Construction Notice For East Lima-Marysville 345 kV Transmission Line Extension Project II

Case No. 19-0161-EL-BNR

Submitted to:
The Ohio Power Siting Board
Pursuant to Ohio Administrative Code Section 4906-6-05

Submitted by:
AEP Ohio Transmission Company, Inc.

February 8, 2019
CONSTRUCTION NOTICE

AEP Ohio Transmission Company, Inc.’s East Lima-Marysville 345 kV Transmission Line Extension Project II

4906-6-05

AEP Ohio Transmission Company, Inc. (“AEP Ohio Transco”) provides the following information to the Ohio Power Siting Board (“OPSB”) pursuant to Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Letter of Notification.

AEP Ohio Transco is proposing the East Lima-Marysville 345kV Transmission Line Extension Project II (“Project”), located in Lynn Township, Hardin County, Ohio. The Project includes the construction of three steel pole structures over a distance of 0.12 miles to interconnect a switching station that AEP Ohio Transco’s customer is constructing to the Hardin Switch-Marysville 345 kilovolt (“kV”) circuit. The entirety of this construction will be in Ohio Power Company’s right-of-way (“ROW”) and on the property of Innogy Renewables US LLC (“Innogy”). Figure 1 shows the proposed alignment of the transmission line extension.

The Project meets the requirements for a Construction Notice (“CN”) because it is within the types of projects defined by Item (1)(a) of Appendix A to O.A.C. 4906-1-01, Application Requirement Matrix for Electric Power Transmission Lines:

1. New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:

   (a) Line(s) not greater than 0.2 miles in length.

The PUCO Case Number for this project is 19-0161-EL-BNR.

B(2) Statement of Need

If the proposed Construction Notice project is an electric power transmission line or gas or natural gas transmission line, a statement explaining the need for the proposed facility.

This Project is necessary to provide an electrical interconnection from AEP Ohio’s existing 345 kV transmission line to a switching station being constructed by AEP Ohio Transco’s customer, Innogy, to connect the Scioto Ridge Wind Farm to the transmission grid. Specifically, the Hardin Switch-Marysville 345 kV circuit will be cut and looped in and out of Innogy’s new 345 kV station (Gunn Road) to implement the terms of the PJM Interconnection Services Agreement (ISA) and Interconnection Construction Services
Agreement (ICSA) associated with PJM queue position U2-072, which provide for the interconnection of the Scioto Ridge Wind Farm to the transmission grid.

This Project is associated with Case Nos.16-2032-EL-BLN, 13-1177-EL-BGN, 13-1768-EL-BTX, and 13-1767-EL-BSB, which AEP Ohio Transco’s customer filed with the OPSB.

**B(3) Project Location**

The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the Project area.

Figure 1 shows the location of the Project in relation to existing transmission lines.

**B(4) Alternatives Considered**

The applicant shall describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

The location of the utility switchyard adjacent to the existing 345 kV electric transmission line corridor will facilitate AEP Ohio Transco’s tap into the existing transmission lines and allow for consolidation of property ultimately to be controlled by AEP Ohio Transco. The utility switchyard was positioned as close to the existing 345 kV lines as possible. Innogy provided AEP Ohio Transco with the interconnection location that best met the layout of Innogy’s project. Given the Hardin Switch-Marysville 345 kV circuit’s proximity to the 345 kV line and Innogy’s switching station, no other alternatives were considered. no alternatives were studied.

**B(5) Public Information Program**

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

Because the Project will be located fully on Ohio Power Company ROW and property owned by AEP Ohio Transco’s customer, no other property owners or tenants will be affected. AEP Ohio Transco maintains a website (http://aeptransmission.com/ohio/) on which an electronic copy of this CN is available. A paper copy of the CN will be served to the public library in each political subdivision affected by this Project.

**B(6) Construction Schedule**

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.
Construction of the Project is planned to begin in the early second quarter of 2019, and the anticipated in-service date will be approximately November 2019.

**B(7) Area Map**

*The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.*

Figure 1 provides a zoomed map of the proposed Project area. Figure 2 provides a map of the Project area in 1:24,000-scale, on recent aerial photography. Figure 3 shows the project area on the United States Geologic Service (USGS) topographic map. To visit the Project location from Columbus, take I-70 W/I-71 S, and follow signs for Dayton/Rich St/Town St. Take exit 93 to merge onto I-270 N towards Cleveland, and follow for 9 miles. Take exit 17B to merge onto OH-161 W/US-33W, follow for 41.7 miles. Exit onto US 68-N/N Main St., follow for 5 miles. Turn left onto OH-638 N and follow for 4 miles. Continue onto Charles St for 0.8 miles. Continue onto C-106 for 0.6 miles. Continue onto Co Rd 75 for 4.0 miles. Turn Right onto Co Rd 180, follow for 14.4 miles and your destination will be on the left.

**B(8) Property Agreements**

*The applicant shall provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.*

All construction will occur on Ohio Power Company’s property and ROW and AEP Ohio Transco’s customer’s property. No other property easements, options, or land use agreements are necessary to construct the Project or operate the transmission lines.

**B(9) Technical Features**

*The applicant shall describe the following information regarding the technical features of the project:*

**B(9)(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.**

The Project will involve a total of three steel monopole structures, whose operating characteristics are as follows:

**Structure 219A:** The galvanized steel pole structure will stand approximately 170 feet tall with davit arms and I-String insulator assemblies. It will operate at 345 kV and carry three (3) 2,303,000 CM ACAR conductors and one (1) 159,000 CM ACSR shield wire. This structure will be constructed within existing ROW.

**Structures 219B, 219C:** The galvanized steel pole structures will stand approximately 170 feet tall with vertically configured strain insulator assemblies. They will operate at 345 kV and carry three (3)
2,303,000 CM ACAR conductors and one (1) 48-fiber OPGW. These structures will be constructed within existing ROW.

B(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

No occupied residences or institutions are located within 100 feet of the Project.

B(9)(b)(ii) Design Alternatives

A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

No occupied residences or institutions are located within 100 feet of the Project.

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately $2,500,000.

B(10) Social and Economic Impacts

The applicant shall describe the social and ecological impacts of the project:

B(10)(a) Operating Characteristics

Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The Project is within Lynn Township in Hardin County, Ohio. The land use within the vicinity of the Project is agricultural. The 0.12-mile long transmission line to the switching station is completely within Ohio Power Company’s ROW and customer property. No tree clearing is anticipated to be required for the Project. There are no residences within 1,000 feet of the centerline of the Project. There are no parks, schools, churches, cemeteries, wildlife management areas, or nature preserve lands within 1,000 feet of the centerline of the Project.

B(10)(b) Agricultural Land Information

Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.
It does not appear that any agricultural district land is within 1,000 feet of the Project. The proposed transmission line extension is adjacent to existing 345 kV transmission lines. New infrastructure will be limited to three new steel pole structures. Impacts to agricultural land use are expected to be minimal.

B(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant’s investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

AEP Ohio Transco’s customer conducted a cultural resources survey. No archaeological or historic resources were found within the Project area. The Project area is circled on the map shown in Appendix C, and the State Historic Preservation Office (“SHPO”) concurrence letter is also attached.

B(10)(d) Local, State, and Federal Agency Correspondence

Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

AEP Ohio Transco’s customer coordinated with the United States Fish and Wildlife Service (“USFWS”) and the Ohio Department of Natural Resources (“ODNR”) regarding special status species in the vicinity of the Project, and these letters are included as Appendix B. AEP Ohio Transco’s customer has coordinated a Cultural Report with the SHPO, and the concurrence letter can be found under Appendix C. There are no other known local, state, or federal requirements that must be met prior to commencement of the proposed Project.

B(10)(e) Threatened, Endangered, and Rare Species

Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

AEP Ohio Transco’s customer’s consultant coordinated with USFWS and ODNR regarding special status species in the vicinity of the Project. No impacts to threatened or endangered species are expected. A copy of the coordination for the Project is included as Appendix B.

