



**ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY
PLANNING DEPARTMENT**

STAFF REPORT

TO: EAST COUNTY BOARD OF ZONING ADJUSTMENTS

HEARING DATE: APRIL 22, 2021

GENERAL INFORMATION

APPLICATION: CONDITIONAL USE PERMIT, PLN2019-00226

APPLICANT: MULQUEENEY WIND ENERGY LLC, a subsidiary of Brookfield Renewable Energy Partners

PROPOSAL: Application to allow repowering of an estimated 518 existing or previously existing turbine sites, with up to 36 new turbines with a maximum production capacity of 80.0 megawatts (MW), using turbines rated between 2.2 and 4.2 MW per turbine.

LOCATION, ASSESSOR'S PARCEL NOS. AND SIZE OF PARCEL: North and south sides of Patterson Pass Road (no address) extending over approximately 4,600 acres in the southeastern area of the Altamont Pass Wind Resource Area (APWRA), Alameda County, between approximately one-third and four miles west of Midway Road, and between one and five miles south of Interstate Highway 580. Assessor's Parcel Numbers (APNs):

99A-1800-2-3, 99A-1800-2-4, 99B-7890-2-4, 99B-7890-2-5, 99B-7890-2-6, 99B-7890-4-0, 99B-7900-1-3, 99B-7900-1-4, 99B-7900-1-5, 99B-7900-1-6, 99B-7900-1-7, 99B-7900-2-0, 99B-7910-1-1, 99B-7910-1-2, 99B-7925-2-1, 99B-7925-2-2, 99B-7925-2-3, 99B-7925-2-4, 99B-7925-2-5, 99B-7925-3-0, 99B-7950-2-0, 99B-7975-1-0, 99B-7980-1-0, 99B-7985-1-3, 99B-7985-1-4, 99B-7985-1-5, 99B-7985-1-6, 99B-8050-1-0, and 99B-8100-1-1.

ZONING: A-B-E (Agriculture, 160-acre minimum building site area).

GENERAL PLAN DESIGNATION: LPA (Large Parcel Agriculture), *East County Area Plan*, adopted in 1994 and amended in November 2000 and May 2002.

ENVIRONMENTAL REVIEW: The Project is subject to the California Environmental Quality Act (CEQA, 1970, as amended) and is the subject of a Subsequent Environmental Impact Report (SEIR), as defined in Section 15162 of the CEQA Guidelines. The SEIR is tiered under the Altamont Pass Wind Resource Area Repowering Program EIR (PEIR) that was certified by the County on November 12, 2014. The draft SEIR was made available for public comment between November 6 and December 21, 2020, and was subsequently extended to January 8, 2021, thus extending the 45-day public comment period to over 60 days. A public hearing was held on December 8, 2020 to take public comment on the SEIR, at which no one spoke or submitted other comments. The Final SEIR, containing written and verbal comments and responses to written comments was made public on April 9, 2021, and has thus been circulated for 13 days, over the required minimum of ten days prior to this hearing.

RECOMMENDATION

The Board should receive a staff presentation, take public comment on the Project (the Conditional Use Permit) and the Final SEIR, review the draft Resolution to certify the SEIR, certify the Final SEIR, then review the draft Resolution and Exhibits for approval of the Project, and lastly approve the Project, in the form of the Reduced Project Alternative as defined in the SEIR (the Environmentally Superior Alternative). The Board may instead approve the Project in another form as discussed herein for the required findings.

WIND-RELATED CONDITIONAL USE PERMIT HISTORY

February 3, 1982, approved C-4180, 24 wind turbines yielding 2.4 MW;
November 17, 1982, approved C-4326, 71 wind turbines yielding 7.1 MW;
May 11, 1983, approved C-4437, 9 wind turbines yielding 0.9 MW;
September 11, 1985, approved C-4950, 441 wind turbines yielding 44.1 MW;
September 11, 1985, approved C-4957, 34 wind turbines yielding 3.4 MW;
April 30, 1986, approved C-5065, 16 turbines yielding 4.0 MW, operated by Windworks, Inc.
September 16, 1987, approved C-5304, 43 turbines yielding 4.3 MW, and one turbine of 0.4 MW;
September 23 1987, approved C-5318, 37 wind turbines yielding 3.7 MW;
December 9, 1987, approved C-5359, 37 wind turbines yielding 3.7 MW;

Except for C-5065 operated by Windworks, Inc., the other eight Conditional Use Permits listed above were amalgamated as the application of C-8137 in 2003 to operate 697 turbines and yield up to 70 MW of generating capacity.

