THE OHIO POWER SITING BOARD

IN THE MATTER OF THE APPLICATION OF PAULDING WIND FARM IV LLC FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED TO CONSTRUCT A WIND-POWERED ELECTRIC GENERATION FACILITY IN PAULDING COUNTY, OHIO.	CASE NO. 18-91-EL-BGN

OPINION, ORDER, AND CERTIFICATE

Entered in the Journal on February 21, 2019

I. SUMMARY

{¶ 1} The Ohio Power Siting Board approves and adopts the stipulation and recommendation between Paulding Wind Farm IV LLC, the Ohio Farm Bureau Federation, and the Board Staff, and directs that a certificate be issued to Paulding Wind Farm IV LLC for the construction, operation, and maintenance of a wind-powered electric generation facility in Paulding County, Ohio, with capacity of up to 125.1 megawatts.

II. PROCEDURAL BACKGROUND

{¶ 2} All proceedings before the Ohio Power Siting Board (Board) are conducted according to the provisions of R.C. Chapter 4906 and Ohio Adm.Code Chapter 4906-1, et seq.

{¶ 3} Pursuant to R.C. 4906.04, no person shall construct a major utility facility without first having obtained a certificate from the Board. In seeking a certificate, an applicant must comply with the filing requirements outlined in R.C. 4906.06, as well as Ohio Adm.Code Chapters 4906-2 and 4906-4.

{¶ 4} On March 19, 2018, Paulding Wind Farm IV LLC (Paulding Wind or Applicant) filed a pre-application notification letter with the Board regarding its proposed wind farm with up to 125.1 megawatts (MW) of electric generating capacity in Paulding County, Ohio.

{¶ 5} Paulding Wind is a Delaware limited liability company and a wholly-owned subsidiary of EDP Renewables North America LLC (EDP), a Delaware limited liability company.

{¶ 6} Paulding Wind held a public information meeting to discuss the project with interested persons and landowners on April 4, 2018, at the Ohio State University Extension Building in Paulding, Ohio.

{¶ 7} On July 2, 2018, as amended on July 27, 2018, August 14, 2018, and October 24, 2018, Paulding Wind filed an application with the Board for a Certificate of Environmental Compatibility and Public Need to construct a wind-powered electric generation facility in Paulding County, Ohio.

{¶ 8} Additionally, on July 2, 2018, Paulding Wind filed a motion for protective treatment pursuant to Ohio Adm. Code 4906-2-21(D). The motion is unopposed and is addressed in the next section below.

{¶ 9} By letter dated August 31, 2018, the Board notified Paulding Wind that its application was sufficiently complete to permit the Board's Staff (Staff) to commence its review and investigation. The letter directed the Applicant to serve appropriate government officials and public agencies with copies of the complete, certified application and to file proof of service with the Board. The letter further instructed Paulding Wind to submit its application fee pursuant to R.C. 4906.06(F) and Ohio Adm.Code 4906-3-12.

{¶ 10} On September 4, 2018, Paulding Wind submitted two filings to the record. First, the Applicant filed a certificate of service of its accepted, complete application as required by Ohio Adm.Code 4906-3-07. Second, Paulding Wind filed proof that it submitted its application fee.

{¶ 11} By Entry dated September 18, 2018, as amended on September 21, 2018, the administrative law judge (ALJ) established the effective date of the application as September 17, 2018. The Entry also set forth a procedural schedule under which a local public hearing

would be conducted on December 4, 2018, and an evidentiary hearing would commence December 14, 2018. The ALJ also directed Paulding Wind to issue public notices of the application and hearings in accordance with Ohio Adm.Code 4906-3-09 and indicated that petitions to intervene would be accepted up to 30 days following publication of that notice or by November 1, 2018, whichever was later.

{¶ 12} On October 31, 2018, the Ohio Farm Bureau Federation (Farm Bureau) filed a motion to intervene and memorandum in support. In support of its request, the Farm Bureau stated that its members are in favor of diversified energy portfolios, including renewable energy sources such as effective wind energy development. According to the Farm Bureau, farmers engaged in wind leasing agreements want to make sure that construction activities on their property adhere to procedures ensuring soil and water conservation, as well as air quality. Further, the Farm Bureau stated that residents in rural neighborhoods want assurances that environmental considerations such as setbacks, noise standards, shadow flicker, and other factors are addressed with effective turbine placement and that landowners and their properties are protected and that they have appropriate recourse for the needed repairs or remediation.

{¶ 13} By Entry issued on November 5, 2018, the ALJ granted the Farm Bureau's motion to intervene.

{¶ 14} On November 19, 2018, Staff filed its Report of Investigation (Staff Report) pursuant to R.C. 4906.07(C).

{¶ 15} The local public hearing was conducted as scheduled on December 4, 2018.

{¶ 16} On December 11, 2018, Paulding Wind, the Farm Bureau, and Staff filed a joint stipulation and recommendation (Stipulation).

{¶ 17} On December 14, 2018, the ALJ conducted the evidentiary hearing where the Stipulation was presented for the Board's consideration. Paulding Wind presented the

testimony of Erin Bowser in support of the Stipulation. Staff presented the testimony of Grant T. Zeto in support of both the Staff Report and the Stipulation.

III. MOTION FOR A PROTECTIVE ORDER

{¶ 18} As stated above, Paulding Wind filed an unopposed motion for a protective order on July 2, 2018, seeking protective treatment of financial data incorporated in its application on pages 34 through 36, representing estimated capital and intangible costs, operation and maintenance costs, and estimated cost of delays. Paulding Wind asserts that the specific information for which protective treatment is sought satisfies the definition of a trade secret as set forth in R.C. 1333.61(D). Additionally, the Applicant believes that public disclosure of the alleged confidential information will have a harmful effect on the company's ability to compete and negotiate contracts with potential vendors. Specifically, Paulding Wind alleges that the information has independent economic value inasmuch as developers seeking to compete with the Applicant relative to similar projects would gain the benefit of the Applicant's methodologies without having to undertake the enormous effort and expense incurred by the Applicant to produce the information. Further, Paulding Wind submits that disclosure of the information would result in a significant competitive disadvantage as cost data is frequently factored into the overall development of a project.

{¶ 19} In support of the requested protective order, Paulding Wind asserts that the information it seeks to keep confidential meets the Ohio Supreme Court's six-factor test[1] to qualify as trade secret information. Specifically, the Applicant states that the information it is seeking to protect is not available outside of the company and cannot be found in the public domain. Further, Paulding Wind represents that the information is closely held within the company and is only disclosed to those employees who need to know.

{¶ 20} Ohio law defines a trade secret as "information that satisfies both of the following: (1) It derives independent economic value, actual or potential, from not being

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1 *State ex rel. The Plain Dealer v. Ohio Dept. of Ins.*, 80 Ohio St.3d 513, 524-525, 687 N.E.2d 661 (1997).

generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use. (2) It is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." R.C. 1333.61(D).

{¶ 21} The Board has examined the information filed under seal, as well as the assertions set forth in the Applicant's memorandum in support of a protective order. Applying the requirements that the information have independent economic value and be the subject of reasonable efforts to maintain its secrecy pursuant to R.C. 1333.61(D), as well as the six-factor test set forth by the Ohio Supreme Court in *The Plain Dealer* at 80 Ohio St.3d 513, 524-525, 687 N.E.2d 661, the Board finds that the motion should be granted. Specifically, the Board finds that the identified information should be afforded protective treatment consistent with Ohio Adm. Code 4906-2-21(D).

{¶ 22} Ohio Adm.Code 4906-2-21(F) provides that, "[u]nless otherwise ordered, any order prohibiting public disclosure pursuant to this rule shall automatically expire twenty-four months after the date of its issuance, and such information may then be included in the public record of the proceeding." The information protected by this order shall remain under seal for a period ending 24 months from the date of this Order.

{¶ 23} Ohio Adm.Code 4906-2-21(F) requires a party wishing to extend a protective order to file an appropriate motion at least 45 days in advance of the expiration date. If no such motion to extend confidential treatment is filed, the Docketing Division may release the information without prior notice to the Applicant.

IV. PROJECT DESCRIPTION

{¶ 24} Paulding Wind seeks certification to construct a wind-powered electric generation facility (Facility) consisting of 53 wind turbine generator locations, each with a nameplate capacity rating of up to 4.2 MW. The total output for the Facility will not exceed 125.1 MW. The total number of turbines will depend on the final turbine model selected but will not exceed 37 locations. The total structural maximum height would be up to 591 feet.

