

Staff Report of Investigation

Scioto Ridge Wind Farm Project
345 kV Transmission Line and Substation

Case Numbers
13-1767-EL-BSB
and
13-1768-EL-BTX

December 24, 2013

John Kasich, Governor Todd Snitchler, Chairman



Power Siting
Board

In the Matter of Applications by the Hardin Wind LLC,)	
for a Certificate of Environmental Compatibility and)	Case Numbers
Public Need for the Scioto Ridge Wind Farm Project 345)	13-1767-EL-BSB
kV Transmission Line and Substation)	13-1768-EL-BTX
)	

Staff Report of Investigation

Submitted to the
OHIO POWER SITING BOARD

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BEFORE THE POWER SITING BOARD OF THE STATE OF OHIO

In the Matter of Applications by the Hardin Wind LLC, for a Certificate of Environmental Compatibility and Public Need for the Scioto Ridge Wind Farm Project 345 kV Transmission Line and Substation)) Case Numbers) 13-1767-EL-BSB) 13-1768-EL-BTX)
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Members of the Board:

Todd Snitchler, Chairman, PUCO
David Goodman, Director, ODSA
Dr. Ted Wymyslo, Director, ODH
David Daniels, Director, ODA
Scott Nally, Director, Ohio EPA
Jim Zehringer, Director, ODNR
Jeffery J. Lechak, PE, Public Member

Peter Stautberg, State Representative
Sandra Williams, State Representative
Bill Seitz, State Senator
Michael Skindell, State Senator

To the Honorable Power Siting Board:

In accordance with provisions of the Ohio Revised Code (ORC) Section 4906.07(C), and the Board's rules, the Staff has completed its investigation in the above matter and submits its findings and recommendations in this staff report for consideration by the Ohio Power Siting Board (Board).

The *Staff Report of Investigation* has been prepared by the Staff of the Public Utilities Commission of Ohio. The findings and recommendations contained in this report are the result of Staff coordination with the Ohio Environmental Protection Agency, the Ohio Department of Health, the Ohio Development Services Agency, the Ohio Department of Natural Resources, and the Ohio Department of Agriculture. In addition, the Staff coordinated with the Ohio Department of Transportation, the Ohio Historic Preservation Office, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the Federal Aviation Administration.

In accordance with ORC Sections 4906.07 and 4906.12, copies of this staff report have been filed with the Docketing Division of the Public Utilities Commission of Ohio on behalf of the Ohio Power Siting Board staff and served upon the Applicant or its authorized representative, the parties of record, and the main public libraries of the political subdivisions in the project area.

The staff report presents the results of the Staff's investigation conducted in accordance with ORC Chapter 4906 and the rules of the Board, and does not purport to reflect the views of the Board nor should any party to the instant proceeding consider the Board in any manner constrained by the findings and recommendations set forth herein.

Respectfully submitted,


Klaus Lambeck, Chief
Facilities, Siting, & Environmental Analysis Division

ACRONYMS

BES	bulk electric system
BMP	best management practices
dBA	decibels (A-weighted)
DOW	ODNR Division of Wildlife
DPL	Dayton Power & Light
FAA	Federal Aviation Administration
HDD	horizontal directional drill(ing)
kV	kilovolts
MW	megawatts
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OAC	Ohio Administrative Code
ODA	Ohio Department of Agriculture
ODSA	Ohio Development Services Agency
ODH	Ohio Department of Health
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
Ohio EPA	Ohio Environmental Protection Agency
OHPO	Ohio Historic Preservation Office
OPSB	Ohio Power Siting Board
ORC	Ohio Revised Code
PUCO	Public Utilities Commission of Ohio
SPCC	Spill Prevention, Containment, and Countermeasure
SWPPP	Storm Water Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service

I. POWERS AND DUTIES

OHIO POWER SITING BOARD

The Ohio Power Siting Board (Board or OPSB) was created in 1972, by amended Substitute House Bill 694. The Board is a separate entity housed within the Public Utilities Commission of Ohio (PUCO). The authority of the Board is outlined in Ohio Revised Code (ORC) Chapter 4906.

The Board is authorized to issue certificates of environmental compatibility and public need for the construction, operation, and maintenance of major utility facilities as defined in ORC Section 4906.01. Included within this definition are: electric generating plants and associated facilities designed for, or capable of, operation at 50 megawatts (MW) or more; electric transmission lines and associated facilities of a design capacity greater than or equal to 125 kilovolts (kV); and gas and natural gas transmission lines and associated facilities designed for, or capable of, transporting gas or natural gas at pressures in excess of 125 pounds per square inch. In addition, per ORC Section 4906.20, the Board authority applies to economically significant wind farms, defined in ORC 4906.13(A) as wind turbines and associated facilities with a single interconnection to the electrical grid and designed for, or capable of, operation at an aggregate capacity of five MW or greater but less than 50 MW.

Membership of the Board is specified in ORC Section 4906.02(A). The voting members include: the Chairman of the PUCO who serves as Chairman of the Board; the directors of the Ohio Environmental Protection Agency (Ohio EPA), the Ohio Department of Health (ODH), the Ohio Development Services Agency (ODSA), the Ohio Department of Agriculture (ODA), and the Ohio Department of Natural Resources (ODNR); and a member of the public, specified as an engineer, appointed by the Governor from a list of three nominees provided by the Ohio Consumers' Counsel. Ex-officio Board members include two members (with alternates) from each house of the Ohio General Assembly.

NATURE OF INVESTIGATION

The OPSB has promulgated rules and regulations, found in Chapter 4906 of the Ohio Administrative Code (OAC), which establish application procedures for major utility facilities and wind farms.

Application Procedures

Any person that wishes to construct a major utility facility or economically significant wind farm in this state must first submit to the OPSB an application for a certificate of environmental compatibility and public need.¹ The application must include a description of the facility and its location, summary of environmental studies, a statement explaining the need for the facility and how it fits into the Applicant's energy forecasts (for transmission projects), and any other information the OPSB may consider relevant.²

Within 60 days of receiving an application, the OPSB must determine whether the application is sufficiently complete to begin an investigation.³ If an application is considered complete, the

¹ ORC 4906.04 and 4906.20

² ORC 4906.10(A)(1) and 4906.20(B)(1)

³ OAC 4906-5-05(A)

Chairman of the OPSB will cause a public hearing to be held 60 to 90 days after the official filing date of the completed application. At the public hearing, any person may provide written or oral testimony and may be examined by the parties.⁴ Parties include the Applicant, the Board's staff, public officials, and any person who has been granted a motion of leave for intervention.⁵

Staff Investigation and Report

The Chairman will also cause each application to be investigated and a report published by the Board's staff not less than 15 days prior to the public hearing. The report sets forth the nature of the investigation and contains the findings and conditions recommended by Staff. The Board's Staff, which consists of career professionals drawn from the Staff of the PUCO and other member agencies of the OPSB, coordinates its investigation among the agencies represented on the Board and with other interested agencies such as the Ohio Department of Transportation (ODOT), the Ohio Historical Society, and the U.S. Fish and Wildlife Service (USFWS).

The technical investigations and evaluations are conducted under guidance of the OPSB rules and regulations in OAC Chapter 4906. The recommended findings resulting from the Staff's investigation are described in the staff report pursuant to ORC Section 4906.07(C). The report does not represent the views or opinions of the OPSB and is only one piece of evidence that the Board may consider when making its decision. Once published, the report becomes a part of the record and is served upon all parties to the proceeding and is made available to any person upon request.⁶ A record of the public hearings and all evidence, including the staff report, may be examined by the public at anytime.⁷

Board Decision

The OPSB may approve, modify and approve, or deny an application for a certificate of environmental compatibility and public need. If the OPSB approves, or modifies and approves an application, it will issue a certificate subject to conditions. The certificate is also conditioned upon the facility being in compliance with standards and rules adopted under the ORC.⁸

Upon rendering its decision, the OPSB must issue an opinion stating its reasons for approving, modifying and approving, or denying an application for a certificate of environmental compatibility and public need.⁹ A copy of the OPSB's decision and its opinion is memorialized upon the record and must be served upon all parties to the proceeding.¹⁰ Any party to the proceeding that believes its issues were not adequately addressed by the OPSB may submit within 30 days an application for rehearing.¹¹ An entry on rehearing will be issued by the OPSB within 30 days and may be appealed within 60 days to the Supreme Court of Ohio.¹²

⁴ ORC 4906.07

⁵ ORC 4906.08(A)

⁶ ORC 4906.07(C) and 4906.10

⁷ ORC 4906.09 and 4906.12

⁸ ORC 4906.10(A) and (B)

⁹ ORC 4906.11

¹⁰ ORC 4906.10(C)

¹¹ ORC 4903.10 and 4906.12

¹² ORC 4903.11, 4903.12, and 4906.12

CRITERIA

The recommendations and conditions in this *Staff Report of Investigation* were developed pursuant to the criteria set forth in ORC Section 4906.10(A), which reads, in part:

The Board shall not grant a certificate for the construction, operation, and maintenance of a major utility facility, either as proposed or as modified by the Board, unless it finds and determines all of the following:

- (1) The basis of the need for the facility if the facility is an electric transmission line or gas or natural gas transmission line;
- (2) The nature of the probable environmental impact;
- (3) That the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations;
- (4) In the case of an electric transmission line or generation facility, that the facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that the facility will serve the interests of electric system economy and reliability;
- (5) That the facility will comply with Chapters 3704., 3734., and 6111. of the Revised Code and all rules and standards adopted under those chapters and under Sections 1501.33, 1501.34, and 4561.32 of the Revised Code. In determining whether the facility will comply with all rules and standards adopted under Section 4561.32 of the Revised Code, the Board shall consult with the ODOT Office of Aviation of the Division of Multi-Modal Planning and Programs of the Department of Transportation under Section 4561.341 of the Revised Code.
- (6) That the facility will serve the public interest, convenience, and necessity;
- (7) In addition to the provisions contained in divisions (A)(1) through (A)(6) of this section and rules adopted under those divisions, what its impact will be on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929. of the Revised Code that is located within the site and alternative site of the proposed major utility facility. Rules adopted to evaluate impact under division (A)(7) of this section shall not require the compilation, creation, submission, or production of any information, document, or other data pertaining to land not located within the site and alternate site.
- (8) That the facility incorporates maximum feasible water conservation practices as determined by the Board, considering available technology and the nature and economics of the various alternatives.