September 5, 2005, Conditional Use Permit, C-8137 approved on appeal by the Board of Supervisors for continued operation of a combined total of 697 wind turbines operated by Altamont Infrastructure Company, with a capacity of 70.0 MW.

September 5, 2005, Conditional Use Permit C-8191 approved by the Board of Supervisors for continued operation of 16 wind turbines operated by Windworks, Inc., a subsidiary of Altamont Winds, Inc., with a capacity of 4 MW.

GENERAL PLAN AND ZONING

The East County Area Plan (ECAP) designates the Project area as Large Parcel Agriculture (LPA). Subject to the provisions, policies, and programs of the ECAP, the LPA designation permits one single-family residence per parcel, agricultural uses, agricultural processing facilities, public and quasi-public uses, quarries, landfills and related facilities, wind farms and related facilities, utility corridors, and similar uses compatible with agriculture.

The ECAP includes a Goal to maximize the production of wind-generated energy, Policies 168 through 175 and Implementation Programs 73 through 76, which support wind energy within the APWRA (pp 43-44, ECAP). The current Project is deemed to be consistent with the wind-related Policies in the ECAP such as allowing for redevelopment (i.e., repowering) and expansion within the limits of environmental constraints (Policy 169), and establishing mitigation programs to minimize the impacts of turbine operations on birds, Policy 172).

Lands in the Project area are zoned A-160 and A-320 (Agricultural District, with minimum building site areas, respectively of 160 acres or 320 acres), which allows for agricultural and other non-urban uses. Within the A District, privately owned wind-electric generators are a conditionally permitted use subject to approval by the East County Board of Zoning Adjustments (EBZA).

BACKGROUND

Windfarms in the APWRA were originally developed under CUPs approved between the early 1980s and mid-1990s. Throughout that period, various wind energy operators held permits for the operation of over 4,000 wind turbines with a reported nameplate generating capacity as of 1998 of roughly 417 MW. These permits expired between 2001 and 2004, and after applying for renewal permits for continued operation, the East County Board of Zoning Adjustments approved 29 consolidated use permits for five different

operators, in two stages in November 2003 and January 2004. All of the approvals were appealed to the Board of Supervisors, a process that concluded in September 2005 with affirmation of the approvals under specific conditions directed at reducing avian mortality and developing a repowering program and preparing a program EIR to address the effects of repowering, and all permits were set to expire after 13 years, in September 2018, during which time the operators were expected to apply for new use permits to implement repowering – i.e., replacement of the old turbines with the newest and more efficient turbines, at that time ranging in capacity of between 0.7 and 1.0 MW per turbine, compared to the 80s and 90s era first- and second-generation turbines of between 10 and 500 kilowatts (i.e., 0.01 to 0.5 MW).

Research in the late 1990s and throughout the first decade of the 2000s had pointed to repowering the old turbines with the newer third-generation turbines as the best approach to retaining renewable wind energy production in the APWRA while also addressing the serious problem of avian fatalities due to blade strikes, especially of volant raptors such as golden eagle, red-tailed hawk, burrowing owl and American kestrels. The first repowering project in the APWRA, the Diablo Winds project in the north-central area of the APWRA, which replaced 169 turbine sites with 31 turbines rated at 0.66 MW each, was approved in 2003 before the 2005 permit renewals, and continues to operate and is deemed part of the total repowering buildout that was anticipated in the 2014 Program EIR of 450 MW.

