



COUNTY OF HUMBOLDT

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Attachments: 1. Staff Report, 2. Attachment 1 CEQA Resolution final (002).pdf, 3. Attachment 2 BOS Use Permit Resolution final.pdf, 4. Attachment 3 Conditions of Approval - BOS.pdf, 5. Attachment 4 Humboldt Wind Project MMRP.pdf, 6. Attachment 5 PC Resolution 19-134_Humboldt Wind LLC_13999.pdf, 7. Attachment 6 PC Staff Report 11.07.19.pdf, 8. Attachment 7 PC Staff Report 11.14.19.pdf, 9. Attachment 8 PC Staff Report 11.21.19.pdf, 10. Attachment 9a Public Comments_Staff Report provided on 11.07.19.pdf, 11. Attachment 9b PC Supplemental 1 - Public Comments provided at PC 11.07.19.pdf, 12. Attachment 9c PC Supplemental 2 - Public Comments provided at PC 11.14.19.pdf, 13. Attachment 9d PC Supplemental 3 - Public Comments provided at PC 11.14.19.pdf, 14. Attachment 9e PC Supplemental 4 - Public Comments_11.21.19 .pdf, 15. Attachment 9f PC Supplemental 5 - Public Comments_11.21.19.pdf, 16. Attachment 9g PC Supplemental 6 - edits and corrections_11.21.19.pdf, 17. Attachment 9h Public Comments submitted at the PC meeting 11.21.19.pdf, 18. Attachment 9i_Public Comments_1.pdf, 19. Attachment 9i_Public Comments_2.pdf, 20. Attachment 9i_Public Comments_3.pdf, 21. Attachment 9i_Public Comments_4.pdf, 22. Attachment 9i_Public Comments_5.pdf, 23. Attachment 9i_Public Comments_6.pdf, 24. Attachment 10 Summary of letters received during PC hearings.pdf, 25. Attachment 11 Appeal Letter by applicant.pdf, 26. Attachment 12 Wolfe Letter to Planning Commission_11-14-19.pdf, 27. Attachment 13 2019 Public Health Position Statement on Human Health Effects of Wind Turbines.pd.pdf, 28. Attachment 14 AECOM Resumes.pdf, 29. Attachment 15a_Skookumchuck Executive Summary.pdf, 30. Attachment 15b Skookumchuck Wind Energy Project - MAMU mitigation memo.pdf, 31. Attachment 16a nclimate1505-rev.pdf, 32. Attachment 16b press_release_QA for Nature paper.pdf, 33. Attachment 17a Sanchez-Bayo & Wyckhuys 2019 Worldwide decline of the entomofauna_ A...pdf, 34. Attachment 17b Trieb 2018 Interference of Flying Insects & Wind Parks.pdf, 35. Attachment 18 Terra-Gen Idemnification.pdf, 36. Attachment 19 Taxes.pdf, 37. Supplemental Information, 38. Public Comment, 39. Executed Terra-Gen Idemnification

Date	Ver.	Action By	Action	Result
12/16/2019	1	Board of Supervisors	approved as amended	Pass

To: Board of Supervisors

From: Planning and Building Department

Agenda Section: Public Hearing

SUBJECT:

Humboldt Wind Energy Project- Appeal of Planning Commission Decision
Project # PLN-13999-CUP

RECOMMENDATION(S):

That the Board of Supervisors:

1. Open the public hearing and receive the staff report and public testimony; and
2. Close the public hearing and consider the information in the record and the testimony received; and
3. Approve and authorize the Chair of the Board to sign the attached Indemnification Agreement [Attachment 18] regardless of whether the project is approved or denied; and
4. Adopt Resolution No. _____ [Attachment 1] A Resolution of the Board of Supervisors of the County of Humboldt to take the following actions:
 - a. Certifying that the Environmental Impact Report (EIR) for the Humboldt Wind Project has been prepared in compliance with the California Environmental Quality Act (CEQA) and setting forth findings of fact and evidence to support this action; and
 - b. Certifying that the Final EIR (FEIR) was presented to the Board of Supervisors and the Board of Supervisors has reviewed and considered the information contained in the FEIR before approving the project; and
 - c. Certifying that the FEIR reflects the county's independent judgment and analysis; and
 - d. Adopting the Statement of Overriding Considerations; and
 - e. Adopting the Mitigation Monitoring and Reporting Program [Attachment 4].
5. Adopt Resolution No. _____ [Attachment 2] A Resolution of the Board of Supervisors of the County of Humboldt to take the following actions:
 - a. Finding the project is consistent with the Humboldt County General Plan and the findings required for approval of the Special Permit and Conditional Use Permit can be made; and
 - b. Granting the applicant's appeal of the Planning Commission's Denial of the Special Permit and Conditional Use Permit; and
 - c. Approving the Conditional Use Permit and Special Permit subject to the Conditions of Approval [Attachment 3].
6. Direct Planning Staff to prepare and file a Notice of Determination with the County Clerk and Office of Planning and Research within 5 working days of project approval.

SOURCE OF FUNDING:

The Project Applicant, Humboldt Wind, LLC.