II. APPLICATION

APPLICANT

Hardin Wind LLC (Applicant) is seeking a certificate of environmental compatibility and public need to construct a 345 kV electric transmission line and a Point of Interconnection (POI) switching substation in Hardin County, Ohio. These facilities would connect the associated Scioto Ridge Wind Farm (Case No. 13-1177-EL-BGN) to the existing AEP East Lima – Marysville 345 kV electric transmission line. Hardin Wind LLC is a wholly-owned subsidiary of EverPower Wind Holdings, Inc (EverPower). EverPower is a New York-based developer, established in 2002, that focuses on the development of utility-scale wind projects.

To date, EverPower has more than 2,200 MW of wind power projects under development in seven states. The company's 62.5 MW Highland project, located in Pennsylvania, became operational in August 2009. In November 2009, EverPower was purchased by Terra Firma, a private equity firm, and is poised to continue the growth of their wind portfolio.

HISTORY OF THE APPLICATION

Prior to formally submitting its application, the Applicant consulted with the Staff and representatives of the Board, regarding application procedures.

On August 27, 2013, the Applicant filed a pre-application notification letter regarding the project. The public informational meeting was held from 6:00 p.m. to 8:00 p.m. on May 29, 2013 at the American Legion Building located at 615 North Center Street, Belle Center, Ohio 43310.

On August 29, 2013, the Applicant filed a Motion to Consider Consolidating Case Nos. 13-1177-EL-BGN, 13-1767-EL-BSB, and 13-1768-EL-BTX.

On September 17, 2013, the Administrative Law Judge filed an Entry pertaining to the motion to consider consolidating Case Nos. 13-1177-EL-BGN, 13-1767-EL-BSB, and 13-1768-EL-BTX and grant motions for waivers.

On September 30, 2013, the Applicant filed a Motion for Waivers under OAC 4906-1-03. On June 28, 2013, the Applicant filed a Motion for Protective Order under OAC 4906-7-01(B)(8)(c).

On September 30, 2013, the Applicant filed its application for a certificate to construct the proposed 345 kV electric transmission line and interconnection substation in Hardin and Logan counties, Ohio.

On October 30, 2013, the Board Chairman issued a letter to the Applicant stating that the application, as supplemented with subsequent filings, had been found to comply with the requirements of Chapter 4906-01, et seq., OAC.

On October 30, 2013, the Administrative Law Judge issued an Entry scheduling a local public hearing for this case to take place on Wednesday, January 8, 2014 at 6:00 p.m., at the American Legion Building, 615 North Center Street, Belle Center, Ohio, 43310. The adjudicatory hearing will commence on Wednesday, January 22, 2014, at 10:00 a.m., 11th floor, Hearing Room 11-C, at the offices of the Public Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio, 43215-3793.

On November 13, 2013, the Ohio Farm Bureau Federation made a motion to intervene in the case.

This summary of the history of the application does not include every filing in case number 13-1767-EL-BSB and 13-1768-EL-BTX. The docketing record for this case, which lists all documents filed to date, can be found in the Appendix to this report and online at <http://dis.puc.state.oh.us>.

PROJECT DESCRIPTION

In this proceeding, the Applicant is seeking approval to construct a 345 kV transmission line and point of interconnection (POI) substation, which would connect Hardin Wind's proposed 300 MW Scioto Ridge Wind Farm to the existing AEP East Lima – Marysville 345 kV transmission line. The 345 kV electric transmission line, filed under OSPB case number 13-1768-EL-BTX, would deliver electricity generated by the Scioto Ridge Wind Farm from a collection substation to a POI substation located near the existing AEP East Lima-Marysville 345 kV transmission line. An application for a POI substation to interconnect the proposed 345 kV transmission line with the existing 345 kV transmission line was filed under OPSB case number 13-1767-EL-BSB. This staff report includes an analysis of both the transmission line and POI substation, jointly referred to as the “facility.” The Applicant proposes to commence construction during the fourth quarter of 2014 with the facility completed and placed in service by April 2015.

Preferred Transmission Line Route and POI Substation Site

The Preferred Transmission Line Route (“Preferred Route”) is approximately 4.8 miles long, traversing through leased land within McDonald Township. The route crosses County Road 65, Township Road 210, County Road 75, and County Road 180 east and northeast of the Scioto Ridge Wind Farm collection substation. The route heads northeast through McDonald Township to the Preferred POI Substation Site, crossing North Fork Miami River.

The Preferred POI substation site is located at the point of interconnection between the Preferred Transmission Line Route and the existing AEP East Lima – Marysville 345 kV transmission line. The site is approximately 467 square feet (5.0 acres), and would be enclosed by a chain link fence. This site is situated along the southeast side of the existing AEP East Lima – Marysville 345 kV transmission line approximately 700 feet north of the intersection of County Road 180 and County Road 85, McDonald Township, Hardin County. The site would be accessed from a new gravel-surfaced access road approximately 0.1 miles in length.

Alternate Transmission Line Route and POI Substation Site

The Alternate Transmission Line Route (“Alternate Route”) is approximately 5.3 miles long, traversing through partially leased land within McDonald and Taylor Creek Township. This route heads in an eastward direction cross-country, crossing County Road 65, Township Road 210, County Road 106, County Road 85, County Road 102, and County Road 200 to the Alternate POI substation site.

The Alternate POI substation site is located at the point of interconnection between the Alternate Transmission Line Route and the existing AEP East Lima – Marysville 345 kV transmission line. The site is approximately 467 square feet (5.0 acres), and would be enclosed by a chain linked fence. This site is situated along the southeast side of the existing AEP East Lima – Marysville 345 kV transmission line approximately 1200 feet north of County Road 200, Taylor Creek Township, Hardin County. The site would be accessed from a new gravel-surfaced access road approximately 0.3 miles in length.

Both transmission line routes share approximately 2,850 feet of right-of-way as they exit the Scioto Ridge Wind Farm collection substation. The transmission line routes and substation sites are depicted in the maps in the next section of this report.

Applicant's General Commitments

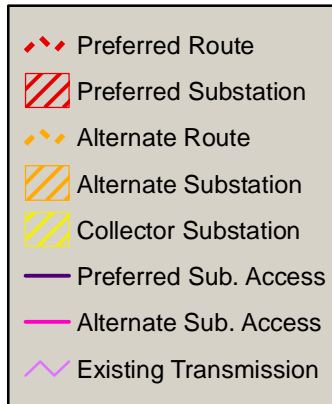
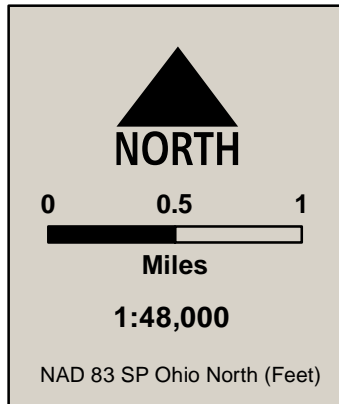
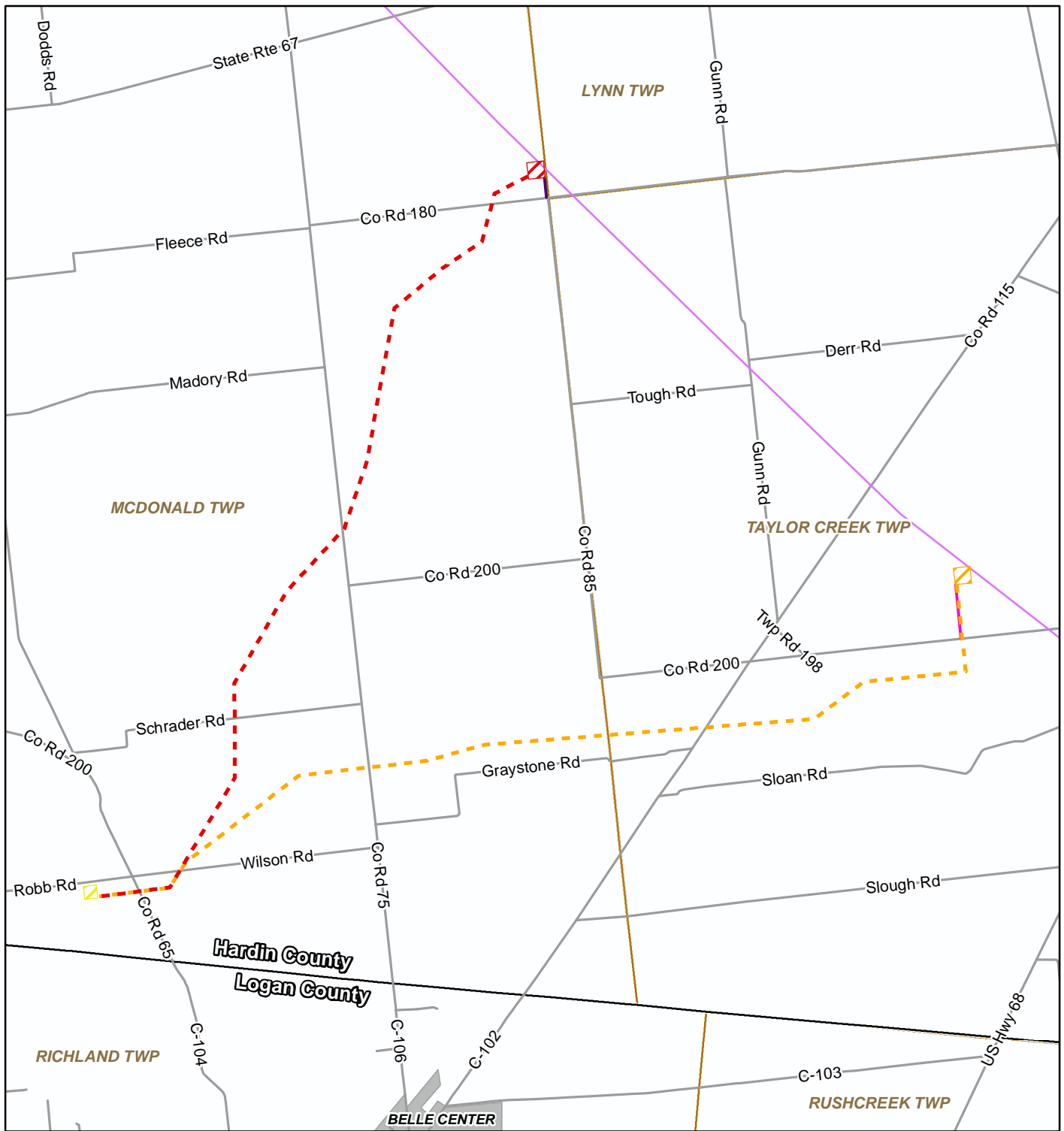
The Applicant would conduct a preconstruction conference prior to the start of any construction activities. Staff, the Applicant, and representatives of the primary contractor and all subcontractors for the facility would attend the preconstruction conference. The conference would include a presentation of the measures to be taken by the Applicant and contractors to ensure compliance with all conditions of the certificate, and discussion of the procedures for on-site investigations by Staff during construction. Prior to the conference, the Applicant would provide a proposed conference agenda for Staff review. The Applicant may conduct separate preconstruction meetings for each stage of construction. At least 30 days before the preconstruction conference, the Applicant would submit to Staff, for review and acceptance, one set of detailed engineering drawings of the final facility design, including the facility, temporary and permanent access roads, any crane routes, construction staging areas, and any other associated facilities and access points, so that Staff can determine whether or not the final facility design is in compliance with the terms of the certificate. The final facility layout would be provided in hard copy and as geographically referenced electronic data. The final design would include all conditions of the certificate and references at the locations where the Applicant and/or its contractors must adhere to a specific condition in order to comply with the certificate. If any changes are made to the facility layout after the submission of final engineering drawings, all changes would be provided to Staff in hard copy and as geographically referenced electronic data. All changes outside the environmental survey areas and any changes within environmentally-sensitive areas would be subject to Staff review and acceptance, to ensure compliance with all conditions of the certificate, prior to construction in those areas.