The Program EIR (PEIR) was certified in November 2014, and two repowering projects were approved at that time, the Golden Hills Wind project and the Patterson Pass Wind project, to be operated by different companies. Since then, the Golden Hills, and Golden Hills North projects have been built, and another three projects have been approved, of which one, the Summit Wind project, is expected to be operational by the summer of 2021. Also, since 2014, the Patterson Pass project proponent sold its wind energy assets to Centauri Energy Partners, LLC, but because no action has been taken by the new owners to implement or exercise its approved use permit, it is now expired. The two sPower projects, both approved in 2020 and listed below in the summary table of projects, are yet to be initiated or exercised (beginning with review of the Avian Protection Plan by the County’s avian protection Technical Advisory Committee or TAC).

Mulqueoney Ranch – Final SEIR: Table 0-1. Approved, Operational, and Proposed Projects in the APWRA

Project Name	Owner/Operator	CEQA Document Used or Anticipated to be Prepared (Status)	Total MW
Operating Prior to PEIR			
Diablo Winds	Glidepath	1998 EIR ^a (Operational since 2005)	20.5
Approved Projects			
Patterson Pass	EDF (now Centauri)	PEIR (Expired) ^e	19.8 (0)
Golden Hills	NextEra	PEIR (Operational)	85.9
Golden Hills North	NextEra	PEIR-Tiered (Operational)	46
Summit Wind ^b	AWI (now Castlelake, LP)	PEIR-Tiered (Under construction)	57.5
Rooney Ranch ^c	sPower	PEIR-Tiered (Not yet under construction)	25.1
Sand Hill ^d	sPower	SEIR Tiered from PEIR (Not yet under construction)	50.0
Subtotal			285.0
Proposed Project			
Mulqueoney Ranch	Brookfield	SEIR Tiered from PEIR (this document)	80
Combined Gross Total MW			365.0

MW = megawatts

(Footnotes follow on next page)

- ^a The 1998 Program Repowering EIR is now considered superseded by the 2014 Program EIR.
- ^b Summit Wind was approved in January 2016 for 27 turbines and a combined capacity of up to 54.0 MW; however, in May 2020 project revisions were approved to use 23 larger capacity turbines, resulting in a capacity of 57.5 MW.
- ^c The Rooney Ranch Project proposed by sPower was approved by the City of Santa Clara on June 25, 2019.
- ^d The Sand Hill Project was approved by the County in February 2020, based on a 109.5-MW alternative evaluated in its SEIR, instead of the project proposal for a 144.5-MW project. Certification of the Sand Hill Final SEIR and approval of the CUP was subsequently appealed. A hearing to consider the appeal was held by the Alameda County Board of Supervisors on December 15, 2020, during the public review period for the Mulqueeny Ranch draft SEIR. At that hearing, the Board denied the appeal and upheld the Sand Hill SEIR and approved a revised project with a maximum capacity of 50 MW and no more than 16 total turbines.
- ^e The Patterson Pass Project no longer has an approved status, nor is it currently proposed for repowering, so its MW capacity can be subtracted from the total column in this table.

Brookfield acquired the assets of the Mulqueeny Ranch wind project after 2014 from a combination of operators. In 2005 when the single, consolidated permit for Mulqueeny Ranch was approved, the operations comprised 697 turbines, of which nearly 180 were removed under the terms of the 2005 permit renewal for phased removal of individual turbines ranked as hazardous to raptors. Although at the time of the 2005 permit the combined output was 70 MW, the project was identified in the Program EIR as an 80 MW project, and is thus reasonably planned at that capacity. All old generation wind turbines and towers on the project site were decommissioned and removed in 2016. Wind turbine foundations (generally pier-type foundations) were also removed at that time.

SITE AND CONTEXT DESCRIPTION

The project site is located in the southeastern quadrant of the Altamont Pass Wind Resource Area (APWRA) along both sides of Patterson Pass Road, west of Midway Road. The APWRA comprises an approximately 50,000-acre area that extends across the northeastern hills of Alameda County and a smaller proportion of Contra Costa County to the north. The region is generally characterized by rolling foothills of annual grass land used for grazing. Except for the valley bottoms along the small tree and shrub-lined creeks, the hillsides and ridges are generally treeless and dominated by high-tension power line corridors that cross the terrain.