The Facility is anticipated to generate a total of approximately 370,000 to 420,000 megawatt-hours of electricity each year, depending on the final turbine models selected for the Facility. Construction is anticipated to begin in the second quarter of 2019, and is expected to be completed within seven to nine months. It is anticipated that the Facility will be placed into service in the fourth quarter of 2019. (Staff Ex. 1 at 7, 9.)

{¶ 25} The facility will be located in Crane, Harrison, Paulding, Blue Creek, and Benton townships in Paulding County (Staff Ex. 1 at 7).

{¶ 26} The Applicant would prepare a wind turbine assembly area by grading and removing vegetation within a maximum radius of 263 feet around each turbine location. Based on preliminary geological assessment of the project area, the Applicant does not anticipate that blasting would be necessary for foundation construction. Should site-specific conditions warrant blasting, the Applicant would be required to submit a blasting plan to the Board for review and acceptance prior to the performing of any blasting. (Staff Ex. 1 at 7-8.)

{¶ 27} A 34.5 kilovolt (kV) underground electric collection system would be installed to transfer the power from each wind turbine location to a collection substation. In addition to utilizing an existing collection substation, the Applicant proposes to build a new collection substation on four acres of land at the intersection of Township Road 52 and Township Road 59 in Blue Creek Township. The proposed substation would deliver electricity to the same interconnection as the existing substation by tapping into the existing Paulding III facility transmission line, which connects the existing substation to the Logtown point of interconnection switching station. Transmitting electricity from the proposed collection substation to the existing transmission line would require up to 3.8 miles of 138 kV transmission line. The new transmission line is the subject of Case No. 18-1293-EL-BTX, *In re the Application of Paulding Wind Farm IV LLC for a Certificate of Environmental Compatibility and Public Need to Construct a Transmission Line in Paulding County, Ohio.* (Staff Ex. 1 at 8.)

{¶ 28} The proposed facility would use an existing operations and maintenance facility located along State Route 49 in Paulding Township. Up to three 374-foot permanent meteorological towers equipped with wind velocity directional measuring instruments would be installed. Approximately 17 miles of access roads would be constructed to support the facility. (Staff Ex. 1 at 8.)

{¶ 29} While the Applicant generally intends to deliver materials directly to each turbine construction site, it also plans to use a temporary 18-acre laydown yard, to be located at the northeast corner of the intersection of State Route 114 and Township Hwy 59, for construction staging (Staff Ex. 1 at 8).

{¶ 30} To the extent possible, the Applicant would use local companies to supply concrete for the wind turbine foundations. In case local supplies are insufficient, the Applicant would construct a temporary on-site concrete batch plant. The proposed sites include the existing operations and maintenance facility located on State Route 49 in the village of Payne, and at the proposed construction laydown yard. (Staff Ex. 1 at 9.)

V. CERTIFICATION CRITERIA

{¶ 31} Pursuant to R.C. 4906.10(A), 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 a gas pipeline;

(2) The nature of the probable environmental impact;

(3) 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 generating 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) The facility will comply with R.C. Chapters 3704, 3734, and 6111, as well as all rules and standards adopted under those chapters and under R.C. 1501.33, 1501.34, and 4561.32;

(6) The facility will serve the public interest, convenience, and necessity;

(7) The impact of the facility on the viability as agricultural land of any land in an existing agricultural district established under R.C. Chapter 929 that is located within the site and alternate site of any proposed major facility; and,

(8) 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.

VI. SUMMARY OF THE EVIDENCE

{¶ 32} The Board will review the evidence presented with regard to each of the eight criteria by which we are required to evaluate this application. Any evidence not specifically addressed herein has, nevertheless, been considered and weighed by the Board in reaching its final determination.

A. Local Public Hearing

{¶ 33} Fourteen individuals testified at the local public hearing held on December 4, 2018, in Paulding, Ohio. Witnesses expressed their support for the proposed project, and recognized the importance of wind energy as an alternative, renewable energy source due to the environmental and economic benefits to the community and the farmers who receive lease payments (Dec. 4, 2018 Tr. at 8-9, 17-21; 28-29; 35-36; 42; 44-46; 48-49). Witnesses also praised the Applicant's parent company, EDP, as a responsive corporate citizen and highlighted the positive contribution that it has provided to the Paulding County community, including the revenue payments provided to local schools and contributions to local philanthropies (Dec. 4, 2018 Tr. at 11, 14-16; 23-28; 30-32; 39; 44-46; 48-49). Two witnesses expressed concerns regarding the overbuilding of wind farms in Paulding County and the resulting concerns related to shadow flicker, noise, and damage to roads (Dec. 4, 2018 Tr. at 33-34; 37).

B. Staff Report

{¶ 34} Pursuant to R.C. 4906.07(C), Staff completed an investigation into the application, which included recommended findings regarding R.C. 4906.10(A). The following is a summary of Staff's findings.

1. BASIS OF NEED

{¶ 35} R.C. 4906.10(A)(1) requires an applicant for an electric transmission line or gas pipeline to demonstrate the basis of the need for such a facility. As the project is a proposed electric generating facility, Staff recommends that the Board find that this consideration is inapplicable to this application (Staff Ex. 1 at 11).

2. NATURE OF PROBABLE ENVIRONMENTAL IMPACT

{¶ 36} R.C. 4906.10(A)(2) requires that the Board determine the nature of the probable environmental impact of the proposed facility. As part of its investigation, Staff

reviewed the nature of the probable impact of the wind farm. The following is a summary of Staff's findings.

a. Socioeconomic Impacts

{¶ 37} Paulding Wind is seeking to construct the project on approximately 20,400 acres of leased private land in a rural area of Paulding County, near the village of Payne, involving approximately 100 landowners. In 2010, Paulding County's population was approximately 19,600, with a population density of 47.1 persons per square mile. Also in 2010, Ohio's general population density was 282.3 persons per square mile. The population of Paulding County is projected to decrease to approximately 19,000 between 2010 and 2020. (Staff Ex. 1 at 12.)

{¶ 38} Short-term construction activities and long-term employment increases are not expected to significantly alter existing population trends in proximity to the project. (Staff Ex. 1 at 12.)

{¶ 39} Approximately 54 acres of agricultural land is expected to be permanently converted to wind farm use. No structures are expected to be removed or relocated for the proposed facility's construction or operation. According to the Applicant, the facility would not comply with the required property line setbacks unless waived by cooperating property owners. Significant impacts to commercial, industrial, recreational, and institutional land uses are not anticipated as these land uses are generally not present in any abundance. (Staff Ex. 1 at 12.)

{¶ 40} The construction and operation of the proposed facility will not physically impact any recreational facilities. The Applicant referenced examples of wind turbines having negligible impacts on the behavior of game species. (Staff Ex. 1 at 13.)

{¶ 41} The proposed facility will have the potential to cause visual impacts to recreational resources within the 10-mile study area.

{¶ 42} Seven state-designated recreation areas are located within 10 miles of the proposed facility, including the Maumee State Scenic and Recreational River, a public park and facility located approximately 2.2 miles north of the project. Due to the forested nature of these areas and their distance from the proposed project, minimal visual impacts are expected. (Staff Ex. 1 at 13.)

{¶ 43} The Applicant initially conducted a Phase One cultural resource survey to ascertain potential impacts to historical properties and archeological sites. The survey included an analysis of National Register of Historic Places (NRHP) and sites that may be eligible for the NRHP. The survey included archeological resources and known sites, landmark, historical structures, bridges, cemeteries, and historic districts. (Staff Ex. 1 at 13.)

{¶ 44} The Ohio Historic Preservation Office (OHPO) has approved the Applicant's design for ongoing archaeological and architectural field work. An evaluation of the Applicant's study results will be coordinated with the OHPO to determine specific measures to appropriately avoid or minimize any potentially adverse impacts to cultural resources. If potentially adverse impacts to cultural resources cannot be avoided or minimized, the Applicant has committed to achieving a memorandum of understanding with the OHPO to address and mitigate those impacts. (Staff Ex. 1 at 13.)