B(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of
areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

AEP Ohio Transco’s customer prepared an Ecological Assessment Report. No impacts to wetlands or streams are anticipated. A copy of the Ecological Assessment Report for the Project is included as Appendix A.

B(10)(g) Unusual Conditions

Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of AEP Ohio Transco’s knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.
Figure 1

Figure 2

Figure 3
Legend

- Proposed Structures
- Lines Proposed

Existing Lines

Figure 1

East Lima-Marysville
345kV Transmission
Line Extension
Project II

January 22, 2019
Figure 2

Legend

- Proposed Structures
- Lines Proposed
- Existing Lines

East Lima-Marysville
345kV Transmission
Line Extension
Project II

January 22, 2019
Appendix A  Environmental Assessment Report
August 19, 2014

Mr. Seth Wilmore
EverPower Wind Holdings, Inc.
1251 Waterfront Place, 3rd Floor
Pittsburgh, PA 15222

Subject: Amendment to the Ecological Assessment for the Scioto Ridge Wind Farm in Hardin and Logan Counties, Ohio;

Dear Mr. Wilmore:

Cardno is pleased to provide EverPower Wind Holdings, Inc. (EverPower) with this summary of potential ecological impacts resulting from recent shifts made to the Scioto Ridge Wind Farm infrastructure. EverPower is seeking an amendment to the Certificate of Environmental Compatibility and Public Need (Certificate) issued for the Scioto Ridge Wind Farm on March 17, 2014 (OPSB Case No. 12-1177-EL-BGN).

Enclosure 1 provides an Ecological Assessment Amendment, which summarizes the potential impacts to natural resources due to the construction changes in accordance with Ohio Administrative Code 4906-17-08 (B). This amendment is intended to append the information provided in Cardno’s Ecological Assessment – Scioto Ridge Wind Farm (Ecological Assessment), dated June 13, 2013, which supported the original OPSB Certification application. Discussion in the amendment will first identify the resources in the approximate 197-acre newly delineated Project Corridor, referred to as the New Project Area. These features were not previously discussed in Cardno’s 2013 Ecological Assessment. In addition to the discussion of the New Project Area there will be a summary of the changes in the total Project in comparison to the previous Project Corridor, resulting from infrastructure relocation and micro-siting. Overall, impacts to resources either stayed the same or decreased. Impacts to stream crossings will be minimized through the use of HDD to install collection lines under perennial streams where possible.

If you have any questions need any additional information please contact me at 302-395-1919 or ryan.rupprecht@cardno.com.

Sincerely,

Ryan Rupprecht
Project Scientist
for Cardno ENTRIX
Direct Line (302) 395-3344
Email: ryan.rupprecht@cardno.com
Enclosure 1.
Ecological Assessment – Amendment
Scioto Ridge Wind Farm
August 2014
1 Introduction

The Scioto Ridge Wind Farm Project’s Study Area boundaries remain the same as discussed in Cardno’s *Ecological Assessment – Scioto Ridge Wind Farm*, dated June 13, 2013. The Project is proposed within an area of approximately 49.98 square miles (31,986 acres) on leased private lands (Project Study Area), located approximately 7 miles north of Bellefontaine, Ohio. The Scioto Ridge Wind Farm proposes up to 172 wind turbines and related infrastructure in the townships of Roundhead, McDonald, Lynn, and Taylor Creek in Hardin County, as well as the townships of Richland and Rush Creek in Logan County. For the 2013 *Ecological Assessment*, Cardno conducted desktop review of the entire Project Study Area, and subsequent field surveys of the planned infrastructure locations within the Project Corridor. The Project Corridor was a 400-foot wide buffer centered on the permitted Project infrastructure totaling 4,755 acres.

Since the OPSB Certification in March 2014, EverPower has made some modifications to the planned siting of infrastructure within the Project Study Area, primarily adjusting the locations of turbines, their associated collection lines and access roads, and potential relocation of a previously permitted collector substation. Some of those modifications resulted in siting infrastructure on lands that had been assessed during the desktop review, but had not been field surveyed. This Ecological Assessment Amendment provides a summary of the potential impacts to natural resources within the New Project Areas, defined as a 400-foot buffer centered on modified Project infrastructure, totaling 197.4 acres. Cardno’s field efforts only focused on the New Project Area, not previously surveyed during the 2013 assessment. Based on these modifications, the Amended Project Corridor is defined as a 400-foot wide buffer centered on the amended Project infrastructure (previously presented with new areas), and totals 4,671 acres. Overall, the modifications to the infrastructure have resulted in a net reduction in impacts to soils (associated with access roads, collection lines, and turbine foundations), floodplains, and tree clearing. Impacts to wetlands and stream crossings remained the same. Stream crossing impacts will be minimized through the use of horizontal directional drilling (HDD) to install collection lines under perennial streams. Additional micro-siting can further reduce these impacts as the design phase progresses.

The Project Study Area is shown in Figure 1.1 Scioto Ridge Wind Farm Proposed Project Layout, with the previous Project Corridor shown in orange and the New Project Areas shown in purple.

This Ecological Assessment Amendment includes a desktop review of the New Project Area plus a ¼ mile buffer for:

- Land use, including vegetative communities;
- Habitat characterization; and
- Major species, including Federal- and State-listed threatened and endangered species.

Field-studies were conducted within the New Project Areas during July 2014, with a ¼ mile visual investigation on either side of the New Project Areas, and included:

- Wetland and surface water delineations; and
- Habitat observations and presence/absence surveys of sensitive species.

Appendix A includes the following Figures for the Amended Project Corridor (Note: only those maps depicting amendments to the Project Corridor have been included):

4 – Wetlands Maps (set of 7 maps)

5 – Water Quality and Floodplain Maps (set of 7 maps)
Appendix B includes the Wetland Report of the amended areas, summarizing the USACE Midwest Regional Supplement to the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 2010), the Ohio Environmental Protection Agency (OEPA), Ohio Rapid Assessment Method (ORAM), the OEPA Headwater Habitat Evaluation Index (HHEI) and Qualitative Habitat Evaluation Index (QHEI) results for streams and wetlands identified in the New Project Area, as well as a brief description of each delineated wetland within the New Project Area, and photographic documentation of the delineated wetlands and waterbodies.

Figure 1.1 Scioto Ridge Wind Farm Proposed Project Layout
Cardno conducted an assessment of the environmental resources potentially affected by the New Project Areas. This study included a new stream and wetland delineation and impact assessment, an updated habitat characterization and ecological communities mapping, a screening of terrestrial listed species, and updated Wetland Maps of the Amended Project Corridor as illustrated in Appendix A - Figure 1.

2.1 Ecological Communities

2.1.1 Desktop Assessment

Cardno performed a desktop habitat survey using Geographic Information Systems (GIS) to screen for and classify potential environmental resources. Sources of this reference material included, but was not limited to, the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Soil Survey for the Project Counties, historic aerial photographs or farmed wetland maps from the USDA Farm Service Agency (FSA), National Wetland Inventory (NWI) maps, Ohio Wetland Inventory (OWI) maps, U.S. Geological Survey (USGS) topographic maps, and recent aerial photographs. GIS layer data that did not contain data within the Study Area, or if applicable buffer area were not studied further.

2.1.1.1 Land Use

Based on review of available databases, aerial photography, and site visits, the current land use within the New Project Areas consists primarily of actively farmed crop land with scattered woodlots and windrows. Agricultural lands are used for pasture and cultivated crops, mainly corn and soybean. The amended Project Corridor is located within the rural, unincorporated portion of Hardin and Logan County.

The land use types within the New Project Areas are based on data provided by the Multi-Resolution Land Characteristics Consortium (MRLC), from 2006 National Land Cover Database (NLCD2006). The land use categories within the Study Area are classified according to the predominant land use, as follows:

- **Agricultural (Pasture/Hay)** – areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.

- **Agricultural (Cultivated Crops)** – areas used for the production of annual crops, such as corn, soybeans, vegetables, tobacco, and cotton, and also perennial woody crops such as orchards and vineyards. Crop vegetation accounts for greater than 20% of total vegetation. This class also includes all land being actively tilled.

