Department of Energy
Golden Field Office
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DOE/EA-1833

FINDING OF NO SIGNIFICANT IMPACT AND FLOODPLAIN STATEMENT OF FINDINGS CITY OF EL DORADO WIND ENERGY PROJECT EL DORADO, BUTLER COUNTY, KANSAS

AGENCY: U.S. Department of Energy, Golden Field Office

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: The U.S. Department of Energy's (DOE's) Proposed Action is to authorize the expenditure of federal funding appropriated under the *American Recovery and Reinvestment Act* (Recovery Act) to design, permit, and construct the El Dorado Wind Energy Project (Wind Energy Project), a 1.0-megawatt wind turbine to be located immediately west of the El Dorado Wetlands and Water Reclamation Facility in El Dorado, Butler County, Kansas.

DOE has made these funds available to the Kansas Corporation Commission (KCC) through the Energy Efficiency and Conservation Block Grant (EECBG) Program[1]; however, DOE must complete review of the Wind Energy Project under the National Environmental Policy Act (NEPA) before KCC may issue a subgrant to provide EECBG funding for the construction of the Wind Energy Project.

Based on the information and analyses in the final Environmental Assessment (EA), DOE has determined that its Proposed Action does not constitute a major federal action that would significantly affect the quality of the human environment within the meaning of the National Environmental Policy Act (NEPA). Therefore, an environmental impact statement (EIS) is not required, and DOE is issuing this FONSI.

All discussion, analysis, and findings related to the potential impacts of construction, operation and eventual decommissioning of the Wind Energy Project, including the applicant-committed measures, are contained in the final EA. The final EA is hereby incorporated by reference.

This FONSI was prepared in accordance with the *National Environmental Policy Act of 1969* (NEPA), the Council on Environmental Quality regulations for implementing NEPA, as amended, 40 CFR 1500 to 1508, and DOE NEPA regulations 10 CFR 1021.

ENVIRONMENTAL IMPACTS: The final EA examined the potential environmental impacts of the Proposed Action and of a No-Action Alternative. Under the No-Action Alternative, DOE would not authorize the use of EECBG funds for the Wind Energy Project, which DOE assumes for purposes of the final EA would not be constructed or operated.

The proposed City of El Dorado Wind Energy Project would be constructed and operated on property owned by the City and located immediately west of the El Dorado Wetlands and Water Reclamation

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[1] Prior to the issuance of this FONSI, DOE authorized the Kansas Corporation Commission (KCC) to use a percentage of their federal funding for preliminary activities, which include preparation of the El Dorado Wind Energy Project EA. These activities are associated with the Proposed Project and do not significantly impact the environment nor represent an irreversible or irretrievable commitment by the Department of Energy in advance of the conclusion of the EA for the Proposed Project.

Facility. The proposed project site is zoned for light industrial use. The proposed wind turbine is anticipated to offset approximately 6,175 kilowatts of electrical load on a daily basis and fulfill approximately 98 percent of the Facility's annual electricity demand. This would enable the City to reduce electrical demands from the existing electrical provider and lower its carbon footprint. The proposed project would employ approximately eight people during construction.

Based on the information presented within the final EA, DOE concludes that the design, permitting, construction, and operation of the El Dorado Wind Energy Project would not have measurable impacts to the following resources: historic and cultural resources, geology and soils, visual resources, biological resources including threatened and endangered species, human health and safety, transportation, social and economic conditions including minority or low-income populations, air quality and climate change, utilities and energy, water resources, and impacts related to intentional destructive acts.

Implementation of the proposed project would permanently commit less than one acre of previously disturbed, agricultural land and temporarily disturb less than one acre of previously disturbed agricultural cropland owned by the City of El Dorado. The area immediately surrounding the proposed turbine location would remain agricultural cropland. The proposed project would result in minimal direct or indirect impacts and a negligible irretrievable commitment of land (See Section 3.2.2.1 of the EA).