{¶ 45} Due to the inherent nature of wind farm facilities, especially turbine heights, it is impractical to screen them from view. The proposed project features and location provide for significant mitigation of potential viewshed impacts. For example, locations of turbines among existing agricultural fields and adjacent to farm features such as storage silos, provide additional visual mitigation. Additionally, the rural nature of the project vicinity limits and diminishes the potential number of viewers. For example, the prevalence of existing woodlots offer additional natural screening of portions of the facility. Further, consistent with guidance from the Federal Aviation Authority (FAA), the turbines would be painted a neutral white color. (Staff Ex. 1 at 13.)

{¶ 46} The Applicant intends to construct, own, and operate all structures associated with the facility. Construction equipment would be rented or owned by a contractor retained by the Applicant. (Staff Ex. 1 at 13.)

{¶ 47} According to the Applicant, the proposed installed costs of the project are in line with the installed costs of similar facilities compiled by the U.S. Department of Energy National Renewable Energy Laboratory. Additionally, the Applicant contends that proposed project costs are in line with the costs of wind energy facilities recently completed by its affiliates in Ohio and Indiana. Staff verified that the estimated installed costs of the proposed facility are comparable to those of the affiliate projects. Additionally, the Applicant's operation and management expenses are consistent with the average expenses for similar facilities installed since 2010 as reported by the Berkley National Laboratory. (Staff Ex. 1 at 14.)

{¶ 48} The Applicant provided its estimates of the cost of delays in permitting and construction of the proposed facility. These include lost construction days and costs associated with the idle construction crew and idle equipment. Staff found Applicant's characterization of its estimated cost of delays to be reasonable. (Staff Ex. 1 at 14.)

{¶ 49} The Applicant hired a consultant to evaluate the potential economic impacts of the facility on the local region. The identified economic impacts include direct employment and payroll associated with construction and operation of the facility; turbine supply chain employment and payroll associated with construction; and jobs induced from increasing spending of household income. The quantified projected economic benefits of the project during construction includes a total of $37.4 million in wages and a total of $98.7 million in economic output. During operation, the consultant estimates the total annual wage and economic output benefits to be $1.4 million and $4.2 million, respectively. (Staff Ex. 1 at 14.)

{¶ 50} Lease payment estimates include approximately $375,000 per year. Payments in Lieu of Taxes (PILOT) would be between $6,000 and $8,000 per MW of

nameplate capacity per year, resulting in a positive economic benefit to the region (Staff Ex. 1 at 14).

b. Ecological Impacts

{¶ 51} Paulding County includes several areas designated as a Source Water Supply Area (SWPA), as defined and approved by the Ohio Environmental Protection Agency (Ohio EPA) for the protection of drinking water sources. The Applicant has reviewed the SWPAs and concluded that the construction of the proposed facility would not have any adverse effect as to the SWPAs associated with the project area. (Staff Ex 1 at 15.)

{¶ 52} The residents within the project area rely upon private wells for their domestic water supply. The Applicant does not anticipate significant adverse impacts to public or private water supplies as a result of construction of the project. The proposed wind turbines would be constructed and generate electricity without impacts to groundwater. (Staff Ex. 1 at 15.)

{¶ 53} The final design for the wind turbine foundations would be determined once the Applicant conducts its geotechnical investigation at each wind turbine location. The final design for the wind turbines would take into account the proximity to private water supplies and depth to the water table. (Staff Ex. 1 at 15.)

{¶ 54} The geology of the project area consists of glacial till ranging from 15 to 55 feet thick. The glacial till consists of a heterogeneous mixture of all sizes of soil consisting of clay, silt, sand, and gravel. It may also contain streaks, seams, layers, or lenses of sand and gravel, which may be water-bearing. The bedrock within the project area is the Salina Group, comprised of brown limestones and dolomites. There are no known or probable karst areas within the project area. The geology of the project area is not expected to preclude the construction of wind turbines. (Staff Ex. 1 at 15.)

{¶ 55} Paulding County does not have any recorded earthquake epicenters of note. The potential for earthquakes is not a limiting factor to the design and construction of the wind turbines in the project area. (Staff Ex. 1 at 15.)

{¶ 56} The soils in the area generally consist of clays, silty clays, and silty clay loams. The dominant soils series formed in till, are very deep, nearly level, and somewhat poorly drained to very poorly drained. While all three of the dominant soil series are susceptible to ponding, none of the soils present conditions related to frequent flooding. As a result, none of these present any limiting factors to the design and construction of the wind farm. (Staff Ex. 1 at 15-16.)

{¶ 57} Staff recommends that the Applicant be required to perform a detailed geotechnical investigation and soil testing at each turbine location, pursuant to Ohio Adm.Code 4906-4-09. Following the performed testing, the Applicant should provide Staff with a report from a geotechnical engineer that documents the finding of the borings and laboratory testing, along with recommendations on construction methods and foundation designs. (Staff Ex. 1 at 16.)

{¶ 58} Based on considering all of the proposed turbine locations, construction of the project would include 1.71 acres of temporary stream impacts and 0.08 acres of permanent stream impacts. Construction of the project would include 0.1 acres of temporary impacts to wetlands. A total of six wetlands are delineated within the project area. All wetlands are category 2 wetlands. (Staff Ex. 1 at 16.)

{¶ 59} The majority of water source impacts would be limited to man-made agricultural or roadside ditches. In order to minimize surface water impacts, the Applicant would install collection lines by horizontal directional drilling where they would cross streams and wetlands. Staff recommends that the Applicant be required to submit a detailed frac-out contingency plan for Staff review and approval. (Staff Ex. 1 at 16.)

{¶ 60} The Applicant would obtain a Nationwide Permit from the United States Army Corps of Engineers under Section 404 of the Clean Water Act, if necessary (Staff Ex. 1 at 16).

{¶ 61} Additional measures to reduce water quality impacts will be taken through the development of a Storm Water Pollution Prevention Plan (SWPPP), as part of the OhioEPA's National Pollutant Discharge Elimination System (NPDES) permit to help control potential sedimentation, siltation, and run-off (Staff Ex. 1 at 16).

{¶ 62} No ponds or lakes would be impacted by the facility during construction or operation. No proposed turbine locations, access roads, or collection facilities are within the 100-year floodplain. (Staff Ex. 1 at 16.)

{¶ 63} All turbine locations have been sited in upland areas in order to avoid impacts to surface waters. Best management practices will be utilized 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 vegetation 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. (Staff Ex. 1 at 16-17.)

{¶ 64} The Applicant performed numerous bird and bat surveys. The project area is within range of the bald eagle, which is a federally protected species; the Indiana bat and the clubshell, which are state and federal endangered species; the northern long-eared bat, which is a state and federal threatened species; and the pondhorn, the greater redhorse, the Blanding's turtle, and Kirtland's snake, which are state threatened species. Due to the avoidance of wetlands and perennial streams and a lack of suitable habitat, no impacts to the clubshell pondhorn, greater redhorse, Blanding's turtle, and Kirtland's snake are anticipated. (Staff Ex. 1 at 18.)

{¶ 65} The Applicant has committed to continue to work with the Ohio Department of Natural Resources (ODNR) and Staff, in consultation with the United States Fish and Wildlife Service (USFWS) to determine if additional action is needed. Avian surveys will continue in order to assess the potential collision risk of bald eagles (Staff Ex. 1 at 19).

{¶ 66} The Applicant has committed to contacting Staff, the 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 is agreed upon by the Applicant, Staff, and ODNR in coordination with USFWS. (Staff Ex. 1 at 19.)

{¶ 67} The Applicant has committed to implementing a post-construction avian and bat fatality monitoring program. Staff recommends that the post-construction avian and bat fatality monitoring plan be submitted prior to operation for ODNR and Staff review. (Staff Ex. 1 at 19.)

{¶ 68} In order to avoid impacts on the Indiana bat and the northern long-eared bat, the Applicant has committed to adhering to seasonal tree cutting dates of October 1 through March 31 for removal of suitable habitat trees (Staff Ex. 1 at 19).

{¶ 69} Facility construction would result in minimal temporary and permanent impacts to vegetative communities within the project area. Construction activities that may result in impacts to vegetation include site preparation, earth-moving excavation, and backfilling activities associated with the construction of the laydown area, access roads, crane paths, foundations, and underground collection system. These activities would result in the cutting and clearing of vegetation and soil disturbance and exposure. No significant impacts are expected for any plant species as a result of this facility. (Staff Ex. 1 at 20.)

