

BEFORE

THE OHIO POWER SITING BOARD

In the Matter of the Application of Hardin)
Wind LLC for a Certificate to Construct a) Case No. 13-1177-EL-BGN
Wind-Powered Electric Generation Facility)
in Hardin and Logan Counties, Ohio.)

In the Matter of the Application of Hardin)
Wind LLC for a Certificate of)
Environmental Compatibility and Public) Case No. 13-1767-EL-BSB
Need for a Substation Project in Hardin)
County, Ohio.)

In the Matter of the Application of Hardin)
Wind LLC for a Certificate of)
Environmental Compatibility and Public) Case No. 13-1768-EL-BTX
Need for a 345 kV Transmission Line in)
Hardin County, Ohio.)

OPINION, ORDER, AND CERTIFICATES

The Board, coming now to consider the above-entitled matters, having appointed its administrative law judge (ALJ) to conduct a public hearing, having reviewed the exhibits introduced into evidence at the adjudicatory hearing held in these matters, including the joint stipulation and recommendation (Stipulation), and being otherwise fully advised, issues its Opinion, Order, and Certificates in these cases, as required by R.C. Chapter 4906.

APPEARANCES:

Vorys, Sater, Seymour and Pease LLP, by M. Howard Petricoff, Michael J. Settineri, and Miranda R. Leppla, 52 East Gay Street, P.O. Box 1008, Columbus, Ohio 43216, on behalf of Hardin Wind, LLC.

Mike DeWine, Ohio Attorney General, Steven L. Beeler and Thomas G. Lindgren, Assistant Attorneys General, Public Utilities Section, 180 East Broad Street, Columbus, Ohio 43215, and Sarah Anderson and Summer Plantz, Assistant Attorneys General, Environmental Enforcement Section, 30 East Broad Street, 25th Floor, Columbus, Ohio 43215, on behalf of Staff.

Chad A. Endsley, Chief Legal Counsel, 280 North High Street, P.O. Box 182383, Columbus, Ohio 43218, on behalf of the Ohio Farm Bureau Federation.

Joe Grant, 20616 State Route 68 North, Belle Center, Ohio 43310, on his own behalf.

OPINION:

I. Summary of the Proceedings

All proceedings before the Board are conducted according to the provisions of R.C. Chapter 4906 and Ohio Adm.Code Chapter 4906.

On May 10, 2013, Hardin Wind LLC (Hardin Wind or Applicant) filed a preapplication notification letter regarding its proposal in Case No 13-1177-EL-BGN to construct a wind-powered electric generating facility in Hardin and Logan counties (Wind Turbine Application). On August 27, 2013, Hardin Wind filed preapplication notification letters regarding its applications in Case Nos. 13-1767-EL-BSB and 13-1768-EL-BTX to construct a point of interconnect (POI) substation to interconnect to the East Lima-Marysville 345 kilovolt (kV) circuit, and its application to construct a 345 kV transmission line to interconnect its wind generating facility to the East Lima-Marysville 345 kV circuit (collectively referred to as the Subst./Transm. Applications). On June 7, 2013, and September 30, 2013, Hardin Wind filed proof that legal notices were published in the *Bellefontaine Examiner* and in *The Kenton Times*, newspapers of general circulation in Logan and Hardin counties, respectively, for the informational public meetings on its applications in these cases held on May 29, 2013, and September 11, 2013, at the American Legion Building, 615 North Center Street, Belle Center, Ohio 43310.

On June 28, 2013, as supplemented on July 1, 2013, Hardin Wind filed its Wind Turbine Application. By Entry of September 17, 2013, the ALJ granted the motion of the Applicant to consolidate the applications in the above-captioned cases for purposes of all public hearings, evidentiary hearings, and public notices. On September 30, 2013, as supplemented on October 1, 2013, Hardin Wind filed the Subst./Transm. Applications, pursuant to Ohio Adm.Code Chapter 4906-17. By letters filed on September 25, 2013, and October 17, 2013, the Board notified Hardin Wind that its applications had been found to be sufficiently complete pursuant to Ohio Adm.Code 4906-1, et seq. On October 25, 2013, Hardin Wind filed certificates of service of its accepted and complete applications in accordance with the requirements of Ohio Adm.Code 4906-5-07.

By Entry issued October 30, 2013, the ALJ scheduled both a local public hearing for January 8, 2014, at the Hardin County Courthouse, Kenton, Ohio and an adjudicatory hearing for January 22, 2014, at the offices of the Public Utilities Commission of Ohio (Commission) in Columbus, Ohio. The October 30, 2013 Entry

also directed Hardin Wind to publish notice of the hearings in accordance with Ohio Adm.Code 4906-5-08.

On various dates, the ALJ granted motions to intervene filed by the Ohio Farm Bureau Federation (Farm Bureau), Joe and Deb Grant, Michael and Diana Shepherd, and Marilyn and Kent Hampton. Subsequent to being granted intervention, Deb Grant, Michael Shephard, and Diana Shephard indicated that they no longer wanted to participate as parties in these cases and elected to provide public testimony at the local public hearing. In addition, on January 6, 2014, Marilyn and Kent Hampton filed a notice of withdrawal of their intervention in these cases.

By Entry issued November 8, 2013, the ALJ granted Hardin Wind's motions for waivers of Ohio Adm.Code 4906-15-04(A) to provide fully-developed information on an alternate location for the substation and an alternate route for the transmission line. The Entry also granted a waiver of Ohio Adm.Code 4906-15-04(B)(2)(a)(i), requiring the applicant to identify grade elevations where modified during construction on a map of the proposed facility layout for associated facilities. In addition, the November 8, 2013 Entry granted Hardin Wind's motion for a protective order for certain financial information contained in the Subst./Transm. Applications.

On December 5, 2013, and December 9, 2013, Hardin Wind filed proof of publication of the legal notices of the hearings that appeared in the *Bellefontaine Examiner* and *The Kenton Times*. On December 24, 2013, pursuant to R.C. 4906.07(C), Staff filed reports of its investigations of the Wind Turbine Application and the Subst./Transm. Applications (hereinafter referred to as the Staff Reports). On January 13, 2014, the Applicant filed the second set of proofs of publication indicating that notice was published in the *Bellefontaine Examiner* and *The Kenton Times* on December 27, 2013, describing the applications and listing the hearing dates, in accordance with Ohio Adm.Code 4906-5-08(C)(2).

On January 15, 2014, Hardin Wind filed a notice that it was not developing Turbine No. 16 or the associated access roads and collection lines and that it was proposing a minor shift in the current location for Turbine No. 169 by approximately 399 feet. In addition, Hardin Wind noted that it was proposing to relocate approximately 300 feet of underground collection line between Turbine No. 169 and the substation to accommodate the request of the same property owner that will not be participating in the project. On January 16, 2014, Kent and Marilyn Hampton filed a notice of withdrawal of their intervention. On January 17, 2014, Hardin Wind filed a notice that it was dropping Turbine Nos. 21, 125, and 138 and the collection lines and access roads proposed on the parcels where Turbine Nos. 21 and 138 were proposed. Hardin Wind was also proposing a minor shift in a portion of the access road and collection line from Township Highway 200 to Turbine No. 129.

The local public hearing was held on January 8, 2014, where 23 public witnesses testified. On January 21, 2014, Hardin Wind, Staff, and the Farm Bureau filed a Stipulation. The adjudicatory hearing was held on January 22, 2014. At the adjudicatory hearing, Hardin Wind presented the testimony of Michael Speerschneider, Kenneth Kaliski, and Ryan Rupprecht; Staff presented the testimony of Donald E. Rostofer; the Farm Bureau presented the testimony of Dale R. Arnold; and Mr. Grant testified on his own behalf. At the conclusion of the adjudicatory hearing, Hardin Wind, the Farm Bureau, Staff, and Mr. Grant made closing statements in lieu of briefs.

II. Proposed Facilities and Siting

The wind turbine project will consist of a wind-powered electric generating facility constructed in Hardin and Logan counties, Ohio. The proposed facility will include up to 176 wind turbines and the total generating capacity of the facility will not exceed 300 megawatts (MW) of capacity. Each wind turbine structure will consist of a three-bladed horizontal axis turbine and nacelle on top of a monopole tubular steel tower. Tower height ranges from 479 feet to 492 feet, depending on turbine model, and rotor diameter is between 318 feet to 400 feet. The project will also include a 345 kV electric collection system to transfer electricity from each wind turbine to a collection substation. The collection substation would be enclosed by chain linked fence and would contain a main step-up transformer, control house, and interconnection switchgear and have a footprint of approximately three acres. (Staff Ex. 1 at 7.) The electricity would then be transferred through a 6.3 mile 345 kV transmission line to a newly constructed point of interconnection and then into American Electric Power's (AEP) existing East Lima-Marysville 345 kV electric transmission line and are the subjects of the Subst./Transm. Applications. (App. Ex. 1 at 2; Staff Ex. 2 at 6-7.) The wind turbine project also includes an operations and maintenance building for storing equipment and materials, permanent meteorological towers to collect wind resource data and support performance testing during operation of the wind turbine project, up to 60.5 miles of new or improved access roads to support the facility, and construction of laydown areas to accommodate equipment and material storage construction trailers and construction worker parking during turbine construction. (Staff Ex. 1 at 7-8.)

