BEFORE THE POWER SITING BOARD OF THE STATE OF OHIO

In the Matter of the Application of Hardin Wind LLC	**)**	
Regarding its Certificate to Install and Operate a	**)**	**Case Number:**
Wind-Powered Electric Generation Facility in Hardin	**)**	**14-1557-EL-BGA**
and Logan Counties, Ohio.	**)**	

Members of the Board:

Chairman, Public Utilities Commission	Ohio House of Representatives
Director, Development Services Agency	Ohio Senate
Director, Department of Health	
Director, Department of Agriculture	
Director, Environmental Protection Agency	
Director, Department of Natural Resources	
Public Member	

To the Honorable Power Siting Board:

Please review the attached Staff Report of Investigation, which has been filed in accordance with Ohio Power Siting Board rules. The application in this case is subject to an approval process as required by Section 4906.03 of the Ohio Revised Code.

Sincerely,

Patrick Donlon
Director, Rates and Analysis
Public Utilities Commission of Ohio

OPSB STAFF REPORT OF INVESTIGATION

Case Number:	14-1557-EL-BGA
Project Name:	Scioto Ridge Wind Farm
Project Location:	Hardin and Logan counties
Applicant:	Hardin Wind, LLC
Application Filing Date:	September 11, 2014
Inspection Date:	February 20, 2015; April 30, 2015; August 26, 2015
Report Date:	September 3, 2015
Applicant's Waiver Requests:	none
Staff Assigned:	J. Whitis, M. Bellamy, G. Zeto

Application Description

On March 17, 2014, in case number 13-1177-EL-BGN, the Ohio Power Siting Board (Board) authorized Hardin Wind, LLC (Applicant) to construct a major utility facility, specifically a wind-powered electric generating facility consisting of up to 172 turbine sites with a combined generation capacity of 300 megawatts (MW).

In this application, the Applicant proposes to relocate five turbine sites (sites 25, 54, 62, 129, and 198), one meteorological tower, 13 access roads, and six collection lines. Additionally, the Applicant proposes to relocate the project collection substation onto a participating land owner's parcel closer to the interconnection substation. The reference to a participating land owner is a person who owns land and agrees to lease it to the Applicant for the purpose of development and use as part of the major utility facility site. The Applicant also proposes two new access roads and seven new collection lines. Finally, the Applicant proposes new technologies in the form of two additional turbine models.

The new turbine models proposed are the Suzlon S111 (2.1 MW) and the General Electric 103 (1.7 MW). The proposed Suzlon turbine would have a rotor diameter of 111 meters, a hub height of 90 meters, and an overall tip-height of 479 feet. The proposed GE turbine would have a rotor diameter of 103 meters, a hub height of 96 meters, and an overall tip-height of 486 feet. The overall project nameplate capacity of 300 MW approved in the original case would not change. Therefore, the actual number of turbines constructed would depend on the capacity of the turbine model selected in order to reach the total generating capacity of 300 MW.

As amended, the electric collection system would consist of approximately 86 miles of underground cable and the access roads would span 59.4 miles. The project collection substation would be relocated approximately two miles northeast of the originally certificated site, just west of County Road 75 and north of Township Road 200.

Application Review

Additional Turbine Models

The Applicant proposes to add two new turbine models to the list of acceptable turbines for this project. Staff's review of the Applicant's request regarding these additional turbine models focuses solely on the potential impacts associated with the turbine models. Based on Staff's review, adding the two new turbine models to the previously approved list of turbine models for the project would not require modifications or additions to the conditions in the original certificate and would not result in a material increase in environmental impact as compared to the original project.

As established in the original certificate in case number 13-1177-EL-BGN, the minimum setback determined by statute is equal to a horizontal distance, from the turbine's base to the property line of the wind farm property, equal to 1.1 times the total height of the turbine structure as measured from its base to the tip of its highest blade and be at least 750 feet in horizontal distance from the tip of the turbine's nearest blade at 90 degrees to the exterior of the nearest, habitable, residential structure, if any, located on an adjacent property.