DISCUSSION:

1. Executive Summary

The applicant applied for a Conditional Use Permit and Special Permit to construct and operate an

electrical wind generation facility with 47 wind turbine generators (WTGs) and associated infrastructure with a nameplate generating capacity (i.e., theoretical maximum energy generation) of up to 155 megawatts (MW). This is an appeal of the Planning Commission's denial of the application. Initially the Planning Commission was deadlocked with a 3-3 vote, but a commissioner changed their vote at the request of the applicant for an up or down vote. Staff is bringing forward the recommendation for approval. In order to approve this application, the Board of Supervisors must find that the Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) and that the project can be found to conform to the requirements of the Zoning Ordinance and policies of the General Plan. In addition, because the EIR identifies environmental impacts which cannot be mitigated to a less-than-significant level, the Board must also make findings detailing why the advantages of the project outweigh the potentially significant environmental effects. Attachment A prepared for the Board's consideration is a proposed resolution describing why the EIR has been prepared in compliance with CEQA and provides the benefits the project provides in the Statement of Overriding Considerations. Attachment B has been prepared to make all findings for approval of the permits related to the General Plan and the Zoning ordinance and adopt the Mitigation Monitoring and Reporting Plan which will implement the mitigation measures in the Final EIR (FEIR).

2. Project Description

A Conditional Use Permit is required to allow for electrical generation and transmission facilities in the Timber Production Zone (TPZ) and Agricultural Exclusive (AE) zoning designations. A Special Permit is required to allow for work within streamside management areas (road crossings) and wetlands.

The project would include the following components:

- up to 47 WTGs (capable of generating 2-5 MW of electricity each) erected on tubular steel towers set on concrete foundations, as well as the associated WTG pads, temporary staging areas, and transformers;
- temporary construction access roads and permanent service roads, as well as temporary improvements to public roads at two locations along U.S. 101 to facilitate the delivery of WTGs from the Fields Landing Drive delivery site to the staging yard at Jordan Creek;
- an up to 22-mile, 115 kV generation transmission line (gen-tie) that extends north from Monument Ridge, crosses Eel River via the Richard Fleisch Memorial Bridge, and ultimately connects to the existing PG&E transmission system at the Bridgeville substation;
- Bridgeville substation expansion of up to 3 acres for switchyard modifications;
- a project substation located on-site (approximately 2.5 acres);
- an underground electrical collection system linking WTGs to each other and to the project substation;
- an underground communication system (fiber optic cable) adjacent to the collection system;
- a Supervisory Control and Data Acquisition (SCADA) system between each WTG and the substation and between the project substation and the Bridgeville substation to monitor and control project output and the transmission of energy into the system;
- an up to 5-acre operations and maintenance facility, including an operations building, a parking area, and an outdoor storage area with perimeter fencing;
- a 10-acre temporary staging area, a construction trailer, and parking area located within the

- operations and maintenance facility;
- a component offloading location at Fields Landing;
- two temporary bypasses off U.S. 101 (Hookton Overpass and 12th Street Bypass) for transporting oversize loads;
- up to six permanent meteorological towers;
- three 5-acre, temporary staging areas distributed throughout the project site, one of which would include one temporary concrete batch plant on Monument Ridge; and
- up to 17 miles of new 24-foot wide access roads.

The full project description is contained in Chapter 9 of the Final Environmental Impact Report (FEIR).

The WTGs are located on Bear River Ridge and Monument Ridge located southwest of Scotia. Bear River Ridge is approximately 14 miles long, starting near the Pacific Ocean and terminating approximately 2.8 miles southwest of Scotia. Along the 14-mile ridgeline 20 turbines would be located on the easternmost 3.3 miles. The project would occur on approximately 25 percent of Bear River Ridge.

Monument Ridge is approximately 7.5 miles long. There are 27 turbines proposed along the length of this ridge.

Each turbine will be located within an approximately 2.8 acre cleared area leveled to a 2 percent slope or less. A portion of the WTG pad would remain graded as a permanent soil-compacted crane pad to provide a stable foundation for the crane during placement of the WTG components and remain compacted (but not paved) to allow for turbine maintenance during the life of the project. The WTG foundations would be buried to a depth of 10 feet below grade with a pedestal extending approximately 1 foot above the ground. The foundation would be 60-70 feet in diameter. Once construction is completed, a permanent gravel ring 25 feet in diameter would be established around the base of the foundation to form the permanent WTG pad. The gravel would provide a stable surface for maintenance vehicles. After construction of the WTG, all areas subjected to temporary construction impacts would be stabilized in accordance with a Stormwater Pollution Prevention Plan (SWPPP) and a site-specific restoration plan.

The life of the project is expected to be 30 years. Per the Recommended Conditions of Approval [refer to Attachment 3], the Conditional Use Permit and Special Permit would expire thirty (30) years from the date of issuance. No later than two (2) years prior to expiration of the permit the applicant must apply for project decommissioning or repowering. The decommissioning or repowering permit would require approval and would be subject to CEQA. While the general process of decommissioning is described in the Draft EIR (DEIR), the exact details would be determined and considered during the decommissioning permit process. The requirements for decommissioning include removal of all above grade structures and facilities from the project site (excepting the addition to the Bridgeville substation); decompaction and recontouring to return the site to preconstruction and operational condition; and revegetation commensurate with the vegetative cover, composition, and diversity of the ecological setting, pre-development. Below grade foundations and other infrastructure would be abandoned in place to minimize site disturbance.

The recommended Conditions of Approval require that if operations cease for a one-year period, an application for remediation and removal must be submitted within 6 months of abandonment and that decommissioning of the site must be complete within 3 years of cessation of operations. Prior to the issuance of construction permits, the applicant must provide to the County Financial Assurances to guarantee the faithful performance of the decommissioning and restoration of the facility at the conclusion of the 30 year permit term, or in the event of facility abandonment, considered to be the discontinuance of operations for a period of one year. The Financial Assurance Cost Estimate would be prepared by a California Licensed Professional Engineer and be approved by the County.

3. EIR Process

The application was filed by the project applicant on May 29, 2018. A Notice of Preparation (NOP) was issued on July 31, 2018. The NOP was circulated for a period of 30 days, ending on August 30, 2018. Two scoping meetings were held on August 14 and 15, 2018.

