# **Staff Report of Investigation**

Circleville Solar 138 kV Transmission Line Project

Case No. 22-0117-EL-BTX

April 7, 2023



Mike DeWine, Governor | Jenifer French, Chair

In the Matter of the Application of Circleville Solar LLC, for ) a Certificate of Environmental Compatibility and Public ) Need for the construction of a 138 kilovolt transmission ) line in Pickaway County, Ohio

**Case No. 22-0117-EL-BTX** 

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Submitted to the OHIO POWER SITING BOARD

#### BEFORE THE POWER SITING BOARD OF THE STATE OF OHIO

In the Matter of the Application of Circleville Solar LLC, for ) a Certificate of Environmental Compatibility and Public ) Need for the construction of a 138 kilovolt transmission ) line in Pickaway County, Ohio

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Chair, Public Utilities Commission

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Director, Department of Agriculture

**Public Member** 

Director, Department of Development

Ohio House of Representatives

Director, Department of Natural Resources

Director, Environmental Protection Agency

Ohio Senate

Director, Department of Health

#### To the Honorable Power Siting Board:

In accordance with the Ohio Revised Code (R.C.) 4906.07(C) and rules of the Ohio Power Siting Board (Board or OPSB), the staff of the Public Utilities Commission of Ohio (Staff) has completed its investigation in the above matter and submits its findings and recommendations in this Staff Report for consideration by the Board.

The findings and recommendations contained in this report are the result of Staff coordination with the following agencies that are members of the Board: Ohio Environmental Protection Agency (Ohio EPA), the Ohio Department of Health (ODH), the Ohio Department of Development (ODOD), the Ohio Department of Natural Resources (ODNR), and the Ohio Department of Agriculture (ODA). In addition, Staff coordinated with the Ohio Department of Transportation (ODOT), the Ohio Historic Preservation Office (OHPO), the U.S. Fish and Wildlife Service (USFWS), and the U.S. Army Corps of Engineers (USACE).

In accordance with R.C. 4906.07(C) and 4906.12, copies of this Staff Report have been filed with the Docketing Division of the Public Utilities Commission of Ohio to be served upon the Applicant or its authorized representative, the parties of record, and pursuant to Ohio Administrative Code 4906-3-06, the main public libraries of the political subdivisions in the project area.

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

Sincerely,

Michael Williams
Executive Director

Ohio Power Siting Board

Michael Williams

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#### I. EXECUTIVE SUMMARY

The authority of the OPSB is prescribed by Ohio Revised Code (R.C.) Chapter 4906. R.C. 4906.10 specifies that 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 eight specified criteria. Staff investigated the application presented by Circleville Solar, LLC (Applicant) and recommends that the Board approve the Applicant's request for a certificate of environmental compatibility and public need only if the Board also approves the solar facility, Circleville Solar 21-1090-EL-BGN, for which the transmission line of this application would connect.

## I. POWERS AND DUTIES

#### **OHIO POWER SITING BOARD**

The authority of the OPSB is prescribed by Ohio Revised Code (R.C.) Chapter 4906. R.C. 4906.03 and authorizes the Board to issue certificates of environmental compatibility and public need for the construction, operation, and maintenance of major utility facilities defined in R.C. 4906.01. Included within this definition of major utility facilities are: electric generating plants and associated facilities designed for, or capable of, operation at 50 megawatts (MW) or more; electric transmission lines and associated facilities of a design capacity of 100 kilovolts (kV) or more; and gas pipelines greater than 500 feet in length and more than nine inches in outside diameter, and associated facilities, designed for transporting gas at a maximum allowable operating pressure in excess of 125 pounds per square inch. In addition, pursuant to R.C. 4906.20, the Board authority applies to economically significant wind farms, defined in R.C. 4906.13(A) as wind turbines and associated facilities with a single interconnection to the electrical grid and designed for, or capable of, operation at an aggregate capacity of five MW or greater but less than 50 MW. R.C 4906.13 excludes from economically significant wind farms, one or more wind turbines and associated facilities that are primarily dedicated to providing electricity to a single customer at a single location and that are designed for, or capable of, operational at an aggregate capacity of less than 20 MW, measured at the customer's point of interconnection (POI) to the electrical grid.

Membership of the Board is specified in R.C. 4906.02(A). The voting members include: the Chairperson of the Public Utilities Commission of Ohio (PUCO or Commission) who serves as Chairperson of the Board; the directors of the Ohio EPA, the ODH, the ODOD, the Ohio ODA, and the ODNR; and a member of the public, specified as an engineer, appointed by the Governor from a list of three nominees provided by the Ohio Consumers' Counsel. In addition, the Board shall include four legislative members who may participate fully in all the board's deliberations and activities except that they shall serve as nonvoting members. The speaker of the Ohio house of representatives shall appoint one legislative member, and the president of the Ohio senate and minority leader of each house of the Ohio General Assembly shall each appoint one legislative member. In all cases involving an application for a certificate or a material amendment to an existing certificate for a utility facility, as defined in R.C. 303.57, the Board shall include two voting ad hoc members, as described in R.C. 4906.021

#### **N**ATURE OF INVESTIGATION

The Board has promulgated rules and regulations, found in Ohio Administrative Code (Ohio Adm.Code) 4906 et seq., which establish application procedures for major utility facilities and economically significant wind farms.