Staff reviewed the safety manuals for the Suzlon S111 (2.1 MW) and GE 103 (1.7 MW) turbine models. Staff believes that the original conditions of the certificate adequately address safety considerations.

New Turbine Locations

The Applicant proposes to relocate five of the original 172 turbines. Turbine site 25 would be moved approximately 430 feet to the east, turbine site 129 would be moved approximately 490 feet to the north, and turbine site 198 would be moved approximately 200 feet to the west. Each of these relocations is proposed based upon the request of the original participating landowners who had the aforementioned turbine sites located on their property. In each instance, the turbine site would move from the property of the original participating landowner to the property of another participating landowner. Turbine sites 54 and 62 would be relocated east approximately 1,000 and 260 feet, respectively, to improve turbine spacing.

Staff notes that Ohio Revised Code sections 4906.20 and 4906.201 have been revised several times with regard to turbine setback requirements. In each version of the statute, if the location of a wind turbine does not meet the required setback, it may not be constructed unless the Applicant secures an executed waiver of the minimum setback requirement.

Collection Lines

The Applicant proposes to relocate six segments of underground collection line and install seven new collection line segments. These relocations would result in a reduction in length by nearly 744 feet, while the new collection line segments will add approximately 11,716 feet of collection line. Staff has reviewed the newly proposed collection line locations and additional collection line segment locations. The new locations would pose no material increase in environmental impact.

Access Roads

The Applicant proposes to relocate 13 access roads and to construct two additional access roads. The net result of the relocations and access road additions would be an overall reduction of access road distance by approximately 6,700 feet. Staff has reviewed the newly proposed access road locations and additional access road locations. The new locations would pose no material increase in environmental impact.

Meteorological Tower

The Applicant proposes to relocate one of its meteorological towers approximately 1.4 miles to the northeast. With this relocation, there would be no change in the number of meteorological towers associated with the project. Staff has reviewed the newly proposed meteorological tower location. The new location would pose no material increase in environmental impact.

Collector Substation

The Applicant proposes to relocate the project collector substation approximately two miles to the northeast. The new location would be next to the transmission line that has already been approved for the project. As a result of this revision, the Applicant would be able to avoid construction of approximately 2.2 miles of overhead 345 kilovolt transmission line. Staff has reviewed the newly proposed project collector substation location. The new location would pose no material increase in environmental impact.

Conclusion

The proposed addition of two new turbine models to the list of authorized models would not impact the location of any turbine sites or non-turbine associated facilities. Further, by adding these two new turbine models, the number of turbines installed would not exceed the number of turbine locations or the 300 MW maximum nameplate capacity certificated by the Board in the original application. Staff believes, if either of the two new turbine models were selected, the original conditions of the certificate are adequate to ensure that adverse environmental impacts would continue to be minimized for this project.

With the proposed relocation of five turbine sites and the relocation and addition of non-turbine associated facilities, the Applicant introduces substantial change in the location of these portions of the facility. However, none of the project revisions proposed by the Applicant result in a material increase in socioeconomic or environmental impact of the facility compared to the original certificate. The Applicant has modified the facility layout in a manner that continues to minimize impacts associated with the project.

Recommended Findings

Staff recommends that the Board approve the Application related to the two new wind turbine models and the new and relocated meteorological tower, collector substation, access roads, and collection lines, provided that the certificate continues to include the 28 conditions specified in the Opinion, Order, and Certificate for case number 13-1177-EL-BGN. Staff also recommends that the Board approve the relocation of the five turbines, subject to the Applicant's compliance with the applicable statutory setback requirements, as determined by the Board.

Recommended Conditions

1. The Applicant shall continue to adhere to all conditions of the Opinion, Order, and Certificate for the Scioto Ridge Wind Farm Project in case number 13-1177-EL-BGN, with the Suzlon S111 and the General Electric 103 turbines to be added as acceptable turbine types, and the new and relocated meteorological tower, collector substation, access roads, and collection lines.

Summary: Staff Report of Investigation electronically filed by Mrs. Yvonne W Cooper on behalf of Staff of OPSB