The Draft EIR (DEIR) prepared for the project presents a detailed analysis of all significant and potentially significant environmental impacts of the proposed project; identifies feasible mitigation measures, where available, that could avoid or reduce these impacts; and identifies whether these mitigation measures would reduce these impacts to less-than-significant levels. The DEIR analysis was informed by multiple surveys and studies including those related to visual, cultural, and biological resources in addition to noise and transportation impacts.

The project site identified in the DEIR represents an approximately 2,218-acre area study corridor within which the WTGs and associated infrastructure would be placed. Within that study corridor, a representative project footprint was developed that conservatively included approximately 900 acres of temporary or permanent impacts. The DEIR acknowledged that the actual project footprint is likely to be less.

The DEIR was circulated for public review beginning on April 15 and ending on June 5, 2019. The deadline to comment on the DEIR was extended to June 14, 2019, making the total comment period 60 days. During the DEIR public review period a large volume of comment letters were received.

Since issuance of the Draft EIR, the project applicant has continued to coordinate with County staff and the regulatory agencies to further refine the project layout based on the presence of sensitive resources and other factors. Supplemental technical studies conducted in support of the project were used to further refine the project footprint. The project applicant also reviewed public comments submitted in response to the DEIR to assess whether project refinements that respond to concerns stated by commenters could be incorporated. As a result, the project applicant has made a number of refinements to the proposed project since circulation of the DEIR, which include the following:

- a. Reduction in projected ground disturbance from 900 to approximately 655 acres.
- b. Realignment and shortening of the gen-tie (from 25 to 22 miles) to avoid northern spotted owl activity centers and foraging and roosting habitat.
- c. Reduction in the number of turbines from 60 to 47.

- d. Overhead crossing of the gen-tie line over Eel River rather than horizontal directional drilling under the river.
- e. Realignment of access roads to avoid northern spotted owl habitat.
- f. Reduced project substation footprint from 5 to 2.5 acres.

A Final EIR (FEIR) was published on November 1, 2019, and includes written responses to all comments received, in addition to the project refinements proposed by the applicant and supplemental technical information. CEQA requires that the FEIR be made available for review by agencies for the minimum requirement of 10 days prior to certifying a FEIR (Public Resources Code §21092.5). The FEIR was not certified by the Planning Commission. If your Board chooses to certify the EIR, approximately 45 days would have elapsed between the date the FEIR was published and the date of final decision on the project.

4. Summary of Planning Commission Hearings and Action

Three Planning Commission hearings were held on the project, on November 7, 14, and 21, 2019. The staff reports presented at these hearings are included as attachments to this Board report. Each public hearing included an opportunity for public comment. Over 150 speakers gave public testimony in hearings that lasted about 5 ½ hours each. The first public hearing was an introduction to the FEIR. The second was primarily staff's response to public testimony and Planning Commissioner questions.

At the final public hearing, staff recommended approval of the project and presented two resolutions- 1) a CEQA resolution including a Statement of Overriding Considerations, and 2) a Conditional Use and Special Permit resolution. The recommended Conditions of Approval and the Mitigation Monitoring and Reporting Plan (MMRP) were also presented.

Over the course of the Planning Commission hearings more than 800 pages of comments were submitted. The comment letters submitted to the Planning Commission are included as Attachment 9. Staff has reviewed these comments, a summary of which is provided in Attachment 10.

The main themes from the public testimony received during the Planning Commission hearings included:

- Concerns regarding Wiyot Tribe ancestral territory and the significant unavoidable impacts to the Bear River Ridge, ethnobotanical area, and the California condor.
- Impacts to visual resources including changes to the beauty of Humboldt County.
- Carbon sequestration loss due to tree removal.
- Questions regarding if there is other feasible mitigation, what mitigation may have been rejected, and the financial impacts related to rejection of mitigation and alternatives.
- Fire danger including both potential fire from the gen-tie line and fire that could be generated from the turbines.
- Interest in off-shore wind or community solar as an alternative to this project.

- Biological resource concerns including questions related to the adequacy of surveys, nesting seasons, and impacts to raptors and other birds.
- Potential reduction in property values.
- Interest in the project's contribution to combating global climate change.

Staff addressed these concerns through the Planning Commission Presentations and Staff Reports.

The Planning Commission voted on the project on November 21, 2019, with six commissioners present. There was an original motion to approve the project consistent with the staff recommendation to make all the required findings, based on the evidence in the staff report and after receiving public testimony, certify the Environmental Impact Report, adopt the Statement of Overriding Considerations for the indicated project, adopt findings that the project is consistent with applicable policies and regulations, adopt a Mitigation Monitoring and Reporting Plan (MMRP), and approve the project as revised in the FEIR, subject to the Conditions of Approval. However, this motion resulted in a deadlock with three commissioners voting in favor and three ultimately voting against the motion. Upon the deadlock the chair asked if anything could be done to change the opinions of the Commissioners voting no and be able to ultimately approve the project. To this, one commissioner noted that if there was more time to review the details that had been presented that night at the hearing, he may be able to consider approval of the project at a future date.

The applicant expressed that rather than a continuance they would appreciate a decision that night.

A second motion was made to deny the project and find that the benefits of the project do not outweigh the significant unavoidable impacts. This motion passed with a 4-2 vote with one commissioner changing their vote in order to allow the motion to pass with a majority rather than be deadlocked again. The Planning Commission resolution is included as Attachment 3.

The project was appealed by the applicant on Monday, November 25, 2019. The reason for the appeal is that the applicant believes the project benefits do outweigh the significant unavoidable impacts associated with the project. The significant unavoidable impacts and Statement of Overriding Considerations are discussed further below.