#### **Application Procedures**

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

Within 60 days of receiving an application, the Chairperson must determine whether the application is sufficiently complete to begin an investigation.<sup>3</sup> If an application is considered complete, the Board or an administrative law judge will cause a public hearing to be held 60 to 90 days after the official filing date of the completed application.<sup>4</sup> At the public hearing, any person may provide written or oral testimony and may be examined by the parties.<sup>5</sup> Not later than three days after an application for a certificate, or a material amendment to an existing certificate, for a utility facility, as defined in R.C. 303.57, is found to be in compliance with R.C. 4906.06(A), is accepted by the Board, and the filing fee is paid by the applicant, the board shall provide a copy of the application to each board of trustees and each board of county commissioners of the townships or counties in which the facility is to be located.<sup>6</sup>

# **Staff Investigation and Report**

The Chairperson will also cause each application to be investigated and a report published by the Board's Staff not less than 15 days prior to the public hearing. The report sets forth the nature of the investigation and contains the findings and conditions recommended by Staff. The Board's Staff, which consists of career professionals drawn from the staff of the PUCO and other member agencies of the Board, coordinates its investigation among the agencies represented on the Board and with other interested agencies such as the ODOT, the OHPO, and the USFWS.

The technical investigations and evaluations are conducted pursuant to Ohio Adm.Code 4906-1-01 et seq. The recommended findings resulting from Staff's investigation are described in the Staff Report pursuant to R.C. 4906.07(C). The report does not represent the views or opinions of the Board and is only one piece of evidence that the Board may consider when making

<sup>1.</sup> R.C. 4906.04 and 4906.20.

<sup>2.</sup> R.C. 4906.06(A) and 4906.20(B)(1).

<sup>3.</sup> Ohio Adm.Code 4906-3-06(A).

<sup>4.</sup> R.C. 4906.07(A) and Ohio Adm.Code 4906-3-08.

<sup>5.</sup> R.C. 4906.08(C).

<sup>6.</sup> See R.C. 4906.31(A).

<sup>7.</sup> R.C. 4906.07.

<sup>8.</sup> Ohio Adm.Code 4906-3-06(C).

its decision. Once published, the report becomes a part of the record, is served upon all parties to the proceeding and is made available to any person upon request. A record of the public hearings and all evidence, including the Staff Report, may be examined by the public at any time. 10

#### **Board Decision**

The Board may approve or deny an application for a certificate of environmental compatibility and public need as filed, or modify and approve it upon such terms, conditions, or modifications as the board considers appropriate. <sup>11</sup> The certificate shall be subject to R.C. 4906.101, 4906.102, and 4906.103 and is also conditioned upon the facility being in compliance with applicable standards and rules adopted under the Ohio Revised Code. <sup>12</sup>

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

#### CRITERIA

Staff developed the recommendations and conditions in this *Staff Report of Investigation* pursuant to the criteria set forth in R.C. 4906.10(A), which reads, in part:

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

- (1) The basis of the need for the facility if the facility is an electric transmission line or gas pipeline;
- (2) The nature of the probable environmental impact;
- (3) That the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations;

<sup>9.</sup> R.C. 4906.07(C) and 4906.10.

<sup>10.</sup> R.C. 4906.09 and 4906.12.

<sup>11.</sup> R.C. 4906.10(A).

<sup>12.</sup> R.C. 4906.10.

<sup>13.</sup> R.C. 4906.11.

<sup>14.</sup> R.C. 4906.10(C).

<sup>15.</sup> See R.C. 4903.10 and 4906.12.

<sup>16.</sup> R.C. 4903.11, 4903.12, and 4906.12.

- (4) In the case of an electric transmission line or generating facility, that the facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that the facility will serve the interests of electric system economy and reliability;
- (5) That the facility will comply with Chapters 3704, 3734, and 6111 of the Revised Code and all rules and standards adopted under those chapters and under section 4561.32 of the Revised Code. In determining whether the facility will comply with all rules and standards adopted under section 4561.32 of the Revised Code, the board shall consult with the office of aviation of the division of multimodal planning and programs of the department of transportation under section 4561.341 of the Revised Code;
- (6) That the facility will serve the public interest, convenience, and necessity;
- (7) In addition to the provisions contained in divisions (A)(1) to (6) of this section and rules adopted under those divisions, what its impact will be on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929 of the Revised Code that is located within the site and alternative site of the proposed major utility facility. Rules adopted to evaluate impact under division (A)(7) of this section shall not require the compilation, creation, submission, or production of any information, document, or other data pertaining to land not located within the site and alternative site; and
- (8) That the facility incorporates maximum feasible water conservation practices as determined by the board, considering available technology and the nature and economics of the various alternatives.

#### **II. APPLICATION**

#### **APPLICANT**

Circleville Solar, LLC (Applicant) is a subsidiary of NextEra Energy Resources, LLC (NEER). NEER owns and operates wind, solar, natural gas, and nuclear energy facilities with a nameplate capacity of approximately 21.9 gigawatts. The Applicant would construct, own, operate, and maintain the facility (Circleville Solar Transmission Line), except for the direct connection to the AEP substation and upgrades to the transmission system identified in the PJM<sup>17</sup> system impact study (PJM SIS).

#### **HISTORY OF THE APPLICATION**

On February 16, 2022, the Applicant filed a pre-application notification letter regarding the project.

On March 10, 2022, the Applicant held a public informational meeting to discuss the project with interested persons and landowners.

On June 8, 2022, and supplemented on March 15, 2023, Circleville Solar filed its application for a certificate to construct the project.

On August 5, 2022, the Executive Director of the OPSB issued a letter of compliance regarding the application to the Applicant.