The site itself is in part directly on the eastern boundary of Alameda County, and extends between one and five miles south of Interstate I-580, with an irregular shape extending both north and south of Patterson Pass Road. The northern half of the site surrounds a square, roughly quarter-square-mile set of four parcels that is operated as a conservation land bank also on both sides of Patterson Pass Road and which is not part of the project site. The site's topography is distinguished by a generally diagonal boundary running from the northwest to the southeast between the very gently rolling and mild hills to the north and east, with steeper portions of the site on the south and west of that boundary. Generally parallel to that boundary and within the site is the Union Pacific railway line that is used for the Altamont Commuter Express (ACE) train service. The conservation properties lie southwest of the Union Pacific railroad tracks but among the mild slopes. Directly east of the northeast corner of the site is the PG&E Tesla substation, which is a major hub for northern California high-tension power lines and covers approximately 80 acres with substation equipment and facilities. Two major high-tension power line corridors traverse the site, roughly across the northern half and down the middle of the southern half. The cattle ranch operations and an onsite residence are about a tenth of a mile south of the substation.

Patterson Pass Road and the parallel Patterson Run creek extends about 3.7 miles in total from the northwest corner of the site to its southwestern corner, ascending uphill into the hills over about two-and-a-half miles at an elevation of roughly 550' above sea level to about 1,300'; the western side of the site (north half) ranges among hills and valleys between 600' and 800'. Various other unnamed ravines traverse the site and surroundings. The southern boundary of the site is at elevations of between 1,600' and 1,800'. Some rocky features are evident on some of the steeper hillsides. (See figures, attached.)

PROJECT DESCRIPTION SUMMARY

The project as proposed is to replace a total of 518 old generation wind turbine sites that were fully decommissioned in 2016 and all installation of up to 36 new wind turbines with a range of nameplate energy production capacities, between 2.2 and 4.2 MWs each. The primary objective of the project as described in the *draft* Subsequent EIR was to site up to 36 new turbines to produce and deliver 80 MW of wind energy through a long-term power purchase agreement with a local ‘load-serving entity’. However, the applicant has agreed to modify the stated objective to emphasize, in the final SEIR, that the objective is to produce 80 MW and to do so with the least number of individual turbine locations necessary to achieve the production objective, and furthermore, to have a power purchase agreement with a local community choice aggregator. Reducing the number of individual turbine locations is recognized tacitly as serving to reduce environmental disturbance and the full range of potential impacts. It is easily understood that the objective of 80 MW could be achieved with fewer but larger capacity turbines.

The SEIR was nonetheless prepared to evaluate the potential impact of installing up to 36 new turbines, so that in the event the largest capacity turbines are not available for installing on the project site, the scope of the analysis in the SEIR addresses the possible larger number of sites. While the objective of 80 MW could be met with 36 turbines having a capacity of 2.2 MW each, the same objective could be met with 24 to 30 larger capacity turbines, or even fewer depending on their capacity. At the present stage it is not practical or economic for the applicant to be restricted to a single turbine size. However, as discussed further below, an alternative to the project defined in the Subsequent EIR, described as the *Reduced Project Alternative*, is recognized as the environmentally superior alternative among those that serve the fundamental objectives of the project, and would consist of a maximum of 24 turbine locations within the project site, using larger with a maximum average capacity of 3.33 MW. Planning staff recommend consideration of this alternative, and it is the focused subject of this staff report.

Project plans attached illustrate the layout (four sheets) of 36 proposed turbine sites, assuming 2.2-MW turbines for the project. Final turbine selection would be selected based on project economics and energy cost driven by site constraints, data obtained from meteorological monitoring of the wind resources, civil and electrical construction costs and turbine availability as well as environmental considerations, bird use survey results, and avian micro-siting considerations.