As discussed in the Staff Report for the Subst./Transm. Applications, the Applicant is proposing to construct a 345 kV transmission line and POI substation, which would connect Hardin Wind's proposed wind turbine project to the existing AEP East Lima-Marysville 345kV transmission line. The preferred transmission line route is approximately 4.8 miles long, traversing through leased land within McDonald Township. The route crosses County Road (CR) 65, Township Road (TR) 210, CR 75, and CR 180 east and northeast of the substation. The route heads northeast through

McDonald Township to the preferred substation site, crossing North Fork Miami River. (Staff Ex. 2 at 6.)

The preferred substation site is located at the POI between the preferred transmission line route and the existing AEP East Lima–Marysville 345 kV transmission line. The site is approximately 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 CRs 180 and 85, McDonald Township, Hardin County. (Staff Ex. 2 at 6.)

The alternate transmission line route is approximately 5.3 miles long, traversing through partially leased land within McDonald and Taylor Creek townships. This route heads in an eastward direction cross-country, crossing CR 65, TR 210, and CRs 106, 85, 102, and 200 to the alternate substation site. The alternate 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. This site is situated along the southeast side of the existing AEP East Lima–Marysville 345 kV transmission line approximately 1200 feet north of CR 200, Taylor Creek Township, Hardin County. (Staff Ex. 2 at 6.)

III. Certification Criteria

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 gas or natural gas transmission line.
- (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, such facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility system 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 and 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 the proposed major facility.
- (8) The facility incorporates maximum feasible water conservation practices as determined by the Board, considering available technology and the nature and economics of various alternatives.

The record in these cases addresses all of the above-required criteria. In accordance with R.C. Chapter 4906, the Board promulgated rules which are set forth in Ohio Adm.Code Chapter 4906-17 prescribing regulations regarding wind-powered electric generation facilities and associated facilities.

IV. Summary of the Evidence

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

A. Local Public Hearing

At the local hearing held on October 22, 2013, 21 members of the public testified in opposition to the projects and four members of the public indicated support for the projects. A number of witnesses objected to the placement of any wind turbines in populated areas of Ohio. Multiple witnesses expressed the belief that the decision whether to allow the projects be determined by a secret ballot of registered voters who live within the defined limits of the wind turbine project area. (Tr. I at 12-13, 98, 133, 136.) Several of the witnesses claimed that they had received inadequate notice of the projects (Tr. I at 21 56, 74). Numerous witnesses voiced concerns that the wind turbines would generate unacceptable noise, have maintenance problems, and create risks to human health and life which could result from blade shear and turbine fires (Tr. I at 24, 47, 50-51, 62, 66, 95, 112). Others who testified raised concerns that the projects would decrease the property values of homes in the project areas, have a negative effect on

wildlife, and could impact aircraft operating in the area (Tr. I at 79, 85, 99). Several witnesses believed that the setback requirements were inadequate because they did not require the minimum distances between the wind turbines and residences be measured from property lines, rather than from residences (Tr. I at 55, 58, 76). Other witnesses requested that the tax incentives and the payment in lieu of tax (PILOT) programs for wind projects be eliminated (Tr. I at 65, 67, 72, 128). Several witnesses voiced concern that the parent company of the Applicant was foreign-owned and was attempting to influence the rights of United States (U.S.) citizens and a few witnesses encouraged landowners to attempt to withdraw from their leases (Tr. I at 24, 34, 45, 66, 70, 74, 109, 130).

Those witnesses who expressed support for the projects indicated that they would generate clean renewable electric energy, increase tax revenue for schools and local governments, create construction and manufacturing jobs, and assist economic development efforts in the counties (Tr. I at 15-16, 19, 114, 120, 122). At the conclusion of the hearing, 22 individuals who did not testify, indicated their opposition to the projects, while two others indicated their support for the projects.

In addition to the testimony at the public hearing, the Board received public comments which were docketed in the "public comments" section of the docket card for these case. The public comments raised similar arguments to those expressed at the public hearing, both in favor of and in opposition to the projects. Also, several resolutions opposing the projects were filed in the dockets.

B. Basis of Need - R.C. 4906.10(A)(1)

Staff submits that the basis of need criterion specified under R.C. 4906.10(A)(1) is not applicable to the Wind Turbine Application (Staff Ex. 1 at 20). With respect to the Subst./Transm. Applications, Staff notes that, because the Applicant is not an electric distribution utility in Ohio, it is not required to submit a long-term forecast report (Staff Ex. 2 at 16).

PJM Interconnection LLC (PJM) is the regional transmission organization charged with managing the regional transmission system and the wholesale electricity market and 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 feasibility and system impact studies, which show no adverse effects by adding the substation or the transmission line projects to the regional bulk electric system. Without the proposed transmission line and substation, the wind turbine project would be unable to supply energy to the bulk electric system. Staff also determined that the substation and transmission line projects are not being

constructed to relieve congestion or improve the electric grid, but these projects are an integral part of the wind turbine project, as the wind turbine project would be unable to carry the generation output to the local and regional grid without the substation and transmission line projects. Staff concludes that the basis of need has been demonstrated. (Staff Ex. 2 at 16-17.)

Staff recommends that the Board find that the basis of need for the facilities in the Subst./Transm. Applications has been demonstrated and, therefore, complies with the requirements specified in R.C. 4906.10(A)(1), provided that any certificates issued by the Board for the proposed facilities include Staff's recommended conditions.

C. Nature of Probable Environmental Impact - R.C. 4906.10(A)(2)

Pursuant to R.C. 4906.10(A)(2), the Board must determine the nature of the probable environmental impact of the proposed facilities. The following is a summary of the findings of the Staff Reports, regarding the nature of the probable environmental impacts of the wind turbine, substation, and transmission line projects:

- (1) The substation and transmission line projects are located in Hardin County, and the wind turbine project area is located in Hardin and Logan counties, with reported 2010 populations of 32,058 and 45,858, respectively. The projects are not expected to limit the future population growth or have a measurable impact on the demographics of the region.
- (2) Land use in the vicinity of the projects is primarily agricultural and cultivated fields account for approximately 98 percent of all land that would be impacted by construction of the proposed facilities. With regard to the preferred and alternate transmission routes, 15 and 25 residences, respectively, are located within 1,000 feet of those routes. With regard to the preferred and alternate substation site, 2 and 0 residences, respectively, are within 1,000 feet of those sites. There are no residential structures within 100 feet of either the transmission line route or the substation site. The installation of wind turbines, access roads, underground collection facilities, and other ancillary structures would convert 48.7 acres of land from its current use to permanent facility use.

- (3) Logan County does not have any formally adopted, comprehensive land use plans. The Hardin County Comprehensive Economic Development Strategy was completed in 2012 and identifies regional wind resources as a key asset for economic development initiatives and wind energy development as a likely growth sector. The construction of the wind turbine project would not require the removal or relocation of any existing structures.
- (4) The Applicant conducted a cultural resources records review and assessment for the area within a five-mile radius of the wind turbine project and 1,000 feet on each side of the transmission line routes and substation sites. The records review revealed no properties within the study area of the substation and transmission routes but four National Register of Historic Places (NRHP) listed properties, 209 Ohio Historic Inventory Resources structures, 248 Ohio Archaeological Inventory Resources, and 40 cemeteries identified by the Ohio Genealogical Society, within a five-mile radius of the wind turbine project.
- (5) Two recreational areas are located within three miles of the wind turbine project area, both located in Logan County: Indian Lake State Park, which is approximately 0.5 miles from the nearest turbine and is the largest recreational area in the vicinity; and the Classic Swing Driving Range. Four additional recreational areas are located between 3 and 5 miles from the facility. While visual impacts would be reduced to varying degrees by topographical and vegetative screening, the size of the turbines limits the extent to which they can be obscured from view.
- (6) 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 wind turbine project's visual and aesthetic impacts will vary depending on the distance between the viewer and the turbines, the number of turbines visible, the amount of screening, atmospheric conditions, and the presence of other vertical elements, such as utility poles and communication towers.

- (7) Based on the Job and Economic Development Impact model computations, the construction of the proposed wind turbine facility would directly generate employment of 149 on-site construction and facility development personnel. The model suggests another 131 construction and interconnection labor jobs, 19 related service jobs, 884 turbine and supply chain impact jobs, and 266 induced impact jobs for a possible total impact of 1,300 new jobs. These jobs could result in up to \$65,000,000 in total construction wages. The estimate of applicable intangible and capital costs for the substation and transmission line projects has been filed under seal, but is anticipated to increase tax revenue between \$1,800,000 and \$2,700,000.
- (8) The wind turbine project will impact approximately 36 streams and two wetlands primarily due to installation of access roads and crane paths. For the substation and transmission line projects, 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.
- (9) The Applicant is currently coordinating with the U.S. Army Corps of Engineers on which a nationwide permit is most preferable, but anticipates coverage by the Nationwide Permit 51 for impacts to water resources. Additional measures to reduce water quality impacts would be taken through the development of a Stormwater Pollution Prevention Plan, as part of the Ohio Environmental Protection Agency's National Pollution Discharge Elimination System (NPDES) permit, to help control potential sedimentation, siltation, and run-off. No ponds or lakes would be impacted by these projects during construction or operation.
- (10) Construction of the wind turbine project would include 0.087 acres of temporary stream impacts and 0.047 acres of

permanent stream impacts. Impacts to wetlands have been completely avoided for the proposed facility. The majority of water resource impacts would be limited to man-made agricultural or roadside ditches. To minimize surface water impacts, the Applicant will bury the majority of the collection lines by horizontal directional drilling (HDD). Due to the use of HDD, Staff would require the Applicant to submit a detailed frac-out contingency plan for Staff review and approval.