On July 12, 2022, and August 5, 2022, the Applicant filed its responses to OPSB Staff data requests.

On September 14, 2022, a motion to intervene was filed by the Pickaway County Engineer.

A local public hearing has been scheduled for April 25, 2023, at 6:00 p.m.

The evidentiary hearing is scheduled to commence on May 23, 2023, at 10:00 a.m.

This summary of the history of the application does not include every filing in case number 22-0177-EL-BTX. The docketing record for this case, which lists all documents filed to date, can be found online at http://dis.puc.state.oh.us.

#### **PROJECT DESCRIPTION**

The Applicant proposes to construct an approximately 3.9-mile 138 kV transmission line for the Circleville Solar facility (Solar Facility) (see OPSB Case Number 21-1090-EL-BGN) in Jackson,

<sup>17.</sup> PJM Interconnection, LLC is the regional transmission organization charged with planning for upgrades and administrating the generation queue for the regional transmission system in Ohio. 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. The interconnection process provides for the construction of expansions and upgrades of the PJM transmission system, as needed to maintain compliance with reliability standards with the addition of generation in its footprint.

Wayne, and Circleville townships in Pickaway County, Ohio. The Applicant would construct, own, operate, and maintain the transmission line. The line would connect the Solar Facility's collection substation with the existing American Electric Power (AEP) Circleville Substation allowing the Solar Facility to interconnect up to 70 MW of electricity. On March 15, 2023, the Applicant filed an amendment application which included changing the Preferred Route to the Alternate Route and vice versa and limited route alignments. The route changes and route alignment changes were promoted by landowner input. Throughout the remainder of this report (1) the route labeled "preferred" is the "amended preferred" route as referenced in the amendment application and (2) the prior preferred route is referred to as the Alternate Route The Preferred Route crosses fewer properties, wetlands, Federal Emergency Management Agency (FEMA) floodplain acres, and Conservation Reserve Program (CRP) acres.

#### **Preferred Transmission Line Route**

The Preferred Route is approximately 3.9 miles in length. From the Solar Facility collection substation, it proceeds east along the southern edge of State Route 56. After 0.2 miles, the route turns south on the east side of state route 104 and continues south for 0.5 miles. The route then turns east through agricultural fields for 0.9 miles until it reaches State Route 56. Then the route runs parallel on the southside of state route 56 for 0.4 mi at which point the route crosses to the northside of state route 56 and runs an additional 0.5 mi. At the intersection of State Route 56 and U.S. Route 22 the route follows U.S. Route 22 for 1.2 mi and crosses the Scioto River. After the route crosses the Scioto River, the route runs south along the Scioto River for 0.2 mi and runs east for approximately 300 feet going under U.S. Route 23 via horizontal directional drilling (HDD) to the Circleville substation.

#### **Alternate Transmission Line Route**

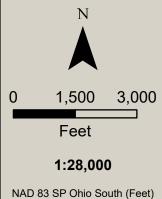
The Alternate Route is approximately 3.7 miles in length. From the Solar Facility collection substation, it proceeds east along the southern edge of State Route 56 for 0.4 mi. Then the route crosses to the northside of state route 56 and runs 1.8 miles. At the intersection of state route 56 and US route 22 the route follows US route 22 for 1.2 mi and crosses the Scioto River. After the route crosses the Scioto River, the route runs south along the Scioto River for 0.2 mi and runs east for approximately 300 feet going under U.S. Route 23 via HDD to the Circleville substation.

#### **Project Schedule**

The Applicant plans to complete final transmission line engineering design work prior to construction, which is anticipated to begin in August 2023 and be completed in late 2024.







- △ Proposed HDD Location
- Preferred Route Pole
- Alternate Route Pole
- Existing Circleville Substation
- Collector Substation
- --- Preferred Route
- Alternate Route
- Existing Transmission Line

# **Overview Map**

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# Circleville Solar Transmission Line

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

#### III. CONSIDERATIONS AND RECOMMENDED FINDINGS

In the Matter of the Application of Circleville Solar, LLC for a Certificate of Environmental Compatibility and Public Need, Staff submits the following considerations and recommended findings pursuant to R.C. 4906.07(C) and 4906.10(A).

# Considerations for R.C. 4906.10(A)(1)

#### **BASIS OF NEED**

#### **Purpose of Proposed Facility**

The Applicant indicates the purpose of the proposed project is to construct a 138 kV generation transmission line (gen-tie line) to connect the Circleville Solar generation facility to the Circleville 138 kV Substation allowing energy from the solar facility to be sent to the bulk power system (BPS). The Circleville Substation would be the point of interconnection (POI) with the BPS, and the length of the preferred gen-tie line would be approximately 3.9 miles.

#### System Conditions, Local Requirements, and Other Pertinent Factors

The Applicant states that it filed an interconnection request, and PJM assigned the queue position ID AC2-029. The Applicant also states that the PJM SIS issued in May 2021 and the PJM Facilities Study issued in October 2022 have identified no issues or problems associated with AC2-029.

#### **Long-Term Forecast Report**

The Applicant is neither an owner nor an operator of a "Major Utility Facility" as defined by the Ohio Revised Code and, as such, is not required to file a Long-Term Forecast Report with the PUCO. <sup>18</sup>

#### **System Economy and Reliability**

The Applicant states that the PJM SIS for AC2-029, issued in May 2021, showed the cost to implement the connection to the POI would be approximately \$2,000,000, which would cover the cost of installing a 138 kV circuit breaker and upgrading line protection and controls at the Circleville Substation. The PJM Facilities Study, issued in October 2022, revised the cost of the transmission owner facilities to \$2,575,212 to cover the similar attachment facilities and non-direct connections mentioned. The project was studied for compliance with the planning of PJM, NERC, and the NERC Regional Reliability Councils.