{¶ 70} Staff recommends that the Applicant have an 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. The environmental specialist would be familiar with water quality protection issues and potential threatened or endangered species of plants and animals that may be encountered during facility construction. (Staff Ex. 1 at 20.)

c. Public Services, Facilities, and Safety

{¶ 71} In order to comply with the current setback requirements set forth in Ohio Adm.Code 4906-4-08(C)(2), the wind turbine must be at least 1,125 feet in horizontal distance from the tip of the turbine's nearest blade at 90 degrees to the property line of the nearest adjacent property. Using the maximum blade length of 246 feet proposed in this project, the minimum setback calculates to 1,371 feet from the turbine base to the nearest property. Based on this calculation, several turbines would require setback waivers in order to be constructed. The exact number of required waivers would not be determined until the Applicant has selected which turbine locations would be constructed and which model would be implemented. (Staff Ex. 1 at 20.)

{¶ 72} Pursuant to Ohio Adm.Code 4906-4-08, the distance from a wind turbine base to any electric transmission line, gas pipeline, gas distribution line, hazardous liquids pipeline, or public road shall be at least 1.1 times the total height of the turbine structure as measured from its tower's base to the tip of the blade at its highest point. Based on the maximum total height of the tallest proposed model being 591 feet, the corresponding setback would be 650.1 feet. Due to this calculation, the Applicant dropped one of its proposed turbine locations and relocated two others in order to comply with the requisite setback. (Staff Ex. 1 at 20-21.)

{¶ 73} The principal impact on public services would be temporary increases in truck traffic due to deliveries of equipment and materials on routes leading to the project area, mainly during construction. The Applicant's preliminary transportation study identified two possible primary route alternatives. Delivery of wind farm equipment and materials would likely impact local roads, both through heavy truck traffic and the need for upgrades prior to use. The Applicant conducted a field review of local project roads in order

to identify possible impacts to township and county roads due to construction. Specific transportation infrastructure improvements were identified, including the expansion of intersection turns, the grading of terrain, and the relocation of utility poles and street signs. Roadways outside the project area would be evaluated by the hauling company delivering the turbine components after the hauling company is selected. (Staff Ex. 1 at 21.)

{¶ 74} The Applicant would obtain all necessary permits prior to the commencement of construction activities and would coordinate with the appropriate authority regarding any temporary or permanent road closures necessary for the construction of the proposed facility. Any necessary coordination with public entities would be detailed as part of a final engineering design submitted to Staff prior to the preconstruction conference for review. The Applicant would restrict public access to the facility with appropriately placed warning signs or other necessary measures. (Staff Ex. 1 at 21.)

{¶ 75} The Applicant would provide the final delivery route plan and the results of any traffic studies to Staff and the county engineer 30 days prior to the preconstruction conference. The Applicant would complete a study of the final equipment delivery route to determine what improvements would be needed in order to transport equipment to the wind turbine construction sites. The Applicant would make all improvements outlined in the final delivery route plan prior to equipment and wind turbine delivery. (Staff Ex. 1 at 22.)

{¶ 76} The Applicant would enter into a Road Use Agreement with the county engineer prior to construction and subject to Staff review. The Applicant has committed to repairing damage to government-maintained roads and bridges and to return the public roads to their condition prior to construction. (Staff Ex. 1 at 22.)

{¶ 77} The Applicant represents that turbine design certification by the wind industry, including the addition of safety features and the use of setbacks, has resulted in reductions in blade shear impacts. Staff recommends that any issued certificate be

conditioned to require the Applicant to notify it within 24 hours of a blade shear incident. (Staff Ex. 1 at 22.)

{¶ 78} The proposed turbine models have ice detection equipment and safety features that would shut down a turbine if the ice buildup would cause excess vibrations or if the speed to power ratio became too high. The Applicant conducted an ice throw study which determined that there was a low probability of a one kilogram piece of ice landing at the nearest public road or at the nearest nonparticipating property boundary. Staff recommends that any issued certificate be conditioned to require that the Applicant notify it within 24 hours of an ice throw incident that causes injury or ice that is thrown beyond the setback distance. (Staff Ex. 1 at 23.)

{¶ 79} While adverse noise impacts are expected, the construction noise would be temporary and intermittent, would occur away from most residential structures, and would be limited to daytime working hours. The Applicant conducted a background ambient operational noise level study. The results indicated that a number of receptor sites had modeled sound impacts in excess of the desired decibel (dBA) threshold. (Staff Ex. 1 at 23.)

{¶ 80} The Staff recommends that any issued certificate be conditioned to require that the Applicant demonstrate adherence to the stated design limit. Further, Staff recommends that any issued certificate be conditioned to require that the Applicant show through a noise study that cumulative nighttime sound levels of the five wind farms in the area will not exceed the stated design limit at any nonparticipating sensitive receptor. (Staff Ex. 1 at 24.)

{¶ 81} The Applicant attempted to calculate the yearly shadow flicker impact of receptors within approximately 1,500 meters of the wind turbines. The model used included 358 receptors. The results indicated that 36 nonparticipating receptors would be exposed to more than 30 hours of shadow flicker per year by the facility. Once a turbine model is chosen and final turbine site locations are determined, a pre-construction shadow flicker analysis

would be performed to determine how many receptors would still be modeled to receive more than 30 hours of shadow flicker per year. (Staff Ex. 1 at 24.)

{¶ 82} The Applicant also studied the cumulative impact of shadow flicker when taking into consideration the four other surrounding wind projects. Based on this cumulative analysis, two new nonparticipating receptors, in addition to the 36 receptors due to the facility alone, would be exposed to more than 30 hours of shadow flicker per year by the facility and adjacent facilities. (Staff Ex. 1 at 24.)

{¶ 83} Staff recommends that any issued certificate be conditioned upon the requirement that the Applicant show through mitigation or modeling that it will not impact any nonparticipating sensitive receptor with more than 30 hours of shadow flicker per year. According to Staff, this requirement would also apply to any cumulative shadow flicker associated with the surrounding wind projects. (Staff Ex. 1 at 24-25.)

{¶ 84} The wind turbines proposed for this project are designed to meet the standards of the International Electrotechnical Commission-61400 series. The wind turbines have safety features and would be designed to automatically shut down and stop producing energy at their cut-out speeds. Additionally, the Applicant monitors meteorological conditions in the area and intends to take appropriate precautions for the extreme weather events. (Staff Ex. 1 at 25.)

{¶ 85} Staff reviewed the generation equipment manufacturer's safety standards for the Acciona, Siemens Gamesa, and Vestas model turbines to ensure that safety requirements or recommendations would be upheld by the wind farm owner/operator and for inclusion in the wind farm operator's overall safety culture. Staff notes that the Applicant would comply with the turbine manufacturer's most current safety manual and maintain a copy of the safety manual at the facility. (Staff Ex. 1 at 26.)

{¶ 86} Public safety during construction of the facility would be maintained through several means. For example, the Applicant intends to restrict public access to the

facility and install signs and gates at the intersections of public roads and access roads that identify the turbine and prohibit unauthorized entry. Turbines would have safety lighting to comply with FAA requirements. Additionally, the project substation would be enclosed by a chain link fence. (Staff Ex. 1 at 26.)

{¶ 87} The Applicant clarified its restart procedures after an automatic shutdown occurs due to excess vibration, ice, lighting storms, and high-wind and high-temperature events. The Applicant stated that procedures are designed to ensure the safe return to operation/restart without the turbines being in danger to on-site personnel or the public. (Staff Ex. 1 at 26.)

{¶ 88} The Applicant intends to require its contractors to implement its emergency action plans and to consult with all necessary local emergency services. The Applicant intends to provide proper equipment to fire and emergency responders to enable them to respond to emergencies. (Staff Ex. 1 at 26.)

{¶ 89} The Applicant expects the project to impact off-air television signals in the form of interference, reduced picture quality, and signal loss. If this occurs, Staff concurs with the Applicant's recommendation to investigate methods of improving the television reception system. If improvements cannot be made, the Applicant would resolve the issue through its complaint resolution process. The Applicant notes that cable service and direct satellite service would not be affected by the presence of wind turbines.

{¶ 90} Although no impacts to AM or FM radio, cable television, radar, or satellite systems are expected, Staff recommends that the Applicant be required to mitigate any impacts to these communications systems if they are observed during the operation of the facility (Staff Ex. 1 at 26-27).