- **Forested (Deciduous)** - areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species shed foliage simultaneously in response to seasonal change.

- **Developed, Open Space** - areas with a mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20% of total cover. These areas most commonly include large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes.

- **Grassland/Herbaceous** - areas dominated by gramanoid or herbaceous vegetation, generally greater than 80% of total vegetation. These areas are not subject to intensive management such as tilling, but can be utilized for grazing.

Cultivated crops accounted for the largest type of land use within the New Project Areas with approximately 149.5 acres. The exact type of crops grown in the active crop area is seasonal and varies between years. There are
several primary crops grown, including corn, soybean, and winter wheat. At the time of the field surveys, the majority of the crop fields were growing corn. The second largest type of land use was Pasture/Hay which accounted for 30.4 acres in the New Project Area. The primary uses for the Pasture/Hay fields are crops planted for livestock grazing or seed production. Table 2-1 below provides a summary of land uses within the New Project Area.

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Amended Project Corridor (acres)</th>
<th>% of Amended Project Corridor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural (Cultivated)</td>
<td>149.6</td>
<td>76%</td>
</tr>
<tr>
<td>Agricultural (Pasture/Hay)</td>
<td>30.4</td>
<td>15%</td>
</tr>
<tr>
<td>Developed Open Space</td>
<td>11.8</td>
<td>6%</td>
</tr>
<tr>
<td>Forested</td>
<td>4.8</td>
<td>2%</td>
</tr>
<tr>
<td>Grassland/Herbaceous</td>
<td>0.8</td>
<td>&lt;1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>197.4 acres</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

National Land Cover Dataset (NLCD) from 2006

2.1.1.2 **Soils and Geology**

The New Project Areas are completely contained within Cardno’s 2013 Ecological Assessment Study Area; therefore, soils and geologic features are anticipated to be of the same formations as discussed in the 2013 report. No additional impacts are anticipated based on the modified Project infrastructure.

2.1.1.3 **Biological/Conservation**

The New Project Areas are completely contained within Cardno’s 2013 Study Area; therefore, existing wildlife is anticipated to generally be comprised of the same species as discussed in the 2013 report. No additional impacts are anticipated based on the modified Project infrastructure since micrositing will allow the Project infrastructure to route around identified woodlots.

**Wetlands/Water/Floodplain**

The Project Study Area is dominated by the watersheds of the North and South Forks of the Great Miami River. The extreme north and eastern and northwest portions of the Project site include tributaries of the Scioto River. The South Fork of the Great Miami River runs west through Logan County, in the southern portion of the Study Area. The North Fork of the Great Miami River runs south west through Hardin County into Logan County. The headwaters of the Scioto River run across the northern portion of Hardin County. Silver Creek and Taylor Creek both run to the northeast in Hardin County.

Beneficial use designations describe existing or potential uses of water bodies in Ohio. A total of four streams are located within the New Project Areas, for a total length of 2,214 linear feet, as shown in Table 2-2 below. Two of these streams will be crossed by Project Infrastructure (i.e., collection lines); HDD technology will be utilized in order to avoid impacts to these streams. There are no Superior High Quality Waters or Outstanding State Waters found in the Study Area or New Project Areas. All of the designated streams are designated as Warm Water Habitat (WWH), Modified Warm-Water Habitat (MWH), Agricultural Water Supply (AWS), and Primary Contact Recreation (PCR).

The New Project Areas are not located within the 100-Year floodplain as defined by FEMA Flood Insurance Maps. Note that the most recent FEMA maps dated 1976 for Hardin County does not designate any 100-Year floodplains within the Project Study Areas.
2.1.2 Pre-Construction Surveys

The New Project Areas are completely contained within Cardno’s 2013 Study Area; therefore, no new pre-construction avian or chiropteran surveys have been conducted since the 2013 assessment. A review of previous pre-construction surveys is provided in Cardno’s 2013 Ecological Assessment report.

2.1.3 Consultation Letters

The New Project Areas are completely contained within Cardno’s 2013 Study Area; therefore, no new agency consultations have been conducted in regard to the amended Project Corridor.

2.2 Field Delineation Summaries

2.2.1 Wetland Survey Methods

Cardno conducted a wetland and waterbody delineation survey of the New Project Areas during July 2014 to determine the extent and jurisdiction of wetlands and waterbodies within the Amended Project Corridor. A ¼ mile visual investigation was also conducted on either side of the New Project Area for sensitive habitats. The delineation surveys were conducted in accordance with the 1987 USACE Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987), and the USACE Midwest Regional Supplement to the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 2010).

Appendix B includes the Wetland Report, summarizing the USACE Midwest Regional Supplement to the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 2010), the OEPA, ORAM, the OEPA HHEI and QHEI results for streams and wetlands identified in the New Project Area, as well as a brief description of each delineated wetland within the New Project Area, photographic documentation of the delineated wetlands and waterbodies.

2.2.2 Wetland Survey Results

During July 2014, the Cardno team identified one field-delineated wetland area (WHO-AD01), totaling 0.50 acres. The wetland is located within the southeastern corner of a wood lot, and consisted of a mix of PEM/PFO wetland types with the open canopy emergent section being dominated by Ambrosia trifida in the herb stratum and Cornus obliqua in the sapling stratum. The forested portion contained Black walnut (Juglans nigra) and cherry species. Hydric silty clay loam soils were identified to a depth of 12 inches at the sampling point, with saturation at the surface. Geomorphic positioning in the landscape and evidence of overland flow from upland crop areas provided the wetland with adequate hydrology. The wetland was determined to be isolated. No impacts to this wetland are anticipated based on the modified infrastructure plans.

Refer to Table 2-2 for a summary of the Field-Delineated Wetlands for the New Project Area.
### Table 2-2  Wetlands Delineated in New Project Area

<table>
<thead>
<tr>
<th>Wetland ID</th>
<th>WOH-AD01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude</td>
<td>-83.71417973</td>
</tr>
<tr>
<td>Longitude</td>
<td>40.5101966</td>
</tr>
<tr>
<td>County</td>
<td>Logan</td>
</tr>
<tr>
<td>Area (acres) within New Project Area</td>
<td>0.50</td>
</tr>
<tr>
<td>Wetland Type</td>
<td>PEM/PFO</td>
</tr>
<tr>
<td>Watershed/Drainage Basin</td>
<td>Great Miami River</td>
</tr>
<tr>
<td>Habitat Notes</td>
<td>Directly adjacent to active crop area with limited buffer to impacts from agriculture</td>
</tr>
<tr>
<td>ORAM Score</td>
<td>30</td>
</tr>
<tr>
<td>Jurisdictional or Isolated?</td>
<td>Isolated</td>
</tr>
</tbody>
</table>

### 2.2.3 Stream Delineation Criteria and Methods

Jurisdictional streams were identified as those waters that had an Ordinary High Water Mark (OHWM), a defined channel, and an open water feature, such as surface water or at least a non-vegetated area through the channel that indicated periodic flowing water.

All streams delineated in the field were assessed using the OEPA HHEI as outlined in the *Field Evaluation Manual for Ohio’s Primary Headwater Habitat Streams Review Version 2.3* (OEPA, 2009). The HHEI is used to determine the status of smaller streams as one of three classes of primary headwater habitats (PHWH). Field observations of the streams were only visual, and no water quality samples were collected for further analysis during Cardno’s field surveys.

### 2.2.4 Stream Delineation Survey Results

The New Project Area includes four new stretches of streams, two of which are proposed to be crossed by Project infrastructure (collection lines). Based on review of HHEI scores, three of the waterbodies were classified as Modified Class II PHWH (intermittent, warm water streams) with scores ranging from 53 to 57, while the last stream was categorized as Class III PHWH. Of the four stretches delineated, only one lacks a QHEI in addition to the required HHEI since its drainage area was less than one square mile.

Since three of the streams were identified as agricultural canals that can suffer from flash flows during rain events, the streams were ranked as poor mussel habitat. The remaining site was identified as having moderate potential for mussel populations. However, during the delineation efforts, no mussels were observed at any of the crossings or their immediate vicinity.