- (11) No proposed turbine locations are within the 100-year floodplain. Access roads and collection lines would impact approximately 11.48 acres within the 100-year floodplain, including approximately 8.74 acres of temporary impacts and approximately 2.74 acres of permanent impacts. The Applicant will provide a copy of any floodplain permit required for construction of the substation or transmission line project.
- (12) The Applicant will use best management practices (BMPs) to minimize impacts to surface waters. Wetlands would be designated as "no equipment access 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 of woody debris; no accumulation of construction debris; no herbicide applications; no degradation of stream banks; no equipment washing or refueling; and no storage of any petroleum or chemical material.
- (13) No significant impacts to any specific plant species are anticipated as a result of these projects. Any impacts to vegetation will be minimized and mitigation measures would be taken to reestablish vegetative cover in disturbed areas, except in active agricultural fields.
- (14) Review of information from the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service, regarding state and federally listed threatened and endangered plant and animal species, found that the wind turbine project is within the range of four federally-listed species. In addition, one candidate species for federal

listing is known to be present within the facility boundaries. The wind turbine project is also within the range of several state-listed species. ODNr has reviewed the wind turbine project with the understanding that all permanent impacts to identified wetlands would be avoided as stated in the application.

- (15) The primary threat to the Indiana bat would be during operation of the wind turbine facility due to the risk of collision and barotrauma from coming in close proximity to an operational wind turbine. As tree-roosting species, during the non-winter months, this bat species could be negatively impacted by tree clearing associated with construction and maintenance of the facility. In order to reduce potential negative impacts to the Indiana bat, the Applicant will 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.
- (16) Assuming a maximum turbine height of 492 feet as proposed in the application, this minimum property line setback equates to a distance of 541 feet. The distance between the nearest nonparticipating property lines varies from 549 to 2,637 feet, averaging 1,198 feet. Using maximum blade lengths assumed in the application, this minimum setback calculates to 950 feet from the turbine base to the exterior of the nearest habitable residential structure. The distances between the nearest nonparticipating residential structures and the turbines ranges between 1,335 to 4,047 feet and average 1,989 feet.
- (17) There will be some modifications to local roads, including the expansion of intersection turns to accommodate specialized turbine component delivery vehicles and conventional construction trucks. Other transportation infrastructure improvements include temporary road gravel fills, pipe to maintain drainage in the ditched areas, and relocation of poles, street signs and other appurtenances. Upon completion of the wind turbine project, the Applicant would return all roadways to their preconstruction conditions or better. The Applicant will obtain all necessary transmission permits and will coordinate with the county

engineer, Ohio Department of Transportation (ODOT), local law enforcement and health and safety officials.

- (18) Both the preferred and alternate routes for the transmission line project cross county roads and township highways, but 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. Both substation sites would be accessed by new gravel-surfaced roads. Access to 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.
- (19) The Applicant has committed to repairing damage to public roads and bridges caused by construction or maintenance activities. Any damaged public roads and bridges would be repaired promptly to their previous condition by the Applicant under the guidance of the appropriate regulatory agency. Any temporary improvements would be removed, unless the county engineer(s) request that they remain. The Applicant would provide financial assurance to the counties that it will restore the public roads it uses to their condition prior to construction or maintenance.
- (20) Staff found no history of seismic activity within the project areas. The Applicant has committed to completing a full detailed geotechnical exploration and evaluation at each turbine site to confirm that there are no issues to preclude development of the projects.
- (21) No impact is expected on public or private water supplies as neither construction nor operation of the proposed facilities would require the use of measurable amounts of water. The Applicant has concluded that the construction of the projects would not have any effect on the groundwater or surface water protected by the source water supply.
- (22) Staff recommends a minimum setback distance from gas pipelines of at least 1.1 times the total height of the turbine structure as measured from its tower's base, excluding the

subsurface foundation, to the tip of its highest blade. Based on the tallest turbine model proposed for this project, the recommended pipeline setback is 541 feet. Turbine Nos. 7, 8, 10, 13, 14, 15, 25, 52, 55, and 108 are located 541 feet or less from natural gas or hazardous liquid pipelines.

- (23) More recent turbine design, coupled with use of setbacks, has significantly minimized the potential for blade shear impacts. The Applicant has incorporated a wind turbine layout with a residential setback of 950 feet and a property line setback of 541 feet.
- (24) The turbines under consideration by the Applicant have a cut-out speed between 55.9 miles per hour (mph) or less, and have been designed to withstand extreme 10-minute average wind speeds of 95 mph.
- (25) A German Wind Energy Institute consulting company study on ice throw recommends locating turbines a distance of at least 150 percent of the sum of the hub height and rotor diameter from occupied structures. The turbines under consideration would need to be located approximately 1,092 feet from any occupied structure or heavily traveled road. Based on the proposed turbine locations, no turbines under consideration would need to be relocated to satisfy the aforementioned ice throw standard.
- (26) The Applicant recorded average baseline ambient noise levels ranging from 38 to 53 decibels (dBA).
- (27) Most noise impacts associated with the substation and transmission facilities 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. Noise impacts from construction activities associated with the wind turbines will include the operation of various trucking and heavy equipment. Construction noise will be temporary and restricted primarily to daytime working hours.
- (28) Shadow flicker was simulated from the proposed turbines out to 1,220 meters. The analysis identified 48 nonparticipating receptors would be exposed to more than

30 hours of shadow flicker per year by the wind turbine facility, 23 of whom are subject to pending participation agreements. The Applicant also studied the cumulative impact of shadow flicker of both the wind turbine project and an adjacent wind turbine project. The results of this modeling revealed that two nonparticipating receptors would be exposed to more than 30 hours of shadow flicker per year by the combined facilities.

- (29) The National Telecommunications and Information Administration has not identified any concerns regarding blockage of radio frequency transmission systems for these projects.
- (30) No impacts to AM radio or radar systems are expected from operation of the projects. Further study is necessary to ensure that there are no impacts to microwave communication systems and mobile phones. The Applicant must mitigate any impacts to communication systems from operation of the facilities.
- (31) The Applicant has proposed, upon termination of a lease, to dismantle and remove facility improvements and other above-ground property owned or installed by Hardin Wind. Below-ground structures, such as turbine foundations/footings and buried interconnect lines, would be removed to a minimum depth of 36 inches. The Applicant has proposed posting and maintaining financial assurance in an amount of \$5,000 per turbine prior to construction, until such time that the facility has been operational for one year. The Applicant would retain an independent professional engineer licensed to practice in Ohio to develop the estimate of the total cost of decommissioning.

(Staff Ex. 1 at 21-45; Staff Ex. 2 at 18-27.)

In its report, Staff recommends the Board find that the nature of the probable environmental impact has been determined for the projects and that they comply with the requirements specified in R.C. 4906.10(A)(2), provided the certificates issued include Staff's recommendations (Staff Ex. 1 at 45; Staff Ex. 2 at 27).

D. Minimum Adverse Environmental Impact - R.C. 4906.10(A)(3)

Pursuant to R.C. 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.

The site for the wind turbine project was selected based on the quality of the wind resource, the ability to interconnect to the electric grid, available land and compatible land use, site accessibility, and the low risk of impacting sensitive ecological resources. Locations of individual turbines were based on maximizing energy yield, avoidance of sensitive ecological and cultural resources, limiting impacts to agriculture, noise and shadow flicker constraints, and residential and property setbacks. The Applicant's site selection criteria minimize the potential impact of the project while achieving the project's goal of generating renewable electricity. (Staff Ex. 1 at 46.)

Due to the practical necessity to locate the transmission facilities in proximity to the proposed wind turbine project and the limited interconnection points, the Applicant was granted a waiver of fully-developed information on the alternate route and the alternate substation site. Major shifts in the interconnection point would significantly delay and/or add excessive costs to facility construction. The Applicant 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 (i.e., churches, hospitals, cemeteries, historic sites, and parks), and vegetative clearing. (Staff Ex. 2 at 28.)

The Applicant has sited and designed the wind turbine project to minimize potential impacts while meeting the need for the project. Regional land use plans call for conservation of farmland and economic diversity and the development of a wind turbine, transmission, and substation projects in the region is consistent with those goals. (Staff Ex. 1 at 40; Staff Ex. 2 at 28.)

Agricultural land accounts for approximately 99 percent of all land that would be impacted by construction of the proposed substation and transmission facilities. Less than one percent of this land would be permanently converted into built facilities. 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. (Staff Ex. 1 at 46; Staff Ex. 2 at 28.)