The physical parameters of different turbine designs vary moderately as indicated in the SEIR (unchanged in the final from the draft), with blade lengths ranging between 60 and 68 meters in length (197’–223’), and a total resulting rotor diameter of 120 to 136 meters (394’ to 446’). The total height of the turbines, to the blade tip when it is the 12 o’clock position, would not be increased and is expected to be 499’ or no more than 500’, and may be as low as 459’. The 4.2 MW turbines under consideration by the applicant would be distinctive from those described in the Program EIR, in that the turbines have the longest turbine blades, of up to 223’ in length, which is 18 feet or approximately 9% longer than the maximum length described in the Program EIR (205’). As a result, rotor diameters would be up to 36 feet greater (approximately 9%), and rotor-swept area would increase by up to 2,268 square meters (the difference between 12,259 and 14,527 square meters, or approximately 18.5% more area). Among the possible consequences of a longer rotor blade (68 meters or 223’) is that the rotor swept area could be closer to the ground (e.g., a blade at the 6 o’clock position), at about 66 feet, compared to 110 feet for the typical 3.0 MW turbine that the Program EIR generally considered as the largest foreseeable wind turbine size. (see Table 2-7 in the Final SEIR).

A comprehensive description of project components and features is provided in the Project Description chapter of the SEIR for the project, but in summary, they include siting the turbines according to the adopted setback considerations adopted by the County for use throughout the APWRA. Turbine foundations are typically spread-foot, using between 450 and 800 cubic yards of steel-reinforced concrete, resulting in a foundation pad and surrounding service graveled area of approximately 58 feet in diameter. Each turbine requires safety lighting on the power nacelle of each turbine to meet FAA aviation safety standards,

lightning protection, and the operation of each turbine is controlled by an undergrounded control and data network system to monitor lightning strikes and other events. In addition to the turbine foundations, the project will entail extensive grading and construction of new or expanded roads (using existing road networks as much as possible), erecting the turbine towers and installing the generators and rotor blades, and installing pad-mounted transformers and the power collection system. No operations and maintenance facility is planned, but will use commercial office space in nearby Tracy, or possibly Livermore. The turbines would be connected to a new substation that would be constructed adjacent to PG&E's Tesla substation where the project output would connect to the regional electrical grid. Given the proximity of the project substation to the Tesla substation, construction of an overhead high-voltage transmission line will not be required except for a short span (less than 300 feet) between the two substations.

A few unique and important features of the proposed project are worth noting, which are intended to reduce the avian and bat mortality associated with wind turbine operations in the APWRA. Firstly, in order to comply with standard condition of approval for all wind repowering project proponents since certification of the PEIR, and specified in the PEIR as Mitigation Measure BIO-11b: *Site Turbines to Minimize Potential Mortality of Birds*, the applicant engaged an environmental specialist to conduct "micro-siting" studies. Jim Estep, who was a member of the APWRA Scientific Review Committee that was empaneled as a condition of the 2005 permit renewals, prepared a study that was completed in July 2020. The siting study reported on examination of 93 site locations, and based on the parameters established by the PEIR, identified the risk level of each of 36 sites initially identified by the project proponent, another three replacement sites, and then 54 more recommended or proposed alternative relocation sites. Of these, nine sites were identified as high risk sites for golden eagle fatalities, and were eliminated from further consideration, along with another three sites, thus reducing the number of recommended sites to 24.

The risk level to bat species was not a central topic of the study, based on the absence of information showing that micro-siting of turbines within a generally monotypic landscape, though complicated by a wide range of slopes, hillsides, ridges, ravines and other topographic characteristics, could noticeably influence the potential for bat mortality. It is suggested that the position of individual turbines relative to steep slopes, differences in elevation above surrounding terrain, even position near road beds cut for turbine component delivery, which are understood to influence raptor flight, would not have the same relationship to the flight behavior of bats. However, instead of using siting to minimize bat mortality, the proponent has agreed to a project operational feature which is to set the cut-in speed of all turbines to operate only at higher wind speeds of 5.0 meters/second during the nighttime, because bats are known to reduce their flight activity at such higher speeds. It is also the case that increasing the cut-in speed will mean overall operating hours would be reduced by a substantial degree, and that all birds including small and medium birds and all raptors would see a proportional benefit of lowered avian mortality.