Refer to Table 2-3 for a summary of the Field-Delineated Streams for the New Project Area.
<table>
<thead>
<tr>
<th>Stream ID</th>
<th>County</th>
<th>Crossing within New Project Area (linear feet)</th>
<th>HHEI Score</th>
<th>QHEI Score</th>
<th>PHWH Class</th>
<th>Drainage</th>
<th>Potential Mussel Habitat</th>
<th>Observed Mussel Population</th>
<th>WWH</th>
<th>EWH</th>
<th>MWH</th>
<th>AWS</th>
<th>IWS</th>
<th>BW</th>
<th>PCR</th>
<th>SCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOH-AD03</td>
<td>Hardin</td>
<td>545.90</td>
<td>57</td>
<td>31</td>
<td>Modified Class II</td>
<td>North Fork Great Miami River</td>
<td>Low</td>
<td>No</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SOH-AD04</td>
<td>Hardin</td>
<td>813.48</td>
<td>53</td>
<td>NA</td>
<td>Modified Class II</td>
<td>North Fork Great Miami River</td>
<td>Low</td>
<td>No</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SOH-AD05</td>
<td>Hardin</td>
<td>426.19</td>
<td>73</td>
<td>39</td>
<td>Class III PHWH</td>
<td>North Fork Great Miami River</td>
<td>Moderate</td>
<td>No</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOH-AD06</td>
<td>Hardin</td>
<td>428.19</td>
<td>57</td>
<td>29</td>
<td>Modified Class II</td>
<td>North Fork Great Miami River</td>
<td>Low</td>
<td>No</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,213.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:

- **HHEI** - Headwater Habitat Evaluation Index (0 to 80)
  - Primary Headwater Habitat (PHWH) Classification:
    - <30: Class I PHWH (Typically Ephemeral Streams)
    - 30 to 50: Class II PHWH (intermittent, warm water streams)
    - >50: Class II or III PHWH (depending on conditions)
    - >75: Class III PHWH (perennial, cool water streams)

- **QHEI** - Qualitative Habitat Evaluation Index (0 to 100)
  - <32: limited resource water (LRW)
  - 32 to 60: Modified warmwater habitat (MWH) (i.e., WWH has been disturbed but could potentially recover)
  - 60 to 75: Warmwater habitat (WWH)
  - >75: Possible exceptional warmwater habitat (EWH)

- **Aquatic Use Designation:**
  - WWH: Warm Water Habitat
  - EWH: Exceptional Warm Water Habitat
  - AWS: Agricultural Water Supply
  - IWS: Industrial Water Supply
  - PCR: Primary Contact Recreation
  - SCR: Secondary Contact Recreation
  - NA - Not Applicable
2.2.5 Regulatory Overview

The Scioto Ridge Wind Farm Project was issued a CECPN on March 17, 2014 by the Ohio Power Siting Board.

2.2.6 Floral Communities

In general, the New Project Area shows the characteristics expected of a highly agricultural area. Cardno’s previous observations of the Study Area were also applicable to the New Project Area. The Cardno team observed during the field surveys that the majority of the New Project Area consists of manipulated landscapes, with a high composition being farmed fields. The active crop areas often had associated agricultural ditches which were vegetated by Reed Canary grass, with deep cuts and at a steep grade to ensure capture of runoff from the fields in case of heavy rains.

The remaining New Project Area is a mixture of isolated and contiguous woodlots. The most commonly observed species were Oaks (Red or White) genus Quercus; followed by Green Ash (Fraxinus pennsylvanica), Red Maple (Acer rubrum), American Elm (Ulmus americana) and Shagbark Hickory (Carya ovata). Many of these habitats also contained snags, and in conjunction with the dominance of Oaks (a slower growing, shade tolerant species) indicates more mature forests/woodlots.

Woodlots with hydric soils were more likely to develop wetlands due to positioning within the landscape (in depressions that received overland flow from adjacent land use). The creation of a depressional bowl allowed for the retaining of water in many of the hydric woodlots and development of wetlands. Only one of the woodlots reviewed in the July surveys contained a wetland. The wetland had an open canopy section dominated by various herbaceous species such as ragweed (Ambrosia trifida), and a forested portion which contained Black walnut (Juglans nigra). The Vine stratum was often not present in the majority of the woodlots encountered during delineation.

Non hydric woodlots had many of the same tree species present, including Red Maple and American Elm. The herb stratum in the non-hydric woodlots was heavily represented by Dandelion (Taraxacum officinale), Kentucky Bluegrass (Poa pratensis), and Fescue grasses (Fescue sp.).

Potential tree clearing within the New Project Area was estimated using GIS software to delineate digital forest stand boundaries based on 2009 aerial imagery. A total of 5.09 acres of forest stand was delineated within the New Project Area; however, a total of only 0.032 acres of these forest stands are considered potential tree clearing for collection lines. Tree clearing assumes a 12.5 foot-buffer off the centerline for collection lines.

2.2.7 Faunal Communities

During Cardno’s field surveys of the New Project Area and ¼ mile buffer, the team observed that faunal habitat conditions included snags where most of the nests observed were likely Passeriformes. The limited woodlots reviewed did not contain any significant debris piles which reduced the availability of prime habitat for reptilian and mammalian species. The only wetland identified in the New Project Area did not appear to pool water for a significant amount of time, which likely prevents amphibians from using the area during breeding season in the spring.

During the field surveys, the Cardno team recorded the presence or absence of freshwater mussels within the field-delineated streams. The survey team also designated the field-delineated streams for their potential for freshwater mussel habitat (i.e., Low, Moderate, High). No freshwater mussels were observed during Cardno’s field survey. A summary of the Field-delineated streams is included in Table 2-3 above.

2.2.8 Rare, Threatened, and Endangered Species Impacts

Due to the high level of agricultural land use in the area, the majority of the available habitat is not suitable for Federal- or State-listed threatened or endangered plant or animal species that may potentially live in the area. The
habitat in the New Project Area that was not actively manipulated was of such marginal quality that it would likely be unusable to any species of concern.

Based on observations during Cardno’s field delineations of the New Project Area and ¼ mile buffer, the majority of stream features may provide habitat, but the chemistry impacts from a lack of shade and high sedimentation reduce the quality of the waters for both plant and animal species. Further reducing the viability of streams within the Study Area is the constant management of the banks by mowing which will prevent any significant colonization by Federal- or State-listed species. Since most of the streams in the New Project Area were identified as agricultural canals that can suffer from flash flows during rain events, three of the streams were ranked as poor mussel habitat. One stream was identified as moderate for potential mussel habitat due to their well-developed banks, and forested buffer areas that provide locations for the mussels to adhere to; however, no mussels were observed within any reaches of the streams at the time of Cardno’s survey. During Cardno’s delineation efforts of the New Project Area, no aquatic State- or Federal-listed plant or animal species were observed in any of the streams by the field team, including the Eastern Massasauga or freshwater mussels such as the Rayed Bean or Clubshell.

Likewise, the terrestrial resources identified during the delineation were unlikely to support any of the identified State- or Federal-listed plant or animal species due to poor habitat quality. Plants species observed in the Study Area were typical of disturbed agricultural swales and unlikely to support the State-listed plant species. Where woodlots were encountered, they were highly fragmented or isolated among active agricultural lands. The lack of a buffer area around the woodlots also means higher disturbance to fauna from the adjacent land use during agricultural activity, such as tilling or harvesting. The woodlots encountered in the New Project Area were populated primarily by oaks and maples of intermediate age. The plant communities of the woodlots were relatively common. The herb layers were often dominated by Reed Canary Grass with additional significant populations of the aggressive Virginia Waterleaf (*Hydrophyllum virginianum*). During the field efforts conducted by Cardno, no large fauna (State- or Federal-listed or otherwise) were recorded. Cardno observed no terrestrial State- or Federal-listed plant or animal species within the wetland habitats delineated during the 2014 surveys of the amended Project Corridor and additional ¼ mile buffer.

Avian resources have been the focus of various pre-construction surveys by Stantec, however no State- or Federal-listed species were observed during the field efforts conducted by Cardno in 2014.

