

Department of **Resource Management**

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Agenda Item No. 1

REPORT TO THE PLANNING COMMISSION

FROM: Ken Solomon, Contract Planner

VIA: Mike Yankovich, Program Manager

SUBJECT: Shiloh IV Wind Energy Project (U-10-10) - Draft Environmental Impact

Report (DEIR)

DATE: September 15, 2011

Introduction

The purpose of this public meeting is to provide an overview of the project and to accept testimony from the public on the Draft Environmental Impact Report (DEIR). The DEIR was circulated for the mandatory 45-day public review period that began on August 25, 2011 and will close on October 11, 2011. No action by the Planning Commission is required at this meeting.

Agency and public comments on the adequacy of the DEIR are due at the close of the stated 45-day review period. Following the close of this review period, a Final Environmental Impact Report (FEIR) will be prepared. This will comprise the comments received on the DEIR, responses to said comments and any necessary project revisions. The Planning Commission is anticipated to review and take action on the Final EIR in addition to the project Use Permit at another public hearing anticipated on December 15, 2011. The project would be considered by the Board of Supervisors only on appeal.

The following is a summary of the project, a discussion of the CEQA process, the significant environmental impacts caused by the project, and the cumulative impacts of the project along with the existing and proposed wind turbines within the Montezuma Hills wind resource area. The County's EIR consultant, Point Impact Analysis, LLC (Point Impact), will present an overview of the project and address the environmental issues identified in the DEIR.

Project Description

The applicant, Shiloh Wind Partners, LLC (enXco), has submitted a Use Permit application (U-10-10) to install and operate a new commercial wind energy facility in the Montezuma Hills, the Shiloh IV wind energy project. The project would comprise of 50 wind turbine generators (WTGs) and 100 megawatts (MW) of electrical generation capacity, plus associated support facilities, such as new operations and maintenance (O&M) building addition, access roads, underground utility lines, a new substation, and three meteorological towers, on approximately 3,012 acres of combined private parcels under long term lease for wind development.

The project area is located approximately 1.5 miles south of Highway 12, and south of Olsen Road and, with the exception of one parcel, east of Collinsville Road. Birds Landing Road and Montezuma Hills Road run through the project area. It is also bordered by other existing wind projects, Shiloh I to the north and south, enXco V to the east, and the Montezuma II (under construction), also to the east and southeast.

The project area also occupies a portion of the existing enXco V wind project with the older lattice-type (Kenetech) turbines that will be removed (decommissioned) independently by enXco under provisions of the enXco V use permit(s). Shiloh IV is, effectively, a partial repowering project, in that older wind turbines will be replaced with new turbines, except that some of the new turbines will be installed in undeveloped areas and that removal of the older turbines and installation of the new turbines will be occurring at different times.

The land is presently used for dryland farming, livestock grazing, rural residences, and wind energy generation. The agricultural and residential uses will continue while the project is in operation. The electricity generated by the Project would connect to the existing PG&E Vaca Dixon-Contra Costa 230 kV transmission line, which traverses the westerly and central portions of the project.

The CEQA Process

Pursuant to Section 15060(d) of the State CEQA Guidelines, Solano County has determined that the project will have one or more significant effects; therefore, a Draft Environmental Impact Report (DEIR) has been prepared. A DEIR is a full disclosure, public information document in which the significant environmental impacts of a proposed project are evaluated; measures to mitigate significant impacts are identified, when feasible; and alternatives to the project that can reduce or avoid significant environmental effects are discussed.

A DEIR is used in the planning and decision-making process by the lead agency - Solano County – the public agency with principal responsibility for carrying out or approving the project, and all responsible agencies, which include all public agencies, other than the lead agency, that have some discretionary approval over the project. The purpose of a DEIR is not to recommend either approval or denial of a project, but to disclose objective information so that informed decisions can be made. CEQA requires the decision-makers to balance the benefits of a proposed project against any unavoidable environmental effects in deciding whether to carry out a project.

As prescribed in CEQA, a Notice of Preparation (NOP) was distributed to responsible agencies, in addition to private individuals, announcing that the DEIR was about to be prepared. This involved a 30-day review period. A public scoping meeting was also held, to solicit additional agency and public comments on the preparation of the DEIR. All written comments received in response to the NOP, including oral comments received at the scoping meeting, are included in Appendix A and referenced as appropriate within the pertinent Chapters of the DEIR.