#### **Recommended Findings**

Staff recommends that the Board find that the basis of need for the project has been demonstrated and therefore complies with the requirements specified in R.C. 4906.10(A)(1), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled <u>Recommended Conditions of Certificate</u>.

<sup>18.</sup> R.C. 4935.04(C) and Ohio Adm.Code. 4901:5-5.

# Considerations for R.C. 4906.10(A)(2)

#### **NATURE OF PROBABLE ENVIRONMENTAL IMPACT**

Pursuant to R.C. 4906.10(A)(2), the Board must determine the nature of the probable environmental impact of the proposed facility. Staff has found the following with regard to the nature of the probable environmental impact.

# Community Impacts<sup>19</sup>

#### Land Use

Land use in proximity to the proposed transmission line is almost entirely agricultural land. Agricultural land use makes up 74 percent of the 3.9-mile Preferred Route which is comprised of approximately 35 acres of right-of-way, and 65 percent of the 3.6-mile Alternate Route which is comprised of approximately 29 acres of right-of-way.

The Applicant states that the proposed transmission line would be installed within a permanent 100-foot-wide right-of-way, with 50 feet from the centerline on both sides.

Impacts to residential land uses would be minimal. There would be 2 residences within 250 feet of the right-of-way for the Preferred Route and 3 within 250 feet of the right-of-way for the Alternate Route. There are two industrial buildings, schools, hospitals, churches, or civic buildings within 250 feet of the edge of the right-of-way of both routes. Significant impacts to recreational and institutional land uses are not anticipated as these land uses are not present in the project area. No structures are expected to be demolished or removed for the construction of this project. This project would have minimal impacts to land use on account of the small footprint of the structures associated with the transmission line.

#### Regional Planning

The Applicant states that Jackson and Wayne townships and Pickaway County do not have comprehensive land use plans.

<sup>19. &</sup>quot;It is the mission of the Ohio Department of Development to help create jobs and build strong communities in Ohio, while ensuring accountability and transparency of taxpayer money exceptional customer service." (Ohio.gov, *Department of Development*, https://www.development.ohio.gov/feat/whatisdsa.htm). RC 122.011(A)(6) states, in part, that the department of development shall develop and promote plans and programs designed to assure that state resources are efficiently used, economic growth is properly balanced, community growth is developed in an orderly manner, and local governments are coordinated with each other and the state, and for such purposes may, among other things, cooperate with and provide technical assistance to state departments, regional and local planning commissions, and other appropriate organizations for the solution of community problems. According to R.C. 122.01(B)(1), "community problems' includes, but is not limited to, taxation, fiscal administration, governmental structure and organization, intergovernmental cooperation, education and training, employment needs, community planning and development, air and water pollution, public safety and the administration of justice, housing, mass transportation, community facilities and services, health, welfare, recreation, open space, and the development of human resources."

#### Recreation

The Preferred and Alternate Routes cross 0.2 acres of recreational land uses, which is a Scioto River wildlife area. The project is not expected to have any significant impacts on recreational land uses.

#### **Aesthetics**

Permanent visual impacts would result from the introduction of a new manmade element to the landscape. The rural nature of the surrounding area reduces the potential number of viewers. The project area is located along smaller and more lightly traveled transportation corridors. The proposed transmission line would largely be constructed among existing agricultural land and near farm features such as barns and other utility lines, which help to mitigate visual impacts.

#### Cultural Resources<sup>20</sup>

The Applicant's consultant conducted a literature review and Phase I cultural resource survey to determine potential impacts to historical properties and archaeological sites. The survey included a review of the National Register of Historic Places (NRHP) and analysis of sites that may be eligible for inclusion in the NRHP, OHPO files, Ohio Archeological Inventory and Ohio Historic Inventory files, and other sources of data. The consultant's survey focused on a 0.25 mile buffer of both the Preferred and Alternate Routes. New and previously identified archeological sites were found in the literature review and field surveys There were two new archeological sites identified during field survey along the Preferred Route and two new archeological sites identified during field survey along the alternate route. All four sites were recommended not eligible for NRHP listing by the Applicant's consultant. These results were submitted to OHPO. OHPO concurred that no further archaeological work is necessary for the project and recommends a finding of no adverse effect to historical properties. Staff agrees with these findings.

#### **Economics**

The estimated capital and intangible costs for the project were filed confidentially.

#### Taxes

The transmission facility would have an impact on the local tax base, including school districts and other taxing districts that service the area where the facility would be located. These taxing districts include Pickaway County, Jackson and Wayne Townships in Pickaway County along with the Circleville City School District, Westfall Local School District and Pickaway-Ross Career and Technology Center. Annually, the Applicant anticipates that it will pay approximately \$8,000 per MW of nameplate capacity for the Solar Facility, which this line would connect to the BPS.

<sup>20.</sup> According to RC 149.53, "[a]|Il departments, agencies, units, instrumentalities, and political subdivisions of the state shall cooperate with the Ohio history connection and the Ohio historic site preservation advisory board in the preservation of archaeological and historic sites and in recovery of scientific information from such sites, and for such purposes shall, whenever practical, by contract or otherwise provide for archaeological and historic survey and salvage work during the planning phases, before work on a public improvement begins or at other appropriate times." In Ohio, the Ohio Historic Preservation Office (OHPO) is part of the Ohio History Connection. (See, Ohio History Connection, About Section 106 Review, <a href="https://www.ohiohistory.org/preserve/state-historic-preservation-office/hpreviews/about-section-106-reviews">https://www.ohiohistory.org/preserve/state-historic-preservation-office/hpreviews/about-section-106-reviews</a>).