Staff is bringing forward the original recommendation to certify the Environmental Impact Report, adopt the Statement of Overriding Considerations for the indicated project, adopt findings that the project is consistent with applicable policies and regulations, adopt a MMRP, and approve the project as revised in the FEIR, subject to the Conditions of Approval. This is because the Planning Commission decision was not based on a lack of ability to make the required findings for the project, the Planning Commission was divided on their decision, and Board's review of the project is de novo.

5. General Plan Policy

The County's General Plan Energy Element contains support for wind energy development. If commercial scale wind energy is going to be developed, the proposed project's location is among the only areas within the County with a viable wind resource.

The General Plan Energy Element "*promotes self-sufficiency, independence and local control in energy management and supports diversity and creativity in energy resource development, conservation, and*

efficiency. This strategy can reduce the drain on the County's economy for energy, stimulate local businesses and the economy, and help the County meet greenhouse gas emission reduction targets."

This project would support General Plan Goal E-G3 which is to increase local energy supply from a distributed and diverse array of renewable energy sources and providers available for local purchase and export.

General Plan policies related to wind development include the following:

- E-P3: The County shall support renewable energy development projects including biomass, wind, solar, "run of the river" hydroelectric, and ocean energy, consistent with this Plan that increases local energy supply.
- E-P14: Develop renewable energy overlay zones based on community input to protect the unique value of sites that are identified as having substantial renewable energy potential and/or will be critical for renewable energy infrastructure while still allowing uses permitted in the underlying zone.
- E-P15: Coordinate with local agencies, communities, and landowners to assess potential wind and offshore renewable energy development. Such an assessment shall consider site suitability, energy potential, and potential impacts to biological and cultural resources.

Although a renewable energy overlay zone has yet to be developed, to create such an overlay for commercial scale wind development, the most limiting factor is the availability of wind. The hatched areas on Figure 1 below show the locations with windspeed sufficient for commercial development. The only areas with an average wind speed considered to meet the commercially developable threshold are the ridges south of the lower Eel River Valley (where the current project is proposed), and some roadless areas along the Lost Coast, where access to a grid connection is not considered feasible, and/or the areas are under federal protection. For an on-shore wind energy development project, the proposed project's location and immediate vicinity are likely the only viable locations having substantial renewable energy potential. The project does still allow for the uses permitted in the underlying zones to be continued, including grazing and commercial timber uses.



Figure 1. Locations in Humboldt County with a Commercially Viable Wind Resource

Through the process of preparing the environmental documents and processing the Use Permit and Special Permit application, the assessment discussed in General Plan Policy E-P15 has essentially occurred. There has been coordination with local agencies, communities, and landowners to assess the potential wind development. This assessment has considered site suitability, energy potential, and potential impacts to biological and cultural resources. Where impacts have been found they are disclosed in the DEIR and mitigated when feasible.

6. Significant Unavoidable Impacts and Statement of Overriding Considerations

If approving a project where significant unavoidable impacts have been identified, a Statement of Overriding Considerations must be adopted. CEQA requires the decision-making agency to balance the economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the project against its unavoidable environmental risks in determining whether to approve the project. If these benefits outweigh the project's unavoidable, adverse environmental impacts, the identified significant unavoidable impacts may be considered acceptable.

After thorough analysis, the DIER discloses significant unavoidable impacts associated with the project. The significant unavoidable impacts associated with the project include:

- **Aesthetics**
 - Impact 3.2-1: Project Impacts on Scenic Vistas and Potential for Substantial Degradation of Existing Visual Character or Quality of Public Views of the Site and

Surroundings

- Impact 3.2-3: New Source of Substantial Light or Glare that Would Adversely Affect Day or Nighttime Views in the Area

- **Air Quality**

- Impact 3.4-1: Short-Term, Construction-Generated Emissions of NO_x

- **Biological Resources**

- Impact 3.5-2: Operational Impacts on Marbled Murrelet
 - Impact 3.5-11: Operational Impacts on Raptors

- **Cultural Resources, Including Tribal Cultural Resources**

- Impact 3.6-3: Change to the Significance of a Historical Resource (Bear River Ridge and Valley Historic Landscape and Bear River Ridge Ethnobotanical/Cultural Landscape)
 - Impact 3.6-4: Change to the Significance of a Tribal Cultural Resource

- **Cumulative Impact Areas**

- Air Quality
 - Biological Resources
 - Cultural Resources, Including Tribal Cultural Resources

Attachment 1, the resolution to certify the EIR, includes findings related to the significant unavoidable impacts and the Statement of Overriding Considerations.

Staff has identified several benefits associated with the project which are discussed in detail in Attachment 1. There are statewide environmental benefits including that the project will assist California in meeting the ambitious Renewable Portfolio Standards goals of 50 percent of the state's electricity from eligible renewable energy resources by 2030. The project would contribute to a diversified statewide energy portfolio that will reduce exposure to price volatility associated with electricity and natural gas. Further, the project would replace outdated energy sources such as the Potter Valley Dam and the Klamath River Dam which are being decommissioned.

The project would displace emissions of approximately 384,068 metric tons per year of carbon dioxide that would otherwise be required to generate the same amount of electricity as this 147 MW project (conservative estimate of MW generated, maximum is 155MW).

Of those who gave testimony and submitted letters in favor of the project, the majority cited the need to respond to the threat of climate change.

There are also local and regional benefits. Approval of the project will aid the County in meeting energy needs in an efficient and environmentally sound manner, as provided in the County General Plan, which encourages utilization of renewable energy resources. General Plan policies were discussed above.