{¶ 91} The Applicant has committed to providing a decommissioning plan to Staff and the Paulding County engineer that includes the removal of the facility components and provides financial assurance to ensure that funds would be available to decommission the

project. At the end of the turbine's useful life, or if the project has not generated electricity for a continuous period of 12 months, the Applicant would decommission the project by removing all physical materials from the project area. The Applicant would excavate the turbine foundations to a depth of 36 inches below grade and remove any other facility components at a depth of less than 36 inches. Further, the Applicant would remove all access roads and any other improvements, unless a landowner requests that components remain in place and provided that allowing those facilities to remain does not violate any permit or legal requirement regulating the Applicant. Additionally, the Applicant would post financial assurance based on an amount calculated by an independent registered Ohio professional engineer, which would reflect an aggregate cost of removing all turbines and associated facilities but would not include the salvage value of the equipment. (Staff Ex. 1 at 27-28.)

{¶ 92} Staff recommends that the Board find that the Applicant has determined the nature of the probable environmental impact of the proposed facility and, therefore, complies with the requirements specified in R.C. 4906.10(A)(2), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the Recommended Conditions of Certificate section of the Staff Report (Staff Ex. 1 at 28).

3. MINIMUM ADVERSE ENVIRONMENTAL IMPACT

{¶ 93} Pursuant to R.C. 4906.10(A)(3), the proposed facility must represent the minimum environmental impact, considering the state of available technology and the nature of the various alternatives, along with other pertinent considerations.

{¶ 94} The Applicant asserted that the best location for a wind power production facility would be in northwest Ohio. Based on factors such as adequate wind resource; nearby access to adequate transmission infrastructure; willing land lease participants and communities; site accessibility; low-density population; appropriate geological conditions; compatible land use; and limited sensitive ecological and cultural resources. The Applicant determined that Paulding County possesses some of the best terrestrial wind resources in

the state of Ohio, adequate power transmission and transportation infrastructure, and land that is sparsely populated and used for agriculture. Additionally, the county and its residents are generally receptive to utility-scale wind projects. (Staff Ex. 1 at 29.)

{¶ 95} The project was sited to minimize potential impacts. Agricultural land accounts for over 97 percent of all land that would be impacted by the proposed facility. The Applicant has no plans to remove any existing structures during construction of the facility. (Staff Ex. 1 at 29.)

{¶ 96} The proposed facility aligns with regional development plans in and around the project area. Comprehensive plans center on the preservation of agricultural activities, job creation, and economic opportunities. The construction of the wind facility would coincide with agricultural production and provide additional revenues and bolster jobs creation in the local communities. (Staff Ex. 1 at 29.)

{¶ 97} In order to minimize impacts to wetlands and streams, the Applicant has committed to using horizontal directional drilling to install the underground electric collection cable under all streams and wetlands as an avoidance measure where possible. Construction of the facility would not require work within in the 100-year floodplains (Staff Ex. 1 at 30).

{¶ 98} To minimize impacts related to frac-out, Staff recommends that the Applicant be required to provide a frac-out contingency plan (Staff Ex. 1 at 30.).

{¶ 99} The Applicant has acknowledged that operation of the facility may result in the incidental take of listed bats. Paulding Wind will continue to coordinate with the USFWS and ODNR on minimizing wildlife impacts. It is working with the USFWS to apply for an incidental take permit specific to the Indiana and northern long-eared bats and would operate under a technical assistance letter from USFWS that would stay in effect until the permit is obtained. If tree clearing would be necessary, the Applicant would adhere to seasonal cutting dates of October 1 through March 31. (Staff Ex. 1 at 30.) The turbines would

be feathered below the manufacturer's cut-in speed during the summer season from May 16 to July 31 (Staff Ex. 1 at 19).

{¶ 100} Many of the proposed turbine locations are within the minimum property line setbacks. The Applicant recognizes that a turbine cannot be constructed at a location which does not meet the minimum setback requirements unless a waiver has been obtained. (Staff Ex. 1 at 30.)

{¶ 101} The Applicant has indicated that various safety control technologies would be utilized to minimize the potential for blade shear and ice throw impacts. Staff recommends that the Applicant not render inoperative any wind farm safety control system, and set parameters for notification of blade shear and certain ice throw occurrences. (Staff Ex. 1 at 30.)

{¶ 102} According to Staff, based on its recommended conditions and the proposed turbine layout and the Applicant's commitment to adhere the dBA limit, the project is not likely to generate unacceptable levels of noise for nonparticipating residents (Staff Ex. 1 at 30.).

{¶ 103} The Applicant's model of shadow flicker impacts indicated that, without mitigation, 38 nonparticipating receptors would be exposed to more than 30 hours of shadow flicker per year by the facility. Staff recommended a condition that the Applicant be required to provide mitigating measures to these 38 nonparticipating residents so that they receive no more than 30 hours of exposure to shadow flicker. (Staff Ex. 1 at 30.)

{¶ 104} During the construction period, local, state, and county roads would experience a temporary increase in truck traffic due to deliveries of equipment and materials. A final delivery route plan would be developed through discussions with the Paulding County Engineer and implemented in conjunction with the Ohio Department of Transportation (ODOT) special hauling process. (Staff Ex. 1 at 30.)

{¶ 105} No impacts to AM or FM radio, cable television, radar, or satellite systems are expected. Possible impacts to off-air television signal would be remediated through a high-grain directional antenna oriented towards the signal origin or through the complaint resolution process. Further study is recommended for potential impacts to microwave communication systems and mobile phones. (Staff Ex. 1 at 30.)

{¶ 106} Due to the fact that the project impacts such a large area, it is necessary that the Applicant secure a financial instrument that best assures the ability to completely decommission the facility. Because the project would not generate revenue until it is operational, it is necessary that the decommissioning funds be available at the start of construction. (Staff Ex. 1 at 30.)

{¶ 107} Staff recommends that the Board find that the proposed facility represents the minimum adverse environmental impact and, therefore, complies with the requirements of R.C. 4906.10(A)(3), provided that any certificate issued by the Board include the conditions specified in the Staff Report (Staff Ex. 1 at 31).

4. ELECTRIC POWER GRID

{¶ 108} Pursuant to R.C. 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. Under the same authority, the Board must also determine that the proposed facility will serve the interest of the electric system economy and reliability.

{¶ 109} 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 (BPS). As an owner, operator, and/or user of the BPS, the Applicant is subject to compliance with various NERC reliability standards. NERC reliability standards are included as part of the system evaluations conducted by PJM Interconnection, LLC (PJM). PJM is the

regional transmission organization charged with planning for upgrades and administrating the generation queue for the regional transmission system in Ohio. PJM reviews applications for expansions and upgrades of the PJM transmission system to ensure compliance with reliability criteria. (Staff Ex. 1 at 32.)

{¶ 110} PJM analyzed the bulk electric system, with the facility interconnected to the BPS, for compliance with NERC reliability standards and PJM reliability criteria. The PJM studies indicated that no reliability violations would occur during single and multiple contingencies and no potential violations were found during the short circuit analysis. Based on PJM's analysis, the facility would provide additional electrical generation to the regional transmission grid, would be consistent with plans for expansion of the regional power system, and would serve the interests of the electric system economy and reliability. (Staff Ex. 1 at 34.)

{¶ 111} Staff recommends that the Board find that the proposed facility is consistent with regional plans for the 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. Accordingly, Staff recommends that the Board find that the facility complies with the requirements of R.C. 4906.10(A)(4) provided any certificate issued for the proposed facility includes the conditions specified in the Staff Report. (Staff Ex. 1 at 34.)

5. AIR, WATER, SOLID WASTE, AND AVIATION

{¶ 112} Pursuant to R.C. 4906.10(A)(5), the facility must comply with Ohio law regarding air and water pollution control, withdrawal of waters of the state, solid and hazardous wastes, and air navigation.

{¶ 113} Air quality limitations or air permits are not required for construction of the proposed facility due to the fact that the facility will not produce air pollution. The

Applicant would comply with fugitive dust rules by use of water spray or other appropriate dustreduction measures whenever necessary. (Staff Ex. 1 at 35.)

{¶ 114} Staff opines that construction and operation of the facility, as described in the application and data request responses and in accordance with the conditions included in the Staff Report, would be in compliance with the air emissions regulations set forth in R.C. Chapter 3704 and the rules and laws adopted under this chapter (Staff Ex. 1 at 35).