The Applicant would have in place a complaint resolution procedure to address potential public grievances resulting from facility construction and operation. The resolution procedure would provide that the Applicant will work to mitigate or resolve any issues with those who submit a formal or informal complaint and that the Applicant would immediately forward all complaints to Staff. The Applicant would provide the complaint resolution procedure to Staff, for review and confirmation that it complies with this commitment, prior to the preconstruction conference.

Within 60 days after the commencement of commercial operation, the Applicant would submit to Staff a copy of the as-built specifications for the entire facility. If the Applicant demonstrates that good cause prevents it from submitting a copy of the as-built specifications for the entire facility within 60 days after commencement of commercial operation, it may request an extension of time for the filing of such as-built specifications. The Applicant would use reasonable efforts to provide as-built drawings in both hard copy and as geographically-referenced electronic data.

As the information becomes known, the Applicant would provide to Staff: the date on which construction will begin; the date on which construction was completed; and the date on which the facility begins commercial operation.

All other commitments made by the Applicant have been addressed by Staff in the appropriate section of this report.

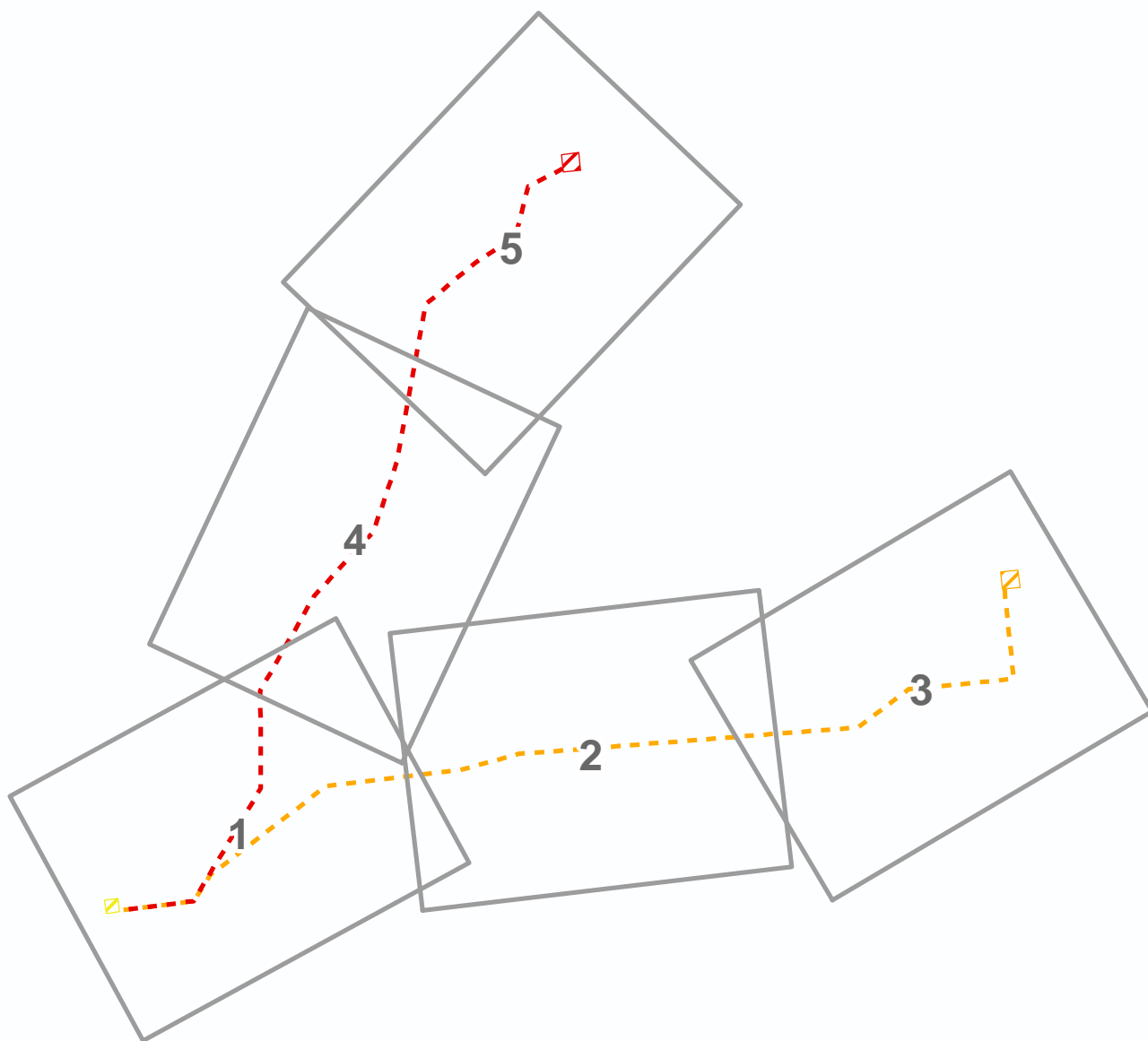


Overview Map

**13-1767-EL-BSB &
13-1768-EL-BTX**

**Scioto Ridge
Substation &
Transmission Line**

Maps are presented solely for the purpose of providing a visual representation of the project in the staff report, and are not intended to modify the project as presented by the Applicant in its certified application and supplemental materials.













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III. CONSIDERATIONS AND RECOMMENDED FINDINGS

In the matter of the applications of the Hardin Wind LLC, the following considerations and recommended findings are submitted pursuant to ORC Section 4906.07(C) and ORC Section 4906.10(A).

Considerations for ORC Section 4906.10(A)(1)

BASIS OF NEED

Purpose of Proposed Facility

The purpose of the proposed facility is to interconnect the Scioto Ridge Wind Farm to the regional bulk electric system.¹³

The Applicant is planning to gather the wind generators output at a collection station, where the voltage would be transformed from 34.5 kV to 345 kV. The energy would be delivered from the collection station, via the proposed single-circuit 345 kV transmission line, to the proposed POI substation. The POI substation would connect the proposed Scioto Ridge Wind Farm to the regional grid via American Electric Power's (AEP) East Lima-Marysville 345 kV transmission circuit. This section of the staff report focuses on reviewing the need for the proposed facility.

Long Term Forecast

The Applicant is not an electric distribution utility in Ohio. Therefore, they are not required to submit a long-term forecast report.

System Economy and Reliability

PJM Interconnection LLC (PJM) is the regional transmission organization charged with managing the regional transmission system and the wholesale electricity market. In addition, PJM administers the interconnection process of new generation to the system. Generators wanting to interconnect to the bulk electric transmission system located in the PJM control area are required to submit an interconnection application for review of system impacts. PJM has completed the Feasibility Study and System Impact Study, which show the reliability impacts that the Scioto Ridge Wind Farm would have on the electric grid.^{14,15} The PJM studies indicated no adverse effects by adding the switching substation or the single-circuit 345 kV transmission line to the regional bulk electric system. The PJM studies are discussed in ORC Section 4906.10(A)(4), Electric Grid. Without the proposed transmission line and substation, the Scioto Ridge Wind Farm would be unable to supply energy to the bulk electric system.

Conclusion

The proposed facility is not being constructed to relieve congestion or improve the electric grid. The facility is an integral part of the Scioto Ridge Wind Farm, which would be unable to carry

¹³ "Scioto Ridge Wind Farm, Case Number 13-1177-EL-BGN" Ohio Power Siting Board. www.opsb.ohio.gov

¹⁴ "Feasibility Study, Queue Number U2-072," PJM Interconnect. <http://pjm.com/planning/generation-interconnection/generation-queue-active.aspx>.

¹⁵ "System Impact Study, Queue Number U2-072," PJM Interconnect. <http://pjm.com/planning/generation-interconnection/generation-queue-active.aspx>.

the generation output to the local and regional grid without the proposed facility. Staff concludes that the basis of need has been demonstrated.

Recommended Findings

Staff recommends that the Board find that the basis of need for the facility has been demonstrated and therefore complies with the requirements specified in ORC Section 4906.10(A)(1), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

Considerations for ORC Section 4906.10(A)(2)

NATURE OF PROBABLE ENVIRONMENTAL IMPACT

Pursuant to ORC Section 4906.10(A)(2), the Board must determine the nature of the probable environmental impact of the proposed facility.

Socioeconomic Impacts

Demographics

The proposed facilities are located in Hardin County, in northwestern Ohio. According to the U.S. Census Bureau in 2010, the population of Hardin County was 32,058. In 2010, the population of Ohio was 11,536,504. The demographics of the project area are not expected to change dramatically over the next 20 years. While the population of Ohio is projected to increase between 2010 and 2030 (0.68 percent), Hardin County is projected to see a decrease in population over the same period of time (-2.2 percent).¹⁶ The facility is unlikely to limit future population growth or have a measurable impact on the demographics of the region.

Land Use

Land use in the vicinity of both the Preferred and Alternate Routes and POI substation sites are predominantly agricultural. Rural residences with associated lawns and scattered woodlots also account for a very small percentage of impacted area. Fifteen residences are located within 1,000 feet of the Preferred Route. Two residences are within 1,000 feet of the Preferred POI substation site. Twenty-five residences are located within 1,000 feet of the Alternate Route. No residences are within 1,000 feet of the Alternate POI substation site. There are no residential structures within 100 feet of either transmission line route or POI substation site. Staff recommends the Applicant avoid locating transmission line towers and poles on residential property to the extent practicable.

