Department of Energy
Golden Field Office
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DOE/EA-1807

FINDING OF NO SIGNIFICANT IMPACT

HEARTLAND COMMUNITY COLLEGE'S WIND ENERGY PROJECT

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) 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 Heartland Community College Wind Energy Project (Wind Energy Project), a 1.5-megawatt wind turbine on the northern end of the Heartland Community College (HCC) campus, just south of I-55, in Normal, Illinois.

DOE has already made these funds available to the Illinois Department of Commerce and Economic Opportunity (DCEO) through the State Energy Program (SEP); however, DOE must complete review of the Wind Energy Project under the National Environmental Policy Act (NEPA) before DCEO may issue a subgrant to provide SEP funding for the construction of the Wind Energy Project.

Based on the information and analyses in the 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 Environmental Assessment (EA). The final EA is hereby incorporated by reference.

DOE prepared this FONSI in accordance with the *National Environmental Policy Act* (42 U.S.C. 4321 et seq.; NEPA), the Council on Environmental Quality NEPA regulations (40 CFR Parts 1500 to 1508), and DOE's NEPA implementing regulations (10 CFR Part 1021).

ENVIRONMENTAL IMPACTS: The 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 SEP funds for the Wind Energy Project, which DOE assumes for purposes of the EA would not be constructed or operated.

The proposed HCC Wind Energy Project would be constructed and operated on previously disturbed land located on the northern end of HCC's Normal campus. The Wind Energy Project is anticipated to offset approximately 500 kilowatts of the 815-kilowatt demand load HCC currently averages on an hourly basis.

The project would employ approximately 8 people during construction and produce 1 full time HCC staff position upon completion.

Based on the information presented within the EA, DOE concludes that the design, permitting, construction, operation, and eventual decommissioning of the Wind Energy Project would not have significant impacts to the following resources: land use, biological, noise, visual, transportation, water, geology and soils, cultural and historic, air quality and climate change, socioeconomics and environmental justice, utilities and energy, human health and safety, waste management, or impacts related to intentional destructive acts. The discussion below summarizes impacts for select resources areas that were notable but not significant.

Implementation of the project would permanently commit 0.2 acre and temporarily disturb 2 acres of previously disturbed land owned by HCC. The area is currently an unmaintained grass field, which has existed since development of the HCC campus. The area is not currently utilized for campus activities nor are there plans to utilize the area for campus development. The area immediately surrounding the tower location would continue to be used as undeveloped green space. The project would not result in any direct or indirect land use impacts or any 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 below Illinois Pollution Control Board (IPCB) nighttime noise standards. IPCB sets and enforces limits on allowable sound levels from and to different land classifications. Estimated maximum turbine noise levels at the nearest on campus buildings would range between 46 and 52 decibels (A-weighted; dBA), which is lower than EPA Day Night Average Sound Level guidelines of 55 to 65 dBA. Therefore, no significant noise impacts are expected. (See Section 3.2.2.3 of the EA)

Implementation of the project would introduce a new and dominant vertical feature into the existing viewshed. However, the visual impact of the wind turbine is reduced because of other already existing vertical elements in the area such as transmission lines and radio/cellular towers. The results of the shadow flicker study commissioned by HCC for this project indicates shadow flicker would affect the College's Child Development Lab building, located at the northeastern edge of the HCC campus, in May, June, and July. Impacts would not occur while children were in the facility, but rather during evening hours when the only occupants would be students at night classes. In addition, the building is equipped with window blinds, which would mitigate any potential impacts. Approximately 1,066 meters (3,500 feet) of Interstate 55 (I-55) would experience shadow flicker effects. The majority of the impacted roadway would experience less than 120 hours of shadow flicker in one year. (See Section 3.2.2.2.2 of the EA). No residences or other campus buildings are expected to experience shadow flicker effects. 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 HCC Wind Energy Project.

The project was designed to completely avoid residences that could be affected by the extremely low likelihood of tower collapse and ice throw. Appropriate safety training, precautions, and best management practices would be applied during construction, operation, and decommissioning of the turbine in an effort to reduce or eliminate health and safety issues. No residences or public access areas are located within the fall zone of the turbine (1.1 times the total turbine height). Any party who executes a project in the future within the fall zone would do so with full knowledge of the risks posed to human health and safety from HCC's Wind Energy Project. (See Section 3.2.2.7 of the EA)

There are no historic properties within the project site. The nearest historic property is located approximately 2 miles south/southeast of the project location. In accordance with Section 106 of the National Historic Preservation Act (NHPA), DOE determined that the project would have no adverse impacts on the subject property or other historic properties or cultural resources. The Illinois Historic Preservation Agency also concluded that no historic properties would be affected by the project. (See Section 3.2.2.4 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 EA indicates that the project may affect, but is not likely to adversely affect, the federally-listed Indiana bat and would have no adverse effects on other federal- or state-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 considered in the siting, design and installation plans for the HCC Wind Energy Project. HCC has also committed to conduct voluntary avian and bat mortality monitoring during the first post-construction fall migration season. This monitoring would provide data to the USFWS, Indiana Department of Natural Resources, and DOE on potential levels of avian and bat mortality associated with single turbines. Based on the analysis in the EA, and in consideration of USFWS recommendations, DOE determined that impacts to biological resources were not significant. (See Section 3.2.2.6 of the EA)

PUBLIC PARTICIPATION IN THE EA PROCESS: In accordance with the applicable regulations and policies, DOE prepared and sent a Notice of Scoping on July 16, 2010 to federal, state, and local agencies, tribal governments, elected officials, businesses, organizations, and special interest groups for comments regarding the scope of the EA. DOE published the Notice of Scoping online at the DOE Golden Field Office Public Reading Room.The scoping notice described DOE's Proposed Action and HCC's proposed project, and requested assistance in identifying potential issues that could be evaluated in the EA. The public comment period for scoping closed on August 2, 2010. In response to the scoping notice, DOE did not receive any comments from individuals, organizations, or agencies.

DOE posted the draft EA and the Notice of Availability (NOA) on the DOE Golden Field Office Reading Room website at http://www.eere.energy.gov/golden/Reading_Room.aspx and the DOE NEPA website at http://nepa.energy.gov for a 15-day review period which ended October 16, 2010. Postcards announcing the NOA were mailed to identified stakeholders. The NOA was also published in *The Pantagraph* newspaper on October 1, 2010, and posted in the HCC online newsletter. DOE received three comments during the comment period from the Illinois Department of Military Affairs, the Illinois Environmental Protection Agency, and the John Wesley Powell Audubon Society. Responses to all comments were incorporated into the final EA as Appendix E and, where appropriate, DOE made changes to the text of the final EA to address comments.

DETERMINATION: Based on the information presented in the Final EA (DOE/EA 1807), DOE determined that the Proposed Action would not constitute a major federal action that would significantly impact 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.

HCC's commitment to obtain and comply with all appropriate Federal, State, and local permits required for construction and operation of the wind turbine, and to minimize potential impacts through implementation of best management practices and various mitigation measures detailed in the final EA, shall be incorporated and enforceable through DOE's financial assistance agreement. Necessary permits and applicant committed measures are identified in Sections 2.4 and 2.5 of the EA.

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

For questions about this FONSI, please contact:

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Issued in Golden, CO, this 2nd day of February, 2011.

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