INTER-AGENCY COORDINATION

The project was referred for comment and recommended conditions of approval to various Alameda County agencies, regional air and water quality agencies, state and federal wildlife agencies, and other major wind industry stakeholders in July 2020. A parallel 'referral' or notification of the project was also conducted to allow a number of Native American tribal communities to consult on the project, and notification to many other persons was initiated in April 2020 with the Notice of Preparation of the SEIR, as required by CEQA. Only the County Fire Department responded with a request for a Fire Control Plan, which is a standard condition of approval that would be submitted at the time of grading and building permit applications.

FINAL SUBSEQUENT EIR – COMMENTS AND RESPONSES TO COMMENTS

The Final SEIR document is in the form of the Draft SEIR with new text inserted (underlined) and other text deleted (in ~~strikeout~~ mode) in several chapters, based in part on information suggested by comments received on the Draft SEIR, and also on some new information obtained since the Draft SEIR was made

public. The revisions to the draft SEIR include staff-initiated revisions in Section 3.4, *Biological Resources*, that address the United States Fish and Wildlife Service's (USFWS) December 15, 2020 announcement that listing the monarch butterfly as endangered or threatened under the Endangered Species Act (ESA) is warranted but precluded by higher priority listing actions. The monarch butterfly is now designated as a candidate for listing under ESA and its status will be reviewed annually until a listing decision is made.

The draft SEIR has been revised to include an analysis of the proposed project's impacts to monarch butterfly. As discussed on pages 3.4-147 to 3.4-148 of the final EIR, impacts would be less than significant. This information is not a significant modification to the draft SEIR analysis and does not warrant recirculation pursuant to CEQA Guidelines Section 15088.5.

The County held a public hearing on December 8, 2020 to request comments on the draft SEIR. No verbal or other public comments were received at the public hearing. The County received seven comment letters on the draft SEIR, as listed below, in the order received:

- United States Fish and Wildlife Service, Thomas Leeman, Deputy Chief, Migratory Birds
- California Department of Fish and Wildlife, Gregg Erickson, Regional Manager
- East Bay Regional Park District, Douglas A. Bell, Ph.D.
- East Bay Community Energy, Nick Chaset, EBCE CEO
- Adams Broadwell Joseph & Cardozo, Andrew J. Graf
- Golden Gate Audubon Society, Pam Young, Executive Director
- State of California, Department of Justice, Tara L. Mueller, Deputy Attorney General

The comment letters are focused on bird and bat mortality resulting from the operations of wind turbines, the effectiveness of potential avian and bat avoidance and minimization measures, and in very broad terms, the relative degree by which such mortality was accurately estimated in the Draft SEIR and how it should be represented in the Final EIR. The writers raise many highly technical issues with regard to the way in which the Project was evaluated relative to mortality rates that have been observed at other wind farm projects within the APWRA. Some major topics in the individual letters and addressed in the responses to comments include:

- avian and bat avoidance and minimization measures that were presented in the Draft SEIR, and recommendations for additional measures to be considered
- golden eagle productivity and local populations, and the effects on such populations in light of fatalities from interaction with wind energy facilities
- burrowing owl populations, particularly in consideration of the Two Sisters Burrowing Owl Preserve immediately adjacent to the project site
- potential impacts to California condor due to presence within the project site
- curtailment measures to minimize bat fatalities
- construction and operation impacts on tricolored blackbird and Swainson's hawk
- sufficiency of proposed mitigation ratios for impacts to special-status plant species
- compensatory mitigation for impacts to non-special-status nesting birds and raptors, burrowing owl, and tricolored blackbird
- how the baseline of wind energy development should be defined for comparison with the Project, for assessing the general and cumulative impacts of the Project.
- curtailment of wind turbines near golden eagle, Swainson's hawk, other raptors, and tricolored blackbird colonies

