the Draft Environmental Impact Report (“DEIR”) for public comment and review. These significant modifications include:

- (1) the creation of the Technical Advisory Committee (“TAC”);
- (2) the realignment of the gen-tie;
- (3) the changes in the modeling for marbled murrelet collisions with a significant change in outcomes from 20.86 to 7.7 marbled murrelets colliding with the wind turbines;
- (4) changes in the bat TAC formation, operation, and requirements propose additional mitigations;
- (5) the reduction in the estimated raptor fatality rate;
- (6) new information regarding eelgrass protection;
- (7) no longer avoiding ground disturbance of the Bridgeville archaeological site;
- (8) the revised mitigation measures of: 3.5-1b, 3.5-2a, 3.5-2b, 3.5-2c, 3.5-3, 3.5-5a, 3.5-5b, 3.5-5c, 3.5-7, 3.5-11, 3.5-12, 3.5-13, 3.5-14, 3.5-18a, 3.5-19e, 3.5-21e, 3.5-22c, 3.5-23a, 3.5-23d, 3.5-22e, 3.5-25a, 3.6-1a, 3.6-1b, 3.6-4, and 3.13-2a;
- (9) the added stepwise adaptive management strategy of the Bat TAC;

- (10) the implementation of the American Wind Energy Association best management practices for feathering; and,
- (11) The Project's refinements in ground disturbance, gen-tie alignment, reduction of turbines, gen-tie crossing of the Eel River, realignment of the access roads, and project substation footprint.

Only through the recirculation of the DEIR, can the public have the full opportunity to review the changes to the project and provide comments. The changes made to the Project are significant modifications and require a recirculation of the DEIR.

Further, the Staff Report ignores and fails to address three specific comments submitted by the Yurok Tribe related to the Northern California Condor Reintroduction Project. These comments are summarized in the following section of this letter. First, although there is publicly released Environmental Assessment related to the condor reintroduction project, three potential alternatives were proposed. 1) The no action alternative, 2) reintroduction under a 10(j) non-essential designation, and 3) reintroduction with full protection under the Endangered Species Act ("ESA"). No final finding has been reached related to this proposal, hence the alternative to be selected is at this time unknown. It seems appropriate to present a proposed mitigation or other actions that will occur should this condor proposal find for alternative 3 and additional ESA protections are required.

Second, the project proponent has suggested use of a geo-fence linked to birds' satellite transmitters to facilitate warnings and grid shut-downs if necessary. While this may reduce some harms, it locks managers into satellite tag usage for the lifespan of the condor program, reducing management flexibility should managers find lower than expected condor mortality within the reintroduction region. Further, the condor project is proposed with a 20-year lifespan. The Wind Farm Project is proposed with a 30-year lifespan. Does the energy company in question, or Humboldt County propose to provide the additional 10 years of condor monitoring, trapping, and tracking required to maintain geo-fence effectiveness for the extra 10-year time-frame? The proponent suggested in previous discussions the application of IdentiFlight for use later during the project period, but now indicates that this tool will not be used. Clarification on this point is required.

Third, the 22-mile gen-tie line proposed by the project proponent is a collision risk in-and-of-itself. There is no way to "shut off" the risk associated with this infrastructure. Further, the newly proposed overhead crossing of the Eel River is supposed to pose minimal risk to murrelets, but there is no evidence in the record showing if this gen-tie line was assessed for risk to condors using the river valley winds for soaring.

This brings our discussion to the unsound assumptions made in the development of this proposal. In some cases, assumptions are made to indicate a dismissal of potential issues, risks, or concerns. In other cases, the assumptions made in the creation of the case supporting this project seem to over reach reality. One example is the Collision Risk Assessment dependent on avoidance in murrelets that is placed at 0.98. This is really nothing more than a guess. Perhaps an educated guess, but a guess nonetheless. The primary basis seems to be that some other species of birds that live at sea seem to avoid collisions at certain levels, so murrelets probably do also. The best information presented in the Assessment seems to be that murrelets avoid trees while flying, which demonstrates that they can avoid obstacles. This is the case for all flighted birds, yet many experience high mortality in the presence of wind turbines. The Collision Risk Assessment also posits that other birds, such as kestrels, exhibit various behaviors that distract them and put them at higher risk of collision while murrelets do not. We would argue that murrelets are extremely social while in flight, joining as pairs and trios; communicating through vocalization during both breeding and non-breeding seasons; and, while travelling at 50 miles per hour, executing survey flights over vast areas in search of potential nesting and resting platforms. Because observation of the birds is difficult to impossible during such activities, we have no information on how “distracted” they may be, which would be an anthropogenic projection at best anyway. The problem is that such assumptions are being given numerical values in statistical models, an attempt to launder unfounded assumptions into statistical facts. These models will spit out numerical answers regardless of what is input. Garbage in/garbage out is a very real possibility in this case. There is no meaningful peer review, other than public comment, and many of the murrelet specialists regionally are on the Projects’ pay-role and may feel conflicted about speaking out against this Project. The Yurok Tribe harbors strong doubts that this write-up for this collision risk analysis would pass muster if submitted to a peer reviewed publication.