Additionally, the General Plan (Policy E-P5) recognizes Redwood Coast Energy Authority (RCEA) as the regional energy authority. RCEA has set a target of 100% clean and renewable electricity by 2025. According to Michael Winkler, Chair of the Board of RCEA, in statements made to the Planning

Commission on November 14, 2019, RCEA staff is concluding negotiations with Terra-Gen/Humboldt Wind, LLC for three quarters of the output of the project. If approved, the project will produce more than 60% of the electricity used by RCEA's customers who represent more than 90% of the electricity customers in Humboldt County. The project would assist RCEA in meeting their renewable energy goals.

There are economic benefits of the project. These include additional tax revenue estimated at \$50,554,000 in property tax as well as \$9,138,000 in sales tax. Of the sales tax, approximately \$3,448,301 would be the local tax revenue.

There are also benefits to the knowledge base including the formation of Bird and Bat Technical Advisory Committees (Mitigation Measures 3.5-11 and 3.5-18a). This will contribute to the greater scientific knowledge base and support future environmental analyses and mitigations.

In order to certify the FEIR, the Board must determine that these benefits outweigh the significant unavoidable impacts associated with the project.

7. AB 52 Consultation and Tribal Cultural Resources

One of the most significant points of concern related to the project are the impacts to Bear River Ridge, which has been identified during the required AB 52 Tribal Consultation as a Tribal Cultural Resource by the Wiyot Tribe. The Wiyot Tribe also identified the California condor as Tribal Cultural Resources.

Prior to the start of this project the County did not have knowledge of Bear River Ridge as a significant feature to the Wiyot Tribe. This is evidenced by the Wiyot Tribe's referral response to the Shell Wind Energy project proposed in 2007 for which the project location partially overlapped with the current project location. At that time the Tribe did not note knowledge of significant resources on Bear River Ridge and asked that a Cultural Resource Survey be conducted, tribal monitor be on place during project construction, and contact the Tribal Historic Preservation officer if resources were found.

For this project, a Cultural Resource Phase I Inventory Report (Stantec, 2018, confidential report) was prepared by a qualified archaeologist. During the preparation of this report a sacred lands file search was requested from the Native American Heritage Commission (NAHC) on September 6, 2018, in which the purpose was to ascertain whether there were additional resources or locations that may be of importance to Native Americans who have traditionally resided in the project area. On September 7, 2018, the NAHC responded that a review of their files yielded negative results.

As stated in the DEIR, Initial AB 52 Consultation letters for this project were sent on July 13, 2018, to the Big Lagoon Rancheria, the Hoopa Valley Tribe, the Bear River Band of the Rohnerville Rancheria, the Wiyot Tribe, and the Cher-Ae Heights Indian Community of the Trinidad Rancheria. The Bear River Band of the Rohnerville Rancheria and the Wiyot Tribe requested consultation.

The Cultural Resource Phase I Inventory Report (Stantec, 2018, confidential report) was submitted to the County on November 20, 2018, and provided to the Tribes on December 12, 2018. On February

13, 2019, a meeting was held with the County and Tribal Historic Preservation Officers of the Wiyot Tribe and the Bear River Band of the Rohnerville Rancheria. Additional Government-to-Government Tribal Consultation was held between the County and the Wiyot Tribal Council on March 25, 2019.

The Wiyot Tribe followed up with a letter dated March 29, 2019, in which the Tribe outlined three issues of importance to the Tribe which included: Bear River Ridge, known as *Tsakiyuwit*, is a defining feature of the larger Wiyot cultural landscape, the southern boundary of Wiyot ancestral territory, and a coastal prairie that supports numerous ethnobotanical resources critical to the survival and culture of the Wiyot people; a list of ethnobotanical species; and stated that tribal elders indicated that Bear River Ridge was most likely used as a high prayer spot.

The California Public Resources Code Section 21074 defines Tribal Cultural Resources, in part, as either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe that are listed, or determined to be eligible for listing, in the national or state register of historical resources, or listed in a local register of historic resources; or (2) a resource that the lead agency determines, in its discretion, is a tribal cultural resource. California Public Resources Code Section 21074 subdivision (b) states, “A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.”

When a lead agency chooses to treat a resource as a tribal cultural resource, that determination shall be supported with substantial evidence, applying the criteria in the historical register, and considering the significance of the resource to a California Native American Tribe. (PRC§ 5024.1, PRC§ 21074). California Native American tribes traditionally and culturally affiliated with the geographic area of a project may have expertise concerning their tribal cultural resources. (PRC § 21080.3.1). Courts will defer to a lead agency's factual determination that a resource is a tribal cultural resource if that decision is supported by substantial evidence in the record.

Evidence that may support such a finding could include, among other evidence, elder testimony, oral history, tribal government archival information, testimony of a qualified archaeologist certified by the relevant tribe, testimony of an expert certified by the Tribal Government, official tribal government declarations or resolutions, formal statements from a certified Tribal Historic Preservation Officer, and historical notes, such as those found in the Harrington Papers and other anthropological records.

Bear River Ridge is not listed, or determined to be eligible for listing, in the national or state register of historical resources, or listed in a local register of historic resources. No specific geographic area along Bear River Ridge was suggested as most significant. The County considered Bear River Ridge a Tribal Cultural Resource, taking the most conservative view. The decision was based on the lead agency’s discretion to consider the elder testimony referred to in the March 29, 2019 letter as the evidence and disclose in the Draft EIR that Bear River Ridge was a Tribal Cultural Resource. Placing turbines on the ridge constitutes a significant unavoidable impact and the Tribe has not requested any mitigation that would lessen the impact. Turbines would occupy approximately 25% of the ridgeline.

8. Testimony and Written Correspondence During the PC Hearings

Staff has reviewed the public testimony and letters submitted during the Planning Commission hearings. Staff reports prepared for the November 14, 2019 (Attachment 7) and November 21, 2019 (Attachment 8) hearings address many of topics raised. The letters received are provided in Attachment 9. Staff response to the letters and public testimony is summarized in Attachment 10. In some cases, the findings presented in the resolutions directly address points raised in the letters.