Once completed, the DEIR was then distributed to the State Clearinghouse, which circulates the document to responsible and interested agencies. Additional copies were distributed to three local libraries, and selected agencies, organizations and individuals who had earlier requested a copy. A Notice of Completion/Availability/Public Hearing, announcing the availability of the completed DEIR and this hearing date, was also distributed to the same responsible and interested agencies, including all individuals who had commented on or expressed interest in the project, plus property owners within 1/2 mile of the project area. All comments on the adequacy of the DEIR are due at the close of the 45-day agency and public review period.

Environmental Impacts and Mitigation Measures

Potential environmental impacts of the Shiloh IV wind project including mitigation measures when necessary are summarized in **Table 2.2-1** in Chapter 2 of the DEIR. As indicated in this table and as discussed further below, Shiloh IV would result in significant impacts that require mitigation.

Environmental impacts may be direct, indirect or cumulative. Each must also be further classified into one of three major categories: significant impacts that would remain significant even with mitigation; significant impacts that could be mitigated to a level of less than significant; and less than significant impacts that would require no mitigation. For each significant impact for the Shiloh IV project, **Table 2.2-1** in Chapter 2 includes a summary of the mitigation measure(s) and the level of significance before and after mitigation. Chapter 4 (Introduction to Environmental Analysis) of the DEIR provides an overview of the types of impacts and levels of and requirements for mitigation.

The impacts associated with Shiloh IV that would remain significant even after mitigation measures are implemented are summarized in Chapter 2 (Summary), and discussed in detail in Chapter 5 (Aesthetic/Visual Resources), Chapter 7 (Air Quality), Chapter 8 (Biological Resources), and Chapter 21 (Cumulative Impacts). These significant impacts regard the following:

AES-1 and -5: The proposed wind turbines would significantly impact the anticipated views of hills from the community of Birds Landing and degrade the visual character of the landscape from public roads and for dispersed rural residential viewers.

AIR-1 and -2: The project would result in significant air quality impacts during construction from construction equipment and vehicles, by creating exceedances of NOx emissions,

and from trenching, grading, and other ground-disturbing activities, generating fugitive dust (PM_{10}) . These are temporary impacts only, confined to project construction.

BIO-8: The Project could result in low rates of mortality to protected avian species and, therefore, result in significant impacts even with the incorporation of mitigation measures. Raptor species most likely to be affected by turbine operation are the American kestrel and red-tailed hawk. The golden eagle, a California species of special concern, could have a mortality rate of less than one individual per year. Impacts to Swainson's hawk and cumulative impacts to raptors, special status birds and bat populations are also potentially significant.

There are no mitigation measures including reasonable alternatives that can be considered to reduce the aesthetic view impacts (Impact AES-1, and -5) to a level of insignificance, so the impact is considered significant. Mitigation measures are proposed for the grading, excavation and other construction activities (Impact AIR-1 and -2), and avian mortality (Impact BIO-8). However, even after available mitigation is implemented for the latter two impacts, these would still be considered significant, although the air quality impacts are only temporary. If the Planning Commission believes that the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable," and a Statement of Overriding Considerations must be adopted.

Significant and potentially significant impacts that could be mitigated to a less-thansignificant level would occur in the areas of Aesthetic/Visual Resources, Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Geologic Resources, Hazardous Materials, Hydrology and Water Quality, Land Use and Population, Noise, Public Services and Utilities, Safety, and Transportation. Less than significant impacts that would not require mitigation are identified for all of these same categories, except for Geologic Resources and Noise, and involve the additional categories of Greenhouse Gases and Recreation.

Cumulative Impacts

CEQA requires the analysis of the "cumulative impacts" of a project when existing or planned projects would produce impacts in a particular impact category, and where the project under review would contribute to these impacts. In such a case, the existing or planned projects are deemed "related projects" and are included briefly in the EIR. Therefore, the cumulative impacts considered in this EIR are the combined impacts of the subject Shiloh IV project and the other proposed and foreseeable projects as referenced in the DEIR.

Shiloh IV proposes 50 new wind turbines with an electrical generation capacity of 100 megawatts (MW) within the Montezuma Hills wind resource area. It is reasonable to assume that with the completion of this project there will be a total of 794 wind turbines in the Montezuma Hills. Additional wind facilities are foreseeable. The existing and planned wind facilities are listed in Table 21.2-1 and their locations are generally shown in Figure 21.1-1 in Chapter 21 (Cumulative Impacts) of the DEIR.