The Applicant has sited and designed the substation and transmission line projects 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 facilities. Less than one percent (5.4 acres) of this land would be permanently converted into built facilities. (Staff Ex. 2 at 28.)

The wind turbine, substation, and transmission line projects 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. For the wind turbine project, the applicant would make annual payments in lieu of taxes in the amount of approximately \$2,700,000, and for the substation and transmission line projects, the increase in local tax revenues would be between \$1,800,000 and \$2,700,000 annually. (Staff Ex. 1 at 46; Staff Ex. 2 at 28.)

To minimize impacts to wetlands and streams associated with the projects, the Applicant has committed to avoiding in-water work in any primary headwater 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. The Applicant has also committed to seasonal tree cutting dates of September 30 through April 1 for suitable Indiana bat habitat. (Staff Ex. 1 at 47; Staff Ex. 2 at 29.)

All turbine locations meet the minimum setback requirements. The Applicant has incorporated a wind turbine layout with a minimum residential setback distance of 914 feet, and a property line setback of 541 feet. The Applicant has indicated that various safety control mechanisms would be utilized to minimize the potential for blade shear and ice throw impacts. 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 routing plan will be developed through discussions with the Hardin and Logan county engineers and performed in conjunction with the ODOT special hauling permit process. (Staff Ex. 1 at 47.)

The Applicant's proposed turbine layout, with the required turbines operating in noise reduction operation mode, is not likely to generate unacceptable levels of noise for nonparticipating residents. The Applicant modeled shadow flicker impacts with respect to the proposed facility and the existing adjacent facility. The model showed that no nonparticipating receptors would be exposed to more than 30 hours of shadow flicker per year by the facility. The proposed wind turbine layout, with the utilization of minimization measures for nonparticipating receptors modeled to receive no more than 30 hours of exposure to shadow flicker, presents the minimum adverse shadow flicker impact. (Staff Ex. 1 at 47.)

No impacts to AM/FM radio or radar systems are expected from the projects. The Applicant would mitigate television reception impacts to the satisfaction of the affected receptor. Further study is recommended for potential impacts to microwave communication systems and mobile phones. (Staff Ex. 1 at 47.)

Staff submits that, because the wind turbine project impacts such a large area, it is imperative that the Applicant secure a financial instrument that best reflects the ability to completely decommission the facility. Because the wind turbine project would not create revenue until it is operational, it is necessary that the decommissioning funds be available at the start of construction. The additional decommissioning requirements outlined in the conditions would ensure that the project meets the minimum adverse environmental impact. (Staff Ex. 1 at 47.)

In looking at the overall environmental impacts of the projects, Staff recommends the Board find that the projects represent the minimum adverse environmental impact and, therefore, comply with the requirements specified in R.C. 4906.10(A)(3), provided that any certificates issued by the Board for the projects include Staff's recommendations. (Staff Ex. 1 at 48; Staff Ex. 2 at 30.)

(E) Electric Power Grid – R.C. 4906.10(A)(4)

Pursuant to R.C. 4906.10(A)(4), the Board must determine that the proposed electric 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 facilities will serve the interests of electric system economy and reliability.

The Applicant plans to use a 34.5 kV underground collection system, which will gather the wind generators output at the collection station. The collection station would transform the voltage from 34.5 kV to 345kV, which would be delivered to the switching station and the proposed substation would be constructed to interconnect the wind turbine project to the regional bulk electric system. (Staff Ex. 1 at 48; Staff Ex. 2 at 16.)

PJM studied the interconnection as a new in-line switching station to be located between AEP's East Lima and Marysville stations. The project would be connected at 345 kV. The Applicant requested a maximum facility interconnection of 300 MW, of which 39 MW would be capacity. Capacity represents the need to have adequate generating resources to ensure that the demand for electricity can be met at all times. For new wind generators, PJM sets the capacity to 13 percent of the total energy output. This equates to a capacity of 39 MW for the wind turbine project. (Staff Ex. 1 at 49; Staff Ex. 2 at 16.)

As noted previously, PJM has completed the feasibility and system impact studies for the wind turbine project, which includes local and regional transmission system impacts. These studies summarized the impacts of adding the proposed wind project to the regional bulk electric system and identified any transmission system upgrades caused by the facility that would be required to maintain the reliability of the regional transmission system. The Applicant has not yet signed a construction service agreement or an interconnection service agreement with PJM for the proposed facility. Signatures on the interconnection service agreement would need to be obtained before PJM will allow the Applicant to interconnect the proposed facility to the bulk electric transmission system. (Staff Ex. 1 at 50.)

PJM also analyzed the bulk electric system, with the wind turbine project interconnected to the transmission grid, for compliance with AEP, North American Electric Reliability Corporation, and PJM reliability criteria. The PJM studies indicated no reliability problem on the local or regional bulk electric systems while operating at full output. The proposed facility is expected to provide reliable generation to the bulk electric transmission system, is consistent with plans for expansion of the regional power system, and would serve the interests of electric system economy and reliability. The facility would serve the public interest, convenience, and necessity by providing additional electrical generation to the regional transmission grid. (Staff Ex. 1 at 53; Staff Ex. 2 at 33.)

Staff recommends the Board find the proposed facilities are 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 facilities would serve the interests of electric system economy and reliability. Therefore, the facilities comply with the requirements specified in R.C. 4906.10(A)(4), provided that any certificates issued by the Board include Staff's recommendations. (Staff Ex. 1 at 53; Staff Ex. 2 at 54.)

(F) Air, Water, Solid Waste, and Aviation – R.C. 4906.10(A)(5)

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

Staff states that, since the operation of the facilities will not produce air pollution, there are no applicable air quality limitations, National Ambient Air Quality Standards, prevention of significant deterioration increments, or the need for permits to install and operate an air pollution source. The Applicant intends to minimize emissions during the site clearing and construction by using BMPs, such as applying water or other dust suppressants to prevent emissions. (Staff Ex. 1 at 54; Staff Ex. 2 at 34.)

Hardin Wind indicates that the requirements of R.C. 1501.33 and 1501.34 are not applicable to these projects, since neither construction nor operation of the proposed facilities will require the use of significant amounts of water. Hardin Wind indicates that it would apply for the following permits: an Ohio NPDES construction storm water general permit, a Nationwide Permit 51 under Section 404 of the Clean Water Act, and an Ohio Permit to Install on-site sewage treatment, if necessary. (Staff Ex. 1 at 54-55; Staff Ex. 2 at 34.)

Approximately 8.5 acres of temporary impacts to land use (primarily agriculture) is anticipated during construction of the preferred transmission line route and substation site. The facilities 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. (Staff Ex. 2 at 35.)

Relative to solid waste, the Staff Reports reflect that the Applicant is not aware of preconstruction solid waste in the proposed areas. Waste generated during construction would consist of a limited amount of plastic, wood, cardboard, metal packing/packaging materials, construction debris, and general refuse. The solid waste generated during the construction or operation of the facilities would be secured and removed from the projects area and disposed of at a licensed disposal facility. The operations and maintenance facility would utilize local solid waste recycling and disposal services. (Staff Ex. 1 at 55; Staff Ex. 2 at 35.)

With regard to aviation, there are two airports located in the vicinity of the proposed facilities. Hardin County Airport, located south of the city 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. (Staff Ex. 1 at 55; Staff Ex. 2 at 35.)

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; therefore, Federal Aviation Administration (FAA)/ODOT jurisdiction would not apply. According to Staff, all turbine locations were submitted to the FAA for review and the FAA has determined that there is no hazard to air navigation. In addition, consistent with R.C. 4561.32, Staff contacted ODOT Office of Aviation (ODOT-OA) in order to coordinate review of potential impacts that the facility might have on local airports. (Staff Ex. 1 at 56; Staff Ex. 2 at 35.)

According to Staff, the Applicant's description of the construction and operation of the facilities would be in compliance with the rules and regulations adopted in conformance with the air and emission requirements in R.C. Chapter 3704, the requirements under R.C. Chapter 6111, and the solid waste disposal requirements of R.C. Chapter 3734. Additionally, Staff implemented FAA and/or ODOT-OA recommendations where deemed justified. Therefore, Staff believes the proposed facilities comply with the requirements specified in R.C. 4906.10(A)(5), provided the certificates issued include Staff's recommendations. (Staff Ex. 1 at 52; Staff Ex. 2 at 36.)

G. Public Interest, Convenience, and Necessity – R.C. 4906.10(A)(6)

Hardin Wind recognizes that the application for a certificate of environmental compatibility and public need must include a description of the Applicant's public interaction programs. The Staff Report for the Wind Turbine Application reflects that Hardin Wind has endeavored to provide general information about wind power, and made specific information about the proposed facility available to the local communities, the media, elected officials, and local civic organizations. The Applicant has shared information through a public informational meeting held in May 2013; official Board of Trustee and Planning Board meetings and presentations to various schools, churches, and clubs; as well as through the Applicant's website. Further, the Applicant maintained a booth at local fairs and festivals to maintain a presence in the communities and hired qualified local residents as project developers to assist in the development of this and other facilities in Ohio. (Staff Ex. 1 at 57.)