{¶ 115} Neither construction nor operation of the proposed facility would require the use of significant amounts of water. Therefore, the requirements set forth under R.C. 1501.33 and 1501.34 are not applicable to this project. The applicable permits are limited to: an Ohio NPDES construction storm water general permit (Ohio EPA Permit No. OHC000004); Nationwide Permit 51 under Section 404 of the Clean Water Act; and an Ohio Isolated Wetland Permit. (Staff Ex. 1 at 35.)

{¶ 116} Impacted areas would be restored to preconstruction conditions in compliance with the NPDES permit(s) obtained for the project and an approved SWPPP created for the project. (Staff Ex. 1 at 35.)

{¶ 117} Construction of all of the proposed sites would require Ohio EPA isolated wetland and US Army Corps of Engineers Nationwide permits to cover temporary wetland impacts and temporary and permanent stream impacts. However, construction of the final 37 locations would reduce proposed impacts to surface water resources and may negate the need for certain permits. The Applicant would need to continue to coordinate with the Ohio EPA and the US Army Corps of Engineers Nationwide in order to obtain the appropriate permits. (Staff Ex. 1 at 35.)

{¶ 118} Staff opines that with these measures, construction and operation of the facility would comply with the requirements of R.C. Chapter 6111, and the rules and laws adopted under that chapter (Staff Ex. 1 at 35).

{¶ 119} Debris generated from construction would include items such as plastic, wood, cardboard and metal packing materials, construction debris, and general refuse. The solid waste generated during the construction or operation of the facility would be disposed of at a licensed solid waste disposal facility. The operation and maintenance facilities would utilize local waste recycling and disposal services. Staff notes that the Applicant's solid waste disposal plans would comply with solid waste disposal requirements as required in R.C. Chapter 3734 and the rules and laws adopted under this chapter. (Staff Ex. 1 at 36).

{¶ 120} The tip height for the wind turbines range from 482 to 591 feet tall, depending on the model selected. Additionally, cranes would be used during the construction of the proposed facility. A separate temporary construction permit would have to be obtained from the FAA, detailing the height, operating conditions, and duration of the crane work. (Staff Ex. 1 at 36.)

{¶ 121} There are no known public use airports or helicopter pads within five miles of the project. The nearest public use airport is the Van Wert County Airport, located over 9 miles southeast of the wind farm. There are 3 private airports located within 1.8 to 5 miles from the project area. Notice of the proposed wind farm size and the estimated construction start date was provided to these private airports. Additionally, the FAA issued a Determination of No Hazard to air navigation for 23 wind turbines. The remaining locations were still under review as of the issuance of the Staff Report. (Staff Ex. 1 at 36.)

{¶ 122} The ODOT Office of Aviation provided recommendations to Staff to address airspace navigation issues. Specifically, the ODOT Office of Aviation found that the location and height of all of the proposed wind turbine structures would exceed 499 feet above ground level and would constitute an obstruction to air navigation. ODOT Office of Aviation noted that 16 of the 23 structures that have received a determination of No Hazard from the FAA impact either the minimum obstacle clearance altitude or minimum vectoring altitudes of various en route airways or arrival procedures. (Staff Ex. 1 at 36.)

{¶ 123} The FAA issued a Determination of No Hazard based on it not receiving any public objections to these impacts. The ODOT Office of Aviation determined that, although the wind farm will constitute an obstruction to air navigation, obstruction standards may be waived if the wind farm complies with all of the conditions of the FAA Determination of No Hazard Letter. (Staff Ex. 1 at 36-37.)

{¶ 124} Based on these findings, Staff recommends that the Board find that the proposed facility complies with the requirements specified in R.C. 4906.10(A)(5), provided that any certificate issued for the facility include the conditions specified in the Staff Report (Staff Ex. 1 at 37).

6. PUBLIC INTEREST, CONVENIENCE, AND NECESSITY

{¶ 125} Pursuant to R.C. 4906.10(A)(6), the Board must determine that the facility will serve the public interest, convenience, and necessity.

{¶ 126} In addition to providing the availability of copies of its application consistent with the Board's rules, Paulding Wind hosted a public informational open house on April 4, 2018, where attendees were given the opportunity to provide feedback. The Applicant also maintains a project website where visitors can obtain information about the project. (Staff Ex. 1 at 38.)

{¶ 127} During the construction and operation of the project, the Applicant has committed to implementing the complaint resolution plan described in its application. Pursuant to the plan, residents with complaints may call a toll-free number or visit the operations and maintenance building for the wind farm to register a complaint. The Applicant will notify the Board within 48 hours of any complaints that are a direct result of the wind farm and provide quarterly complaint reports to Staff. (Staff Ex. 1 at 38.)

{¶ 128} The Applicant will provide notice to any affected property owners and tenants about construction activities and complaint resolution at least seven days prior to the start of construction (Staff Ex. 1 at 38).

{¶ 129} The collector lines associated with the facility would be located primarily on privately-owned land leased by the Applicant, as well as in public road right-of-ways. All other facility components, with the exception of the collection substation, would be located entirely on privately-owned leased land. (Staff Ex. 1 at 38-39.)

{¶ 130} Paulding Wind states that it will maintain an insurance policy for the term of the facility to cover personal injury, death, or property damage associated with the operation of the facility. It will also maintain, through construction and operation, umbrella coverage against personal injury, death, and property damage arising from the operation of the facility. (Staff Ex. 1 at 39.)

{¶ 131} According to Staff, the proposed facility would likely qualify as an eligible energy generating facility pursuant to the renewable portfolio standard contained within R.C. 4928.64. Therefore, it could contribute to assisting affected entities' compliance with the statutory requirements under the renewable portfolio standard. (Staff Ex. 1 at 39.)

{¶ 132} Staff recommends that the Board find that the proposed facility would serve the public interest, convenience, and necessity, and, therefore, complies with the enumerated requirements specified in R.C. 4906.10(A)(6), provided that any certificate issued by the Board includes the conditions specified in the Staff Report (Staff Ex. 1 at 39).

7. AGRICULTURAL DISTRICTS

{¶ 133} Pursuant to R.C. 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. Agricultural district land is exempt from sewer, water, or electrical service tax assessments

{¶ 134} Agricultural land can be classified as an agricultural district through an application and approval process that is administered through the local county auditor's office. Eligible land must be devoted exclusively to agricultural production or be qualified for compensation under a land conservation program for the preceding three years.

Furthermore, eligible land must be at least 10 acres or produce a minimum average gross annual income of $2,500. (Staff Ex. 1 at 40.)

{¶ 135} The construction, operation, and maintenance of the proposed wind farm would occur on land currently used for agricultural purposes. Specifically, 54 acres of farmland would be permanently disturbed, 367 acres of soil would be temporarily disturbed, and 461 acres of vegetation would be temporarily disturbed. Of the total agricultural land lost due to the project, only approximately two acres of agricultural district land would be permanently impacted. Therefore, the viability of the agricultural district lands would not be compromised by the proposed project. (Staff Ex. 1 at 40.)

{¶ 136} Wind turbines, access roads, meteorological towers, and a collection substation would account for almost all of the permanent agricultural land lost to the project. The temporary loss of agricultural land use would be attributable to laydown yards and cable burying activities. (Staff Ex. 1 at 40.)

{¶ 137} Up to 63 miles of electric collection cable would be installed at a minimum depth of 48 inches, mainly across or adjacent to agricultural fields via directional drilling or open trenching to a lesser extent. Trenching activities would create a temporary disturbance as the collection line is installed. Excavated topsoil would be segregated and stockpiled, and restored to original conditions unless otherwise specified by the affected landowner. (Staff Ex. 1 at 40.)

{¶ 138} Permanent access roads would be 16-feet wide. Topsoil would be placed in windrows paralleling the access roads to prevent construction equipment from driving over undisturbed ground. (Staff Ex. 1 at 40.)

{¶ 139} The Applicant would take specified measures to minimize the impacts to agricultural land that would occur as a result of construction, operation, and maintenance of the proposed project (Staff Ex. 1 at 40, 41).

{¶ 140} 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 of R.C. 4906.10(A)(7), provided that any certificate issued by the Board includes the conditions specified in the Staff Report (Staff Ex. 1 at 41).

8. WATER CONSERVATION PRACTICE

{¶ 141} Pursuant to R.C. 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.