The Applicant does not intend for any residences or other buildings to be destroyed, acquired, or removed in order to construct the facility. Residences situated near the facility would be impacted by temporary ambient noise increases associated with construction. The current ambient noise levels associated with local roads and farming operations, and the distance to the residences, would mitigate overall noise impacts during construction. Duration of construction at any one location along either transmission line route is expected to be short. The Applicant will limit construction to daylight hours as a means of reducing construction-related noise impacts.

No sensitive land uses (for example, recreational or institutional) have been identified along either transmission line route or at either POI substation site. Temporary impacts to land use during facility construction could include damage to crops, fences, gates, subsurface drainage systems (tile lines), and/or temporarily block farmers' access to agricultural fields. Construction impacts would be temporary in nature, followed by site restoration, and confined to the properties of participating landowners. No extensive alteration of land uses would occur as a result of the facility.

¹⁶ "Ohio County Profile: Hardin County," Ohio Developmental Service Agency: Office of Research.

Cultural and Archaeological Resources

The Applicant conducted a cultural resources records review and assessment for the area within 1,000 feet on each side of the transmission line routes and POI substation sites. The records review did not identify any properties within the study area that are listed or determined eligible for listing in the National Register of Historic Places (NRHP). The records review revealed that two Ohio Historic Inventory Resources (OHI) structures are located in the study area for the Preferred Route and none within the study area for the Alternate Route. Both OHI structures are located near the north side of the facility, near the Preferred POI substation site, along County Road 180. The review did not identify previously recorded Ohio Archaeological Inventory (OAI) resources or cemeteries identified by the Ohio Genealogical Society (OGS) within the study corridor of either route or site. The cultural resource records review in the application (Exhibit D) concluded that the proposed facility has the potential to cause visual impacts to aboveground historic resources within the study area, and recognizes that the majority of the area has not been systematically surveyed for cultural resources.

In order to avoid potential impacts to cultural resources within the project area, Staff recommends that the Applicant finalize a systematic Phase I field study program for the impacts that this facility may have on archaeological and architectural resources within the study area, in conjunction with OPSB Staff, the Ohio Historical Preservation Office, and local officials. After such consultation, the Applicant would perform the applicable field work and develop avoidance and/or mitigation plans as necessary for impacts on cultural resources as a result of this facility.

Aesthetics

The addition of a new transmission line and substation would change the appearance of the rural setting and the new facility would be visible from roads and nearby residences. The facility is generally common and likely less noticeable to the viewer than the turbines associated with the wind farm. The Applicant has studied possible aesthetic effects of the facility and has designed the routing to mitigate impacts where practical. Busy roads and intersections have been avoided, along with other sensitive land uses. The Applicant has utilized open areas of agricultural land and existing access roads to minimize vegetative clearing, thus limiting aesthetic disruption of existing natural screening. The Applicant intends to install landscaping features around the POI substation site to reduce and soften the overall appearance of the facility. Finally, a single monopole design has been chosen to minimize the number of structures and present a uniform appearance.

Economics

The estimate of applicable intangible and capital costs for the facility has been filed under seal. The facility is located within McDonald and Taylor Creek townships in Hardin County. The Applicant indicates that an increase in tax revenue for the facility would be a portion of the increase in tax revenue from the proposed Scioto Ridge Wind Farm, which is anticipated at an increase between \$1,800,000 and \$2,700,000. The taxing districts include Hardin County and its townships of Lynn, McDonald, Roundhead, and Taylor Creek. Additionally the school districts of Indian Lake, Benjamin Logan Local, Upper Scioto Valley, and Kenton City would also be eligible for tax money from the facility.

All OPSB Staff recommendations for the requirements discussed in this section can be found under the **Socioeconomic Conditions** heading of the Recommended Conditions of Certificate.

Ecological Impacts

Surface Waters

Two study areas were evaluated for impacts to surface waters: the preferred study area, a 400-foot wide corridor along the Preferred Route centerline and the Preferred POI substation site; and the Alternate study area, a 400-foot wide corridor along the Alternate Route centerline and the Alternate POI substation site. The Preferred study area contains four streams, including approximately 1,693 linear feet of stream within the study area. The Preferred Route right-of-way contains three streams, including approximately 454 linear feet of stream within the identified 120-foot wide right-of-way. The Alternate study area includes three streams, with 1,565 linear feet within the 400-foot wide study area. No wetlands occur within 400 feet of the preferred study area, and two wetlands were identified in the alternate study area.

Impacts to streams and wetlands will be completely avoided by transmission line pole and substation placement. Construction and operation activities do not require crossing of streams or any in-water work. The Applicant would utilize existing farm roads and crop areas to access either side of surface water resources.

Additional measures to reduce water quality impacts would be taken through the development of a Storm Water Pollution Prevention Plan (SWPPP), as part of the Ohio Environmental Protection Agency's (Ohio EPA) National Pollutant Discharge Elimination System (NPDES) permit, to help control potential sedimentation, siltation, and run-off. The Applicant has committed to avoiding construction activities in class three primary headwater streams, exceptional warmwater habitat streams, warmwater habitat streams, or streams supporting threatened or endangered species, during fish spawning restricted periods (April 15 to June 30), unless a waiver is sought from and issued by the ODNR and approved by Staff releasing the Applicant from a portion of, or the entire restriction period. No ponds or lakes would be impacted by this facility during construction or operation.

The Applicant would use best management practices (BMPs) to minimize impacts to surface waters. Wetlands would be designated as "No equipment access areas" to prohibit the use of motorized equipment in unpermitted areas. A 50-foot buffer would be designated as a "restricted activity area" wherever facility construction traverses or comes in proximity to wetlands and streams. Restricted activities include: no deposition or accumulation of woody or construction debris, no herbicide applications, no degradation of stream banks, no equipment washing or refueling, and no storage of any petroleum or chemical material.

Threatened and Endangered Species

The Applicant requested information from the ODNR and the USFWS regarding state and federally listed threatened and endangered plant and animal species. Additional information was provided through field assessments and review of published ecological information. The following table of federal and state listed species known to occur in Hardin County reflects the results of the information requests, field assessments, and document review.

BIRDS				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA & MBTA ¹⁷	N/A	Known range, no records within ½ mile of proposed project area. No tree clearing should occur within 660 feet of a bald eagle nest or within any woodlot supporting a nest tree. Work within 660 feet of a nest or within the direct line-of-site of a nest would be restricted from January 15 to July 31.
upland sandpiper	<i>Bartramia longicauda</i>	N/A	Endangered	Known range, suitable habitat includes grasslands, grazed and ungrazed pasture, and hayfields. If this type of habitat would be impacted, construction must be avoided during the species nesting period of April 15 to July 31.

REPTILES & AMPHIBIANS				
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Eastern massasauga rattlesnake	<i>Sistrurus catenatus</i>	Candidate	Endangered	Known range, potential habitat exists within the boundary of the facility. A survey is recommended to determine if the species is likely to occur on site. The survey must be done by a professional herpetologist approved by ODNR Division of Wildlife.
copperbelly water snake	<i>Nerodia erythrogaster neglecta</i>	Threatened	Endangered	Known range. Due to the location, the lack of habitat present, and the type of work planned, this facility is not likely to impact this species.
four-toed salamander	<i>Hemidactylium scutatum</i>	N/A	Species of Concern	Known range. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.

¹⁷ Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

MAMMALS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered	Known range, bat mist netting surveys in 2010-2011 associated with Scioto Ridge Wind Farm resulted in the capture of Indiana bats within the vicinity of this project area.
northern long-eared bat	<i>Myotis septentrionalis</i>	Proposed Endangered	Species of Concern	Known range, bat mist netting surveys in 2010-2011 associated with Scioto Ridge Wind Farm resulted in the capture of northern long-eared bats within the project area.
badger	<i>Taxidea taxus</i>	N/A	Species of Concern	Known range. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.

INSECTS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Hine's emerald dragonfly	<i>Somatochlora hineana</i>	Endangered	Endangered	Known range, suitable habitat includes wetlands. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.

FRESH WATER MUSSELS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
clubshell	<i>Pleurobema clava</i>	Endangered	Endangered	Known range. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.
creek heelsplitter	<i>Lasmigona compressa</i>	N/A	Species of Concern	Known range. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.
pondhorn	<i>Unio merus tetralasmus</i>	N/A	Threatened	Known range. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.

purple lilliput	<i>Toxolasma lividus</i>	N/A	Endangered	Known range. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.
rayed bean	<i>Villosa fabalis</i>	Endangered	Endangered	Known range. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.

FISH

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
least darter	<i>Etheostoma microperca</i>	N/A	Species of Concern	Known range, general habitat includes streams and lakes. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.
Iowa darter	<i>Etheostoma exile</i>	N/A	Endangered	Known range, the Division of Wildlife recommends no in-water work from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. Due to the location, the habitat present, and the type of work planned, the facility is not likely to impact this species.

PLANTS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
heart-leaved plantain	<i>Plantago cordata</i>	N/A	Endangered	Known range. Due to the location and type of work planned, the facility is not likely to impact this species.
lesser bladderwort	<i>Utricularia minor</i>	N/A	Threatened	Known range. Due to the location and type of work planned, the facility is not likely to impact this species.
ravenfoot sedge	<i>Carex cruscovi</i>	N/A	Threatened	Known range. Due to the location and type of work planned, the facility is not likely to impact this species.

Suitable habitat for the Indiana bat, northern long-eared bat, eastern massasauga, bald, eagle, and the upland sandpiper may be impacted.

As tree-roosting species, during the non-winter months, the Indiana bat may be negatively impacted by tree clearing associated with construction and maintenance of the facility. Limiting tree-removal, particularly in areas identified as potential bat habitat, would help reduce potential impacts to these species. In order to reduce potential negative impacts to the Indiana bat, the Applicant would commit to seasonal cutting dates of September 30 through April 1 for removal of suitable Indiana bat habitat trees, if avoidance measures cannot be achieved. Staff would also recommend that the Applicant coordinate further with ODNR to determine if additional impact minimization and/or mitigation are necessary for this bat species.

A large portion of the facility is within a historic location for the Eastern massasauga. The township, in which this species is located, has numerous wetlands, which providing potential habitat for this rattlesnake. Therefore, Staff recommends a habitat survey to determine if Eastern massasaugas are likely to occur in the project area. The survey must be performed by a professional herpetologist approved by the DOW. If necessary, a presence/absence survey may be required. The Applicant would be required to coordinate further with ODNR regarding the habitat survey.

Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat would be impacted, construction must be avoided in this habitat during the species' nesting period of April 15 to July 31.

In order to avoid any impacts to bald eagles, Staff and the USFWS recommends that no tree clearing occur within 660 feet of a bald eagle nest or within any woodlot supporting a nest tree. Work within 660 feet of a nest or within the direct line-of-site of a nest should be restricted from January 15 through July 31. This would prevent disturbance of the eagles from the egg-laying period until the young fledge.