This, finally, brings us to the question of: what if the projections, predictions, and plans related to this project fail or are found to be incorrect? There needs to be adequate contingency plans in place if the projections, predictions, and plans fail and the Project is more harmful than expected. There are no contingency plans in place if there is a turbine failure and subsequent fire. The Staff Report section suggesting that the TAC will suggest adaptive mitigation measures if a special-status species population drops below self-sustaining levels is not a mitigation measure that will ensure special-status species will not be significantly harmed. Simply accepting mortalities of special status species until the population is in dire condition at a little understood and extremely low biological threshold is certainly not a best management practice.

The Yurok Tribe understands the importance of finding green renewable energy as a step to decarbonizing Humboldt and addressing the causes of today's climate crisis. But, new projects and programs addressing the climate crisis must be achieved in a way that is inclusive and addresses environmental justice concerns. Projects destroying Wiyot and Yurok cultural resources and landscapes perpetuate colonization, and therefore are not an environmentally just solution. We request that the Humboldt County Planning Commission consider localized and community-based energy production and storage, such as roof-top solar and micro-grids, and move away from large-scale energy production projects that benefit large corporations and end-users outside our region, will placing Native cultural resources and environments at risk.

The Yurok Tribe knows that the Humboldt County Planning Commission understands the importance of cultural resources and cultural landscapes to Native people. We have worked together in the past to ensure cultural resources, sacred spaces, and culturally important plants and animals are protected. It is our hope, that the Humboldt County Planning Commission will consider the significant impacts the Humboldt Wind Energy Project will have on Wiyot cultural resources, cultural landscapes, and the sacred California condors and will find that -- in balance -- that the protection of Wiyot and Yurok cultural resources along with other plants and wildlife in the Project area is more important than the minimal benefits realized beyond our county's borders.

The Yurok Tribe urges the Humboldt County Planning Commission to not approve the Project because of the significant and unavoidable harms the Project will have on the Wiyot cultural resources, cultural landscapes, and the California condor.

Wok-hlew'



Rosie M. Clayburn, M.A.
Tribal Heritage Preservation Officer, Yurok Tribe
PO Box 1027
Klamath, CA 95548
rclayburn@yuroktribe.nsn.us

Rick Pelten

15

Mr. Chairman, I hate to be the bearer of bad news, but this DEIR needs to be thrown in the trash. I say this because another gross error has come to light. Please let me elaborate:

The FEIR presents alternative 5 (on page 9 – 217), saying “alternative 5 would reduce the total number of WT G’s from 60 to 37 and would avoid placing WT G’s on Bear River Ridge”.

So this is telling me that the WT G’s would be placed on Monument Mountain only? What does avoid mean?”

Figure 2.1 in chapter 9 says there will be 60 WT G’s.

Figure 2.2 in chapter 9 says there will be 60 WT G’s

Appendix C figure 2.2 says there will be 47 WT G’s. To be placed on both mountaintops.

I have thoroughly read both the DEIR and the FEIR, and what I get is a thoroughly confusing mishmash of figures, and an obvious deviation from all previous plans and alternatives.

Which story are the people of Humboldt County supposed to believe?



Planning Commission Meeting Nov 21.



16

Please do not certify the Final Environment Impact Report as it is not addressing all potential risks of the Humboldt Wind LLC project.

Please do not approve with or without conditions the Conditional Use Permit for this project. This project needs to be relocated where it will do no harm.

