



ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY

PLANNING DEPARTMENT

April 14, 2016

Agenda Item:
May 10, 2016

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Honorable Board of Supervisors
County of Alameda
1221 Oak Street, Suite 536
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Dear Board Members:

SUBJECT: Appeal by Darryl and Susan Mueller from the decision of the East County Board of Zoning Adjustments (EBZA) to approve Conditional Use Permit, PLN2015-00198, application of Sand Hill Wind LLC, a wholly-owned subsidiary of Ogin, Inc., to approve repowering of existing wind farm facilities, through decommissioning and removal of an estimated 433 wind turbines or former turbine sites on eight parcels in three non-contiguous areas, and to install up to 12 new approximately 2.5 to 3.0 megawatt (MW) turbines with a combined maximum capacity of 36 MW, in the eastern Altamont Pass Wind Resource Area (APWRA) of Alameda County, bearing the following eight Assessor's Parcel Numbers: 99B-6325-1-4; 99B-7750-6-0; 99B-7375-1-7; 99B-7875-1-2; 99B-7875-1-3; 99B-7500-3-1; 99B-600-1-1; and 99B-7750-6-0.

RECOMMENDATION:

East County Board of Zoning Adjustments (EBZA): On March 24, 2016 the EBZA approved the application by a vote of two in favor (one excused).

Planning Department Recommendation: Staff recommends that the Board of Supervisors uphold the decision of the EBZA to approve the application.

SUMMARY:

Proposal: To repower existing wind farm facilities, specifically to replace 433 existing wind turbines or turbine sites with up to 12 new ("4th generation") approximately 2.5 to 3.0 MW turbines, upgrade technology and infrastructure, decommission old turbine sites, and yield a maximum estimated 36 MW of generating capacity.

General Plan and Zoning: The APWRA (which extends across about 40,000 acres in Alameda County and roughly another 10,000 acres in Contra Costa County) is subject to the East County Area Plan (ECAP), adopted in 1994 and amended in November 2000 and 2003, and is designated Large Parcel Agriculture (LPA), which permits among other uses, "windfarms and related facilities, utility corridors and similar uses compatible with agriculture."

Program EIR and Sand Hill Project Tiering: The East County BZA certified the Altamont Pass Wind Resource Area Repowering Final Program Environmental Impact Report (PEIR) pursuant to the California Environmental Quality Act (CEQA) on November 14, 2014. The PEIR evaluated two CUP project applications for repowering on a project level (Golden Hills Wind – Phase I, and

the Patterson Pass Wind projects), and on a program level, addressed the anticipated approval of additional repowering applications, such as the current Sand Hill Wind Repowering Project (Project, or Sand Hill Project). As provided for in the CEQA Guidelines (Section 15168), the certified PEIR allows for subsequent specific project applications to 'tier' from the PEIR, to the extent that the subsequent projects lie within the scope of the PEIR, do not introduce new or substantially different significant impacts, or require new or different mitigation measures.

The Sand Hill Project met these criteria and was evaluated on the basis of an Environmental Checklist that was made available to the public approximately 15 days prior to the public hearing on the Project on March 24, 2016. The East County BZA acknowledged both the PEIR and the Checklist in its Resolution approving the project. The significant impacts and required mitigation measures applicable to the program and to individual projects are tabulated in the Executive Summary portion of the PEIR.

East County Board of Zoning Adjustments Hearing: On March 24, 2016 the EBZA considered the proposed use permit application and voted unanimously to approve the project. The appellants presented comments at the hearing that are in part reflected in the appeal, although some specific comments in the appeal were not stated at the hearing. The appellants had two PowerPoint presentations prepared for the hearing, but neither were able to be shown due to technical issues, but have been submitted as part of the appeal.

Appeal: Darryl and Susan Mueller appealed the decision by the EBZA per a letter received by the County on March 30, 2016, which requested that the CUP be denied until their concerns are addressed. The letter claims that the PEIR did not incorporate certain information that would have led to project denial or different mitigation measures. The letter consists of three short introductory paragraphs and 18 comments that incorporate two PowerPoint presentations. It is primarily focused on the overall APWRA repowering program, and by extension the Sand Hill Project, which is described as having greatly increased the risk of golden eagle deaths by blade strikes due to the larger blade swept area of the new turbines. The comments and presentations include a multitude of specific assertions, most of which lie within a few main topic areas addressed below. The PowerPoint presentations include extensive additional commentary and citations of numerous articles and reports in scientific journals and in other sources.