Some of the topics that have been brought up multiple times and not fully written about in prior staff reports are addressed below.

a. RCEA Power Purchase Agreement and Offshore Wind Project

In February 2019, RCEA issued a solicitation for long-term renewable energy power purchase agreements (PPAs). RCEA expressed a preference for local projects built in Humboldt County. Terra-Gen submitted an offer for power from its proposed Humboldt Wind project; of 40 offers received from 13 companies, this was the only offer received by RCEA for a project to be built in Humboldt County. With the Board of Directors' approval, RCEA staff are currently negotiating a PPA with Terra-Gen which is set to go to the RCEA Board for action on December 19th. Power purchased by RCEA under this and other PPAs will be resold to Humboldt County ratepayers who participate in RCEA's Community Choice Energy program.

RCEA is a partner in developing wind energy using floating offshore platforms. This is an abundant resource on the North Coast; however, permitting and development of an offshore project is expected to take five years or more and will not be available in time to help meet RCEA's long-term contract requirements in the initial years. As a first-of-its kind project in North America, it is expected to undergo close regulatory scrutiny and will almost certainly be more expensive than mature onshore wind technology. RCEA considers it prudent to include local onshore wind in its near-term portfolio.

b. Local Use of Power

Many commenters questioned whether the project would result in Humboldt County becoming more energy independent and allow the County to "island" itself and not be subject to future PG&E Public Safety Power Shutdowns (PSPS).

The energy generated by the wind turbines will be connected to the PG&E grid at the Bridgeville substation via the proposed gen-tie. Bridgeville substation has both transmission and distribution lines. Energy from the turbines will first flow to the distribution lines to reach local customers. Only once the distribution line demand is met, would the wind energy go to the transmission line (Cottonwood line). Due to the mechanics of the system, energy would flow first to meet local demand, excess energy would enter the transmission lines and serve customers elsewhere.

The project alone would not allow Humboldt County to island in the event of a future PSPS but the reliability network upgrades in the Interconnection Agreement require upgrades to the grid infrastructure within Humboldt County. These upgrades to the local grid are an incremental step and will assist Humboldt County in islanding in the future once additional upgrades are made.

This project will displace carbon-based fuels, such as natural gas, due to the California Independent System

Operator (CAISO) order of dispatch and order of curtailment for different fuel sources. Because wind energy is the lowest costs fuel and a renewable source that meets California's Renewable Energy Portfolio Standards it will be used first when meeting the demand for power.

c. Rooftop Solar as an Alternative

Many commenters have expressed concern that rooftop solar was not included in the EIR alternatives. Rooftop solar is a great addition to our renewable energy portfolio, but it does not replace the need for larger scale renewable energy projects. RCEA has a goal to reach 100% clean electricity by 2025, and we will not get there with rooftop solar alone. The major challenges with rooftop solar as a replacement for an industrial scale wind project include: the cost, the ability to install sufficient capacity quickly, and lack of an investor.

To generate the same amount of energy that the Humboldt Wind Energy Project is contemplating and to deliver renewable energy into the evening hours (as wind power would do) would likely require an investment on the order of \$1.5 billion in rooftop solar and battery systems. This is approximately 5 times more costly than the Wind Project for a similar amount of electricity. This would represent a per capita investment of approximately \$11,000 for all Humboldt County residents, which is equivalent to about 25% of the median annual per capita income for the county. There is no investor or financier proposing such a project and even if there were, the capacity to install enough rooftop solar would be limited by the lack of available contractors and materials to install quickly enough to meet the 2025 goals.

d. Hydrometeorology

Commenters have expressed concern that the rotating turbines could change fog patterns in a way that would negatively affect the redwood forest. It is unlikely this wind farm will have any effect on the local temperature and humidity regimes proximate or downstream of the turbines given its location on a ridgeline, that ridgeline's orientation, and the turbines proximity to the ocean and the resultant land and sea breeze interactions.

In Europe in particular, wind farms have made inroads into the forests. No significant negative impacts to the forests have been reported. Observational scientific studies suggest that large wind farms can modify surface-atmosphere exchanges locally through mixing up the air and slow wind speeds. The 2011 paper (Simulating impacts of wind farms on local hydrometeorology, Journal of Wind Engineering and Industrial Aerodynamics, Vol. 99, Issue 4) that was referenced by many of the commenters is not an observational study but a simulation one, which presented the findings via numerical modeling based on a lot of assumptions. Although the current state-of-art meteorological models can handle the short-period weather forecasting, there still exist shortcomings for boundary layer modeling and extending the results to longer periods (e.g., year to decadal). Further studies (both observational and modeling approaches) are needed.

Lenticular clouds (as one speaker mentioned) and fog are formed when air masses are still. When these features are present on the project site the turbines will not be operational. As the wind picks up to cut in speed of 3.0 - 3.5 meters per second lenticular clouds and fog will dissipate; not from turbines, but from increased wind speeds. Turbines will not remove humidity from the air at the wind farm. They will mix the air mass that is present.

e. Carbon Neutrality

Commenters wanted to know if the project was truly carbon neutral given that there would be tree removal associated with the project. Modeling [using the California Emissions Estimator Model (CalEEmod)] has been done to examine when the project would become carbon neutral considering the necessary tree removal (approximately 90 acres) and the greenhouse gas emissions generated by the project, which would primarily occur during the construction phase. Within the first year of operations, the benefit of energy production using the GHG-free source of wind power would exceed the potential impacts of carbon sequestration loss and GHG emissions generated from project construction and operations. This estimate is based on comparing project energy generation from GHG-free source to potential emissions if equivalent energy were to be produced by the existing PG&E power mix. While it is recognized that the PG&E power mix will have a decreasing emission factor as the proportion of renewable energy sources increases, it is projects like the one proposed that are necessary to meet the increased Renewable Portfolio Standards over time and achieve reduced greenhouse gas emissions from electricity generation.