Terra Gen claims this is just a Land Use decision. Obviously, he has not listened to the people who have come before this commission. The mandate of government is to protect its people and its assets at the minimum. Monument Ridge and Bear River Ridge will be destroyed by this project. And Humboldt County will not be protecting its assets, as mentioned multiple times, the historic town of Scotia, the Avenue of the Giants, and the Wiyot cultural lands, need to be protected.

One of the Commissioners mentioned the "Greater Good" rationalization. Politicians must stop acting like the ends justify the means. Over and over again political decisions based on economic criteria fail. Political measures defended on the sole basis that they will bring about some good consequence that supposedly outweighs the costs. There are always costs and therefore victims of any government action, however, when the costs are loss of historic cultural lands, destruction of a pure, sacred (to some), ecological bountiful land, the argument of greater good falls apart. Because you cannot put a "cost" on the loss of natural habitat, a cost on loss of peace and tranquility, a loss of religious and cultural historic sites, so there can not be a justification or cost benefit analysis. The economic advantages cannot offset the nonquantifiable factors that will make up the losses to the general public and future generations.

I would submit that saving this property and protecting this property for future generations is the real "Greater Good".

Thank you,

Respectfully submitted,

Barbara Guest
Redcrest, CA

Humboldt Wind Project Planner
County of Humboldt
Planning and Building Department, Planning Division
3015 H Street, Eureka, CA 95501

November 21, 2019



Dear Planner and Planning Commissioners,

My name is Dr. Daniel Barton, and I am an Associate Professor of Wildlife Biology at Humboldt State, the director of HSU's Marine Wildlife Care Center, an oil spill response facility, and I study seabirds and other wildlife. I speak today as a private individual. I believe this project poses significant unmitigated impacts to Marbled Murrelet, raptors, and bats that, pursuant to CEQA, deserve additional analysis and consideration of mitigation alternatives before project approval. The California Department of Fish and Wildlife, along with American Bird Conservancy, California North Coast Chapter of The Wildlife Society, and EPIC have conducted thorough review and made substantive comments confirming this statement. Today, I am concerned with the applicant's claims in testimony provided to the commission.

Two weeks ago, the applicant stated, and I quote: "There are no more rigorous mitigations that are being employed on a wind farm in the United States today than on this project." This statement is demonstrably false. The Skookumchuck wind project (in Washington State) required seasonal curtailment for Marbled Murrelet, a suggested measure that was rejected in this project's Final EIR. Numerous other wind farms have voluntary and mandatory mitigations for a variety of species that exceed this project's, yet the applicant claimed this project was the most rigorous in the nation.

The applicant claimed the project would reduce petroleum fuel spill risk in Humboldt Bay, which is unsupported by any analysis in the EIR. The Humboldt Bay Generating Station is a natural gas-powered plant that uses very small amounts of pilot diesel fuel, with 100% diesel fuel backup capability. The station is only permitted (*NCUAQMD Title V Operating Permit*) to use 1,202 metric tons of diesel annually in its normal gas mode and approximately 3,500 metric tons of diesel annually in diesel mode. For comparison, during 2010-2016, 150,000-200,000 metric tons of petroleum products were received per year at the Chevron Eureka Terminal (*Humboldt Bay Maritime Industrial Use Market Study - Final Report*). Even if this project completely replaced the HBGS (it will not) the impact on petroleum shipping traffic would be minimal – I estimate, by volume, less than a 2% reduction, or well less than one barge trip per year. The applicant intends to barge wind turbines and infrastructure to Fields Landing in Humboldt Bay, resulting in an increase in vessel traffic and oil spill risk (although risk is low, *it is not zero*) and will need to use well over 1,000 metric tons of imported diesel during construction. I see no evidence of measurable benefits to Marbled Murrelet or other seabirds provided by this line of reasoning. I suggest disregarding the applicant's spill risk argument unless analysis demonstrating a reduction is provided.

Finally, the applicant made a bizarre and self-contradictory claim that project siting on Bear River Ridge resulted from a stakeholder-driven process. In the same testimony, the applicant said, quote: "A key factor why Bear River Ridge versus out near Bridgeville or Shively or Rainbow or Long Ridge the other many considerations locally that we factored in is that we couldn't deliver turbines. It's a pretty simple answer." Which was it? The applicant shouldn't claim environmental generosity for their siting choices if siting was driven by logistics.