{¶ 142} Construction of the proposed facility would not require water in the process of electricity production. Therefore, water consumption associated with the proposed electric generation equipment does not warrant specific conservation efforts. While a potable water supply would be provided to the operations and maintenance building for project and personal needs of the employees, the amount of water consumed for these purposes would be minimal. (Staff Ex. 1 at 42.)

{¶ 143} 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 R.C. 4906.10(A)(8). Staff further recommends that any certificate issued by the Board for the certification of the proposed facility include the conditions specified in the Staff Report. (Staff Ex. 1 at 42.)

9. RECOMMENDATIONS

{¶ 144} In addition to making various findings throughout its report, Staff recommended that 26 conditions be made part of any certificate issued by the Board for the proposed facility (Staff Ex. 1 at 43-47).

VII. STIPULATION AND CONDITIONS

{¶ 145} At the December 14, 2018 adjudicatory hearing, counsel for Paulding Wind presented the Stipulation entered into by the Applicant, the Farm Bureau, and Staff that resolves all issues (Jt. Ex. 1; Dec. 14, 2018 Tr. at 7, 14-15). The Stipulation was amended on January 29, 2019, to reflect the intent of the parties, relative to condition 19. Pursuant to the Stipulation, the parties agree that the Board issue the Certificate of Environmental Compatibility and Public Need, as requested by Paulding Wind, subject to the 26 listed conditions.

{¶ 146} The following is a summary of the conditions agreed to by the parties and is not intended to replace or supersede the actual Stipulation. The parties agree as follows:

(1) The Applicant shall install the facility, utilize equipment and construction practices, and implement mitigation measures as described in the application and as modified and/or clarified by supplemental filing, replies to data requests, and the recommendations in the Staff Report and the Stipulation.

(2) The Applicant shall comply with the requirements established by the regulations associated with wind farms set forth in Ohio Adm.Code Chapter 4906-4-09.

(3) The Applicant shall 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 project shall attend the preconstruction conference. The conference shall 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 shall provide

a proposed conference agenda for Staff review. The Applicant may conduct separate preconstruction meetings for each stage of construction.

(4) Within 60 days after the commencement of commercial operation, the Applicant shall 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 shall use reasonable efforts to provide as-built drawings in both hard copy and as geographically-referenced electronic data.

(5) The certificate shall become invalid if the Applicant has not commenced a continuous course of construction of the proposed facility within five years of the date of journalization of the certificate, unless the Board grants a request for waiver or an extension of time.

(6) As the information becomes known, the Applicant shall file in this proceeding, the date on which construction will begin, the date on which the construction was completed, and the date on which the facility begins commercial operation.

(7) Prior to the commencement of construction activities in areas that require permits or authorizations by federal or state laws and regulations, the Applicant shall obtain and comply with such permits or authorizations. The Applicant shall provide copies of permits and authorizations, including all supporting documentation, to Staff within seven days of issuance or receipt by the Applicant. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference.

(8) At least 30 days before the preconstruction conference, the Applicant shall submit to Staff one set of detailed engineering drawings of the final project design, including the facility, construction staging areas, and any other associated facilities and access points, so that Staff can determine that the final project design is in compliance with the terms of the certificate. The final project layout shall be provided in hard copy and as geographically-referenced electronic data. The final design shall 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.

(9) Prior to the commencement of construction, the Applicant shall finalize coordination of the assessment of potential effects of the proposed facility on cultural resources, if any, with Staff and the OHPO. If the resulting coordination discloses a finding of cultural or archaeological significance, or a site that could be eligible for inclusion in the NRHP, then the Applicant shall submit a modification or mitigation plan to Staff. Any such mitigation effort, if needed, shall be developed in coordination with the OHPO and submitted to Staff for review that it complies with this condition.

(10) At least seven days prior to construction, the Applicant shall provide to Staff, affected property owners and tenants, Paulding County officials, municipal and township officials, emergency responders, surrounding airports, and libraries with written notice regarding the start of construction and the complaint resolution process outlined in the application. A copy of the notice shall be filed in the docket in this case.

(11) During the construction and operation of the project, the Applicant shall notify Staff, within 48 hours of any complaints that are a direct result of

the wind farm and send to Staff a quarterly complaint report by the 15th day of January, April, July, and October of each year.

(12) The Applicant shall restore all disturbed field drainage systems, irrigation systems, and temporarily impacted farmland to its previous or better condition unless otherwise specified by the affected landowner.

(13) Sixty days prior to the first turbine becoming operational, the Applicant shall submit a post-construction avian and bat monitoring plan for ODNR Division of Wildlife and Staff review and confirmation that it complies with this condition. The plan shall be consistent with the specific requirements set forth in the Stipulation relative to this condition.

(14) The Applicant shall adhere to seasonal cutting dates of October 1 through March 31 for removal of any trees greater than or equal to three inches in diameter, unless coordination efforts with the ODNR and the USFWS allow a different course of action.

(15) The Applicant shall provide to Staff for review a frac-out contingency plan detailing monitoring, environmental specialist presence, containment measures, clean-up, and restoration prior to construction in areas where horizontal directional drilling will occur.

(16) In the event that construction is delayed beyond five years of the date of the certificate, certain wildlife surveys shall be updated as determined by ODNR.

(17) At least 60 days prior to the first turbine becoming operational, the Applicant shall obtain a technical assistance letter for avoidance of Indiana and northern long-eared bat take from the USFWS. The letter shall include the feathering of turbines during low wind speed conditions at night during migratory seasons. The Applicant shall

comply with the operational measures detailed within the technical assistance letter until an incidental take permit has been obtained for the project.

(18) The Applicant shall have an environmental specialist on site during construction activities that may affect sensitive areas, as mutually agreed upon between the Applicant and Staff, and shown on the Applicant's final approved construction plan. The environmental specialist shall be familiar with water quality protection issues and potential threatened or endangered species of plants and animals that may be encountered during project construction.

(19) At least 30 days prior to construction, a noise study shall be submitted showing that cumulative nighttime sound level at any nonparticipating sensitive receptor within one mile of the project boundary will not exceed 5 dBA over the project area ambient nighttime average sound level at the critical wind speed for the turbines chosen by the Applicant, except during daytime operation that is in accordance with Ohio Adm.Code 4906-4-09(F)(2).

(20) At least 30 days prior to construction, a shadow flicker study shall be submitted showing that cumulative shadow flicker impacts will not exceed 30 hours per year at any nonparticipating sensitive receptor, or that mitigation measures have been agreed to by the owner of the affected nonparticipating sensitive receptor and the Applicant.

(21) The Applicant shall notify Staff within 24 hours of an occurrence of any extraordinary event. A written report shall be submitted to Staff within 30 days, detailing the incident and corrective actions to be taken to avoid, prevent, mitigate, or minimize a recurrence. Where additional related

information is obtained after the 30-day written report is submitted, the Applicant shall make a supplemental report as soon as practicable.

(22) The Applicant shall not render inoperative any wind farm safety control system.

(23) The Applicant shall monitor the microwave paths to ensure that there are no adverse impacts. At least 30 days prior to the preconstruction conference, the Applicant shall conduct a microwave path study that identifies all existing microwave paths that intersect the wind farm project, and a worst-case Fresnel zone analysis for each path. A copy of the study shall be provided to the path licensee(s) and to Staff for review and confirmation that the Applicant is complying with this condition. The assessment shall conform to the requirements set forth in the Stipulation.

(24) All existing licensed microwave paths and licensed communication systems shall be subject to avoidance or mitigation. The Applicant shall complete avoidance or mitigation measures prior to commencement of construction for impacts that can be predicted in sufficient detail to implement such measures. Following construction, the Applicant shall mitigate all observed impacts of the project to microwave paths and licensed communication systems within seven days, or within a longer time period acceptable to Staff. Avoidance and mitigation for any known point-to-point microwave paths and licensed communication systems shall consist of measures acceptable to Staff, the Applicant, and the affected path owner, operator, or licensee. If interference with an omni-directional or multi-point system is observed after construction, mitigation would be required only for affected receptors.

(25) The Applicant shall meet all recommended and prescribed FAA and ODOT Office of Aviation requirements to construct an object that may affect navigable airspace.