The USFWS recommends that the Applicant keep lighting at operation and maintenance facilities and substations, located within one half mile of the turbines, to the minimum required. Additionally, the USFWS recommends using lights with motion or heat sensors and switches to keep lights off when not required, lights should be hooded downward and directed to minimized horizontal and skyward illuminations, and the Applicant should minimize use of high-intensity lighting, steady-burning, or bright lights such as sodium vapor, quartz, halogen, or other bright spotlights. The USFWS requests that the Applicant address these guidelines in the lighting protocol for the substation.

The Applicant has committed to contacting Staff, ODNR, and the USFWS within 24 hours if state or federal threatened or endangered species are encountered during construction activities. Construction activities that could adversely impact the identified plants or animals would be halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and ODNR in coordination with the USFWS. Nothing in this commitment would preclude agencies having jurisdiction over the facility with respect to threatened or endangered species from exercising their legal authority over the facility consistent with law.

Vegetation

The majority of the vegetation within facility right-of-way is generally comprised of cultivated crops (corn, soybeans, etc.). The Applicant would use existing farm roads, where available, to limit the amount of crop area disturbed during construction. Construction would take place outside of growing seasons to minimize impacts on crops. Construction of the Preferred Route and POI substation site would require very limited clearing of individual trees and windrows, totaling approximately 0.25 acres. Construction of the Alternate Route and POI substation site would require the clearing of approximately 0.75 acres of deciduous forests. Trees removed during construction would be harvested for timber, if economically feasible, or chipped and left in place if not. No major impacts are expected to any specific plant species as a result of this facility.

The Applicant will have a Staff-approved environmental specialist on site during construction activities that may affect sensitive areas, as mutually agreed upon between the Applicant and Staff, and as shown on the Applicant's final approved construction plan. Sensitive areas include but are not limited to areas of vegetation clearing, designated wetlands and streams, and locations of threatened or endangered species or their identified habitat. The environmental specialist will be familiar with water quality protection issues and potential threatened or endangered species of plants and animals that may be encountered during construction.

The Applicant indicated that it will have a vegetation management plan pertaining to the construction of the proposed facility. Prior to commencement of construction, the Applicant would submit this plan to Staff, for review and confirmation that the plan complies with this commitment. The plan would identify all areas of proposed vegetation clearing for the facility, specifying the extent of the clearing, and describing how such clearing work will be done so as to minimize removal of woody vegetation. The plan would also describe how trees and shrubs around structures, along access routes, at construction staging areas, during maintenance operations, and in proximity to any other project facilities would be protected from damage. Priority would be given to protecting mature trees throughout the project area, and all woody vegetation in wetlands and riparian areas, both during construction and during subsequent operation and maintenance of all facilities; low growing trees and shrubs in particular would be protected wherever possible within the proposed right-of-way. The vegetation management plan would also explore various options for disposing of downed trees, brush, and other vegetation during initial clearing for the facility, and recommend methods that minimize the movement of heavy equipment and other vehicles within the right-of-way that would otherwise be required for removing all trees and other woody debris off site.

For both construction and future right-of-way maintenance, the Applicant will limit, to the greatest extent possible, the use of herbicides in proximity to surface waters, including wetlands along the right-of-way. Individual treatment of tall-growing woody plant species is preferred, while general, widespread use of herbicides during initial clearing or future right-of-way maintenance would only be used where no other options exist, and with prior approval from the Ohio EPA. Prior to commencement of construction, the Applicant would submit a plan to Staff for review and confirmation that it complies with this commitment, describing the planned herbicide use for all areas in or near any surface waters during initial facility construction and/or future right-of-way maintenance.

All OPSB Staff recommendations for the requirements discussed in this section can be found under the **Ecological Conditions** of the Recommended Conditions of Certificate.

Public Services, Facilities, and Safety

Roads and Bridge

The Preferred Route crosses the following County Roads (CR) and Town Highways (TWHY): CR 104, TWHY 210, TWHY 200, CR 75, and CR 180. The Alternate Route crosses CR 104, TWHY 210, CR 75, CR 115, and CR 200. Neither transmission line route crosses state or U.S. highways. The Alternate Route would cross an abandoned railroad right-of-way in Taylor Creek Township, just east of the crossing of CR115. Both substation sites would be accessed by new gravel-surfaced roads. The length of these new access roads would be approximately 0.1 mile for the Preferred POI substation site and approximately 0.3 mile for the Alternate POI substation site.

Access to the either transmission line right-of-way would be through the use of existing farm lanes and paths already in place and in use today. Additional stabilization of existing field roads with gravel may be required in order to improve the all-weather accessibility. Most of the existing field roads are approximately 12 feet in width. Very limited tree clearing is anticipated for the facility. The only substantive impacts would be to active agricultural areas. No new or improved bridges or stream crossings are planned. Access to all components of the facility would be via public roads, existing farm lanes, and over pasture or cultivated farmland.

Prior to commencement of construction activities that require transportation permits, the Applicant will obtain all such permits. The Applicant would coordinate with the appropriate authority regarding any temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination would include, but not be limited to, the county engineer, ODOT, local law enforcement, and local health and safety officials. This coordination would be detailed as part of a final traffic plan submitted to the Staff prior to the preconstruction conference for review and confirmation that it complies with this commitment.

The Applicant would restrict public access to the facility with appropriately placed warning signs or other necessary measures.

Noise

Most noise impacts associated with the facility would be confined to the 18 month construction period. The Applicant proposes to mitigate noise impacts by ensuring that construct equipment is properly maintained with installed mufflers.

The Applicant has committed to using generally accepted construction working hours. These hours would be limited to the hours of 7:00 a.m. to 7:00 p.m., or until dusk when sunset occurs after 7:00 p.m. Impact pile driving, hoe ram, and blasting operations, if required, would be limited to the hours between 10:00 a.m. to 5:00 p.m., Monday through Friday. Construction activities that do not involve noise increases above ambient levels at sensitive receptors would be conducted outside of daylight hours when necessary. The Applicant would notify property owners or affected tenants within the meaning of Rule 4906-5-08(C)(3), OAC, of upcoming construction activities including potential for nighttime construction activities.

Communications

Radio or television interference is not expected to occur from the operation of the facility.

All OPSB Staff recommendations for the requirements discussed in this section can be found under the **Public Services, Facilities, and Safety Conditions** of the Recommended Conditions of Certificate.

Recommended Findings

The Staff recommends that the Board find that the nature of the probable environmental impact has been determined for the proposed facility, and therefore complies with the requirements specified in ORC Section 4906.10(A)(2), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

Considerations for ORC Section 4906.10(A)(3)

MINIMUM ADVERSE ENVIRONMENTAL IMPACT

Pursuant to ORC Section 4906.10(A)(3), the proposed facility must represent the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, along with other pertinent considerations.

Route Selection

Due to the practical necessity to locate the transmission facilities in proximity to the proposed Scioto Ridge Wind Farm and the limited interconnection points, the Applicant was granted a waiver of fully developed information on the Alternate Route and the Alternate POI substation site. Major shifts in the interconnection point would significantly delay and/or add excessive costs to facility construction. The Applicant has engaged in a route selection process designed to minimize facility impacts by limiting: length, parcels crossed, sensitive ecological resources, proximity to residences, nearby sensitive land uses (ex: churches, hospitals, cemeteries, historic sites and parks) and vegetative clearing. The Applicant developed a Summary Comparison Table to quantitatively evaluate siting factors and aid in the selection of the Preferred Route and POI substation site.

Minimizing Impacts

Staff recommends the Preferred Route and POI substation site as the facility representing the minimum adverse environmental impact. The Applicant has sited and designed the facility to minimize potential impacts while meeting the need for the facility. Agricultural land accounts for approximately 99 percent of all land that would be impacted by construction of the proposed facility. Less than one percent (5.4 acres) of this land would be permanently converted into built facilities. According to the Cardno report, these impacts are primarily associated with the POI substation and access road, which are located within cultivated cropland. The Applicant is committed to minimizing impacts to agricultural land by siting facility components along field edges, keeping agricultural tracts intact, and restoring temporarily-impacted farmland to its original condition, and intends to repair or replace all damaged subsurface drainage features, remove construction debris, and compensate farmers for lost crops.

Regional land use plans call for conservation of farmland and economic diversity. The development of a transmission line and substation in the region is consistent with those goals. Avoiding or minimizing visual impacts to historic structures for transmission line and substation facilities is not practical. Because the cultural impact is not related to each individual structure, but rather the character of the community, Staff recommends a requirement for a mitigation plan that would promote the continued meaningfulness of the survey area's rural history. Offsetting the direct impact is the best approach to meeting the minimum adverse environmental impact for this facility. Impacts to archaeological resources are more practical to avoid and minimize. To ensure the facility meets the minimum adverse environmental impact, Staff recommends the Applicant be required to complete a Phase 1 cultural review and avoidance plan.

The proposed facility would have an overall positive impact on the local economy because of the increase in construction spending, wages, purchasing of goods and services, annual lease payments to the local landowners, and local tax revenues. The increase in local tax revenues would be between \$1,800,000 and \$2,700,000 annually.

The Applicant has committed to avoiding in-water work in any primary habitat streams, high quality habitat streams, or streams that support threatened or endangered aquatic species during the fish spawning restricted period of April 15 to June 30. No wetlands, ponds, or lakes would be impacted by this facility during construction or operation. The Applicant has committed to seasonal tree cutting dates of September 30 through April 1 for suitable Indiana bat habitat. As proposed, the facility may still have an adverse impact on Eastern massasauga rattlesnakes, bald eagles, and upland sandpipers. With the additional ecological requirements outlined in the recommended conditions, staff believes these conditions will ensure that the facility meets the minimum adverse environmental impact.

During construction of the facility, local, state, and county roads would experience a temporary increase in truck traffic due to deliveries of equipment and materials. A final routing plan would be developed through discussions with the Hardin and Logan county engineers and performed in conjunction with the special hauling permit process for ODOT.

No impacts to AM/FM radio, mobile phone, or radar systems are expected. The Applicant would mitigate TV reception impacts.

Conclusion

Staff concludes that the facility, as proposed, would result in both temporary and permanent impacts to the project area and surrounding areas. Due to its low potential to impact land use, cultural resources, streams, wetlands, communications, non-participating residents, the Applicant's commitments, and Staff's recommended conditions to mitigate these impacts, Staff concludes that the facility represents the minimal adverse environmental impact. With the recommended conditions, Staff concludes that minimum adverse environmental impacts would be realized.