Projecting the maximum build-out of the wind resource area south of Highway 12 is, at best, difficult, if not impossible. In the past, estimates have been made based either on PG&E's transmission line capacity or available land; however, neither is reliable anymore. Transmission line capacity can be increased via reconductoring, potentially limited only by cost, and due to constant advances in turbine design and efficiencies, with virtually each new generation of turbine developed, fewer newer turbines are often needed to generate greater amounts of electricity. The industry practice of repowering, where older turbines are replaced with new turbines, is also common. A more realistic limiting factor presently, with respect to the Montezuma Hills, is potential interference with the air traffic control (ATC) radar at Travis AFB, which must be assessed on a per project basis in accordance with the Cooperative Research and Development Agreement (CRADA) process established by the U.S. Air Force, other agencies and wind developers in January 2010.

While the repowering of the enXco V project was started in 2005, this process continues today. EnXco removed 191 of the older Kenetech turbines within the Montezuma II project area last July and plans to remove the remaining 314 older turbines in two more phases, the first within the Shiloh IV project area, and the second in the area adjacent to SMUD's Phase 3 project (under construction). As a result of existing and proposed wind projects, including the first of two final phases of enXco V repowering, approximately 587 turbines (1,022 MWs) are anticipated in the Montezuma Hills within the next few years. As such, there would actually be far fewer turbines overall, but significantly increased electricity production.

Approximately 92% of land within the former (1987) boundaries of the WRA, excluding the conservation easement managed by the Solano Land Trust, is currently occupied by, or committed to, commercial wind development. The balance of land potentially available for future wind development would be subject to environmental and/or other constraints and landowner interest. These boundaries, however, are no longer reliable as a determinate of maximum wind development in the area, given that the 2008 General Plan redirected future wind development to follow the wind resource maps prepared by the California Energy Commission, which indicate more expansive areas for potential wind development.

In terms of significant impacts that cannot be mitigated to a level of insignificance, most of the prior wind project EIRs to date found similar significant unavoidable impacts in terms of aesthetics and biological resources (i.e., avian mortality). The exceptions are the SMUD and enXco V projects, which had not identified air quality as a significant impact, and the latter had identified land use as a significant impact.

The significant visual impacts associated with the project wind turbines would be experienced mainly by residents of Birds Landing and by dispersed rural residences and travelers on public roads in the project vicinity. The additional effect of increased light pollution from FAA-required turbine lighting is determined insignificant with recommended mitigation.

Avian and bat mortality is expected to increase with the number of new turbines and increased rotor swept area proposed by the project including other foreseeable wind projects, despite that fewer turbines are expected overall because of the enXco V repowering. At ultimate build-out of the wind resource area south of Highway 12, the

increase in total avian and bat mortality is expected to be approximately proportionate to the increased rate of power generation, but, based on monitoring data for similar new turbines in the area, the rate of increase specific to raptor mortality would be significantly less than the overall rate of increase in mortality to total avian species in general.

The air quality impacts would be temporary, due to construction, as the wind energy projects in the Montezuma Hills would ultimately result in a long-term beneficial effect on regional air quality.

Alternatives

Chapter 19 of the DEIR analyzes alternatives to the wind energy Project. These are grouped into two categories: 1) Alternatives Considered But Eliminated From Further Analysis, due to their infeasibility, inability to meet project objectives, or inability to reduce environmental impacts; and 2) Alternatives Evaluated, which include the No Project Alternative, as required by CEQA for all EIRs, an Off-site Alternative, and Reduced Project Alternative.

In terms of Alternatives Evaluated, the No-Project alternative evaluates two different scenarios, one that the existing enXco V turbines within the project are removed, and the other, that the enXco V turbines are not removed and continue to operate under an extension of the existing use permit(s) for that project. The Off-Site location evaluated is within the Cordelia Hills wind resource area, and the Reduced Project Alternative evaluated an approximate 50% reduction in the number of proposed turbines, with a corresponding reduction, about 1/3, in distance of new access roads. The Draft EIR identifies the Project as the environmentally preferred alternative, as a means of satisfying the project objectives as noted while minimizing potential environmental impacts.

RECOMMENDATION

Staff recommends that the Planning Commission receive oral and written comments on the Draft Environmental Impact Report (DEIR). The Final EIR will then be brought before the Planning Commission for consideration along with the proposed Use Permit, at the future tentative date of December 15, 2011, depending on the volume and nature of comments received on the Draft EIR.

Attachment (previously distributed):

Draft EIR (Vol's I and II), Shiloh IV Wind Energy Project, August 23, 2011