I encourage the planning commission to consider all of the applicant's testimony cautiously. I also encourage the commission to consider the Wiyot people's comments ahead of my own – their concerns, as a sovereign nation of survivors of colonization and genocide that are now being asked to bear the burden of re-powering a world Europeans have so changed, should be paramount. Thank you.

Sincerely,
Daniel C. Barton, PhD

1230 Stromberg Ave, Arcata, CA 95521



The Terra Gen Wind Project

→ With regard to geology -

The area of the project consists of thin loose rocks/sail on top of highly unstable bedrock of the Franciscan Formation. These rocks make up most of the outer Coast Range between here and San Francisco. They originated during the last part of the Mesozoic Era (The upper Jurassic through the Cretaceous periods, mostly) and a rough estimate of 110 to 65 million years BP (before present) in age.

According to the geologic theory of "Plate Tectonics" there existed at that time an oceanic trench system off the west coast of the continent. At that time oceanic crust was being thrust under the continent (continental crust - mostly silica/alumina minerals).

This is known in geologic terms as a zone of subduction and its associated accretionary prism. This is defined as the region where marine sediments (sand, mud, clay etc) piled up against the thicker continental crust of the North American Plate. The sediment was scraped off the top of the much thinner, but very dense oceanic crust (iron and magnesium minerals form the bulk of it) as it was thrust under the North American continent.

All this resulted in the highly erosive unstable bedrock that we see in the area at present time. After millions of years of intense folding and faulting of the sediments that make up the

Franciscan Formation, that have become brittle and broken-up several times over. This results in a geology that is extremely susceptible to weathering processes that can lead to catastrophic events of mass-wasting such as large landslides and other failures of steep mountainous areas.

Add in to this the areas of the northern half of the San Andreas Fault and its triple junction with the North American, the Juan de Fuca/Cocos(?) and Pacific Plates that are all prone to strong earthquakes and you have the recipe for destructive processes of erosive events. A project of this magnitude will only intensify the problem!

Erosion Sites

1. STARTING

- Blue Slide Road - Rio Dell to Ferndale
@ Road movements - 2 wash outs.

- Scotia - 1 slide that dam^{med} the Eel.

The slide came from the R.D. side. Mud-Shale-logs-2 stumps
To the old rail tracks & water
into houses on Laundry st. —

You stand on the R.D. Bridge
and see Nature washing the
Bank into the Eel.

- Redcrest.

a Problem for years. CalTRANS been working for years to correct the movement West to East - This seems to be corrected - still has moments at times.

- Redway - Near Garberville

a Big Slide on the Hiway covered most of the road - this took time to correct.

- Leggett.

a A Big slide.

CALTRANS had to build a road around the slide.

Took 2 months to put the road back to the original spot.

- Shively Road

a Across the river from Stafford shows movements in ~~different~~ several areas.

- Stafford

a Slide was a movement like Scotia

- a lot of cement - rock - shale logs - ect. Due to springs, left a Big ditch - mud was to the frontage road. Must say very clean water off this hill side.

- on the flat, water has a lot of Iron. I had to use a large

Bear River Ridge
 - Forest Home Ranch ridge
 - Belongs to the Russ ranch
 - Below the ridge lies Atwell creek head
 waters - Bad erosion from pulp logging
 this flows into the Howe creek then
 into the Eel River.
 - Above the Atwell headwaters lies the
 County State Pit - use for base on roads.
 - Near the ridge top - E nodes from
 water run off and some soil movement
 this goes back years.

Monument Ridge & Bear River Ridge
 - Bear River Ridge runs from Banker Hill
 to Forest Home Ranch
 - Monument Ridge - runs from the Pierce
 east to upper reaches of Bear Creek
 - Drainage to the Eel river side
 Atwell Howe Creek - Denn Creek - Monument
 Creek - Kiler Creek - Twin Creek - Jordan Creek
 Green law Creek - Bear Creek
 All from the Monument and Bear River ridges.

Purifier to clean the water.
 waterings from a separate well
 would turn a charcoal stump on
 orange color
 + stood in my yard during an earth-
 quake - a rolling movement

The Monument Ridge.

