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DOE/EA-1782

MITIGATED FINDING OF NO SIGNIFICANT IMPACT AND FLOODPLAIN STATEMENT OF FINDINGS FOR THE UNIVERSITY OF DELAWARE LEWES CAMPUS ONSITE WIND ENERGY PROJECT

AGENCY: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: The U.S. Department of Energy (DOE) prepared the *Final Environmental Assessment of the University of Delaware Lewes Campus Onsite Wind Energy Project* (DOE/EA-1782), which analyzed the potential environmental impacts of providing the University of Delaware a $2.43 million grant of Congressionally Directed Federal Funding to assist in the financing of the construction and operation of a 2 megawatt wind turbine adjacent to the University's College of Earth, Ocean, and Environment Campus in Lewes, Delaware. The University undertook construction of the wind turbine at its own risk, before DOE had made the decision to fund construction activities.[1] As a result, the wind turbine was constructed before the Draft EA was released to the public and is currently operating. All discussion, analysis and findings related to potential impacts of construction, operation, and decommissioning of the wind turbine, and monitoring and mitigation measures, are contained in the Final EA and associated Mitigation Action Plan (MAP). The Final EA and MAP are hereby incorporated by reference.

The wind turbine is located in an existing dredge spoils area adjacent to the Lewes campus and is interconnected with underground electrical conduit directly into University facilities. The University will use the wind turbine for research and development as well as for providing electricity to the campus and to the electrical grid.

The wind turbine's presence and operation could result in occasional bird and bat collisions and fatalities, but based on the records of such fatalities at other wind turbine sites, this would not be expected to threaten populations of birds or bats in the area. However, the wind turbine is located adjacent to marshland habitat of the Great Marsh and along an important bird migration route near the coast of Delaware Bay; plus there is no information available on the abundance of bats at or in the immediate vicinity. So there is uncertainty about the number of birds and bats that may be killed by the operating wind turbine. Therefore, the University has committed to

[1] DOE has not previously authorized the use of Federal funds for construction of this project. If DOE had elected not to fund the Wind Energy Project, DOE would have been required to consider funding other proposals that meet the requirements of the Omnibus Appropriations Act of 2009 and the Energy and Water Development Appropriations Act of Fiscal Year 2010.

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preparing and implementing an Avian and Bat Protection Plan that will address monitoring protocols and adaptive management practices and to implementing adaptive management practices if mortality levels exceed certain levels which are yet to be determined. This FONSI is premised on the University fulfilling these commitments, which DOE will enforce through the NEPA Requirements clause of the financial assistance award.

Visual and sound effects are additional areas of potential adverse impacts that are of most concern to individuals living near the wind turbine. The size of the wind turbine and the unique characteristics of shadows that can be generated at times during its operation would present the potential for visual impacts in the area. Some individuals might find the visual contrast presented by the wind turbine to be unpleasant, and some might find the minor exposure to shadow flicker annoying. However, visual impacts of a single wind turbine at the proposed location are expected to be within generally accepted levels. Similarly, the sound levels that would be generated from a single operating wind turbine would be expected to be similar in magnitude to ambient conditions at the nearest private residences. DOE recognizes, however, that some individuals might be able to distinguish the unique sounds generated by a wind turbine from other ambient sounds and therefore might be more sensitive to them.

Elements of the Wind Energy Project are located in a base floodplain (that is, a 100-year floodplain). An existing access road into the wind turbine location received minor upgrades in an area where the road is within a flood zone. As identified in the EA, it was DOE's intent that the EA meet the requirements of 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." The conclusions from the floodplain assessment are that there was no reasonable alternative to using the existing access road and that upgrading its condition was necessary to move the wind turbine components into the construction site. It is further the assessment's conclusion that the road upgrades did not have adverse impacts on the natural and beneficial floodplain values associated with this location.

In addition to its Proposed Action, DOE analyzed a No-Action Alternative in which DOE would not provide funding to the University of Delaware to finance any of the Wind Energy Project costs. DOE assumed, for purposes of providing the decision maker with a useful comparison, that under the No-Action Alternative the wind turbine had not been constructed.

A Notice of Availability for the Draft EA was placed in *The News Journal* (Wilmington, Delaware) on June 18, 19, and 20, 2010 and in the *Cape Gazette* (Lewes, Delaware) on June 16, 2010. A notice announcing a 30-day extension to the public comment period was placed in *The News Journal* on July 16, 17, and 18, 2010 and in the *Cape Gazette* on July 20, 2010. The Draft EA was made available for public review and comment from June 18, 2010, through August 17, 2010, at the Lewes Public Library in Lewes, Delaware, and was mailed to individuals and agencies listed in Appendix A of the Draft EA. The Draft EA was also available at the following web site: http://www.nepa.energy.gov. DOE received 27 comments during the public comment

period for the Draft EA. In several instances there were multiple comments received from the same individual or agency, and several comments were requests for an extension to the public comment period or expressions of interest in the project. As described in the Final EA, some comments resulted in changes to EA text, while others raised general issues or concerns that were summarized in the EA and for which responses were provided.

DETERMINATION: DOE determines that providing funding to the University of Delaware to assist in the financing of the construction and operation of a wind turbine adjacent to the University's College of Earth, Ocean, and Environment Campus in Lewes, Delaware would not constitute a major Federal Action significantly affecting the quality of the human environment, as defined by the National Environmental Policy Act. This FONSI is conditioned on the University meeting its commitments in the Final EA, the MAP, and the NEPA Requirements clause of the financial assistance award.

The preparation of an environmental impact statement is not required and the DOE is issuing this Finding of No Significant Impact.

Copies of the Final EA are available at the DOE website at http://www.nepa.energy.gov or from:

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Issued in Washington D.C., this 2nd day of December 2010.

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