According to the Staff Reports, Hardin Wind will maintain, through the term of the projects, an umbrella insurance policy to insure itself and all lessors against loss or liability in an amount no less than \$1 million per occurrence and \$2 million in the aggregate. In addition, the Applicant expects to maintain, throughout the construction and operation phases, umbrella coverage that would, at a minimum, insure against claims of \$10 million per occurrence and \$10 million in the aggregate. This policy will cover any potential personal injury, death, and property damage associated with the operation of the proposed facility. (Staff Ex. 1 at 57.)

The wind turbine project would be placed on private property in accordance with a lease agreement with the property owner. In exchange for allowing the siting of turbines, access roads, and/or other facility components on their land, property owners would be compensated with annual lease payments totaling approximately \$2 million for the entire facility each year it is in operation. 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 substation and transmission facilities. (Staff Ex. 1 at 57; Staff Ex. 2 at 37.)

The Applicant has committed to complying with safety standards set by the Occupational Safety and Health Administration, the Commission, and equipment specifications. The Applicant has designed the facility to meet or exceed the requirements of the National Electric Safety Code. (Staff Ex. 2 at 37.)

According to Staff, the alternative energy portfolio standard (AEPS), contained within R.C. 4928.64 requires a portion of the electricity sold to retail customers in Ohio to come from renewable energy resources. This requirement, which began in 2009, includes annually increasing renewable benchmarks through 2024. Renewable energy resources, as defined by statute, include wind generating technologies. At least 50 percent of the annual renewable energy requirement must be satisfied with resources located within the state of Ohio. Electric distribution utilities or electric service companies have several options for demonstrating compliance with the AEPS, including entering into a renewable power supply agreement or through the use of renewable energy credits (RECs). To be eligible for use towards a renewable benchmark, RECs must originate from a renewable energy resource facility certified by the Commission as an eligible renewable energy generating facility. Staff believes the proposed facility would likely qualify as an in-state renewable energy resource under the AEPS and, therefore, it could contribute to helping affected entities comply with their statutory requirements under the AEPS. (Staff Ex. 1 at 58.)

Ohio Senate Bill 232, effective June 17, 2010, provides adjustments for the tax structure of qualified energy projects in Ohio. Subject to certain requirements, qualifying wind energy projects are exempt from real and personal property taxation. Owners and lessees of such projects are instead required to make annual PILOT of up to \$9,000/MW of installed capacity. If the Applicant pays the maximum PILOT of \$9,000/MW, the annual payment amount would be approximately \$2,700,000. (Staff Ex. 1 at 58.)

With respect to the substation and transmission line projects, Staff reviewed the electromagnetic fields (EMF) generated by the transmission lines. There have been concerns that EMF may have impacts on human health; however, Staff notes the laboratory studies have failed to establish a strong correlation between exposure to EMF and effects on human health. Nonetheless, 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. Staff also determined that 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. (Staff Ex 2 at 37-38.)

Staff recommends the Board find the proposed facilities will serve the public interest, convenience, and necessity. Staff believes the proposed facilities comply with the requirements specified in R.C. 4906.10(A)(6), provided the certificates issued include Staff's recommendations. (Staff Ex. 1 at 59; Staff Ex. 2 at 38.)

H. Agricultural Districts – R.C. 4906.10(A)(7)

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.

Within the project area, 15 agricultural district parcels would be permanently impacted by the construction of the proposed facility. There are eight parcels that contain a wind turbine site(s), and 12 parcels that contain collection lines. Approximately 11.9 acres of permanent impacts would occur to agricultural district land. Additionally, the construction of the proposed wind turbine facility would also result in the temporary loss of approximately 185 acres from the Current Agricultural Use Value Program. The Staff Reports indicate that, because of the minimal impact to agricultural land associated with these projects, agricultural district land would not be adversely affected. (Staff Ex. 1 at 55.)

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, only the agricultural land associated with turbines and access roads would be removed from farm production. (Staff Ex. 1 at 60.) Along the preferred route, two poles would be placed within one agricultural district parcel. Construction of the preferred substation site would also not affect any agricultural district parcel. (Staff Ex. 2 at 39.)

Therefore, Staff recommends the Board find the impact of the projects on the viability of existing agricultural land in an agricultural district has been determined and that the projects comply with the requirements specified in R.C. 4906.10(A)(7), provided

the certificates issued include Staff's recommendations. (Staff Ex. 1 at 60; Staff Ex. 2 at 39.)

I. Water Conservation Practice – R.C. 4906.10(A)(8)

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

According to the Staff Reports, the wind turbine project and the substation and transmission line projects will not require the use of water for operations. Therefore, water consumption associated with the proposed electric generation equipment does not warrant specific conservation efforts. While potable water will be used by the facility's operations and maintenance building employees, the amount of water consumed for these purposes would be immeasurable. Therefore, Staff recommends the Board find the requirements specified in R.C. 4906.10(A)(8) are not applicable to these projects. (Staff Ex. 1 at 57; Staff Ex. 2 at 40.)

V. Stipulation

At the January 22, 2014 adjudicatory hearing, counsel for the Applicant presented a Stipulation for all three applications in these cases, which was docketed on January 21, 2014, and signed by Hardin Wind, Staff, and the Farm Bureau (collectively, stipulating parties). The stipulating parties recommend the Board issue the certificates requested by the Applicant, subject to certain conditions. The following is a summary of the conditions agreed to by the stipulating parties and is not intended to replace or supersede the Stipulation:

Conditions Related to the Wind Turbine Project:

- (1) The facility shall be installed as presented in the applications, and as modified and/or clarified by the Applicant's supplemental filings and further clarified by recommendations in the Staff Report.
- (2) The Applicant shall utilize the equipment and construction practices as described in the applications and as modified and/or clarified in supplemental filings, replies to data requests, and recommendations in the Staff Report.
- (3) The Applicant shall implement the mitigation measures as described in the applications and as modified and/or

clarified in supplemental filings, replies to data requests, and recommendations in the Staff Report.

- (4) At least 30 days before the preconstruction conference the Applicant shall submit to Staff for review a complete copy of the manufacturer's safety manual for the turbine model selected.
- (5) Prior to construction of the wind turbine project, the Applicant shall finalize the 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 NRHP, the Applicant shall consult with Staff and, if necessary, submit an amendment, modification, or mitigation plan for Staff's acceptance.
- (6) Prior to the commencement of construction, the Applicant shall conduct an architectural survey of the project area. The Applicant shall finalize the work program that outlines areas to be studied in both Hardin and Logan counties in coordination with Staff and the Ohio Historic Preservation Office. If the architectural survey discloses a find of cultural or architectural significance, or a structure that could be eligible for inclusion on the NRHP, the Applicant shall consult with Staff, and, if necessary, submit an amendment, modification, or mitigation plan for Staff's acceptance.
- (7) The Applicant shall have a vegetation management plan that addresses the concerns outlined in the Staff Report. Prior to commencement of construction, the Applicant shall submit this plan to Staff, for review and confirmation that it complies with this condition.
- (8) The Applicant shall provide to Staff and the Ohio Department of Natural Resources (ODNR) Division of Wildlife (DOW) information regarding stream crossing methods used during construction, any minimization efforts employed, and details of any potential impacts of

stream crossings to aquatic species. All minimization efforts to avoid impacts to streams shall occur.

- (9) The Applicant shall avoid Upland Sandpiper suitable nesting habitat during this species' nesting period of April 15 to July 31.
- (10) Sixty days prior to the first turbine becoming operational, the Applicant shall submit a post construction avian and bat monitoring plan for DOW and Staff review and confirmation that it complies with this condition. The Applicant's plan shall be consistent with ODNR-approved, standardized protocol, as outlined in ODNR's On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio. This includes having a sample of turbines that are searched daily. Mitigation initiation timeframes shall be outlined in the DOW approval letter and the Board concurrence letter.
- (11) Construction in Northern Harrier preferred nesting habitat shall be prohibited during the nesting period of May 15 to August 15.
- (12) The Applicant shall adhere to a setback distance of at least 1.1 times the total height of the turbine structure, as measured from its tower's base (excluding the subsurface foundation) to the tip of its highest blade, from any natural gas or hazardous liquid pipeline in the ground and active at the time of certificate issuance.
- (13) The facility shall be operated so that the facility noise contribution does not result in noise levels at the exterior of any currently existing nonparticipating sensitive receptor that exceed the project area ambient nighttime LEQ (42 dBA) by five dBA. During daytime operation only (7:00 a.m. to 10:00 p.m.), the facility may operate at the greater of: (a) the project area ambient nighttime LEQ (42 dBA) plus five dBA; or, (b) the validly measured ambient LEQ plus five dBA at the location of the sensitive receptor. After commencement of commercial operation, the Applicant shall conduct further review of the impact and possible mitigation of all facility-related noise complaints through its complaint resolution process.