f. Recirculation

Several letters and comments request that the DIER be recirculated. A finding that recirculation is not required is included in the resolution to certify the FEIR (Attachment 1). While new information was included in the FEIR as part of responding to the comments on the DEIR, the new information has not changed the impact identification or mitigation measures in such a way that the public would be deprived of a meaningful opportunity to comment on a substantial adverse environmental effect of the project or a feasible way to mitigate such effect because no new information has been added that identifies a new significant environmental impact not previously disclosed, no substantial increase in the severity of the identified environmental impacts would result from implementation of the approved project or implementation of the mitigation measures, no feasible project alternatives or mitigation measures considerably different from those analyzed in the DEIR have been identified, and the DEIR is adequate in allowing meaningful public review and comment. The new information added in the FEIR merely clarifies and amplifies and did not make significant modifications to an adequate DEIR (CEQA Guidelines 15088.5). Further, the DEIR was fundamentally adequate, and meaningful public review and comment during the statutory period were not precluded. Finally, the FEIR has now been published since November 4, 2019, which has given the public almost the same amount of time required for circulation of a DEIR to review the FEIR (for which no public review period is legally required) in advance of the Board's hearing. For this reason, staff does not believe that recirculation of the DEIR is required under CEQA.

g. Volume of New Information

Many have commented on the volume of new information and studies presented in Appendix B of the FEIR citing it as a reason to delay voting on the project. The volume of information presented in the FEIR was in direct relation to the large quantity of comments received on the DEIR and a thorough effort to respond.

Most of the technical studies included in Appendix B and other new material offered in the FEIR were provided to satisfy specific requests for this information from stakeholders and other members of the public made in their comments on the DEIR. Those studies, many of which were continuation of surveys described in the DEIR, provided affirmation of the analysis and discussion in the DEIR and did not change any of the impact conclusions reached in the DEIR. The information contained in

Appendix B was summarized in the updated biological resources section provided in Section 9 of the FEIR, in the same way prior technical studies were summarized in the various resource chapters of the DEIR. Therefore, reviewers may be interested to read these documents because of their specific interest in the subject matter, but they are not required to have read the studies to understand and evaluate the impact conclusions in the FEIR.

Although the FEIR is a large document, length alone does not require recirculation or additional time to be added prior to project decision. The purpose of the FEIR is not equivalent to the DEIR under CEQA. Although CEQA requires that the lead agency to provide a written proposed response to a public agency on comments made by that public agency at least 10 days prior to certifying an environmental impact report, there is not a circulation period associated with an FEIR and lead agencies are not required to provide responses to FEIR comments.

h. Expedited Review

During the public comment many expressed feelings that the project has been rushed. The County has attempted to balance the need to be sensitive to CEQA's intent not to delay projects while affording the public opportunity to provide meaningful comments. CEQA Guidelines Section 15108 states that the Lead Agency (County of Humboldt) shall complete and certify the FEIR within one year after the date when the Lead Agency accepted the application as complete. The application has been in progress for over 18 months. CEQA requires a minimum of a 45 day review period for the DEIR, and this project had a 60 day review period. Staff and consultants to the County have worked diligently to proceed with efficiency and get the project to hearing within a reasonable timeframe. Staff worked so that decision makers could hear the project and decide on its merits rather than delaying the project and potentially causing the project to be abandoned due to economic factors.

i. Bats

Comment letters were received from CDFW and multiple commenters, including bat experts Dr. Joe Szewczak and Ted Weller, expressing concern about the likelihood of high densities of hoary bats occurring at the project site and the potential risk of mass fatality events due to turbine collisions. Both of these researchers noted that curtailment during low-wind nights is an effective tool to avoid bat collisions with wind turbines. Mr. Weller also commented on the need for a robust and rigorous fatality monitoring program and that the proposed fatality monitoring study design be peer-reviewed well in advance of its implementation.

The bat mitigation measures in the FEIR accommodate the recommendations from Dr. Szewczak and Mr. Weller. Mitigation Measure 3.5-18a (Avoid and Minimize Bat Population Level Decline through Consultation with a Technical Advisory Committee) specifies that the bat Technical Advisory Committee (TAC) be established at least four months before operation of the project begins, and that the TAC will review and approve the proposed post-construction fatality and bat activity monitoring protocol.

Mitigation Measure 3.5-18d (Implement Operational Minimization Measures) specifies that if the TAC determines that the results of mortality monitoring at the project indicate that hoary bat mortality attributable to the project poses a significant impact to the hoary bat population, implementation of stepwise adaptive management will occur.

The stepwise approach involves implementation of acoustic deterrents as the first step in avoidance and minimization, and then curtailment if that mitigation is not effective, but the language in the mitigation measure provides flexibility in that implementation. The mitigation measure specifies that the “*TAC may provide recommendations on modifications to the stepwise approach described below as needed to prevent any bat population from dropping below self-sustaining levels.*” The TAC may modify the fatality threshold described in the mitigation measure and may also modify the stepwise approach, including implementation of curtailment if the monitoring data indicate that project operation may result in bat fatalities that lead to population declines.