Assuming an aggregate nameplate capacity of 70 MW for the Solar Facility, the increase in local tax revenues would be approximately \$0.56 million per year for the Solar Facility.

#### Liability Insurance

The Applicant states it will maintain insurance policies against claims and liabilities arising out of personal injury, death, and property damage arising from the operation of the transmission line. The limits of the insurance policies are \$1,000,000 per occurrence and \$5,000,000 in excess liability insurance.

#### **Public Services, Facilities, and Safety**

#### Safety

The Applicant stated that it would comply with all applicable safety standards set by the Occupational Safety and Health Administration (OSHA), safety standards of the PUCO, and the North American Electric Reliability Corporation (NERC) Reliability Standards. The Applicant also intends to utilize and maintain an approximately 100-foot-wide right-of-way for the proposed project. The Applicant's design would also meet the requirements of the National Electrical Safety Code (NESC). The Applicant stated it plans to remotely monitor the project in conjunction with an onsite O&M provider to address any identified issues promptly.

#### **Communications**

The Applicant does not expect AM or FM radio, television, or microwave path interference to occur from the operation of the proposed transmission line along either the Preferred or Alternate route.

Any likely source of television interference would be localized, and due to defective hardware, which could be easily detected and replaced. The Applicant indicates that it will maintain the transmission line in good condition, which should avoid impacts to television reception. Also, once detected, the Applicant would repair or replace the defective hardware to eliminate the interference. The Applicant stated it plans to remotely monitor the project in conjunction with an onsite O&M provider to address any identified issues promptly.

#### Roads and Bridges<sup>21</sup>

The Preferred and Alternate routes are planned to utilize public road right-of-way, public land, and private easements to access and construct the project site. A railroad crossing permit and a permanent easement to cross the railroad corridor may be required.

An increase in truck traffic is anticipated during construction for the purpose of equipment access and equipment and material deliveries. The Applicant does not anticipate any additional traffic during operation of the facility beyond routine maintenance. Either detours or lane closures would be necessary at different stages of the project, and Staff recommends the Applicant coordinate with ODOT when HDD is used to install the transmission line under U.S. Route 23 and

<sup>21.</sup> The entity responsible for maintaining roads and bridges within Ohio depends on many factors. See, e.g., ODOT, *Roadway Infrastructure Maintenance Responsibility Manual*, https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/maintenance-operations/rimr/rimr).

obtain and comply with appropriate road closure permitting agencies such as the Pickaway County Engineer and ODOT.

#### Noise

Construction noise would include excavation with an auger, conduit installation, and backfilling. The Applicant does not anticipate using pile-driving, or rock hammering and/or breaking. The total duration of construction of the line is expected to be 5-6 months. Construction activities would be limited primarily to daytime hours. The Applicant would notify property owners or tenants of the upcoming construction activities for the project in the same manner as required for the public information program, as stated in Ohio Adm.Code 4906-3-03(B)(2), including the potential for the after-hours activities.

Most noise impacts associated with this project would occur during the proposed construction period. The Applicant would mitigate noise impacts by using standard construction techniques and limiting construction activities to daylight hours, to the extent feasible. Occasional, short term, noise impacts would also occur, associated with maintenance and repair activities, throughout the life of the facility. Although the Applicant states that construction activity would generally be limited to daylight hours, Staff recommends a condition that limits general construction activities to daylight hours unless the noise impact from the construction activities do not rise above ambient levels at sensitive receptors. If extraordinary circumstances, that include noise impacts above ambient levels at sensitive receptors, require nighttime construction activities, the Applicant shall notify Staff and affected property owners or tenants before the construction occurs.

# Geology<sup>22</sup>

The uppermost bedrock unit throughout the project area is the Ohio and Olentangy Shales Undivided. Bedrock is unlikely to be encountered during any portions of the proposed construction. No project facilities have been sited on highly-erodible lands or critically steep slopes. No geologic features potentially incompatible with the proposed project were identified. Some potential soil deficiencies were identified by the Applicant via its geotechnical investigation and are addressed below.

<sup>22.</sup> According, in part, to R.C. 1505.01, the ODNR's division of geological survey "[s]hall advise, consult, or collaborate with representatives of agencies of the state...on problems or issues of a geological nature when requested by such an agency...." One of the missions of the ODNR Division Geological Survey is "to provide geologic information and services needed for responsible management of Ohio's natural resources." (ODNR, Division of Geological Survey, About the Division, <a href="https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/geologic-survey/division-of-geologic-survey/division-of-geologic-survey/division-of-geologic-survey/). This includes studying and investigating, among other things, glacial and surficial geology, bedrock geology, and geological hazards. According to ODNR a "geologic hazard or 'geohazard' is a geologic condition, either manmade or natural, that poses a potential danger to life and property. Ohio is home to a number of potential geohazards, including karst, mine subsidence, earthquakes, landslides, and shore erosion." (ODNR, Geologic Hazards, <a href="https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/geologic-survey/geologic-hazards">https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/geologic-survey/geologic-hazards>).

<sup>23.</sup> Application at page 90.