Overall, the high degree of manipulation of the landscape and fragmentation of remaining habitat has resulted in the lack of adequate habitat for many of the State- or Federal-listed species. The habitat that does remain is often limited in quality, since it is so highly impacted by the adjacent land use. Several preconstruction surveys have been conducted in support of the Project and their results are outlined in Cardno’s 2013 *Ecological Assessment*. The focus of these surveys was to identify the likelihood of occurrence within the Study Area of listed species such as Indiana Bat (*Myotis sodalis*) and various raptor species. Although several avian surveys found species of interest, it was concluded they were not residents of the Study Area and were passing through or hunting only. At no time during the July 2014 field efforts conducted by Cardno, were any State- or Federal-listed plant or animal species observed in the New Project Area or ¼ mile buffer.
3 Conclusion

Discussion of the Project infrastructure and potential impacts for the New Project Areas that were not subject to field surveys in Cardno’s 2013 Ecological Assessment is included in section 3.1. In Section 3.2 the total impacts and infrastructure of the entire Project are discussed for both the Amended Project Corridor and original Project Corridor. The potential impacts presented in Table 3-2 and Table 3-3 were calculated based on the following parameters:

- **Turbine Impact Areas:**
  - 200-foot radius buffer for tree clearing
  - 52.7 foot buffer for permanent soil impact (0.2 acres in area)

- **Access Road Impact Areas:**
  - 27.5 foot buffer off centerline for tree clearing (55 foot wide impact)
  - 10 foot buffer off centerline for permanent soil (20 foot wide impact)
  - 20 foot buffer off centerline for temporary soil (40 foot wide impact)

- **Collection Line Impact Areas:**
  - 12.5 foot buffer off centerline for temporary soil (25 foot wide impact)
  - 12.5 foot buffer off centerline for tree clearing (25 foot wide impact)

3.1 New Project Area

The permanent infrastructure (turbine foundation, roads and substations) for the New Project Area that would no longer be available for current land use is estimated to be 14.8 acres, or 0.05% of the overall Study Area based on current proposed siting. Collection lines are anticipated to total 2.8 miles, and access roads are estimated to total 1.4 miles within the New Project Area. Table 3-1 provides a summary of the modified Project infrastructure located within the New Project Area.

<table>
<thead>
<tr>
<th>Features</th>
<th>Approximate Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total New Project Area</td>
<td>197.4 acres</td>
</tr>
<tr>
<td>Permanent Constructed Project Infrastructure</td>
<td>14.8 acres</td>
</tr>
<tr>
<td>(turbine foundations, roads and substations)</td>
<td></td>
</tr>
<tr>
<td>Miles of Collection Lines</td>
<td>2.8 miles</td>
</tr>
<tr>
<td>Miles of Access Roads</td>
<td>1.4 miles</td>
</tr>
</tbody>
</table>

The total potential impacts to existing environmental features within the New Project Area based on this modified infrastructure are presented in Table 3-2 below.
Table 3-2  Summary of Scioto Ridge Wind Farm Impacts within the New Project Area

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Potential Impacts within New Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field-delineated wetlands</td>
<td>0 Acres</td>
</tr>
<tr>
<td>Stream Crossings</td>
<td>0 Linear Feet</td>
</tr>
<tr>
<td>Tree Clearing</td>
<td>0.032 Acres</td>
</tr>
<tr>
<td>Access Road Temporary Soil</td>
<td>3.32 Acres</td>
</tr>
<tr>
<td>Access Road Permanent Soil</td>
<td>3.28 Acres</td>
</tr>
<tr>
<td>Collection Lines Temporary Soil</td>
<td>7.79 Acres</td>
</tr>
<tr>
<td>Floodplains</td>
<td>0 Acres</td>
</tr>
<tr>
<td>Turbine Foundation Footprint (approximate)</td>
<td>0.41 Acres</td>
</tr>
</tbody>
</table>

Note: Based on current engineering design.

Within the 197-acre New Project Area, approximately 6.60 acres of soil will be impacted (temporary and permanent impacts combined) due to construction of access roads. Approximately 7.79 acres will be temporarily impacted due to collection line installations. Permanent soil impacts due to turbine foundations will be approximately 0.41 acres. The stream crossings (SOH-AD05 and SOH-AD06) will have no impacts by utilizing HDD technology (See Table 3-3 below). Approximately 0.032 acres of tree clearing are anticipated within the New Project Area. A majority of these impacts have already been accounted for in Cardno’s 2013 Ecological Assessment, and therefore, already included in the Certification. For example, the relocation of Turbine #129 involved moving it approximately 490 feet north from previously permitted location. The previously reported impacts (as presented in Cardno’s 2013 Ecological Assessment) included the calculated impacts such as foundation, access road and collection line associated with Turbine #129; which are now represented in the impacts presented in Table 3-2 above. The impact comparison in the following Section 3.2 should further clarify this.

Table 3-3  Stream Crossing Impacts

<table>
<thead>
<tr>
<th>Stream ID</th>
<th>Aquatic Use Designation</th>
<th>Stream Classification</th>
<th>PHWH Class</th>
<th>HHEI</th>
<th>Facility Feature</th>
<th>Construction Method</th>
<th>Width of Feature Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOH-AD05</td>
<td>WWH</td>
<td>Perennial</td>
<td>Class III PHWH</td>
<td>73</td>
<td>Collection Line</td>
<td>HDD</td>
<td>N/A</td>
</tr>
<tr>
<td>SOH-AD06</td>
<td>WWH</td>
<td>Perennial</td>
<td>Modified Class II</td>
<td>57</td>
<td>Collection Line</td>
<td>HDD</td>
<td>N/A</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

These impacts will be further reduced for the finalized proposed infrastructure as these numbers are based along the centerline of the 400-foot wide New Project Area. In most cases micro-siting the infrastructure away from known and delineated features will minimize impacts to wetlands and streams, and require little to no tree clearing.

Through project design and avoidance and minimization measures, EverPower will avoid impacts to the single wetland delineated within the New Project Area, WOH-AD01. Avoidance measures will include pre-construction field preparation such as flagging and signage of regulated resources, environmental training for construction crews and the use of environmental monitors during construction as determined necessary. The installation of the collection line under stream crossings of SOH-AD05 and SOH-AD06 are proposed to utilize horizontal directional drilling (HDD) due to their moderately higher qualitative ranking and perennial flow. This widely used technique accomplishes the installation of buried utilities with minimal or no impact, by routing the utility under a sensitive feature (such as a stream, river or wetland).
3.2 Comparison of Project Corridors

The following discussion focuses on the impacts within the total Project Corridor as it now appears in the 2014 amended site plan, in comparison to the originally permitted plan in Cardno’s 2013 Ecological Assessment. The overall Study Area acreage has not changed. The most significant changes have resulted from adjusting the locations of turbines, their associated collection lines and access roads, and potential relocation of a previously permitted collector substation within the Project Study Area, as presented in Table 3-4 below.

Table 3-4 Summary Comparison of Scioto Ridge Wind Project Infrastructure

<table>
<thead>
<tr>
<th>Features</th>
<th>Approximate Values for 2013 Permitted Project Corridor</th>
<th>Approximate Values for 2014 Amended Project Corridor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Study Area</td>
<td>31,986 acres</td>
<td>31,986 acres</td>
</tr>
<tr>
<td>Total Project Corridor</td>
<td>4,755 acres</td>
<td>4,671 acres</td>
</tr>
<tr>
<td>Permanent Constructed Project Infrastructure</td>
<td>177 acres</td>
<td>175.13 acres</td>
</tr>
<tr>
<td>Number of Turbines</td>
<td>Up to 176</td>
<td>Up to 172</td>
</tr>
<tr>
<td>Miles of Collection Lines</td>
<td>83.61 miles</td>
<td>81.90 miles</td>
</tr>
<tr>
<td>Miles of Access Roads</td>
<td>59.69 miles</td>
<td>59.05 miles</td>
</tr>
</tbody>
</table>

Table 3-5 below shows the change in potential impacts between plans. All impacts to resources either stayed or decreased.