Curtailment is not proposed for implementation at the outset of operation, before collection of any fatality monitoring data, because of the considerable uncertainty that exists as to whether hoary bats will be present in large numbers in the vicinity of project turbines. The level of impacts that would result in population impacts on hoary bats and other bat species is also a subject of considerable uncertainty. That uncertainty is the reason the bat TAC was created so that scientists with expertise in bat biology and ecology and knowledge of wind-wildlife interactions would be available to interpret post-construction monitoring data and guide implementation of avoidance and minimization measures.

j. Wind Turbines and Human Health

Some commented that the health impacts from living in proximity to wind turbines have not been evaluated. The DEIR does include analysis related to electric and magnetic fields (EMF), noise, and vibrations. No significant impacts related EMF or vibrations were identified. Mitigation Measure 3.11-2 (Implement Noise-Reducing Wind Turbine Generator Operations) was applied to turbine operations within 1,200 feet of a sensitive receptor to reduce noise impacts to a less-than-significant level.

There is debate with respect to the relationship between audible and inaudible features of wind turbines and reported health concerns. The prevailing research on concerns regarding the adverse health effects of wind turbines focus on the impact of overall noise, low-frequency noise and infrasound, electromagnetic fields (EMFs) interference, and shadow flicker associated with wind turbines. A number of studies also have been published examining “annoyance” and the “psychological” aspect of perceiving and/or reporting of symptoms from “Wind Turbine Syndrome” or WTS. This syndrome is defined as sleep disturbance, headache, tinnitus, ear pressure, dizziness, vertigo, nausea, visual blurring, tachycardia, irritability, problems with concentration and memory, and panic episodes associated with sensations of internal pulsation or quivering when awake or asleep. This research has been consistently rejected as biased and not based on facts or science. Several physicians associated with anti-wind groups have recorded these symptoms from community members living near wind turbines. Instead, fear, annoyance, rumors, and the spread of unscientific, poorly documented “studies” can be responsible for the symptoms reported by some individuals. Based on existing field studies, there is insufficient evidence that living near a wind turbine is the direct cause of health effects such as mental health problems, headaches, pain, stiffness, or diseases such as diabetes, cardiovascular disease, tinnitus and hearing damage.

9. Decision Points for BOS

The decision before you is whether to certify the FEIR, adopt the Statement of Overriding Considerations and the Mitigation Monitoring and Reporting Plan (MMRP), and to approve the Use Permit and Special Permit.

To find the EIR adequate, the lead agency must determine that the FEIR has been completed in compliance with CEQA, the FEIR was presented to the decision-making body and that the decision making body reviewed and considered the information contained in the FEIR prior to approving the project, and that the FEIR reflects the lead agency's independent judgment and analysis. Additionally, the lead agency needs to find that all impacts have been analyzed, the significant effects have been eliminated or substantially lessened where feasible, and that any remaining significant effects are found to be unavoidable and are acceptable due to overriding concerns (14 CCR 15092).

It is possible to find that the EIR adequately addressed the impacts and that feasible mitigation has been incorporated and still not approve the project. This would be the case if your Board is unable to find that the benefits of the project outweigh the unavoidable impacts. If this is the case, the project cannot be approved. Staff has indicated project benefits in the Statement of Overriding Considerations. Whether these benefits make the project impacts acceptable is at the discretion of the Board.

The project also requires the approval of a Conditional Use Permit and Special Permit. The findings related to these permits are found in the resolution presented in Attachment 2. These findings primarily relate to conformance with the General Plan and Zoning Ordinance, and that the project will not be detrimental to health, safety, or welfare. Staff has reviewed the project for conformance with these findings and believes that all the required findings can be made.

FINANCIAL IMPACT:

Staff and consultant costs for preparation of the EIR and review of project application is charged directly to the applicant. The project review does not use General Fund contributions or impact the Planning and Building Department budget.

STRATEGIC FRAMEWORK:

This action supports your Board's Strategic Framework by enforcing laws and regulations to protect residents and providing for and maintaining infrastructure.

OTHER AGENCY INVOLVEMENT:

County Counsel, North Coast Regional Water Quality Control Board, California Department of Fish and Wildlife, CAL FIRE, and the California Coastal Commission.

ALTERNATIVES TO STAFF RECOMMENDATIONS:

The Board may choose to;

1. Impose additional conditions or mitigation measures prior to approving the project.
2. Find that the benefits of the project do not outweigh the significant adverse impacts and therefore deny the project.

ATTACHMENTS:

1. Resolution No. _____. A Resolution of the Board of Supervisors of the County of Humboldt finding that the County of Humboldt has completed an Environmental Impact Report (EIR) in compliance with CEQA; certifying the EIR and adopting the Statement of Overriding Considerations and adopting the Mitigation Monitoring and Reporting Program.
2. Resolution No. _____. A Resolution of the Board of Supervisors of the County of Humboldt finding that all the required findings can be made to approve, subject to the recommended conditions, the Conditional Use Permit and Special Permit.
3. Recommended Conditions of Approval.
4. Mitigation Monitoring and Reporting Program.
5. Planning Commission Resolution.
6. Staff Report for the November 7, 2019 Planning Commission Hearing.
7. Staff Report for the November 14, 2019 Planning Commission Hearing.
8. Staff Report for the November 21, 2019 Planning Commission Hearing.
9. Supplemental PC Staff Reports Including Comment Letters Submitted
10. Staff Response to Letters and Testimony Received During the PC Hearings.
11. Letter of Appeal
12. MR Wolfe and Associates Letter and Response
13. San Diego County 2019 Public Health Position Statement
14. AECOM Resumes
15. Analysis of Skookumchuck Wind Energy Findings- related to Marbled Murrelets
16. Hydrometeorology and Wind- published articles
17. Insects and Wind Energy- published articles
18. Indemnification Agreement By and Between Humboldt County, Humboldt Wind, and Terra-Gen Development Company, LLC
19. Tax generation information submitted by Terra-Gen

PREVIOUS ACTION/REFERRAL:

None