- the methodology used to micro-site individual turbines for the micro-sited alternative, and how they were rated for relative risk
- claims of an inaccurate and incomplete project description
- claims of inadequate identification of potentially impacted species or a full evaluation of impacts on such species
- claims of inadequate compliance with micrositing requirements
- claims of an omission of indirect impacts from wind-energy generated wildfires
- claims of inadequate evaluation of hazardous materials on the project site
- claims of an omission of a quantified health risk analysis
- claims that the avian and bat impact analysis underestimates impacts and lacks substantial supporting evidence for the conclusions
- claims that all feasible mitigation measures and alternatives were not fully evaluated
- claims that impacts on wetlands and species habitat were not fully identified
- claims that existing conditions were improperly represented
- cumulative impacts, including what projects to include, to estimate potential overall mortality in the APWRA, and the relationship to the maximum of 450 MWs evaluated in the PEIR
- alternatives such as eliminating identified higher-risk turbine sites or reducing the number of turbines should be considered
- a letter of support for the project from East Bay Community Energy

Detailed and critical letters were provided by Adams Broadwell Joseph & Cardozo and the California Attorney General's office on the Draft SEIR asserting that the SEIR fails to meet substantial evidence standard for an EIR in fully evaluating the impacts of the Project, in particular on birds and bats, and therefore the Draft SEIR needs revision and recirculation. The main argument of these letters include: a) the Draft SEIR underrepresented existing population estimates and fatality rates and therefore the severity of the Project's impacts on bird and bat populations is not based on substantial evidence; b) the Project should have been evaluated against a baseline condition of zero existing turbines, reflecting the current state of the project site; c) the cumulative analysis is deficient in recognizing other wind projects in the Diablo Range region, in Contra Costa and Solano Counties, and accounting for all existing and reasonably foreseeable wind energy development in Alameda County; d) the absence of an alternative with fewer turbines is inadequate to meet CEQA standards for defining alternatives to a project; and e) mitigation measures should have been expanded from those defined in the PEIR to include, in addition to the few additional measures that the SEIR proposes for construction buffers from tri-colored blackbird and some compensatory mitigation strategies, better micro-siting, post-construction survey protocols, and adaptive management strategies including additional turbine curtailment and more extensive shutdowns.

PROGRAM EIR AND CURRENT PROJECT TIERING

The Program Environmental Impact Report (PEIR), certified by the County in November 2014, addressed the anticipated approval of new CUPs to allow replacement of old generation wind turbines with current generation turbines in the Alameda County portion of the APWRA on a program level for the entire area. The PEIR also specifically evaluated, on a project level, two project applications, the Patterson Pass Wind and Golden Hills Wind – Phase I Projects. 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, and do not introduce new or substantially different significant impacts. In addition, subsequent projects are expected to be related geographically and to have

similar (or less) environmental effects that can be mitigated with measures and strategies that are similar to those adopted for the projects evaluated at the project level in the PEIR.

PLANNING CONSIDERATIONS

Although the current Project proposes turbines substantially larger in generating capacity than other wind repowering projects, with a 3 MW turbine as the largest considered in the PEIR, the project is in most respects similar to the other repowering projects that the Board of Zoning Adjustments has previously approved, including Golden Hills and Golden Hills North, and Summit Wind. Since certification of the PEIR, the first repowering project, Golden Hills, was completed as part of the overall APWRA repowering effort. The Golden Hills Wind Energy Center Postconstruction Fatality Monitoring Reports for the first three years of operations are now available. The SEIR notes that although the first- and second-year Golden Hills Wind Project mortality results do constitute new information, they do not conclusively show that avian impacts for this project will be substantially more severe than anticipated in the PEIR. This is because the PEIR conservatively assumed that, even though estimates at that time based on three repowering projects in the same region appeared to indicate considerable reductions in mortality among all focal raptor species, further study could show – as in the present case – that avian impacts “could be greater than the baseline rates” and the impact would be significant and unavoidable.

For purposes of the analysis of avian mortality, the turbine used as the basis for developing estimates of future or typical project impacts in the PEIR was the Vasco Winds 2.3 MW turbine. The consequence of the increased nameplate capacity proposed for the Project, up to 4.2 MW, however, could be lower impacts per MW for certain environmental topic areas. More specifically, impacts could be reduced because, as proposed for the Project, 19 turbines rated at 4.2 MW each would result in 79.8 MW of generating capacity, whereas the same capacity could only be reached through installation of 36 of the proposed 2.2 MW turbines, thereby requiring considerably more land area and resulting in greater ground-disturbing activity to reach the same capacity.