- Mt Pierce is on a fairly narrow ridge - Highest point on the ridge (3185')
- Owner H.R. Redwood Mt. Pierre
- Mt Pierce - has 3 buildings - One of 3 California ZERO Pt Township & Range Evid - Nico Wave Repeaters stations for many - CHD Sheriff - HR & others. North Rainbow Peak has an FAA radome - To the west Bear River drainage (Chase ranch)

H R Redwood intentions:

- Log 400 acres - cleared, 100 ACERS clean off expectation - a lot of erosion events can cause ruts - slides - water table drop - springs to dry up - a change water run off directions.
- Bad results - Neighbors - Neighbor - 1st maybe a water source to her or she may value water more than the house or barn they live in - the run off on to their property - can cause damage to their property.

The Terra Gen Wind Project

The Plan -

- 47 wind stations
- 656' tall - rope 11/2" 300' wide
- New or used - we don't know
- 470 tons and contained
- Base 15x10x10 cement and Rammed Pad
- Diesel 1110 to keep generator going
- causing noise and exhaust fumes
- among other problem in the area. This
- causes a clean air road from
- 3 acres area to each wind station
- top of wind station a beacon light
- Good for airplanes or bad, especially
- the one underfoot of the valley
- with all soil movements - will Nature wash
- it away, it could happen - where is it going
- How much grade containment - top
- movement ridge to Stafford Bridges
- will be exposed - 80' wide
- This is not far from the Stafford
- Slide - prone to slides. (Project)

- will this need a geology report?

With weight - Construction - Soil

movement - Earthquake something

No to me.