Recommended Findings

The Staff recommends that the Board find that the proposed facility represents the minimum adverse environmental impact, and therefore complies with the requirements specified in ORC Section 4906.10(A)(3), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

Considerations for ORC Section 4906.10(A)(4)

ELECTRIC GRID

Pursuant to ORC Section 4906.10(A)(4), the Board must determine that the proposed facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems, and that the facility will serve the interests of electric system economy and reliability.

The purpose of this section is to evaluate the grid impacts of the facility. The proposed facility would be constructed to interconnect the Scioto Ridge Wind Farm, (OPSB Case No. 13-1177-EL-BGN), to the regional bulk electric system.¹⁸ The grid impacts discussed in this section are based upon the system impact study performed by PJM for the Scioto Ridge Wind Farm.

PJM Interconnection Analysis

PJM Interconnection LLC (PJM) is the regional transmission organization charged with managing the regional transmission system and the wholesale electricity market. In addition, PJM administers the interconnection process of new generation to the system. Generators wanting to interconnect to the bulk electric transmission system located in the PJM control area are required to submit an interconnection application for review of system impacts. Hardin Wind LLC submitted the proposed Scioto Ridge Wind Farm to PJM on July 23, 2008. PJM gave the application a queue number of U2-072.

North American Electric Reliability Corporation Standard Requirements

The North American Electric Reliability Corporation (NERC) is responsible for the development and enforcement of the federal government's approved reliability standards, which are applicable to all owners, operators, and users of the bulk power system. NERC requires planners of the bulk electric transmission system to meet Reliability Standards TPL-001-0.1 through TPL-004-0a under transmission outage conditions for categories A, B, C, and D contingencies.¹⁹ According to NERC, a contingency is an unexpected failure or outage of a system component, such as a generator, transmission line, circuit breaker, switch, or other electrical element. Below is a list of the NERC categories and their meanings:

- Category A (no contingencies, normal system conditions);
- Category B (single contingency outage, n-1), the planning authority and transmission planner shall demonstrate that the interconnected transmission system can operate to supply projected customer demands and firm transmission service at all demand levels over the range of forecast system demand;
- Category C (multiple contingency outages, n-1-1), the planning authority shall demonstrate that the interconnected transmission system can operate to supply projected customer demands and firm transmission service at all demand levels over the range of forecast system demand and may rely upon the controlled interruption of customers or curtailment of firm transmission service; and,
- Category D (extreme events resulting in multiple elements removed or cascading out of service), the planning authority shall demonstrate that the interconnected transmission system

¹⁸ "Scioto Ridge Wind Farm, Case Number 13-1177-EL-BGN" Ohio Power Siting Board. www.opsb.ohio.gov.

¹⁹ "Reliability Standards, Transmission Planning (TPL-001-0.1-TPL-004-0a)," North American Electric Reliability Corporation. <http://www.nerc.com/pa/Stand/Pages/ReliabilityStandards.aspx>.

is evaluated for the risks and consequences of a number of each of the extreme contingencies that are listed in the standard.

PJM Network Impacts

PJM analyzed the bulk electric system (BES) with the Scioto Ridge Wind Farm interconnected to the bulk power system, through the proposed facility. NERC reliability standards TPL-001-0.1 through TPL-004-0a were used to meet transmission outage compliance. A 2013 summer peak power flow model was used to evaluate the regional reliability impacts. The regional studies revealed no problems under normal system conditions and during the loss of one or more BES elements. The results of the PJM System Impact Study for the AEP local and PJM regional footprint are as follows.²⁰

AEP Local Network Impacts

AEP planning criteria requires the transmission system meets single contingency performance criteria. The AEP local system was studied for impacts at both full energy output (100 MW) and the capacity portion (13MW). No problems were revealed while operating at the full output or capacity portion. The below tables show the impacts on the AEP system with the Scioto Ridge Wind Farm in-service.

Local And Regional System Impacts

Category A - No Contingencies and System Normal	
<i>Plant Output: Capacity Level - 39 MW</i>	No problems identified
<i>Plant Output: Maximum - 300 MW</i>	No problems identified
Category B - Single Contingency Outage	
<i>Plant Output: Capacity Level - 39 MW</i>	No problems identified
<i>Plant Output: Maximum - 300 MW</i>	No problems identified
Category C and D - Multiple Contingency Outages	
<i>Plant Output: Capacity Level - 39 MW</i>	No problems identified
<i>Plant Output: Maximum - 300 MW</i>	No problems identified

²⁰ “System Impact Study, Queue Number U2-072,” PJM Interconnect. <http://pjm.com/planning/generation-interconnection/generation-queue-active.aspx>.

Contribution to a Previously Identified Overloads – Network Impacts

PJM studied overloading that the proposed Scioto Wind Farm may have on earlier projects in the PJM Queue. The study revealed two overloads. The table below shows the two overloads and their required reinforcements. The Applicant would be responsible for a portion of the costs to upgrade the overloaded lines.

Contribution to Previously Identified Overloads

(2013 Summer Peak Loading, Plant Output at Maximum - 300 MW)

Overloaded Line	Contingency Outage	MW Contributed to Emergency Rating
Sammis-Wylie Ridge 345 kV	Breaker Outage	22.24 MW

Reinforcement to Mitigate Previously Identified Overloads

- Upgrades would begin when an Interconnection Service Agreement (ISA) and a Construction Service Agreement (CSA) is signed.
- Allegheny Power Systems Upgrade: Reconductor 6.9 miles of the Sammis-Wylie Ridge 345 kV transmission line. Upgrade line trap, risers, and connectors at Wylie Ridge Station.
- FirstEnergy Upgrade: Replace backup line relaying and metering on the 345 kV Wylie Ridge line at the Sammis Station. Reconductor 4.39 miles of the Sammis-Wylie Ridge 345 kV transmission line.

Overloaded Line	Contingency Outage	MW Contributed to Emergency Rating
Belmont 765/500 kV Transformer	Line, Transformer, and Breaker Outages at Kammer 765 kV Station	37.70 MW

Reinforcement to Mitigate Previously Identified Overloads

- Upgrades would begin when an ISA and CSA is signed.
- Allegheny Power Systems Upgrade: Reconductor 2.94 miles of the Sammis-Wylie Ridge 345 kV transmission line. Upgrade line trap Wylie Ridge Station.
- FirstEnergy Upgrade: Replace backup line relaying and metering on the 345 kV Wylie Ridge line at the Sammis Station.
- Install a second transformer and related equipment at Belmont Station.

Short Circuit Analysis

The short circuit analysis study, which is part of the System Impact Study, evaluates the interrupting capabilities of circuit breakers impacted by the proposed wind farm addition.²¹ The results identified no short circuit problems.

Stability Analysis

The stability analysis study, which is part of the System Impact Study, evaluates the ability of the power system to withstand disturbances (contingencies) and maintain stable operation of the bulk electric system.²² The study was run at 2013 summer light load and peak load conditions, with the plant at maximum output. No stability problems were identified.

²¹ "System Impact Study, Queue Number U2-072," PJM Interconnect. <http://pjm.com/planning/generation-interconnection/generation-queue-active.aspx>.

²² "System Impact Study, Queue Number U2-072," PJM Interconnect. <http://pjm.com/planning/generation-interconnection/generation-queue-active.aspx>.

Conclusion

PJM analyzed the bulk electric system, with Scioto Ridge Wind Farm interconnected to the transmission grid, for compliance with AEP, NERC, and PJM reliability criteria. The PJM studies indicated no adverse effects by adding the switching substation or the single-circuit 345 kV transmission line to the regional bulk electric system.

Studies did reveal two overloads that the proposed Scioto Wind Farm may have earlier projects in the PJM Queue. The Applicant would be responsible for a portion of the costs to upgrade their percentage of overloads.

The proposed facility would allow the Scioto Ridge Wind Farm to provide reliable generation to the bulk electric transmission system and is consistent with plans for expansion of the regional power system, and would serve the interests of electric system economy and reliability. The proposed facility would serve the public interest, convenience, and necessity by providing additional electrical generation to the regional transmission grid.

In a Notice of Filing, docketed on December 13, 2013, the Applicant states that it will not commence any construction of the facility until it has a signed Interconnection Service Agreement with PJM, which includes construction, operation, and maintenance of system upgrades necessary to reliably and safely integrate the proposed generating facility into the regional transmission system. The Applicant will provide a letter stating that the Agreement has been signed or a copy of the signed Interconnection Service Agreement to Staff.

Recommended Findings

The Staff recommends that the Board find that the proposed facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems, and that the facility would serve the interests of electric system economy and reliability. Therefore, the facility complies with the requirements specified in ORC Section 4906.10(A)(4), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

Considerations for ORC Section 4906.10(A)(5)

AIR, WATER, SOLID WASTE, AND AVIATION

Pursuant to ORC Section 4906.10(A)(5), the facility must comply with specific sections of the ORC regarding air and water pollution control, withdrawal of waters of the state, solid and hazardous wastes, and air navigation.

Air

The operation of the facility would not produce air pollution; therefore, there are no applicable air quality limitations, National Ambient Air Quality Standards (NAAQS), prevention of significant deterioration increments, and no need for a Permit-to-Install or a Permit-to-Install and Operate an air pollution source from the Ohio EPA.

The Applicant would comply with fugitive dust rules by the use of water spray or other appropriate dust suppressant measures whenever necessary.

Construction and operation of the facility, as described in the application and data request responses, and in accordance with the conditions included in this staff report, would be in compliance with air emission regulations in ORC Chapter 3704, and the rules and laws adopted under this chapter.

Water

Neither construction nor operation of the proposed facility would require the use of significant amounts of water, so requirements under ORC 1501.33 and 1501.34 are not applicable to these projects.

The Applicant has indicated that it will apply for an Ohio National Pollutant Discharge Elimination System (NPDES) construction storm water general permit and seek project coverage under Ohio EPA Permit No. OHC000004. In order to obtain the NPDES, an Ohio EPA Notice of Intent (NOI) application would be submitted 21 days before construction. A Storm Water Pollution Prevention Plan (SWPPP) will be submitted with the NOI.

Facility infrastructure within the Preferred Route right-of-way is anticipated to include 34 mono-pole structures with permanent foundations, seven stabilized construction entrances, and nine temporary stringing locations. Each mono-pole would have a temporary footprint of approximately 1,600 square feet during construction for the required construction vehicles and cranes. Poles would be directly embedded in soil with appropriate backfill materials as required. Each pole is anticipated to have a maximum permanent footprint of 13.6 square feet. Nine temporary wire stringing locations are anticipated, approximately 2,400 square feet each, in order to support pulling equipment and trailers.