Table 3-5 Summary of Scioto Ridge Wind Farm – Total Impacts

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Potential Impacts within 2013 Permitted Project Corridor</th>
<th>Potential Impacts within 2014 Amended Project Corridor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field-delineated wetlands</td>
<td>0.41 Acres</td>
<td>0.41 Acres</td>
</tr>
<tr>
<td>Stream Crossings</td>
<td>883.4 Linear Feet</td>
<td>883.4 Linear Feet</td>
</tr>
<tr>
<td>Tree Clearing</td>
<td>22.24 Acres</td>
<td>21.38 Acres</td>
</tr>
<tr>
<td>Access Road Temporary Soil</td>
<td>137.8 Acres</td>
<td>137.20 Acres</td>
</tr>
<tr>
<td>Access Road Permanent Soil</td>
<td>138.94 Acres</td>
<td>137.69 Acres</td>
</tr>
<tr>
<td>Collection Lines Temporary Soil</td>
<td>132.43 Acres</td>
<td>130.23 Acres</td>
</tr>
<tr>
<td>Floodplains</td>
<td>11.48 Acres</td>
<td>8.74 Acres</td>
</tr>
<tr>
<td>Turbine Foundation Footprint (approximate)</td>
<td>35.02 Acres</td>
<td>34.40 Acres</td>
</tr>
</tbody>
</table>

Based on current engineering design.

Based on the amendments to the infrastructure the majority of Project impacts to identified resources within the Project Corridor have decreased from those which were previously permitted.

The Scioto Ridge Wind Farm is proposed to be primarily built on land that has already been impacted by land clearing; and is actively disturbed annually for agriculture. The vegetation clearing and ground disturbance required for the proposed Project is minimal compared with the operation of coal mines, the installation of gas wells and construction and operation of gas and coal-fired power stations. If the proposed Scioto Ridge Wind Farm were decommissioned, the landscape can be returned to its previous condition.

The streams found within the Study Area are highly impacted by the surrounding land use. Though they may have potential sensitive habitat, the water quality may not support the development of rich faunal communities. No water
quality samples were taken during Cardno’s field surveys, though field observations indicate several significant stressors present in many of the streams. Streams located between agricultural fields lack any significant sources of shade since the stream banks are regularly mowed. The lack of cover will lead to higher temperatures in the summer, which is further compounded by the relative lack of depth in many of the steams. The surrounding land use also results in significant nutrient loading from fertilizer run off in the overland flow during rain events. The implementation of field tiling may also increase the loading onto streams. This description is applicable to both the amended and 2013 Project Corridors.

EverPower will also cooperate with the State as part of the Construction General Permit (CGP) that will be issued for the project and prepare a SWPPP incorporating the most appropriate erosion and sediment control measures and best management practices to ensure wetlands and waterbodies in proximity to project disturbance areas are not impacted. For this reason, the impact to streams will likely be low.
Appendix B  USFWS & ODNR Coordination Letter
October 23, 2013

Mr. Don Rostofer
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215-3793

Re: Scioto Ridge P01 Substation and Transmission Line

Project: 13-501; The Scioto Ridge Transmission Line construction involves building a 345kV transmission line and Point of Interconnect Substation within a 120-foot right-of-way extending approximately 5 miles to connect the Scioto Ridge Wind Farm Collector Substation.

Location: The project is located in McDonald and Taylor Creek Townships, Hardin County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR’s experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

HARDIN & LOGAN COUNTIES

This project has been reviewed with the understanding that all permanent impacts to identified wetlands will be avoided as stated on page seven of the certificate application.

The project is within the range of the Indiana bat (Myotis sodalis), a state and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: Shagbark hickory (Carya ovata), Shellbark hickory (Carya laciniosa), Bitternut hickory (Carya cordiformis), Black ash (Fraxinus nigra), Green ash (Fraxinus pennsylvanica), White ash (Fraxinus americana), Shingle oak (Quercus imbricaria), Northern red oak (Quercus rubra), Slippery elm (Ulmus rubra), American elm (Ulmus americana), Eastern cottonwood (Populus deltoides), Silver maple (Acer saccharinum), Sassafras (Sassafras albidum), Post oak (Quercus stellata), and White oak (Quercus alba). Indiana bat habitat consists of suitable trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or
riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. If suitable trees occur within the project area, these trees should be conserved. If suitable habitat occurs on the project area and trees must be cut, cutting must occur between October 1 and March 31. If suitable trees must be cut during the summer months, a net survey must be conducted between June 15 and July 31, prior to cutting. Net surveys shall incorporate either two net sites per square kilometer of project area with each net site containing a minimum of two nets used for two consecutive nights, or one net site per kilometer of stream within the project limits with each net site containing a minimum of two nets used for two consecutive nights. If no tree removal is proposed, the project is not likely to impact this species.

Please continue to coordinate with the DOW and USFWS regarding bat surveys and any/all other bat related issues and recommendations.

The project is within the range of the eastern massasauga (Sistrurus catenatus), a state endangered and a federal candidate snake species. A large portion of the project is within a historic massasauga township with numerous wetlands providing potential habitat for the massasauga. Due to there being potential habitat within the boundary of the project, a habitat survey is recommended to determine if eastern massasaugas are likely to occur on site. The survey must be done by a professional herpetologist approved by the DOW. If necessary, a presence/absence survey may be required.

The project is within the range of the rayed bean (Villosa fabalis), a state endangered and federally endangered mussel, the clubshell (Pleurobema clava), a state endangered and federally endangered mussel, and the purple lilliput (Toxolasma lividus), a state endangered mussel. The project must not have an impact on freshwater native mussels in the area. This applies to both listed and non-listed species. Surveys and other information regarding the location of mussels in Ohio are limited. The DOW believes there is the potential for mussels to exist in the project area. Therefore, the DOW recommends the applicant provide information to indicate no mussel impacts will occur at stream crossings, and other stream impact sites. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, as a last resort, the DOW recommends a professional malacologist collect and relocates the mussels to suitable and similar habitat. Surveys and assessments should be done in accordance with the Ohio Mussel Survey Protocol. Because there is the potential for federal mussels to occur within the project area, the USFWS should also be contacted for consultation.

HARDIN COUNTY

The project is within the range of the copperbelly water snake (Nerodia erythrogaster neglecta), a state endangered and federally threatened species. Due to the location, the habitat present, and the type of work planned, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (Bartramia longicauda), a state endangered bird. A statewide survey has not been completed for this species. A lack of records does not indicate the species is absent from the area. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction must be avoided in this habitat during the species’ nesting period of April 15 to July 31. If this type of habitat will not be impacted, the project is not likely to impact this species.
LOGAN COUNTY

The project is within the range of the Iowa darter (*Etheostoma exile*), a state endangered species. The DOW recommends no in-water work from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. Due to the location, the habitat present, and the type of work planned, this project is not likely to impact this species.

The project is within the range of the Hine’s emerald (*Somatochlora hineana*), a state and federally endangered dragonfly. If wetlands will not be affected, this project is not likely to impact this species.

The ODNR Natural Heritage Database has no other records for rare or endangered species at this project site. We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges or other protected natural areas within the project area. Our inventory program does not provide a complete survey of Ohio wildlife, and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

**Geological Survey:** The Division of Geological Survey has the following comments.

The Division of Geological Survey concurs with the geology as presented by the applicant, and has no significant geologic concerns with this project. The Division of Geological Survey requests that copies of all geotechnical boring logs be sent to the Division. These data will be valuable for refining the geologic knowledge of the area.

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

ODNR Office of Real Estate
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693
John.Kessler@dnr.state.oh.us
October 21, 2013

Mr. Klaus Lambeck
Ohio Power Siting Board
180 East Broad St.
Columbus, OH 43215-3793

Re: Scioto Ridge P01 Substation and Transmission Line, 13-1767-EL-BSB, 13-1768-EL-BTX

Dear Mr. Lambeck:

This is in reference to Hardin Wind LLC’s Application to the Ohio Power Siting Board for a transmission line and substation. The Preferred project layout involves the installation of 4.8 miles of transmission line on 35 poles within a 120-foot wide right of way, and construction of an electrical substation on approximately 5 acres of land. The Alternate project layout involves construction of 5.3 miles of transmission line and a 5-acre substation. The project is located in McDonald and Taylor Creek Townships, Hardin County, Ohio.