The preliminary design indicated 42 wooden direct embed poles and 23 steel poles would be used.<sup>24</sup> The March 15, 2023 application amendment indicates the number of structures would be increased by 7, to 72 total. The proposed transmission line would be constructed primarily using direct embed wood poles. However, in some locations, including areas prone to flooding in the project area and at the Scioto River, railroad, and highway crossings, steel poles may be needed with either concrete foundations or drilled pier foundations.<sup>25</sup> The Applicant anticipates using self-supporting cement poles and galvanized steel poles structured on an 8-ft by 8-ft concrete foundation. No guy wiring on these transmission structures is proposed. 11 angled structures are planned through the Scioto River floodplain and railroad corridor crossing section of the proposed transmission line route/s prior to the point of interconnection.<sup>26</sup>

Geotechnical studies were conducted along the proposed routes from June 9 to July 21, 2022. A draft report was provided to Staff on March 21, 2023 and a finalized version was provided April 5, 2023. The report includes an evaluation of the of the soil boring data acquired to date. Generally, the soil conditions encountered at the borings consisted of surficial topsoil underlain by natural sandy soils interlayered with clay. Natural gravel was observed at Borings B64 and B66. Fat (high plasticity) clays were observed at Borings B55 and B59. High organic contents were observed in Borings B55 and B60 ranging in depths from 13 to 17 feet below existing grades. Undocumented fill was observed at Borings B59, B60, and B61 up to a depth of 6, 14.5, and 13 feet below existing grades, respectively. Borings B58, B62 to B66 encountered a dense glacial till (clay hardpan) and/or cobbles below about 20 feet. Groundwater level varied considerably due to the various clay layers and was encountered at depths ranging from about 2 to 24.5 feet below ground surface while and/or immediately after drilling. A high rate of groundwater infiltration into excavations in the wet sands is to be expected in addition to perched groundwater conditions within the sand and gravel layers near the observed natural clays.

With regard to the proposed underground (approximately 340 feet) section, the geotechnical report indicates the use of HDD methods should generally be feasible. However, the existing subsurface conditions include the presence of permeable granular soils, cobbles, undocumented fill, and the potential for relatively shallow groundwater levels. All must be considered when planning and conducting the proposed construction. In addition, differences in thermal resistance should be expected in areas located away from the tested locations. Although organic soils were not generally observed within the borings completed, soils containing organic matter should be completely removed from within the thermal influence zone of the buried conductors during construction. "The final type and size of cabling, conduits, and casing for the underground section of the Project is dependent on final design specifications and will also require coordination with ODOT." 27

Direct embedded poles are expected to be installed 19-25 feet below grade with crushed stone or un-reinforced concrete used as backfill. The final design depth of the drilled shafts would depend on the diameter used, the lateral strength and stiffness of the soils, the design loads and

<sup>24.</sup> Applicant's August 5, 2022 response to Staff's data request.

<sup>25.</sup> Applicant's March 15, 2023 application amendment at page 4.

<sup>26.</sup> March 27, 2023 Applicant response to Staff data request.

<sup>27.</sup> March 15, 2023 Amendment application at page 20.

overturning moments, and the amount of lateral deflection considered acceptable under maximum loading conditions. <sup>28</sup> The diameter of the drilled shafts would need to be large enough to accommodate the diameter of the structures. However, to accommodate the design lateral loads, the diameter of the shafts may need to be larger. A temporary heavy steel casing would be required at the drilled shaft locations to prevent caving of the wet sands. The report indicates that foundations typically aren't recommended on organic soils and undocumented fills as identified in some of the borings discussed above. No site-specific foundation loading information was provided at the time of the report. The report recommends verification of suitable bearing soils by a qualified geotechnical engineer and that all drilled shafts are constructed in accordance with ACI Specification 336.1.<sup>29</sup>

#### Conclusion

Staff recommends that the final detailed engineering drawings of the final project design shall account for geological features and soil conditions identified within the final geotechnical report. Staff also recommends that the Applicant retain an onsite geotechnical engineer to evaluate all drilled shafts, and all locations with high organic content and/or undocumented fill.

Based on the data and considerations provided within the application, amended application, and information request submittals to date, and based on Staff assessment (with consideration and input from ODNR), and implementation of the recommended conditions, there appears to be no particular geological features within the project area that are incompatible with construction and operation of the proposed Preferred or Alternative Routes. The geotechnical evaluation does identify some suboptimal soil conditions. However, these site conditions will be further evaluated by the Applicant's geotechnical engineering team to ensure structural integrity of all foundations and compatibility with subsurface infrastructure.

<sup>28.</sup> April 5, 2023 Geotechnical Evaluation Report by SME at page 6.

<sup>29.</sup> American Concrete Institute SPEC-336.1-01: Specification for the Construction of Drilled Piers

#### **Ecological Impacts**

Surface Waters 30

The Applicant's consultant conducted a wetland and stream delineation of the project area in May and December of 2021 and February of 2022. Due to the modifications of the amended Preferred Route, an additional 3.71 acres of project area were also surveyed in June of 2022. The consultant identified eight wetlands totaling 27.83 acres, including two Category 1, two Category 1 or 2 Gray Zone, and four Category 2. <sup>31</sup> No high-quality Category 3 wetlands were identified within the project area. The consultant also identified four streams, including one intermittent and three perennial, one being the Scioto River.