The Preferred POI substation site is anticipated to have a permanent footprint of five acres. All construction activities for the substation are planned to occur within the respective permanent footprint. Access to all locations is anticipated to be by public roads, farm field roads, and over pasture or cultivated farmland. If temporary access roads are required, a 12-foot wide path would be established from a stabilized construction entrance to the right-of-way and sensitive environmental resources (wetlands, streams, etc.) would be avoided during construction

activities. Approximately 8.5 acres of temporary impacts to land use (primarily agriculture) is anticipated during construction of the Preferred Route and POI substation site. The facility would not significantly alter flow patterns or erosion and, given the small increase in impervious surface within leased land, no significant modifications in the direction, quality, or flow patterns of storm water run-off are anticipated.

At least seven days before the preconstruction conference, the Applicant will submit to Staff, for review and acceptance, a copy of all NPDES permits including its approved SWPPP, approved SPCC procedures, and its erosion and sediment control plan. Additionally, the Applicant has committed to addressing any soil issues through proper design and adherence to the Ohio EPA BMPs related to erosion and sedimentation control.

The Applicant will remove all temporary gravel and other construction staging area and access road materials after completion of construction activities, as weather permits, unless otherwise directed by the landowner. Impacted areas would be restored to preconstruction conditions in compliance with the NPDES permits obtained for the facility and the approved SWPPP created for this facility. The Applicant would not dispose of gravel or any other construction material during or following construction of the facility by spreading such material on agricultural land. All construction debris and all contaminated soil would be promptly removed and properly disposed of in accordance with Ohio EPA regulations.

The Applicant will provide a copy of any floodplain permit required for construction of this facility, or a copy of correspondence with the floodplain administrator showing that no permit is required, to Staff within seven days of issuance or receipt by the Applicant.

With these measures, construction and operation of this facility would comply with requirements of ORC Chapter 6111, and the rules and laws adopted under this chapter.

Solid Waste

Waste generated during construction would consist of conductor scrap, construction material packaging (including: pallets, cartons, boxes, insulator crates, conductor reels, and wrapping), wire scraps, and used storm water erosion control materials. The solid waste generated during the construction or operation of the facility would be secured and removed from the project area and disposed of at a licensed disposal facility. With these measures, the Applicant's solid waste disposal plans comply with solid waste disposal requirements in ORC Chapter 3734 and the rules and laws adopted under this chapter.

Aviation

There are two small regional airports located in the vicinity of the project area: Hardin County Airport, located south of Kenton, and Bellefontaine Regional Airport, located north of the city of Bellefontaine. There are also many smaller municipal or private airfields in proximity to the project area, used primarily for recreational purposes.

For the transmission line structures, the pole heights would range from 107.5 feet to 116.5 feet. The A-frame would be the tallest structure associated with the substation, which would not exceed 100 feet in height. No structures associated with the facility are anticipated to exceed

120 feet in above ground height, and therefore FAA / ODOT jurisdiction would not apply. The FAA has recommended that the Applicant utilize the Notice Criteria Tool for the proposed structures to determine if further coordination is necessary. The Applicant utilized the FAA Notice Criteria Tool for all current transmission line pole locations. All poles associated with this facility were determined to not exceed Notice Criteria. The information from the FAA Notice Criteria Tool was submitted to FAA and ODOT to determine if further action is needed.

In accordance with ORC Section 4561.32, Staff contacted the ODOT Office of Aviation during review of this application in order to coordinate review of potential impacts the facility might have on public use airports. The Applicant filed with the ODOT Office of Aviation and received notices of clearance for all poles associated with this case. When creating the recommended conditions for the certificate, Staff implemented FAA and/or ODOT Office of Aviation recommendations where deemed justified through conversation and exchange with subject matter experts.

Staff recommends that the Applicant be required to notify, in writing, any airport owner, whether public or private, whose operations, operating thresholds/minimums, or landing/approach procedures and/or vectors are expected to be altered by the siting, operation, or maintenance of the facility.

The Applicant has committed to obtaining and complying with federal or state laws and regulations prior to the commencement of construction activities that require such permits or authorizations. The Applicant would also provide copies of permits and authorizations, including all supporting documentation, to Staff within seven days of issuance or receipt by the Applicant. Furthermore, the Applicant would provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference.

All OPSB Staff recommendations for the requirements discussed in this section can be found under the **Air, Water, Solid Waste, and Aviation Conditions** heading of the Recommended Conditions of Certificate.

Recommended Findings

The Staff finds that the proposed facility complies with the requirements specified in ORC Section 4906.10(A)(5), provided that any certificate issued by the Board for the certification of the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

Considerations for ORC Section 4906.10(A)(6)

PUBLIC INTEREST, CONVENIENCE, AND NECESSITY

Pursuant to ORC Section 4906.10(A)(6), the Board must determine that the facility will serve the public interest, convenience, and necessity.

Hardin Wind LLC, a wholly owned subsidiary of EverPower Wind Holdings would permit, own, operate, and maintain all structures and equipment associated with facility. The facility would serve to deliver electricity generated by the Scioto Ridge Wind Farm to the regional power grid, and would not be constructed unless the Scioto Ridge Wind Farm is constructed.

Financial Data

The estimate of applicable intangible and capital costs for the facility has been filed under seal. The facility is located within McDonald and Taylor Creek townships in Hardin County. The increase in tax revenue for the facility, as a result of the placement, would be the same as those anticipated for the Scioto Ridge Wind Farm. Assuming an aggregate nameplate capacity of 300 MW, the increase in local tax revenues would be between \$1,800,000 and \$2,700,000 for the facility. The taxing districts include Hardin County and its townships of Lynn, McDonald, Roundhead, and Taylor Creek. Additionally the school districts of, Indian Lake, Benjamin Logan Local, Upper Scioto Valley, and Kenton City would also be eligible for tax money from the facility.

Safety

The Applicant has committed to complying with safety standards set by the Occupational Safety and Health Administration (OSHA), the Public Utilities Commission of Ohio, and equipment specifications. The Applicant has designed the facility to meet or exceed the requirements of the National Electric Safety Code.

EMF

Transmission lines, when energized, generate electromagnetic fields (EMF). Laboratory studies have failed to establish a strong correlation between exposure to EMF and effects on human health. There have been concerns that EMF may have impacts on human health.

Because these concerns exist, the Applicant is required to compute the EMF associated with the new circuits. The fields were computed based on the maximum loadings of the transmission lines, which would lead to the highest EMF values that might exist at the proposed substation sites and along the transmission line routes. The magnetic fields are a function of the electric current, the configuration of the conductors, and the distance from transmission lines. The electric field is a function of the voltage, the line configuration, and the distance from a substation.

The magnetic fields were estimated at both substation fences to be less than 179.39 milligauss, and the electric field would be less than 4.817 kilovolt/meter. The magnetic field output is comparable to that of common household appliances; for example, an electric toothbrush can have a magnetic field output of 742 milligauss. Electric fields are produced by voltage or electric

charge. For example, a plugged in lamp cord produces an electric field, even if the lamp is turned off. The EMF profiles for the proposed facility are listed in the application.²³

Daily current load levels would normally operate below the maximum load conditions, thereby further reducing nominal EMF values. The electric fields are easily shielded by physical structures such as the walls of a house, foliage, or earthen berms. The magnetic fields generated by the facility are attenuated very rapidly as the distance from them increases. Past experience has shown that within 100 feet of the fence line of the substation, the magnetic field is not of sufficient strength to be measureable because the background effects overwhelm the measurements. The Applicant will use a compact design (mono-pole tangent structures) that reduces EMF in comparison to other installations.

Recommended Findings

Staff recommends that the Board find that the proposed facility would serve the public interest, convenience, and necessity, and therefore complies with the requirements specified in ORC Section 4906.10(A)(6), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

²³ *Application to the Ohio Power Siting Board for a Certificate of Environmental Compatibility & Public Need for the Scioto Ridge Transmission Line and Scioto Ridge Point of Interconnect Substation* (Application), Volume 1. "Figures 12-15" edr Companies, September 2012.

Considerations for ORC Section 4906.10(A)(7)

AGRICULTURAL DISTRICTS

Pursuant to ORC Section 4906.10(A)(7), the Board must determine the facility's impact on the agricultural viability of any land in an existing agricultural district within the project area of the proposed utility facility. The agricultural district program was established under ORC Chapter 929. Agricultural district land is exempt from sewer, water, or electrical service tax assessments. Agricultural land can be classified as an agricultural district through an application and approval process that is administered through local county auditors' offices. Eligible land must be devoted exclusively to agricultural production or be qualified for compensation under a land conservation program for the preceding three calendar years. Furthermore, eligible land must be at least ten acres or produce a minimum average gross annual income of \$2,500.

Along the Preferred Route, two poles would be placed within one agricultural district parcel. Construction of the Preferred POI substation site would not affect any agricultural district parcel.

Construction-related activities such as vehicle traffic and materials storage could lead to temporary reductions in farm productivity caused by direct crop damage, soil compaction, broken drainage tiles, and reduction of space available for planting. The Applicant has discussed and approved the siting of facility components with landowners in order to minimize impacts, and also intends to take steps in order to address such potential impacts to farmland, including: repairing all drainage tiles damaged during construction, removing construction debris, compensating farmers for lost crops, and restoring temporarily impacted land to its original use. After construction, farm production could resume underneath the transmission line. With the exception of the substation facility, temporary impacts to nearby agricultural land could return to farming use after construction.

Recommended Findings

The Staff recommends that the Board find that the impact of the proposed facility on the viability of existing agricultural land in an agricultural district has been determined, and therefore complies with the requirements specified in ORC Section 4906.10(A)(7), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

Considerations for ORC Section 4906.10(A)(8)

WATER CONSERVATION PRACTICE

Pursuant to ORC Section 4906.10(A)(8), the proposed facility must incorporate maximum feasible water conservation practices, considering available technology and the nature and economics of the various alternatives.

Because the facility will not require the use of water for operation, water conservation practice as specified under ORC 4906.10(A)(8) is not applicable to the facility.

Recommended Findings

The Staff recommends that the Board find that the proposed facility would incorporate maximum feasible water conservation practices, and therefore complies with the requirements specified in ORC Section 4906.10(A)(8).

IV. RECOMMENDED CONDITIONS OF CERTIFICATE

Following a review of the applications filed by the Hardin Wind LLC, and the record compiled to date in this proceeding, the Staff recommends that a number of conditions become part of any certificate issued for the proposed facility. These recommended conditions may be modified as a result of public or other input received subsequent to issuance of this report. At this time the OPSB Staff recommends the following conditions:

GENERAL CONDITIONS

Staff recommends the following conditions to ensure conformance with the proposed plans and procedures as outlined in the case record to date, and to ensure compliance with all conditions listed in this staff report:

- (1) That the facility be installed at the Applicant's Preferred Route and POI substation site as presented in the application filed on May 4, 2011, and as modified and/or clarified by the Applicant's supplemental filings and further clarified by recommendations in this *Staff Report of Investigation*.
- (2) That the Applicant shall utilize the equipment and construction practices as described in the application and as modified and/or clarified in supplemental filings, replies to data requests, and recommendations in this *Staff Report of Investigation*.
- (3) That the Applicant shall implement the mitigation measures as described in the application and as modified and/or clarified in supplemental filings, replies to data requests, and recommendations in this *Staff Report of Investigation*.