Although streams and wetlands exist within the designated right-of-ways, no direct impact to water resources will occur from either project layout. Approximately 0.25 acres of trees may be cleared for the Preferred project layout, and are comprised of impacts associated with hedgerow crossings. Up to 0.75 acres of forest may be cleared for the Alternate project layout.

**ENDANGERED SPECIES COMMENTS:**
The proposed project lies within the range of the Indiana bat (*Myotis sodalis*), a federally listed endangered species. Since first listed as endangered in 1967, their population has declined by nearly 60%. Several factors have contributed to the decline of the Indiana bat, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, and the loss and degradation of forested habitat, particularly stands of large, mature trees. Fragmentation of forest habitat may also contribute to declines. Most recently white-nose syndrome (WNS), a novel fungal pathogen, has caused serious declines in the Indiana bat population in the northeastern U.S. WNS has also been documented in Ohio and declines of Indiana bats during winter censuses have been noted, but the full extent of the impacts from WNS in Ohio are not yet known.

During winter, Indiana bats hibernate in caves and abandoned mines. Summer habitat requirements for the species are not well defined but the following are considered important:

1. dead or live trees and snags with peeling or exfoliating bark, split tree trunk and/or branches, or cavities, which may be used as maternity roost areas;
2. live trees (such as shagbark hickory and oaks) which have exfoliating bark;
3. stream corridors, riparian areas, and upland woodlots which provide forage sites.
The proposed project lies within the range of the northern long-eared bat (*Myotis septentrionalis*), a species that is currently proposed for listing as federally endangered. Recently WNS has caused serious declines in the northern long-eared bat population in the northeastern U.S. WNS has also been documented in Ohio, but the full extent of the impacts from WNS in Ohio are not yet known.

During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds. Northern long-eared bats spend winter hibernating in caves and mines.

Bat mist netting surveys in 2010-2011 associated with the Scioto Ridge Wind Farm project resulted in the capture of Indiana bats within the vicinity of this project area. Page 3-1 of the Ecological Assessment for this project incorrectly indicates that the project area is outside of a 5-mile buffer of these Indiana bat captures. In fact, the project area is within the 5 mile buffer of these Indiana bat captures. These surveys also resulted in the capture of northern long-eared bats within the project area.

Should the proposed site contain trees or associated habitats exhibiting any of the characteristics listed above, we recommend that the habitat and surrounding trees be saved wherever possible. The application provided indicates that only a very small amount (0.25-0.75 acres) of Indiana bat and northern long-eared bat habitat may be impacted. Therefore, we recommend if trees cannot be avoided, they should only be cut between October 1 and March 31.

The proposed project lies within the range of the copperbelly water snake, clubshell mussel, and rayed bean mussel, federally listed threatened and endangered species, and the eastern massasauga, a Federal candidate species. Due to the project type, size, and location, the project, as proposed, should not impact these species.

Should, during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts.

**BALD EAGLE COMMENTS:**
The project lies within the range of the bald eagle (*Haliaeetus leucocephalus*). Bald eagles are protected under the Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA), and are afforded additional legal protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, BG EPA). BG EPA prohibits, among other things, the killing and disturbance of eagles. To evaluate your project’s potential to affect bald eagles, please visit: [http://www.fws.gov/midwest/MidwestBird/EaglePermits/baeatake/index.html](http://www.fws.gov/midwest/MidwestBird/EaglePermits/baeatake/index.html).

While our database of nest locations may not be complete because new nests are built each year, we currently have no records of bald eagle nests within ½ mile of your proposed project area. In order to avoid take of bald eagles, we recommend that no tree clearing occur within 660 feet of a
bald eagle nest or within any woodlot supporting a nest tree. Further we request that work within 660 feet of a nest or within the direct line-of-site of a nest be restricted from January 15 through July 31. This will prevent disturbance of the eagles from the egg-laying period until the young fledge, which encompasses their most vulnerable times.

If these recommendations cannot be implemented and take of bald eagles is likely, a bald eagle take permit for this project may be necessary. Further information on eagle take permits can be found at: [http://www.fws.gov/midwest/MidwestBird/EaglePermits/index.html](http://www.fws.gov/midwest/MidwestBird/EaglePermits/index.html).

**MIGRATORY BIRD COMMENTS:**
Mortality of migratory birds at electrical substations has been documented multiple times. In order to minimize the potential for migratory bird mortality, the U.S. Fish and Wildlife Service's Land-based Wind Energy Guidelines (2012) state the following:

> Keep lighting at both operation and maintenance facilities and substations located within half a mile of the turbines to the minimum required: a) use lights with motion or heat sensors and switches to keep lights off when not required; b) lights should be hooded downward and directed to minimized horizontal and skyward illuminations; and, c) minimize use of high-intensity lighting, steady-burning, or bright lights such as sodium vapor, quartz, halogen, or other bright spotlights.

We request the applicant address these guidelines in the lighting protocol for the substation.

The Service appreciates the opportunity to comment on this application, and looks forward to continued collaboration on this project. If you have questions, or if we may be of further assistance in this matter, please contact Megan Seymour at extension 16 in this office.

Sincerely,

Mary Knapp, Ph.D.
Field Supervisor

cc: Ms. Jennifer Norris, ODNR, Olentangy Wildlife Research Station, Ashley, OH
Mr. Michael Speerschneider, EverPower Wind Holdings, Inc. 1251 Waterfront Place, 3rd Fl., Pittsburgh, PA 15222.

Appendix C  Cultural Resources

Map

SHPO Concurrence Letter
Figure 10e. Survey approach used within the API (Sheets 1–15).
Stevan C. Pullins  
Cultural Resource Analysts, Inc.  
West Virginia Office  
3556 Teays Valley Road, Suite 3  
Hurricane, WV 25526  

Re: Scioto Ridge Wind Farm Project, 09-479-EL-BGN  
Hardin County, Ohio  

Dear Mr. Pullins,

This is in response to correspondence from your office dated April 14, 2017 (received April 17) regarding this project. The comments of the Ohio Historic Preservation Office (OHPO) are submitted in accordance with provisions of Ohio Revised Code 149.53 requesting cooperation among state agencies in the preservation of historic properties, Ohio Administrative Code 4906-17-08(D1-D3), and with provisions of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 [36 CFR 800]).

The project involves construction of a wind farm generating facility involving construction and integration of approximately 100 wind turbines within an area spanning approximately 36,000 acres. Cultural Resource Analysts (CRA), on behalf of Scioto Ridge Wind, has conducted a systematic survey for archaeological sites. Previously, in 2011, Tetra Tech, Inc. conducted surveys for the Hardin Wind Project. The 2011 architecture-history survey covers much of the same ground within the Scioto Ridge Wind Project however the layout for the turbines has been substantially changed and this required a good deal of additional archaeological survey. The 2017 CRA archaeological survey focused, as agreed, on areas where there will be ground disturbance that were not included in the 2011 archaeological survey. The 2017 survey resulted in the identification of 62 archaeological sites (see attached).

The SHPO agrees with the recommendation to avoid archaeological site 33-HR-329. This site produced an interesting assemblage of prehistoric artifacts that warrants further investigations. Avoiding impacts in and around this site will help preserve the site for future generations.

The rest of the 53 archaeological sites with a prehistoric artifact assemblage had an average of 3 prehistoric artifacts. Although this density of prehistoric artifacts throughout the project area is relatively low, the density of prehistoric artifacts is slightly higher than for similar surveys of proposed wind projects in areas to the north and west of this project. If this small increase in density of prehistoric artifacts is born out by further studies it should provide information helpful for interpreting the archaeological record in west central Ohio.
Mr. Stevan C. Pullins  
May 25, 2017  
Page 2

Of the 62 identified sites there are 29 that produced an assemblage with historic-era artifacts. The range in numbers of historic-era artifacts collected at any site extends from 1 to 309. Twelve sites produced more than 200 artifacts and are of interest. A cursory look suggests that the Consumer Cost Index for tableware is higher in the project area than in nearby areas to the west, north, and east. That is, the historic-era artifact assemblages recovered from the 2017 archaeological survey can help archaeologists and historians to understand and interpret the growth and development of this broad region during the latter 19th century and into the early 20th century.