An approximately 0.4-acre portion of the project area has not yet been surveyed for aquatic resources. The Applicant has attempted to contact the utility owner of the Circleville Substation to gain access to this portion of the project area with no response to date. The Applicant reviewed this portion of the project area using publicly available sources, including Google Earth Imagery, and states that the area appears to have been disturbed since at least the mid-1990s. Additionally, the Applicant cited the Biers Run-Circleville 138-kV Transmission Line Project, Case No. 13-0430-EL-BTX, which includes a Vegetation and Waterbodies Map that encompasses this area. No delineated wetland features or mapped National Wetlands Inventory features are mapped on this portion of the project. The amended Preferred Route would result in approximately 4.01 acres and 1.21 acres of temporary and permanent impact to wetlands, respectively. The amended Alternate Route would result in approximately 4.61 acres and 1.3 acres of temporary and permanent impact to wetlands, respectively. Impacts would be associated with placement of structures in wetlands, and improvement to an existing culvert crossing. Approximately 1.21 acres of permanent impact for both routes would be associated with conversion of palustrine forested wetland to palustrine emergent wetland due to tree clearing along the right-of-way. The Applicant has stated that compensatory mitigation would be completed per U.S. Army Corp of Engineers permitting.

<sup>30.</sup> The Ohio EPA website states: "The Division of Surface Water ensures compliance with the federal Clean Water Act and works to increase the number of water bodies that can be safely used for swimming and fishing. The division issues permits to regulate wastewater treatment plants, factories and storm water runoff; develops comprehensive watershed plans aimed at improving polluted streams; and samples streams, lakes and wetlands — including fish, aquatic insects and plants — to determine the health of Ohio's water bodies." (Ohio EPA, About Us: Surface Water, https://www.epa.ohio.gov/About#127147228-surface-water); The U.S. Army Corps of Engineers website states: "The U.S. Army Corps of Engineers (USACE) Regulatory Program involves the regulating of discharges of dredged or fill material into waters of the United States and structures or work in navigable waters of the United States, under section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act of 1899." (USACE, Obtain a Permit, https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit/); The Ohio Department of Natural Resources (ODNR) website states: "The Division of Water Resources manages statewide oversight of dams & levees, floodplains, and the collection and management of data related to the state's water resources." (ODNR, Division of Water Resources, https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-odnr/water-resources/water-resources).

<sup>31.</sup> Wetlands falling within the purview of the Clean Water Act are regulated within Ohio by R.C. 6111, et seq. and Ohio Adm.Code 3745-1-50, et seq. Ohio Adm.Code 3745-1-54 establishes wetland categories.

Both the amended Preferred and Alternate Routes would aerially span the Scioto River. The Applicant does not anticipate any impacts to the Scioto River due to this crossing. Additionally, construction of either route would require crossing a presently culverted perennial stream. Improvement of this culvert crossing would result in a maximum of 83 linear feet of permanent impact to the stream.

The Applicant would obtain coverage under the USACE Nationwide Permit 57 – Electric Utility Line and Telecommunications Activities for surface water impacts resulting from construction of this project. The Applicant has stated that compensatory mitigation for temporary impacts to wetlands would be completed in accordance with USACE permitting. Additionally, the Applicant would obtain coverage under the Ohio Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) Construction General Permit OHC000005 for stormwater-related surface water impacts. Staff does not anticipate issues with the Applicant's procurement of this permit. The Applicant would develop a Stormwater Pollution Prevention Plan (SWPPP), which would identify additional controls and best management practices to be followed during construction and operation to further avoid potential impacts. The Applicant would also clearly stake or flag the boundaries of delineated surface waters and any other environmentally sensitive areas prior to construction.

The Applicant is not currently proposing to utilize HDD for any stream crossings. However, the Applicant plans to implement the Frac-Out Contingency Plan originally submitted with the Circleville Solar generation facility application (21-1090-EL-BGN) should final project design include the use of HDD to cross any surface waters.

Portions of the project area are located within FEMA Special Flood Hazard Areas, including 100-year floodplains and the regulatory floodway of the Scioto River. Structures along the common segment of the Preferred and Alternate Routes would be installed in these areas. The Applicant would obtain a Flood Hazard Area Development Permit from Pickaway County to ensure project compliance with floodplain regulations.

# Threatened and Endangered Species<sup>32</sup>

The Applicant received environmental review of the project from the USFWS and the ODNR on July 20 and September 1, 2021, respectively. Staff gathered additional information through

<sup>32.</sup> Based on agency coordination with the USFWS and ODNR, identified species of concern are, in general, defined as those species that are protected under the federal Endangered Species Act of 1973, as amended (16 U.S.C. §§ 1531-1544) and/or according to the Conservation of Natural Resources within R.C. 1518.01-1518.99; 1531.25; and 1531.99. See also e.g., R.C. 1531.08 states, in part: "In conformity with Section 36 of Article II, Ohio Constitution, providing for the passage of laws for the conservation of the natural resources of the state, including streams, lakes, submerged lands, and swamplands, and in conformity with this chapter and Chapter 1533. of the Revised Code, the chief of the division of wildlife has authority and control in all matters pertaining to the protection, preservation, propagation, possession, and management of wild animals and may adopt rules under section 1531.10 of the Revised Code for the management of wild animals."

One of the missions of the ODNR is to "conserve and improve the fish and wildlife resources and their habitats and promote their use and appreciation by the public so that these resources continue to enhance the quality of life for all Ohioans." In carrying out this mission, the ODNR considers the "status of native wildlife species

review of published ecological information. The following tables provide the results of the information requests, field assessments, and document review.