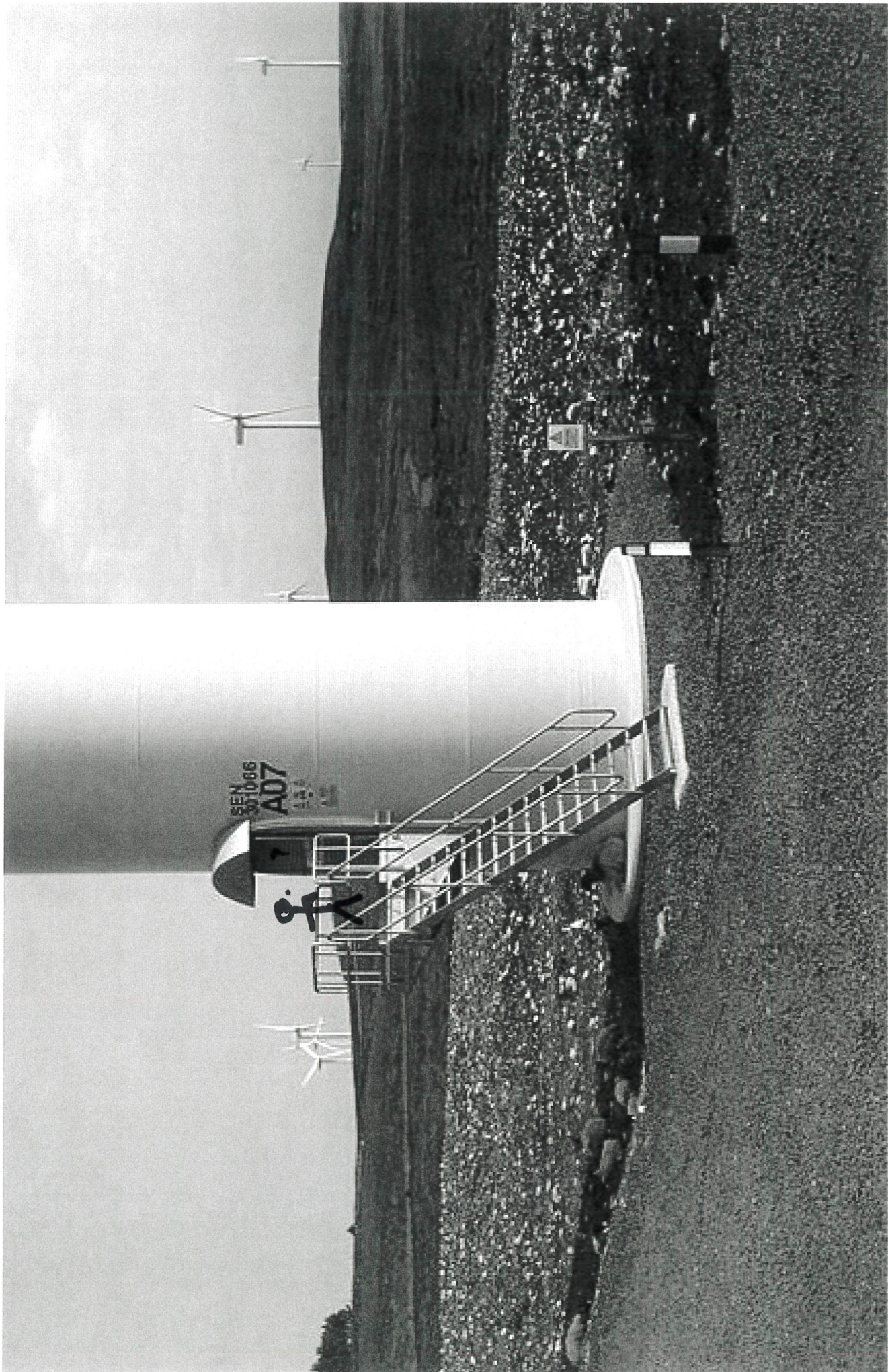


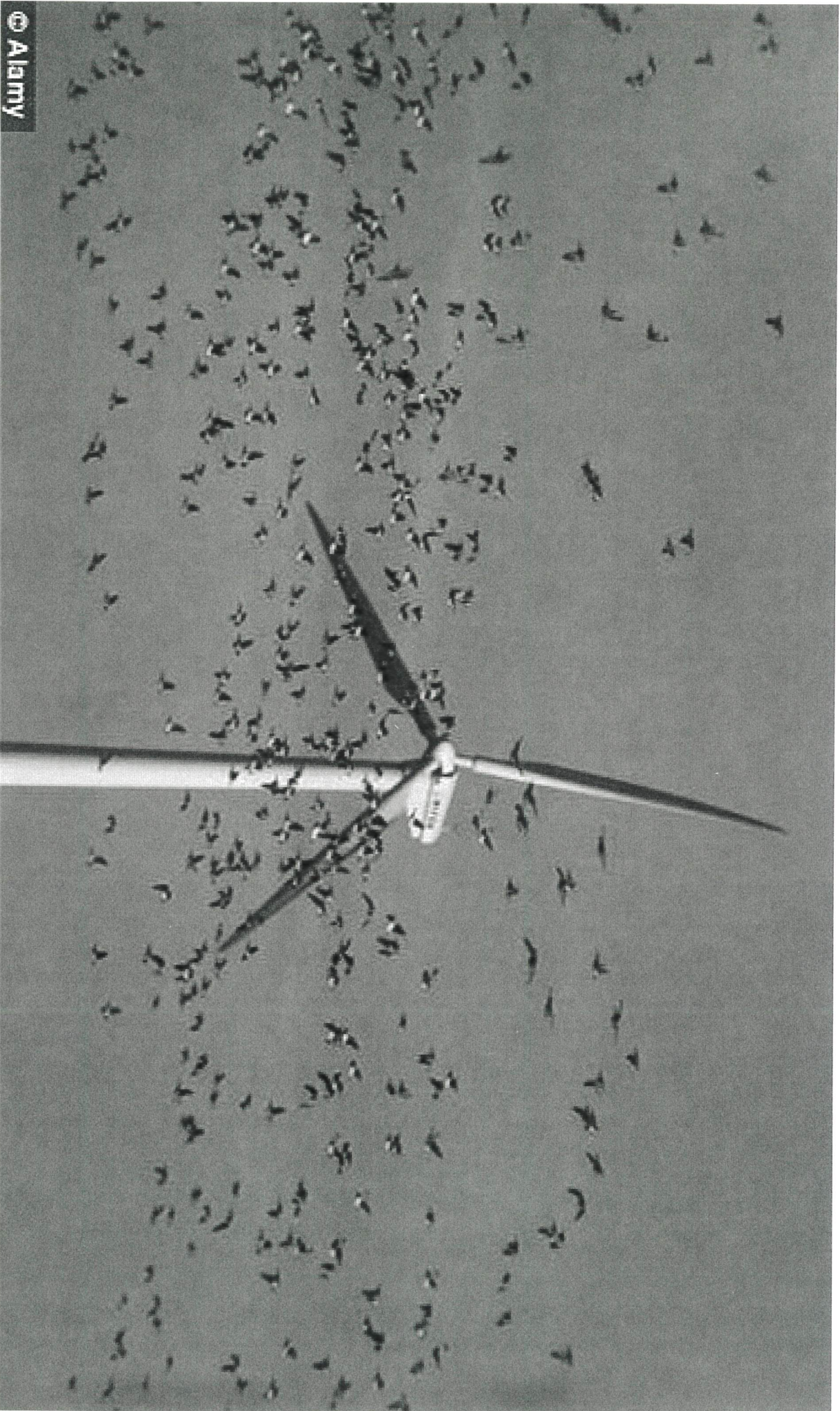