(26) At least 30 days prior to the preconstruction conference, the Applicant shall file in this docket copies of the FAA Determination of No Hazard letters that it has received to date for the wind turbines and permanent meteorological towers, at the locations as shown in the application. Any remaining FAA Determination of No Hazard letters shall be filed in this docket prior to the start of turbine erection. The Applicant shall also file in this docket copies of the FAA temporary construction permits for any work activity involving construction cranes once they are received, but no later than seven days prior to crane deployment.

VIII. CONCLUSION

{¶ 147} Ohio Adm.Code 4906-2-24 authorizes parties to Board proceedings to enter into stipulations concerning issues of fact, the authenticity of documents, or the proposed resolution of some or all of the issues in a proceeding. Although not binding on the Board, pursuant to Ohio Adm.Code 4906-2-24(D), the terms of such an agreement are accorded substantial weight. The standard of review for considering the reasonableness of a stipulation has been discussed in a number of prior Board proceedings. *See, e.g., In re Northwest Ohio Wind Energy, LLC,* Case No. 13-197-EL-BGN (Dec. 16, 2013); *In re American Transm. Systems Inc.*, Case No. 12-1727-EL-BSB (Mar. 11, 2013); *In re Rolling Hills Generating LLC,* Case No. 12-1669-EL-BGA (May 1, 2013); *In re AEP Transm. Co., Inc.*, Case No. 12-1361-EL-BSB (Sept. 13, 2013); *In re Hardin Wind LLC,* Case No. 13-1177-EL-BGN (Mar. 17, 2014). The ultimate issue for the Board's consideration is whether the agreement, which embodies considerable time and effort by the signatory parties, is reasonable and should be adopted. In considering the reasonableness of a stipulation, the Board has used the following criteria:

(1) Is the settlement a product of serious bargaining among capable, knowledgeable, parties?

(2) Does the settlement, as a package, benefit ratepayers and the public interest?

(3) Does the settlement package violate any important regulatory principle or practice?

{¶ 148} Paulding Wind witness Erin Bowser testified that the Stipulation meets the criteria for Board approval. The witness testified that the Stipulation is a good faith settlement that resulted from serious negotiations among capable, knowledgeable parties and that it will benefit the public interest by providing economic benefits to the surrounding local community, including school districts and other taxing districts that serve the project area. (Applicant Ex. 10 at 5.) Witness Bowser opined that the Stipulation does not violate any regulatory principle or practice (Applicant Ex. 10 at 5).

{¶ 149} Upon review, the Board finds that, as a package, the Stipulation, as amended, appears to be the product of serious bargaining among capable, knowledgeable parties. The Board also finds that the public interest is served by resolving the issues raised in this matter without litigation. The Board recognizes that the proposed electric generation facility will produce wind-powered electricity that will maximize energy production from wind resources in the project area in order to deliver clean, renewable electricity to the Ohio bulk power transmission system to serve the needs of electric utilities and their customers (Applicant Ex. 1 at 3; Applicant Ex. 10 at 4). Additionally, the project will have a positive effect on the Ohio economy through the creation of jobs and a significant positive impact on the local tax base, including local school districts and other taxing districts that serve the project area. (Applicant Ex. 10 at 5.) The Board finds that the Stipulation, as amended, does not violate any important regulatory principle or practice. Based upon the record in these proceedings, the Board finds that all of the criteria established in accordance with R.C. Chapter 4906 are satisfied for the construction, operation, and maintenance of the facility as

described in the application filed in this case, subject to the conditions set forth in the Stipulation, as amended, and this Order. Accordingly, based upon all of the above, the Board approves and adopts the Stipulation, as amended, and hereby issues a certificate to Paulding Wind in accordance with R.C. Chapter 4906.

IX. FINDINGS OF FACT AND CONCLUSIONS OF LAW

{¶ 150} Paulding Wind is a person under R.C. 4906.01(A) and is licensed to do business in the state of Ohio.

{¶ 151} The proposed electric generation facility is a major utility facility, as defined in R.C. 4906.01(B).

{¶ 152} On March 19, 2018, Paulding Wind filed a pre-application notification letter regarding its proposed project.

{¶ 153} On April 11, 2018, in accordance with Ohio Adm.Code 4906-3-03, Paulding Wind filed proof that legal notice was published in *The West Bend News* and *The Paulding Progress*, newspapers of general circulation in Paulding County, regarding the public informational meeting on its application.

{¶ 154} The Applicant held a public information meeting to discuss the project with interested persons and landowners on April 4, 2018.

{¶ 155} On July 2, 2018, as amended on July 27, 2018, August 14, 2018, and October 24, 2018, Paulding Wind filed an application to construct and operate a new wind-powered electric generation facility.

{¶ 156} By letter filed August 31, 2018, the Board notified Paulding Wind that its application had been found to be sufficiently complete pursuant to Ohio Adm.Code 4906-1, et seq.

{¶ 157} In a filing docketed on September 4, 2018, the Applicant certified that on that date it served copies of the accepted and complete application upon government officials and libraries in accordance with Ohio Adm.Code 4906-3-07.

{¶ 158} On September 18, 2018, the ALJ issued a procedural Entry that scheduled a local public hearing for December 4, 2018, an evidentiary hearing for December 14, 2018, and found the effective date of the filing of the application to be September 17, 2018.

{¶ 159} On October 31, 2018, the Farm Bureau filed a motion to intervene.

{¶ 160} On November 5, 2018, the ALJ issued an Entry granting the Farm Bureau's motion.

{¶ 161} On November 19, 2018, Staff filed a Report of Investigation of the project proposed in the application.

{¶ 162} In compliance with Ohio Adm.Code 4906-3-09, on October 8, 2018, and November 26, 2018, Paulding Wind filed proof of publication showing that notice was published in *The West Bend News,* a newspaper of general circulation in Paulding County, on October 2, 2018, and November 20, 2018.

{¶ 163} A local public hearing was held on December 4, 2018, in Paulding, Ohio. Fourteen witnesses testified at the local public hearing.

{¶ 164} On December 11, 2018, Paulding Wind and Staff filed the testimony of their respective witnesses.

{¶ 165} On December 11, 2018, Paulding Wind, the Farm Bureau, and Staff filed a Stipulation resolving the issues in this proceeding. The Stipulation was amended on January 29, 2019, to reflect the intent of the parties relative to condition 19.

{¶ 166} An adjudicatory hearing was held on December 11, 2018. Witnesses for Paulding Wind and Staff offered testimony in support of the Stipulation.

{¶ 167} Adequate data on the proposed generation facility has been provided to make the applicable determination required by R.C. 4906.10(A). The record evidence in this matter provides sufficient factual data to enable the Board to make an informed decision.

{¶ 168} The Stipulation, as amended, satisfies the criteria established by the Board for review and consideration of stipulations.

{¶ 169} Based on the record, the Board finds that Paulding Wind's application should be approved and a certificate should be issued, pursuant to R.C. Chapter 4906, for the construction, operation, and maintenance of the electric generation facility, subject to the conditions set forth in the Stipulation, as amended, and this Order.

X. ORDER

{¶ 170} It is, therefore,

{¶ 171} ORDERED, That the Stipulation, as amended, be approved and adopted. It is, further,

{¶ 172} ORDERED, That a certificate be issued to Paulding Wind for the construction, operation, and maintenance of the electric generation facility, subject to the conditions set forth in the Stipulation, as amended, and this Order. It is, further,

{¶ 173} ORDERED, That the motion for protective order filed by Paulding Wind be granted. It is, further,

{¶ 174} ORDERED, That the Commission's Docketing Division maintain, under seal, the financial information contained on pages 34-36 of the application. It is, further,

{¶ 175} ORDERED, That this protective order shall be effective for a period of 24 months from the date of this Order. It is, further,

{¶ 176} ORDERED, That a copy of this Opinion, Order, and Certificate be served upon all parties and

THE OHIO POWER SITING BOARD

Asim Z. Haque, Chairman
Public Utilities Commission of Ohio

Lydia Mihalik, Board Member
and Director of the Ohio
Development Services Agency

for
Mary Mertz, Board Member
and Director of the Ohio
Department of Natural Resources

Lance Himes, Board Member
and Director of the Ohio
Department of Health

for
Laurie Stevenson, Board Member
and Director of the Ohio
Environmental Protection Agency

for
Dorothy Pelanda, Board Member
and Director of the Ohio
Department of Agriculture

Greg Murphy, Board Member
and Public Member

JSA/mef

Entered in the Journal
FEB 21 2019

Tanowa M Troupe

Tanowa Troupe
Secretary