- (14) The facility shall be operated so that the facility shadow flicker contribution does not result in shadow flicker levels that exceed 30 hours per year for any nonparticipating sensitive receptor. The Applicant shall complete a shadow flicker analysis for all inhabited nonparticipating sensitive receptors that have already been modeled to be in excess of 30 hours per year of shadow flicker. The analysis shall show how modeled shadow flicker impacts have been reduced to 30 or fewer hours per year for each such receptor. After commencement of commercial operation, the Applicant shall conduct further review of the impact and possible mitigation of all facility-related shadow flicker complaints through its complaint resolution process.
- (15) The Applicant shall develop a complaint resolution process that shall include procedures for responding to complaints about excessive noise during construction, and excessive noise and excessive shadow flicker caused by operation of the facility. The complaint resolution process shall include procedures by which complaints can be made by the public, how complaints will be tracked by the Applicant, steps that will be taken to interact with the complainant and respond to the complaint, steps that will be taken to verify the merits of the complaint, and steps that will be taken to mitigate valid complaints.
- (16) The Applicant, facility owner, and/or facility operator shall comply with the following conditions regarding decommissioning:
 - (a) Provide the final decommissioning plan to Staff and the county engineer(s) for review and confirmation of compliance with this condition, at least 30 days prior to the preconstruction conference. The plan shall:
 - (i) Indicate the intended future use of the land following reclamation.
 - (ii) Describe the following: engineering techniques and major equipment to be used in decommissioning and reclamation; a surface water drainage

plan and any proposed impacts that would occur to surface and ground water resources and wetlands; and a plan for backfilling, soil stabilization, compacting, and grading.

- (iii) Provide a detailed timetable for the accomplishment of each major step in the decommissioning plan, including the steps to be taken to comply with applicable air, water, and solid waste laws and regulations and any applicable health and safety standards in effect as of the date of submittal.
- (b) Provide a revised decommissioning plan to the Staff and the county engineer(s) every five years from the commencement of construction. The revised plan shall be applied to each five-year decommissioning cost estimate. Prior to implementation, the decommissioning plan and any revisions shall be reviewed by Staff to confirm compliance with this condition.
- (c) At its expense, complete decommissioning of the facility, or individual wind turbines, within 12 months after the end of the useful life of the facility or individual wind turbines. If no electricity is generated for a continuous period of 12 months, or if the Board deems the facility or turbine to be in a state of disrepair warranting decommissioning, the wind energy facility or individual wind turbines will be presumed to have reached the end of its useful life. The Board may extend the useful life period for the wind energy facility or individual turbines for good cause as shown by the Applicant, facility owner and/or facility operator.
- (d) Decommissioning shall include the removal and transportation of the wind turbines off site. Decommissioning shall also include the

removal of buildings, cabling, electrical components, access roads, and any other associated facilities, unless otherwise mutually agreed upon by the Applicant, facility owner and/or facility operator. The disturbed area shall be restored to the same physical condition that existed before erection of the facility. Damaged field tile systems shall be repaired to the satisfaction of the property owner.

- (e) During decommissioning, all recyclable materials, salvaged and nonsalvaged, shall be recycled to the furthest extent practicable. All other nonrecyclable waste materials shall be disposed of in accordance with state and federal law.
- (f) Not remove any improvements made to the electrical infrastructure if doing so would disrupt the electric grid, unless otherwise approved by the applicable regional transmission organization and interconnection utility.
- (g) Subject to confirmation of compliance with this condition by Staff, and seven days prior to the preconstruction conference, an independent, registered professional engineer, licensed to practice engineering in the state of Ohio, shall be retained by the Applicant, facility owner, and/or facility operator to estimate the total cost of decommissioning in current dollars, without regard to salvage value of the equipment. This estimate shall be conducted every five years by the facility owner and/or facility operator.
- (h) Post and maintain for decommissioning, at its election, funds, a surety bond, or similar financial assurance in an amount equal to the per-turbine decommissioning costs multiplied by the sum of the number of turbines constructed and under construction. The

funds, surety bond, or financial assurance need not be posted separately for each turbine, so long as the total amount reflects the aggregate of the decommissioning costs for all turbines constructed or under construction.

- (i) The decommissioning funds, surety bond, or financial assurance shall be released by the holder of the funds, bond, or financial assurance when the Applicant, facility owner and/or facility operator has demonstrated, and the Board concurs, that decommissioning has been satisfactorily completed, or upon written approval of the Board, in order to implement the decommissioning plan.
- (17) Turbine No. 169 shall be relocated to comply with the applicable setback requirement of 541 feet from all adjacent nonparticipating parcels, and shall remain located on the same parcel as currently proposed. The portion of the collection line system between Turbine No. 169 and the substation that is proposed to be routed on a parcel south of CR 180 and immediately adjacent to the substation parcel shall be relocated to the opposite side of CR 180 (the north side) and to the same parcel to which the preferred transmission line route was relocated as described in the Applicant's December 16, 2013 supplemental filing.
- (18) The portion of the collection line system and access road from Township Highway 200 currently proposed to be located on the same parcel as Turbine No. 125 shall be relocated in its entirety to the same parcel upon which the access road and collection line system that continues to Turbine No. 129 from Turbine No. 125 is located.

Conditions Related to the Transmission Line and Substation Projects:

- (1) The transmission line shall be installed at the Applicant's preferred route and substation site as presented in the applications, and as modified and/or clarified by the Applicant's supplemental filings and further clarified by recommendations in the Staff Report.

- (2) 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 the Staff Report.
- (3) 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 the Staff Report.
- (4) Prior to construction for the transmission facilities, the Applicant shall finalize a Phase I cultural resources survey program for archeological work at pole locations, access roads, substations, and guy-lines 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 NRHP, the Applicant shall consult with Staff, and submit an amendment, modification, or mitigation plan for Staff's acceptance.
- (5) Prior to the commencement of construction, the Applicant shall finalize an architectural survey of the project area. This survey may be conducted in conjunction with the acceptable parameters of the wind turbine survey. 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 NRHP, the Applicant shall consult with Staff, and, if necessary, submit an amendment, modification, or mitigation plan for Staff's acceptance.
- (6) Prior to the commencement of any construction, the Applicant shall prepare a landscape plan for Staff's review and approval that addresses the aesthetic impacts of the substation site, including screening types and locations. The Applicant shall consult with property owners adjacent to the substation parcel in the development of this plan.
- (7) Specific to the property identified as Hardin County, Ohio tax parcel 32-100012.0000 with a mailing address of 7810 CR 180, Kenton, Ohio 43326 (Parcel #2-100), the landscape plan

prepared by the Applicant shall include a screening landscape plan to be installed between the substation and the residence currently owned by Kent and Marilyn Hampton. The Applicant will use best efforts to install screening in such a manner so as to minimize the visibility to a pedestrian of the substation and any other project buildings constructed on the substation site at all points. The Applicant will maintain that screening in good condition for the life of the project.

- (8) The Applicant shall avoid Upland Sandpiper suitable nesting habitat during this species' nesting period of April 15 to July 31.
- (9) 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-sight of a nest shall be restricted from January 15 through July 31.
- (10) The Applicant shall keep lighting at operation and maintenance facilities and substations to the minimum required. Additionally, the Applicant shall use lights with motion or heat sensors or 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.

(Jt. Ex. 1 at 5-12.)

VI. Conclusion

Ohio Adm.Code 4906-7-09 authorizes parties to Board proceedings to enter into stipulations concerning issues of fact. Although not binding on the Board, pursuant to Ohio Adm.Code 4906-7-09(C), 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). The ultimate issue for our 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?

Is the settlement a product of serious bargaining among capable, knowledgeable Parties?

Hardin Wind contends that the Stipulation signed by Staff, the Farm Bureau, and Hardin Wind is the product of serious bargaining among capable, knowledgeable parties. Hardin Wind cites the testimony of its witness Michael Speerschneider to demonstrate that the multiple parties engaged in numerous discussions and revisions were made to conditions contained therein. As noted by Mr. Speerschneider, the Stipulation contains minor revisions to clarify certain conditions, addressing additional cultural resources and architectural surveys. In addition, a condition has been added placing limitation of the northern Harrier referred nesting habitat, and a condition requiring surveys for the presence of Eastern Massasauga Rattlesnake. Other conditions have been adopted, including conditions addressing facility decommissioning, operational noise, and tree clearing near Bald Eagle nests or within any wood lots supporting a nest tree. Further, the Stipulation addresses the shift of Turbine No. 169, the shift of collection lines and an access road, a minor relocation of the collection line and access road going to Turbine No. 129, relocation of the north end of the access road going to Turbine No. 12, and several provisions that reflect consideration and response to Staff's recommendations and conditions, as well as additional screening requirements for the projects and the substation. (Tr. II at 16-20, 22-23.) Dale Arnold testified that the Farm Bureau supports the Stipulation and recommends Board approval (Tr. II at 64). Donald Rostofer testified that Staff analyzed the projects and prepared reports of investigation of each project, including Staff Ex. 1, the Staff Report of the wind turbine project, and Staff Ex. 2, the Staff Report of the substation and transmission line projects. Mr. Rostofer also testified that the settlement is the product of serious bargaining among capable knowledgeable parties (Tr. II at 73-75). While not supporting the Stipulation, Mr. Grant acknowledged that he was invited to participate in the negotiations that preceded the filing of the Stipulation and he received drafts of the Stipulation prior to its filing (Tr. II at 71).