Appeal Issues

Noticing. The appeal letter asserts that the PEIR (and by extension the Sand Hill Wind Repowering Project Environmental Checklist used to tier from the PEIR) is missing important information that the Muellers would apparently have sought to be addressed in the PEIR, but that they were "left out" of the notification process for the PEIR (i.e., they did not receive the Notice of Preparation, or NOP for the Draft PEIR). Planning staff have determined that Mr. Mueller was on the mailing list at his current address when the NOP was mailed in August of 2010 and when subsequent notices were mailed.

Enforcement of the MBTA and ESA. The appellants assert that the public agencies responsible for safeguarding wildlife are not being diligent, because it appears the U.S. Fish and Wildlife Service (USFWS) has taken action (with the Department of Justice or DOJ) against only one wind farm operator in Wyoming for the taking of golden eagles in violation of the MBTA. The appellants calculate that potential fines under the MBTA for an average of 29 golden eagles killed annually between 1988 and 2014, the fines owed by APWRA wind operators for golden eagle take would amount to \$11,310,000. While the County would not dispute the projected numbers of golden eagles killed annually in the entire APWRA in that period, the PEIR reported that for the three repowered facilities in the APWRA, the annual extrapolated rate from observed fatalities was 32% to 83% lower (between 4.5 and 18.0 golden eagle fatalities per year; PEIR, Table 3.4-11, p. 3.4-119). Therefore, the repowering program represents a means of greatly reducing golden eagle mortality, as well as other avian species protected by the MBTA.

The USFWS does not disclose pending enforcement actions, and the County is not aware of any pending or active enforcement actions in the APWRA. While the USFWS could issue fines to wind farm operators under federal law for incidental take of migratory birds this has occurred only in exceptional cases, such as the case cited of the Wyoming wind farm (news release included in the packet). The wind farm operators and the County have worked diligently to reduce avian mortality and monitor progress under the prior use permits, and given the wide-ranging array of mitigation measures and potential applications for take permits under the repowering program, penalties suggested by the applicant are not expected.

Blade Sweep and Impacts on Golden Eagles and Other Avian Species. The appellants express a belief that the APWRA repowering, including the Sand Hill Project, will increase the total rotor sweep area and thereby increase the potential for avian fatalities. The letter and slides present a mixture of statements and bar graphs asserting that while repowering was meant to replace old turbines with no increase in blade sweep, the new repowering projects, including the Sand Hill Project will actually increase the blade sweep area. While the appellants' calculations were in error in assuming that all 433 existing Sand Hill turbine assets have or had a single common rotor length (27.9 feet), resulting in a figure of 1,055,089.21 square feet, a focused measurement by staff of the actual rotor swept area of the five different types of turbines installed indicates that the actual swept area of the old generation turbine assets is 836,861 square feet. The appellant is correct in calculating the total swept area of the 12 proposed Sand Hill Project turbines at 1,585,430 square feet, but incorrect on the basis of the aforementioned error that it represents a 41% increase in blade sweep area; the correct factor is actually a 77.5% increase.

County staff would note that neither the PEIR repowering program project description, or any other related staff analysis, made assertions that the repowering program would reduce blade sweep area. Secondly, while a 77.5% increase would indeed be unacceptable and intolerable to the County if there were a demonstrated causal or proportional link between swept area and mortality of golden eagles, other raptors or other protected species of birds or bats, there is no such demonstrated link; to the contrary, there is substantial and mounting evidence that the new generation of wind turbines has greatly reduced such mortality.

Bat Mortality and Population Impacts. The appeal letter (comment 4) briefly states the chief recommendation of Susan Mueller's PowerPoint presentation for the EBZA hearing regarding bat fatalities, to increase the cut-in speed (the lowest wind speed at which a turbine can begin to generate power) from 7.8 mph (for one potential turbine model, the Suzlon 97) to 11 mph, because studies have shown it can reduce nightly bat mortality by as much as 93% but with as little as 1% loss in total annual output. The presentation notes the high value of bats to agriculture, their risks of dying due to the pressure changes between forward and trailing rotor blade edges, their attraction to wind turbines, and their slow population growth. The PEIR includes a detailed discussion of the potential impacts on bats from wind farm operations (PEIR pages 3.4-127 through 3.4-137), but as also noted in the presentation (slide 6), the PEIR acknowledged (PEIR page 3.4-48) that the record of bat mortality rates in the APWRA is limited. However, there is high confidence that post-construction monitoring surveys and identified mitigation measures, including a range of adaptive management strategies such as increases in cut-in speed, will serve effectively to reduce bat mortality.