Noise would be generated by construction equipment during the project's short-term construction phase. However, the construction noise would not be expected to significantly increase ambient noise levels. During operations, estimated turbine noise levels at the nearest residence would be less than 37 A-weighted decibels (dBA), which is lower than the Butler County noise statute levels and U.S. Environmental Protection Agency noise level guidelines of 55 to 65 dBA for the Day Night Average Sound Level. Therefore, no significant impacts are expected (See Section 3.2.2.3 of the EA).

Implementation of the proposed project would introduce a new and dominant vertical feature into the existing viewshed. The visual impact of the wind turbine is reduced because of other already existing vertical elements in the area such as electrical transmission towers and various oil refinery production towers. The results of the shadow flicker study commissioned by the City for this project indicates shadow flicker would have the potential to affect up to five receptors, all single-family residences, with the greatest impacts to one receptor for a maximum of 1.42 hours per year. Approximately 3,000 feet of US-77 would experience shadow flicker effects. The majority of the impacted roadway would experience less than 2 hours of shadow flicker per year. Therefore, significant adverse visual impacts that would affect nearby residences or users of the project area and surrounding areas are not anticipated as a result of the El Dorado wind project (See Section 3.2.2.2 of the EA).

There are no historic properties within the project site. The nearest historic property is located approximately 1.25 miles north of the project location. No archeological resources appear to be located within the construction footprint, and the nearest archaeological site is located over 1,350 feet from the project location. DOE does not anticipate encountering cultural resources during construction or ground disturbance. In accordance with Section 106 of the National Historic Preservation Act (NHPA), DOE determined that the proposed project would have no adverse impacts on the subject property or other historic properties or cultural resources. The Kansas Historical Society also concluded that no historic properties would be affected by the proposed project. In response to tribal consultation requests, responses were received from the Kickapoo Tribe of Indians in Kansas, the Osage Nation of Oklahoma, the Prairie Band Potawatomi Nation, and the Iowa Tribe of Kansas and Nebraska. All four tribes expressed no objections to the proposed project (See Section 3.2.2.4 and Attachment C-7 in Appendix C of the EA).

A primary area of environmental concern for the operation of wind turbines is the potential to injure or kill birds and bats. Analysis in the final EA indicates that the proposed project is not likely to adversely affect bat species and would have no adverse affects on federally listed species. Recommendations as

described in the United States Fish and Wildlife Service (USFWS) *Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines* (2003) were included in the siting, design and installation plans for the El Dorado Wind Energy Project. In addition, El Dorado has incorporated and will implement several of the best management practices (BMPs) from the USFWS Wind Turbine Guidelines Advisory Committee's Site Development and Construction BMPs. Based on the analysis in the final EA, DOE determined that impacts to biological resources were not significant (See Section 3.2.2.6 of the EA).

According to an FAA letter dated September 28, 2010, the initial aeronautical study performed for the proposed project indicated the project would be a presumed hazard to air navigation. The FAA indicated that a favorable determination could be made if the structure height was reduced to 306 feet (93 meters) above ground level or if the FAA performed additional studies for the original height (330 feet/101 meters). The City of El Dorado requested that the FAA perform the additional study of the original tower height. The FAA performed the requested study and issued a "Determination of No Hazard to Air Navigation" letter to the City of El Dorado. The Determination was subject to review if an interested party filed a petition. No petitions were received by the FAA and the determination became final on January 10, 2011 (See Section 3.2.2.7.5 of the EA).