The Board finds that the Stipulation appears to be the product of serious bargaining among capable, knowledgeable parties. It is uncontested that, as noted by Hardin Wind and Staff, all parties engaged in multiple discussions and circulated proposals to each other, as well as to Mr. Grant who declined to be a signatory party to the Stipulation. Consequently, we find that, based upon the record, the first prong is satisfied.

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

Hardin Wind claims that the Stipulation, as a package, benefits the public interest. Hardin Wind witness Speerschneider testified that, when completed, the projects will have a generated capacity of 300 MW, an annual estimated output of approximately 788,400 to 998,640 MW hours of clean energy. He also noted that the projects will benefit local economy through additional new jobs, and more payroll and tax revenue. According to Mr. Speerschneider, tax revenue alone is estimated to provide 1.8 to 2.7 million dollars annually. (Tr. II at 22-23, 40.) While he acknowledged that he did not know the exact number, he stated that the Applicant had discussions with many residents both participating and nonparticipating. Mr. Speerschneider explained that, for residents who have concerns that the projects may exceed the allowable noise limits, there is a condition that requires a complaint resolution process that will ensure the turbines will operate in the mode that they should be operated under. (Tr. II at 27-29.) While acknowledging that there will be some nonparticipating residences that will experience shadow flicker, he stated that the Applicant is committed to make sure that those properties will experience less than 30 hours through the use of mitigation measures, including periodic shutdown of the turbines. With respect to the concerns that ice throw is a possibility that coincides with the presence of wind turbines, Mr. Speerschneider testified that there are sensors on each turbine that will cause it to shutdown until the ice on the blades is shed. He noted that proper siting procedures are also an effective mitigation measure. He also indicated that, while blade accidents do occur, they are very rare and the risk of injury is extremely low, noting that, in the hundreds of thousands of operating hours throughout the world, there has been no incident of human injury. (Tr. II at 31-34.)

Hardin Wind witness Speerschneider responded that there is nothing that prohibits building a house that is closer to a turbine than what was originally laid out in the application and, while he did not currently live next to a wind turbine, he had no concerns about living in proximity to a wind turbine. (Tr. II at 34-35.) Mr. Speerschneider stated that the studies that were used by the Applicant to consider the affect of wind turbine projects on residential home sales were based on executed sales transactions that were within the wind turbine project area and included real estate appraisals, bank negotiations mortgages, and recorded sale prices of those homes.

While recognizing that concerns were raised by individuals at the public hearing, he said the Applicant has gone to great lengths to try to alleviate some of those concerns, have conducting analysis through multiple years and studies to design the projects in a way that the issues and impacts are minimized to the level of having minimal impacts to the affected community. (Tr. II at 37-38.) He also noted that the visual images of the projects were part of the applications and were made available to the public at the local libraries and public informational meetings (Tr. II at 42).

Hardin Wind witness Kaliski described the noise studies undertaken by the Applicant and the operational noise caused by the turbines and he indicated turbine noise has been modeled by the Applicant to measure noise levels, and the conditions adopted as part of the Stipulation that will mitigate noise impacts caused by the projects (App. Ex. 2 at 3; Tr. II at 49). He acknowledged that the projects could cause noise to be heard within a home, depending on the sound inside the room, home construction, climate, noises outside the home, masking sounds, whether you have the windows open or closed, the time of day, and the noise level of the home (Tr. II at 46-47, 56). He also explained that, while the turbines are moving to locate the optimal wind conditions, there are motors that create some noise, which does not add to the noise level, and that ceases once the turbines are in optimal placement (Tr. II at 48). He explained that, for one type of wind turbine, called a Stall Regulated turbine, the sound level increases with wind speed; however, for the Pitch Regulated turbine, which is the type of wind turbine to be used by the Applicant, the sound levels increase to a point and then level off and may be reduced due to improved efficiency (Tr. II at 51-52).

Hardin Wind witness Rupprecht described the studies the Applicant undertook related to construction in or near surface waters (App. Ex. 8 at 1-8). He explained that, even if the area receives heavy rain during construction and the stream crossings are not completed, it is highly unlikely that any homes would be flooded. As a condition of the Stipulation, the Applicant will be required to have a stormwater plan preventing storm water from escaping the site and certain measures to put in temporary structures to control the water. He further stated that the conditions of the stormwater prevention plan will make it highly unlikely that heavy construction could cause surface water to contaminate private wells or escape the project site. According to Mr. Rupprecht, as part of the Stipulation, the Applicant is required to restore the sites back to their preconstruction or better status; although some vegetation restoration will be affected by weather (Tr. II at 58-60).

Staff contends that the conditions in the Stipulation benefit the public interest. Staff also recommends the Board approve the Stipulation with all of the conditions (Tr. II at 75.). Mr. Rostofer stated that Staff did not conduct any air turbulence studies on the projects or related to FAA requirements, because Staff is a review agency. Mr. Rostofer also indicated that the possibility of a person being hit by flying debris

from a wind turbine is very low and he could only speculate on scenarios involving wind turbine safety features that might not work properly. (Tr. II at 79.) Mr. Rostofer also explained that the setbacks that will be utilized with the projects are greater for habitable structures than property lines. He also explained that each property owner in the project area would have to decide for themselves whether to construct a new home within the proximity of a wind turbine. (Tr. II at 82-84.)

Upon review, the Board finds that, as a package, the Stipulation benefits the public interest by: resolving the issues raised in these matters without resulting in expensive litigation; and including conditions on the certificate for the wind turbines that modify and relocate certain access roads and collection systems, shift or eliminate turbines, address additional cultural resources and architectural surveys, and limit impacts to certain animal species, including limitations on tree clearing near Bald Eagle nests or within any wood lots supporting a nest tree. In addition, the Stipulation includes several provisions that reflect consideration and response to Staff's recommendations and conditions, as well as additional screening requirements for the wind turbine, substation, and transmission line projects. Further, the Stipulation contains conditions that address concerns raised at the public hearing, including noise, health impacts, and the risk of flooding of residences. We find that, based on the evidence of record, these projects will generate clean renewable electric energy, increase tax revenue for schools and local governments, create construction and manufacturing jobs, and assist economic development efforts in the counties. We also find that there is minimal risk to human life and safety as a result of blade shear or turbine fires. We note that there was insufficient evidence that the projects would negatively impact wildlife or impact property values. While we recognize that certain members of the public in the affected areas of these projects wish to have the decisions on granting or denying wind turbine projects based on a secret ballot of registered voters, the Board is bound by the statutory mandates established by the Ohio General Assembly which do not include such suggested procedures. Further, although there were several public witnesses who expressed concerns that foreign corporations were attempting to influence the rights of U.S. citizens, there was no evidence that the Applicant or any subsidiary or parent company to the Applicant is engaged in any such actions or any type of nefarious activities. As to the suggestions by some of the public witnesses that landowners attempt to void lease agreements entered into with the Applicant, we would encourage any individual with legal questions regarding any legal agreement related to these projects to consult an attorney licensed to practice law both before and after entering into any such agreement. We also find that the proposition that tax incentives and the PILOT programs for wind projects be eliminated are matters enacted by the Ohio General Assembly and not ones on which the Board has any jurisdictional authority.

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

Hardin Wind contends that the Stipulation does not violate any important regulatory principle or practice (Tr. II at 23-24). Hardin Wind witness Speerschneider also testified that the Applicant complied with all procedural notice requirements when it provided notice of the project to landowners in the vicinity of the projects. He also explained that the Applicant conducted a lot of public outreach and provided information to the public. (Tr. II at 25, 32.) Staff similarly claims that the Stipulation does not violate any important regulatory principle or practice (Tr. at 75). Mr. Grant acknowledged that, while he was aware of the informational meeting for the wind turbine project, he was unaware that a public information meeting had been held for the substation project or the transmission line project. He also indicated that he was aware that the applications for the projects in these cases are on file with the Board. He testified that he also received a letter from the Applicant concerning the projects. (Tr. II at 69-70.)

Hardin Wind witness Speerschneider noted that, while the Applicant is not required to evaluate the population density of the area in which the projects are planned, the Application reviews the impacts the projects have on residences by considering the statutorily required setback distances between the projects, residences and other buildings, for noise and shadow flicker. In addition to setbacks, he noted that the Applicant reviewed noise impacts, shadow flicker, and setbacks, in order to locate suitable land where turbines could be located within certain thresholds. (Tr. II at 26-27.)

The Board finds that the Stipulation does not violate any important regulatory principle or practice. As noted by the stipulating parties, all public notices were made as required under Board rules and all informational meetings were held as required by Board rules. Further, copies of the applications were made available to all required entities and placed in required locations. Moreover, the conditions contained within the Stipulation adequately address all statutory requirements for such projects.

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 facilities as described in the Wind Turbine Application and the Subst./Transm. Applications, subject to the conditions set forth in the Stipulation. Accordingly, based upon all of the above, the Board approves and adopts the Stipulation and hereby issues certificates to Hardin Wind pursuant to R.C. Chapter 4906 for the construction, operation, and maintenance of the facilities as proposed in its Wind Turbine Application on June 28, 2013, as supplemented on July 1, 2013, and in its Subst./Transm. Applications filed on September 30, 2013, as

supplemented on October 1, 2013, and subject to the conditions set forth in Section V of this Opinion, Order, and Certificates.