Fatality Reporting and Search Protocols (Monitoring). The appeal asserts that the field searches to detect avian mortality for the new generation turbines is inadequate based on their longer meter rotor lengths and height, and that the frequency and duration of such searches should be substantially increased. However, the County holds that the protocols for ground searches with the new monitoring program for the Sand Hill Project and other repowering projects, which have been developed over many years under the guidance of the USFWS, the California Department of Fish and Wildlife (CDFW) and the California Energy Commission (CEC), will account for the larger turbine size. The protocols, including the search intervals and duration will also be subject to review by the Technical Advisory Committee (TAC) for scientific validity.

Setbacks. The appeal letter, with little discussion, suggest the County's turbine setbacks be increased to 10 times the rotor length. Planning staff identified the source of this suggested standard, which relates to avoiding noise effects on residences, but consider it to be taken greatly out of context. Detailed noise analyses were completed as part of the PEIR and for the Sand Hill Project itself, which validate that Alameda County's setback standards from the nearest residences are more than adequate to avoid adverse noise impacts. The County's setbacks were developed based on a review of other California County-approved wind turbine setbacks.

Noise. The Muellers assert that the County's noise standards do not measure low frequency noise (LFN), and that a noise level of 55 dBA (decibel level, as a 24-hour average), "should only be acceptable [during] daytime hours", given the World Health Organization's recommendation for 40 dB (decibels, at any given time) for nighttime noise levels. As discussed in the project-specific Sound Technical Report, the County noise standards do in fact address low frequency noise, because the A-weighting (averaging) analysis approximates the full frequency response of human hearing. The 55 dBA threshold is proposed as a trigger for detailed noise studies such as was already prepared for the Sand Hill Project. As such County staff do not recommend changes to the noise standards or thresholds for further study.

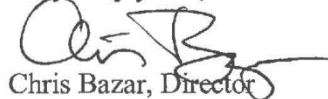
Other Issues. The Muellers raises a few other issues (comments 12 to 15), such as the presumed use of the term "Bird Friendly Turbine", the County seeking revenue at the expense of avian mortality, and assumed problems with self-reporting of avian mortality incidents. In fact there is no use of the term "Bird Friendly Turbine" in the Sand Hill Project environmental documentation or the PEIR, although it is the County's position, shared by environmental advocacy groups, wildlife resource agencies and avian researchers, that the new generation of turbines are expected to reduce avian mortality by a substantial degree. While the County may benefit from wind energy production in tax revenue, the approval of repowering projects such as the Sand Hill Project and others is not motivated by such an objective, but is instead based on detailed environmental analysis, recognition of the benefits to avian wildlife and clean energy production, and continued wind energy employment. The County does not believe applicant-prepared reports are inaccurate or misleading; as part of the CUP conditions, project operators must report on the impacts of their project, and must meet data collection and reporting standards established by the wildlife resource agencies and as reviewed by the TAC. Similarly, the County does not believe confidentiality agreements are interfering with the accurate reporting of fatality data.

CONCLUSION:

Staff recommends that the Board of Supervisors uphold the decision of the EBZA to approve Conditional Use Permit PLN2015-00198, Sand Hill Wind Repowering Project, including the Findings, the Mitigation Monitoring and Reporting Program, and the Statement of Overriding Considerations. A Draft Resolution is included in the Board package for consideration.

The complete record is attached.

Very truly yours,



Chris Bazar, Director
Community Development Agency

Attachments – available at <http://www.acgov.org/cda/planning/> - see *Pending Land Use Projects, Current Development Projects, Wind Farm Projects, and Sand Hill Wind Project.*

cc: East County Board of Zoning Adjustments
Darryl and Susan Mueller
Charlie Karustis, Sand Hill Wind LLC