FLOODPLAIN STATEMENT OF FINDINGS: The El Dorado Wetlands and Water Reclamation Facility is located in the 100-year floodplain, and the regulatory floodway, of the Walnut River, as shown in Appendix A – Figure 13 of the final EA; therefore, DOE conducted a floodplain assessment pursuant to Executive Order 11988, Floodplain Management, and DOE implementing regulations at 10 CFR Part 1022, "Compliance with Floodplain and Wetland Environmental Review Requirements" (see Attachment D-7, Appendix D of the EA). Section 2.3.3 of the EA, as well as the floodplain assessment, describes the project alternatives considered by the City of El Dorado. The proposed project area is currently leased for crop production. Implementation of the proposed project would temporarily impact the floodplain/floodway during excavation and trenching activities associated with the construction of the wind turbine foundation/tower and/or the installation of underground electrical connections to the Wetlands and Water Reclamation Facility. After completion of these activities, the affected floodplain areas would be graded, seeded, and restored to their previous condition. The proposed project will require a No-Rise certification be obtained from the Assistant City Engineer to ensure that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base (100-year) flood event. Discussions with the City's Assistant Engineer during the development of the final EA indicated that based on the information available for the proposed project, no adverse effects regarding floodplain issues or the issuance of a No-Rise Certification are anticipated. Therefore, DOE expects no long-term adverse direct or indirect impacts to the beneficial values of the 100-year floodplain and regulatory floodway of the Walnut River (See section 3.2.2.12.2 of the EA).

PUBLIC PARTICIPATION IN THE EA PROCESS: In accordance with applicable regulations and policies, DOE sent a scoping notice on September 13, 2010, to federal, state, and local agencies; tribal governments; elected officials; businesses; organizations and special interest groups; providing 15 days to submit comments regarding the EA's scope. DOE published the Notice of Scoping online at the DOE Golden Field Office Public Reading Room and City of El Dorado website. The recommended avenues of inquiry within the letters were addressed within the final EA. In response to the scoping notices, a total of two comments were received; one from the Federal Aviation Administration (FAA) and one from the U.S. Environmental Protection Agency (EPA). These documents are included in Attachment D-1 in Appendix D of the EA.

In addition, DOE initiated consultation with the U.S. Fish and Wildlife Service (USFWS), the Kansas State Historical Society (KSHS), the Kaw Nation, the Kickapoo Tribe of Indians in Kansas, the Osage Nation of Oklahoma, the Prairie Band of Potawatomi Nation, the Sac and Fox Tribe of Missouri in Kansas and Nebraska, the Iowa Tribe of Kansas and Nebraska, and the Wichita and Affiliated Tribes. Appendix C of the final EA contains copies of consultation letters and responses, as well as other agency communications initiated as part of the final EA.

DOE published the draft EA online at the Golden Field Office Public Reading Room and the DOE NEPA Website for a 15-day review period which ended December 31, 2010[2]. Postcards announcing the Notice of Availability (NOA) were mailed to stakeholders (Attachment D-1 in Appendix D of the EA) and the NOA was published online on the DOE NEPA Website. The NOA was also published in the Wichita Eagle newspaper on December 14, 2010, and the El Dorado Times newspaper on December 15, 2010. DOE received four comments during the comment period from the USFWS, the Kansas Department of Agriculture (two comments) and the Kansas Water Office. The comments and responses to comments were incorporated into the final EA and are located in Appendix E of the EA.

DETERMINATION: Based on the information presented in the final EA (DOE/EA 1833), DOE determined that the Proposed Action would not constitute a major federal action significantly affecting the quality of the human environment within the context of NEPA. Therefore, the preparation of an EIS is not required and DOE is issuing this FONSI.

The applicant has committed to obtain and comply with federal, state and local permits and applicable regulations required for construction, operation and eventual decommissioning of the Wind Energy Project. Necessary permits and applicant committed measures can be found in Sections 2.4 and 2.5 of the EA and shall be incorporated and enforceable through DOE's financial assistance agreements.

The final EA is available at: http://www.ecre.energy.gov/golden/Reading Room.aspx and the DOE NEPA website at http://nepa.energy.gov.

For questions about this FONSI, contact:

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Issued in Golden, CO, this 11th day of February, 2011.

Carol Battershell
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[2] The comment period was extended for one additional day as the EA was not officially posted on line until December 16, 2010.