FINDINGS OF FACT AND CONCLUSIONS OF LAW:

- (1) Hardin Wind is a person under R.C. 4906.01(A) and wholly-owned subsidiary of EverPower Wind Holdings, Inc. and licensed to do business in the state of Ohio.
- (2) The wind turbine project qualifies as a major utility facility as defined in R.C. 4906.01(B)(1) and a wind-powered electric generation facility defined in Ohio Adm.Code 4906-17-01. The transmission line project qualifies as a major utility facility as defined in R.C. 4906.01(B)(1) and an electric power transmission line as defined in Ohio Adm.Code 4906-1-01(S). The substation project is a "substantial addition" as defined in Ohio Adm.Code 4906-1-01(O) and Appendix A(7).
- (3) On May 10, 2013, the Applicant filed a preapplication notice of a public informational meeting regarding its Wind Turbine Application. On August 27, 2013, the Applicant filed its preapplication notices of a public informational meeting regarding its Subst./Transm. Applications.
- (4) On June 7, 2013, and September 30, 2013, Hardin Wind filed proof that legal notices were published in the *Bellefontaine Examiner* and in *The Kenton Times*, newspapers of general circulation in Logan and Hardin counties, respectively, for the informational public meetings on its applications in these cases in accordance with Ohio Adm.Code 4906-05-08.
- (5) On May 29, 2013, the Applicant held the public informational meeting in the Wind Turbine Application. On September 11, 2013, the Applicant held a public informational meeting on the Subst./Transm. Applications.
- (6) On June 28, 2013, as supplemented on July 1, 2013, Hardin Wind filed the wind turbine application. On September 30, 2013, as supplemented on October 1, 2013, Hardin Wind filed the Subst./Transm. Applications, pursuant to Ohio Adm.Code Chapter 4906-17.

- (7) By Entry of September 17, 2013, the ALJ granted Hardin Wind's motion to consolidate the applications for purposes of all public hearings, evidentiary hearings, and public notices.
- (8) By letters filed on September 25, 2013, and October 17, 2013, the Board notified Hardin Wind that its applications had been found to be sufficiently complete pursuant to Ohio Adm.Code 4906-1, et seq.
- (9) On October 25, 2013, Hardin Wind filed certificates of service of its accepted and compete applications in the above-captioned cases in accordance with the requirements of Ohio Adm. Code 4906-5-07.
- (10) On October 25, 2013, the Applicant filed a certificate of service indicating that copies of the applications were served upon local public officials and libraries.
- (11) By Entry issued October 30, 2013, the ALJ scheduled a local public hearing for January 8, 2014, at the Hardin County Courthouse in Kenton, Ohio and an adjudicatory hearing for January 22, 2014, at the offices of the Commission, and found the effective date of the filing of the applications was October 25, 2013.
- (12) By Entry issued November 8, 2013, the ALJ granted Hardin Wind's motion for waivers of Ohio Adm.Code 4906-15-04(A) to provide fully-developed information on an alternate location for the substation and an alternate route for the transmission line and Hardin Wind's motion for waiver of Ohio Adm.Code 4906-15-04(B)(2)(a)(i), requiring the applicant to identify grade elevations where modified during construction on a map of the proposed facility layout for associated facilities. The November 8, 2013 Entry also granted Hardin Wind's motion for a protective order for certain financial information contained in the Subst./Transm. Applications.
- (13) On December 5, and 9, 2013, the Applicant filed the first proofs of publication indicating that notice was published in the *Bellefontaine Examiner* and in *The Kenton Times* on November 9, 2013, describing the applications and listing

the hearing dates in accordance with Ohio Adm.Code 4906-5-08(C)(1).

- (14) The Staff Reports for the wind turbine, substation, and transmission line projects were filed on December 24, 2013.
- (15) On various dates, the ALJ granted the motions to intervene filed by the Farm Bureau, Joe and Deb Grant, Michael and Diana Shepherd, and Marilyn and Kent Hampton.
- (16) A local public hearing was held on January 8, 2014, in Kenton, Ohio. At the local public hearing, Michael Shepherd, Diana Shepherd, and Deb Grant testified and gave notice of their withdrawal as parties in these proceedings.
- (17) On January 13, 2014, the Applicant filed the second set of proofs of publication indicating that notice was published in the *Bellefontaine Examiner* and *The Kenton Times* on December 27, 2013, describing the applications and listing the hearing dates in accordance with Ohio Adm.Code 4906-5-08(C)(2).
- (18) On January 15, 2014, the Applicant gave notice of the deletion of Turbine No. 16, from the wind turbine project, along with the related collection lines and access roads for that turbine, and also gave notice of a proposed shift in the location of Turbine No. 169 by 399 feet from the boundary of a property that will not be participating in the project, along with the proposed relocation by approximately 40 feet of a portion of the collection line system between Turbine No. 169 and the substation.
- (19) On January 16, 2014, Marilyn and Kent Hampton filed notice of their withdrawal as parties in these proceedings.
- (20) On January 17, 2014, Hardin Wind filed notice of the deletion of Turbines Nos. 21, 125, and 138, along with notice of a proposed shift in the location of the collection line system and access road to Turbine No. 129.
- (21) On January 21, 2014, Hardin Wind, Staff, and the Farm Bureau filed the Stipulation.

- (22) An adjudicatory hearing commenced on January 22, 2014, in Columbus, Ohio.
- (23) Adequate data on the transmission line project has been provided to determine the need requirement in R.C. 4906.10(A)(1).
- (24) Adequate data on the wind turbine, transmission line, and substation projects has been provided to determine the nature of the probable environmental impact, as required by R.C. 4906.10(A)(2).
- (25) Adequate data has been provided to determine that the facilities described in the wind turbine, transmission line, and substation projects applications and supplemental filings, and subject to the conditions in the Stipulation represents the minimum adverse environmental impact, considering the available technology and nature and economics of the various alternatives, and other pertinent considerations, as required by R.C. 4906.10(A)(3).
- (26) Adequate data has been provided to determine that the wind turbine, transmission line, and substation projects are consistent with regional plans for expansion of the electric power grid of the electric systems serving the state of Ohio and interconnected utility systems, that the facilities will serve the interests of electric system economy and reliability, as required by R.C. 4906.10(A)(4).
- (27) Adequate data on the wind turbine, transmission line, and substation projects has been provided to determine that these facilities will either comply with, or are not subject to, the requirements in the Ohio Revised Code regarding air and water pollution control, withdrawal of waters of the state, solid and hazardous wastes, air navigation, and all regulations there under, as required by R.C. 4906.10(A)(5).
- (28) Adequate data on the wind turbine, transmission line, and substation projects has been provided to determine that the facilities will serve the public interest, convenience, and necessity, as required by R.C. 4906.10(A)(6).

- (29) Adequate data on the wind turbine, transmission line, and substation projects has been provided to determine what the facilities' impact will be 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 of the proposed facilities, as required by R.C. 4906.10(A)(7).
- (30) Adequate data on the wind turbine, transmission line, and substation projects has been provided to determine that the facilities as proposed incorporate maximum feasible water conservation practices considering available technology and the nature and economics of the various alternatives, as required by R.C. 4906.10(A)(8).
- (31) The record evidence in these matters provides sufficient factual data to enable the Board to make an informed decision.
- (32) Based on the record, the Board should issue certificates for construction, operation, and maintenance of the wind turbine, transmission line, and substation projects, subject to the conditions set forth in the Stipulation and this Order.

ORDER:

It is, therefore,


ORDERED, That the Stipulation be approved and adopted. It is, further,


ORDERED, That certificates be issued to Hardin Wind pursuant to R.C. Chapter 4906 for the construction, operation, and maintenance of the wind turbine, substation, and transmission line projects, subject to the conditions set forth in the Stipulation and this Order. It is, further,


ORDERED, That a copy of this Opinion, Order, and Certificates be served upon each party of record and any other interested person.

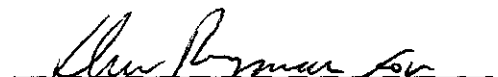
THE OHIO POWER SITING BOARD

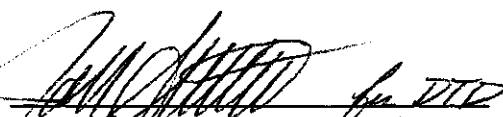

Todd A. Snitchler, Chairman
Public Utilities Commission of Ohio



David Goodman, Board Member
and Director of the Ohio
Development Services Agency


James Zehringer, Board Member
and Director of the Ohio
Department of Natural Resources


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


Craig Butler, Board Member
and Director of the Ohio
Environmental Protection Agency

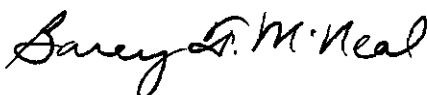

David Daniels, Board Member
and Director of the Ohio
Department of Agriculture


Jeffrey J. Lechak, Board Member
and Public Member

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MAR 17 2014



Barcy F. McNeal
Secretary