It is recommended that the Board adopt the Reduced Project Alternative which would by 1) reduce the size of the project in terms of both rotor-swept area (RSA) and the number of turbines; increase turbine distance from eagle nests and eagle activity centers; place turbines in consideration of the results of the micro-siting study (Appendix F of the Final SEIR) and supplemental micro-siting study (Appendix G of the Final SEIR); and implement seasonal cut-in speed changes to attempt to reduce impacts on bats. This alternative would replace the thirty-six (36) 2.2 MW capacity turbines proposed under the project with twenty-four (24) micro-sited 3.465 MW turbines (Final SEIR Figure 4-2). Compared to the project, only 24 (rather than 36) turbines would be installed, of which 18 would be located at nearly the same locations as under the project (but with minor relocations due to the micro-siting process) and 6 would be located at a substantial distance (hundreds of feet) from any of the initially proposed project turbine sites. The project capacity is 80 MW with a total RSA of 40.7 hectares (ha) (Final SEIR Table 4.3-4), while the Reduced Project Alternative has a nameplate capacity of 83.16 MW but would be limited to 80 MW operational capacity; its RSA would be 32.8 ha, a 19% reduction compared to the project. Based purely upon the nameplate considerations, the Reduced Project Alternative would be expected to decrease avian and bat fatalities of every focal species or species group by up to 19% based on the reduction in RSA.

Although Planning staff are in support of the finding of the SEIR authors that the fatality rates for golden eagles and the other focal raptor species are subject to more research and wide deviation from project to project and among the varying topography and natural resource conditions within the APWRA, the upper range of such mortality for golden eagles, other raptor species, and bats makes it highly appropriate to impose more limitations on the proposed Project, both in terms of its size, and additionally, on the program of mitigation measures and conditions of approval. The applicant will be required to seek incidental take permits for species protected by state and federal laws, although the state and federal resource agencies will

have to assess the appropriateness of issuing such permits. Additionally, Planning staff recommend as a condition of approval, that if larger, 4.2 MW turbines are available to the project proponent at the time suited for ordering turbines to be delivered that the proponent can reduce the total number of turbines to as few as nineteen (19). The final location of these turbines would be subject to Planning Director approval and recommendations of the County's avian protection Technical Advisory Committee.

RECOMMENDATION

The Board should receive a staff presentation, take public comment on the Project (the Conditional Use Permit) and the Final SEIR, review the draft Resolution to certify the SEIR, certify the Final SEIR, then review the draft Resolution and Exhibits for approval of the Project, and lastly approve the Project, in the form of the Reduced Project Alternative as defined in the SEIR (the Environmentally Superior Alternative).

The Board may instead approve the Project in the form determined by the Board, on the basis of information in the SEIR, the staff analysis herein, information presented to the Board at the hearing, or as necessary to make the required findings to approve the conditional use permit application.

Attachments:

Final Subsequent Environmental Impact Report, including Appendices regarding air quality (including greenhouse gases), biological resources, and water supply assessment (in digital form on a CD).

Draft Resolution to certify the Final Subsequent Environmental Impact Report

Draft Resolution to approve Conditional Use Permit PLN2017-00201, including Exhibits:

Exhibit A: Written Findings of Significant Effects

Exhibit B: Mitigation Monitoring and Reporting Program

Exhibit C: Statement of Overriding Considerations

The Final SEIR and Appendices are also available on the CDA/Planning webpage, at http://www.acgov.org/cda/planning/landuseprojects/sand_hill_wind_project_b.htm or by navigating from the website (www.acgov.org/cda/planning): Pending Land Use Projects, Current Development Projects, Wind Turbine Projects, and Sand Hill Wind Project in the table shown.

PREPARED BY: Andrew Young Senior Planner

REVIEWED BY: Sandra Rivera Manager/Director of Operations

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