The SHPO agrees with the plans to avoid site 33-HR-357 as this site in particular shows potential for containing sealed deposits that are likely to have preservation value. In addition, we note that the larger sites extend outside of the project construction zone which minimizes the impacts and contributes to preservation. We agree for this project that no further work is needed for the following sites with the condition that further consultation with this office is requested if future develop will result in substantial ground disturbance: 33-HR-313, 33-HR-320, 33-HR-330, 33-HR-346, and 33-HR-354.

With agreement to avoid as much as practical affecting sites 33-HR-329 and 33-HR-357, the SHPO agrees that no further archaeological field work is needed for this project unless there is a change in the scope of work.

Any questions concerning this matter should be addressed to David Snyder at (614) 298-2000, between the hours of 8 am. to 5 pm. Thank you for your cooperation.

Sincerely,

Diana Welling, Department Head  
Resource Protection and Review

DW/ds

Attachment: Site List

xc: Jon Pawley, OPSB (by email)
<table>
<thead>
<tr>
<th>Site Number</th>
<th>Affiliation</th>
<th>Prehistoric Artifacts</th>
<th>Historic-era Artifacts</th>
<th>SHPO Recommendation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>33-HR-313</td>
<td>Historic-era</td>
<td></td>
<td>256</td>
<td>NE</td>
<td>No further field work needed for this project</td>
</tr>
<tr>
<td>33-HR-314</td>
<td>Prehistoric</td>
<td>3</td>
<td></td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>33-HR-315</td>
<td>Pre / Hist</td>
<td>5</td>
<td>2</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-316</td>
<td>Pre / Hist</td>
<td>2</td>
<td>25</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>33-HR-317</td>
<td>Prehistoric</td>
<td>2</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-318</td>
<td>Pre / Hist</td>
<td>7</td>
<td>2</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-319</td>
<td>Pre / Hist</td>
<td>5</td>
<td>23</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-320</td>
<td>Pre / Hist</td>
<td>3</td>
<td>216</td>
<td>NE</td>
<td>No further field work needed for this project</td>
</tr>
<tr>
<td>33-HR-321</td>
<td>Historic-era</td>
<td></td>
<td>35</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-322</td>
<td>Pre / Hist</td>
<td>1</td>
<td>11</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-323</td>
<td>Prehistoric</td>
<td>2</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-324</td>
<td>Historic-era</td>
<td></td>
<td>95</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>33-HR-325</td>
<td>Historic-era</td>
<td></td>
<td>128</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>33-HR-326</td>
<td>Pre / Hist</td>
<td>7</td>
<td>3</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-327</td>
<td>Pre / Hist</td>
<td>2</td>
<td>28</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-328</td>
<td>Prehistoric</td>
<td>2</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-329</td>
<td>Prehistoric</td>
<td>23</td>
<td>309</td>
<td>NE</td>
<td>No further field work needed for this project</td>
</tr>
<tr>
<td>33-HR-330</td>
<td>Pre / Hist</td>
<td>1</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-331</td>
<td>Pre / Hist</td>
<td>8</td>
<td>111</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-332</td>
<td>Prehistoric</td>
<td>2</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-333</td>
<td>Prehistoric</td>
<td>2</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-334</td>
<td>Prehistoric</td>
<td>4</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-335</td>
<td>Pre / Hist</td>
<td>3</td>
<td>145</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-336</td>
<td>Pre / Hist</td>
<td>14</td>
<td>63</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-337</td>
<td>Pre / Hist</td>
<td>2</td>
<td>62</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-338</td>
<td>Prehistoric</td>
<td>1</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-339</td>
<td>Prehistoric</td>
<td>4</td>
<td></td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>Site</td>
<td>Culture</td>
<td>Phase</td>
<td>Count</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td>-------</td>
<td>-------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>33-HR-340</td>
<td>Prehistoric</td>
<td>4</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-341</td>
<td>Pre / Hist</td>
<td>1</td>
<td>115</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>33-HR-342</td>
<td>Historicera</td>
<td>113</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-343</td>
<td>Prehistoric</td>
<td>3</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-344</td>
<td>Pre / Hist</td>
<td>5</td>
<td>3</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-345</td>
<td>Prehistoric</td>
<td>13</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-346</td>
<td>Pre / Hist</td>
<td>1</td>
<td>226</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>33-HR-347</td>
<td>Prehistoric</td>
<td>4</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-348</td>
<td>Pre / Hist</td>
<td>2</td>
<td>56</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-349</td>
<td>Pre / Hist</td>
<td>7</td>
<td>3</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-350</td>
<td>Pre / Hist</td>
<td>3</td>
<td>1</td>
<td>NEP</td>
<td></td>
</tr>
<tr>
<td>33-HR-351</td>
<td>Pre / Hist</td>
<td>3</td>
<td>30</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>33-HR-352</td>
<td>Historicera</td>
<td>112</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-353</td>
<td>Prehistoric</td>
<td>7</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-354</td>
<td>Historicera</td>
<td>157</td>
<td>NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-355</td>
<td>Prehistoric</td>
<td>5</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-356</td>
<td>Prehistoric</td>
<td>7</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-357</td>
<td>Pre / Hist</td>
<td>1</td>
<td>307</td>
<td>Avoidance or further testing Extends outside of works space; assemblage is of interest.</td>
<td></td>
</tr>
<tr>
<td>33-HR-358</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-359</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-360</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-361</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-362</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-363</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-364</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-365</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-366</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-367</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-368</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-369</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-370</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-371</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-HR-372</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-LO-601</td>
<td>Historicera</td>
<td>30</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-LO-602</td>
<td>Prehistoric</td>
<td>1</td>
<td>NEP</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: NEP = Not Eligible Property; NE = No Effect (usually property extends outside of work area) and no further field work needed for this project.

**OHIO HISTORY CONNECTION**
800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

CONFIDENTIAL
Innogy
July 7, 2016

C. Michael Anslinger, RPA,
Senior Vice President, East Region
Cultural Resource Analysts, Inc.
3556 Teays Valley Road, Suite 3
Hurricane, WV 25526

Re: Scioto Ridge Wind Farm, Hardin and Logan Counties
CRA Project: W16H001

Dear Mr. Anslinger,

This is in response to email correspondence from your office sent to David Snyder on June 8, 2016 transmitting the revised work plan for the historic architectural survey for the proposed Scioto Ridge Wind Project. Comments of the Ohio State Historic Preservation Office (SHPO) are offered pursuant to provisions of the National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR 800, and Ohio Power Siting Board Chapter 4906 of the Ohio Revised Code and Chapters 4906-1 to 4906-17 of the Ohio Administrative Code.

We have reviewed the revised history architecture work plan and thank you for the consideration and acceptance of the recommended changes. Elizabeth Heavrin, in a phone call with Mary Ogle on July 6, 2016, further clarified the Impacts Analysis and Recommendations section, specifically the approach of impacts to setting vs. individual structures. This conversation was helpful for our office to understand how the impacts analysis will be presented in the survey report. With this information, we are satisfied with the design of the survey and look forward to the reviewing the findings in the report. Please ensure a bound copy of the revised history architecture report is submitted to our office for file.

Also, thank you for considering our ideas concerning the archaeological survey and for integrating these into the overall archaeological survey design. We agree with archaeological survey design and look forward to reviewing the report.

Any questions concerning this matter should be addressed to David Snyder or Mary Ogle at (614) 298-2000, between the hours of 8 am. to 5 pm. Thank you for your cooperation.

Sincerely,

David Snyder, Ph.D., Archaeology Reviews Manager
Resource Protection and Review

DSM/mo & ds
800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org