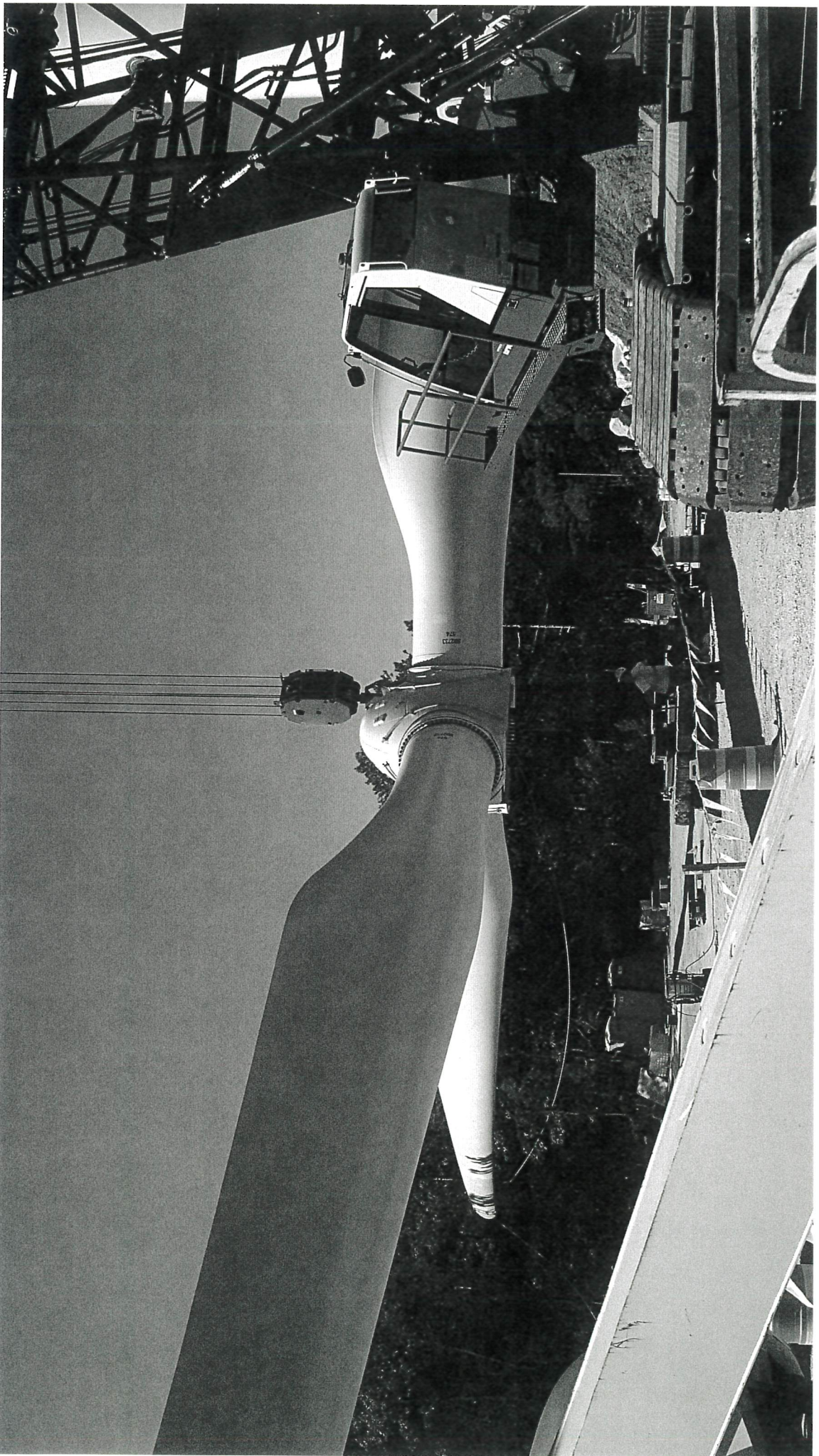


Blade









Massive Foundation