SOCIOECONOMIC CONDITIONS

Staff recommends the following conditions to address the impacts discussed in the **Socioeconomic Impacts** section of the Nature of Probable Environmental Impact:

- (4) That prior to construction, the Applicant shall prepare a Phase I cultural resources survey program for archeological work at turbine locations, access roads, substations, auxiliary lines and laydown areas acceptable to Staff. If the resulting survey work discloses a find of cultural or archaeological significance, or a site that could be eligible for inclusion on the National Register of Historic Places, then the Applicant shall submit an amendment, modification, or mitigation plan for Staff's acceptance. Any such mitigation or avoidance effort, if needed, shall be developed in coordination with the Ohio Historic Preservation Office with input from the Hardin County Genealogy Society and/or Logan County Genealogical Society and submitted to Staff for review and acceptance.
- (5) That prior to the commencement of construction, the Applicant shall conduct an architectural survey of the project area. The Applicant shall submit to Staff and the Ohio Historical Preservation Office a work program that outlines areas to be studied in both Hardin and Logan counties. If the architectural survey discloses a find of cultural or architectural significance, or a structure that could be eligible for inclusion on the National Register of Historic Places, then the Applicant shall submit an amendment, modification, or mitigation plan for Staff's acceptance. Any such mitigation or avoidance effort, if needed, shall be developed in coordination with the Ohio Historic Preservation Office with input

from the Hardin County Genealogical Society and/or Logan County Genealogical Society and submitted to Staff for review and acceptance.

- (6) That prior to commencement of any construction, the Applicant shall prepare a landscape plan for Staff's review and approval that addresses the aesthetic impacts of the POI Substation Site, including screening types and locations. The Applicant shall consult with adjacent property owners in the development of this plan.

ECOLOGICAL CONDITIONS

Staff recommends the following conditions to address the impacts discussed in the **Ecological Impacts** section of the Nature of Probable Environmental Impact:

- (7) Construction in upland sandpiper preferred habitat types shall be prohibited during the nesting period of April 15 to July 31.
- (8) The Applicant shall not clear trees that occur within 660 feet of a bald eagle nest or within any woodlot supporting a nest tree. Work within 660 feet of a nest or within the direct line-of-site of a nest shall be restricted from January 15 through July 31. This will prevent disturbance of the eagles from the egg-laying period until the young fledge.
- (9) The Applicant shall coordinate with ODNR and Staff on survey efforts for the Eastern massasauga, and if determined necessary by ODNR and Staff, a habitat survey and/or presence/absence survey must be done by a professional herpetologist approved by the DOW.
- (10) The Applicant shall keep lighting at operation and maintenance facilities and substations, located within one half mile of the turbines, to the minimum required. Additionally, the Applicant shall use lights with motion or heat sensors and switches to keep lights off when not required, lights should be hooded downward and directed to minimized horizontal and skyward illuminations, and the Applicant shall minimize the use of high-intensity lighting, steady-burning, or bright lights such as sodium vapor, quartz, halogen, or other bright spotlights.

AIR, WATER, SOLID WASTE, AND AVIATION CONDITIONS

Staff recommends the following conditions to address the requirements discussed in Air, Water, Solid Waste, and Aviation:

- (11) That 30 days prior to any construction, the Applicant shall notify, in writing, any owner of an airport located within 20 miles of the facility boundary, whether public or private, whose operations, operating thresholds/minimums, landing/approach procedures and/or vectors are expected to be altered by the siting, operation, or maintenance of the facility.

APPENDIX

1. DOCKETING RECORD

CASE NUMBER: 13-1767-EL-BSB and 13-1768-EL-BTX

DESCRIPTION: Hardin Wind LLC

FILINGS AS OF: 12/20/2013

12/17/2013	Correspondence Regarding Submittal of Landowner/Affected Tenant Mailing List electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC
12/16/2013	Notice Regarding Shift in Preferred Transmission Line Route (Part 8/8, Exhibit F) electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
12/16/2013	Notice Regarding Shift in Preferred Transmission Line Route (Part 7/8, Exhibit F) electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC
12/16/2013	Notice Regarding Shift in Preferred Transmission Line Route (Part 6/8, Figure 07-1) electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
12/16/2013	Notice Regarding Shift in Preferred Transmission Line Route (Part 5/8, Figure 06-1) electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC
12/16/2013	Notice Regarding Shift in Preferred Transmission Line Route (Part 4/8, Figure 04-1) electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
12/16/2013	Notice Regarding Shift in Preferred Transmission Line Route (Part 3/8, Figure 03-2) electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
12/16/2013	Notice Regarding Shift in Preferred Transmission Line Route (Part 2/8, Figure 03-1) electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
12/16/2013	Notice Regarding Shift in Preferred Transmission Line Route (Part 1/8, Narrative) electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
12/13/2013	Notice of List of Commitments electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
12/12/2013	Notice of filing responses to Staff Data Requests electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
12/10/2013	Notice of appearance of counsel of William A. Adams and memorandum in support filed W. Adams on behalf of Marilyn Tremaine Hampton and Kent F. Hampton.
12/09/2013	Proof of Publication filed. (Logan and Hardin Counties)
12/05/2013	Proof of Pub for Hardin Wind electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC. (Logan County)
11/13/2013	Motion to Intervene of the Ohio Farm Bureau Federation and Memorandum in Support electronically filed by Mr. Chad A Endsley on behalf of Ohio Farm Bureau Federation, Inc.
11/08/2013	Administrative Law Judge Entry grants Hardin's motions for waivers and for protective order in accordance with the findings in this entry. - electronically filed by Sandra Coffey on behalf of Scott Farkas, Attorney Examiner, Public Utilities Commission of Ohio.
11/01/2013	Correspondence to the Commission providing notice the application fees were filed on October 25, 2013 filed by M.R.Leppla on behalf of Hardin Wind LLC
10/31/2013	Correspondence on Application Fee electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
10/30/2013	Service Notice
10/30/2013	Administrative Law Judge Entry ordered hearings in these matters scheduled at the times and places designated in finding (8). - electronically filed by Sandra Coffey on behalf of Scott Farkas, Attorney Examiner, Public Utilities Commission of Ohio

10/30/2013	Motion to intervene, letter informing that though Commission had previous support for this project there was never a agreement reached with Hardin Wind to lease the farm filed by M.T.Hampton
10/25/2013	Certificate of Service of accepted complete Applications electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC
10/17/2013	OPSB Chair Letter Regarding Compliance electronically filed by Mr. Donald E. Rostofer on behalf of Mr. Todd A. Snitchler.
10/09/2013	Memorandum electronically filed by Mrs. Tonnetta Y Scott on behalf of PUCO.
10/01/2013	Application Exhibit B, Ecological Assessment, Part 6/6 electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC
10/01/2013	Application Exhibit B, Ecological Assessment, Part 5/6 electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC
10/01/2013	Application Exhibit B, Ecological Assessment, Part 4/6 electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
10/01/2013	Application Exhibit B, Ecological Assessment, Part 3/6 electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC
10/01/2013	Application Exhibit B, Ecological Assessment, Part 2/6 electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
10/01/2013	Application Exhibit B. Ecological Assessment, Part 1/6 electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
09/30/2013	Application for Certificates of Environmental Compatibility and Public Need for the Scioto Ridge Transmission Line and Scioto Ridge Point of Interconnect Substation electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application Exhibit F Substation Layout and Details (2 of 2) electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC
09/30/2013	Application Exhibit F Substation Layout and Details (1 of 2) electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application Exhibit E Noise Impact Assessment electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application Exhibit D Cultural Resources Report electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application Exhibit C AM/FM Radio & TV Interference Analysis electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application, Exhibit A, Motion for Waivers and Memorandum in Support (4 of 4) electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application, Exhibit A, Motion for Waivers and Memorandum in Support (3 of 4) electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application, Exhibit A, Motion for Waivers and Memorandum in Support (2 of 4) electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC
09/30/2013	Application, Exhibit A, Motion for Waivers and Memorandum in Support (1 of 4) electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC
09/30/2013	Application Figure 07-1. Ecological Features electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application Figure 06-1. Land Use electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application Figure 04-1. Geography and Topography electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.

09/30/2013	Application Figure 03-2. Constraint Map electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Application Figure 03-1. Route Study Area electronically filed by Ms. Miranda R. Leppla on behalf of Hardin Wind LLC.
09/30/2013	Affidavit of Chief Executive Officer for Hardin Wind LLC electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Letter of Notification of Submission of the Application for Certificates of Environmental Compatibility and Public Need for the Scioto Ridge Transmission Line and Scioto Ridge Point of Interconnect Substation electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Proofs of Publication for the counties of Hardin and Logan electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC
09/30/2013	Motion for Waiver electronically and Memorandum in Support filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC.
09/30/2013	Motion for protective order and memorandum in support filed by S. Howard on behalf of Hardin Wind Farm.
09/30/2013	Confidential document target: Estimated Financial Statement filed by S. Howard on behalf of Hardin Wind Farm. (2 pages)
09/18/2013	Service Notice
09/17/2013	Administrative Law Judge Entry grants motion to consolidate Case Nos. 13-1177-EL-BGN, 13-1767-EL-BSB, and 13-1768-EL-BTX in accordance with Finding (5) and grants motions for waivers in accordance with Finding (8). - electronically filed by Sandra Coffey on behalf of Scott Farkas, Attorney Examiner, Public Utilities Commission of Ohio
09/10/2013	Motion for Waiver, memorandum in support and Request for Expedited Ruling electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.
08/29/2013	Motion to Consolidate and Request for Expedited Ruling and memorandum in support electronically filed by Ms. Miranda R Leppla on behalf of Hardin Wind LLC
08/27/2013	In the matter of the letter of notification of Hardin Wind LLC electronically filed by Mr. Michael J. Settineri on behalf of Hardin Wind LLC.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/24/2013 10:37:14 AM

in

Case No(s). 13-1768-EL-BTX

Summary: Staff Report of Investigation electronically filed by Mr. Donald E. Rostofer on behalf of OPSB Staff