		1	MAMMALS	T	
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area	
Indiana bat	Myotis sodalis	Endangered	Endangered	No suitable winter hibernacula were observed in the project area. Potentially suitable summer foraging and roosting habitat was observed in the project area.	
Northern Long-Eared bat	Myotis septentrionalis	Threatened	Endangered	No suitable winter hibernacula were observed in the project area. Potentially suitable summer foraging and roosting habitat was observed in the project area.	
Little Brown bat	Myotis lucifugus	N/A	Endangered	No suitable winter hibernacula were observed in the project area. Potentially suitable summer foraging and roosting habitat was observed in the project area.	
Tri-colored bat	Perimyotis subflavus	N/A	Endangered	No suitable winter hibernacula were observed in the project area. Potentially suitable summer foraging and roosting habitat was observed in the project area.	
		IN	IVERTEBRATES		
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area	
Clubshell	Pleurobema clava	Endangered	Endangered	Potentially suitable habitat present in project area.	
Fanshell	Cyprogenia stegaria	Endangered	Endangered	Potentially suitable habitat present in project area.	
Northern riffleshell	Epioblasma torulosa rangiana	Endangered	Endangered	Potentially suitable habitat present in project area.	
Purple cat's paw	Epioblasma o. obliquata	Endangered	Endangered	Potentially suitable habitat present in project area.	
Rayed bean	Villosa fabalis	Endangered	Endangered	Potentially suitable habitat present in project area.	
Snuffbox	Epioblasma triquetra	Endangered	Endangered	Potentially suitable habitat present in project area.	
Rabbitsfoot	Quadrula cylindrica cylindrica	Threatened	Endangered	Potentially suitable habitat present in project area.	

[to be] very important" and therefore lists wildlife species needing protection. (ODNR, *State Listed Species*, https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/wildlife/state-listed-species).

			VERTEBRATES	
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Butterfly	Ellipsaria lineolata	N/A	Endangered	Potentially suitable habitat present in project area.
Ebonyshell	Fusconaia ebenus	N/A	Endangered	Potentially suitable habitat present in project area.
Elephant-ear	Elliptio crassidens	N/A	Endangered	Potentially suitable habitat present in project area.
Long-solid	Fusconaia maculata maculate	N/A	Endangered	Potentially suitable habitat present in project area.
Ohio pigtoe	Pleurobema cordatum	N/A	Endangered	Potentially suitable habitat present in project area.
Pyramid pigtoe	Pleurobema rubrum	N/A	Endangered	Potentially suitable habitat present in project area.
Sharp-ridged pocketbook	Lampsilis ovata	N/A	Endangered	Potentially suitable habitat present in project area.
Washboard	Megalonaias nervosa	N/A	Endangered	Potentially suitable habitat present in project area.
Pondhorn	Uniomerus tetralasmus	N/A	Threatened	Potentially suitable habitat present in project area.
Threehorn wartyback	Obliquaria reflexa	N/A	Species of Concern	Potentially suitable habitat present in project area.
Black sandshell	Ligumia recta	N/A	Species of Concern	Potentially suitable habitat present in project area.
Fawnsfoot	Truncilla donaciformis	N/A	Species of Concern	Potentially suitable habitat present in project area.
		1	FISH	
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Scioto madtom	Noturus trautmani	Endangered	Endangered	Potentially suitable habitat present in project area.
Bigeye shiner	Notropis boops	N/A	Endangered	Potentially suitable habitat present in project area.
Goldeye	Hiodon alosoides	N/A	Endangered	Potentially suitable habitat present in project area.
Northern brook lamprey	Ichthyomyzon fossor	N/A	Endangered	Potentially suitable habitat present in project area.

		ı	FISH	
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Northern madtom	Noturus stigmosus	N/A	Endangered	Potentially suitable habitat present in project area.
Shortnose gar	Lepisosteus platostomus	N/A	Endangered	Potentially suitable habitat present in project area.
Spotted darter	Etheostoma maculatum	N/A	Endangered	Potentially suitable habitat present in project area.
Shovelnose sturgeon	Scaphirhynchus platorynchus	N/A	Endangered	Potentially suitable habitat present in project area.
Blue sucker	Cycleptus elongatus	N/A	Threatened	Potentially suitable habitat present in project area.
Lake chubsucker	Erimyzon sucetta	N/A	Threatened	Potentially suitable habitat present in project area.
Paddlefish	Polyodon spathula	N/A	Threatened	Potentially suitable habitat present in project area.
Tippecanoe darter	Etheostoma Tippecanoe	N/A	Species of Concern	Potentially suitable habitat present in project area.
	<u> </u>	<u> </u>	BIRDS	
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Northern harrier	Circus hudsonis	N/A	Endangered	Unlikely to be present in project area.
Lark sparrow	Chondestes grammacus	N/A	Endangered	Unlikely to be present in project area.
Upland sandpiper	Bartramia Iongicauda	N/A	Endangered	Unlikely to be present in project area.
Least bittern	Ixobrychus exilis	N/A	Threatened	Unlikely to be present in project area.
Sandhill crane	Grus canadensis	N/A	Threatened	Unlikely to be present in project area.
			INSECTS	
Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Monarch butterfly	Danaus plexippus	Endangered	Threatened	Unlikely to be present in project area.

This project is within range of the Indiana bat, northern long-eared bat, little brown bat, and the tricolored bat. The ODNR and the USFWS have recommended that no clearing of trees greater

than three inches diameter be conducted from April 1 through September 30 to prevent impacts to these species. The Applicant is currently proposing up to 1.7 acres of tree clearing for both the amended Preferred and Alternate routes. The Applicant has committed to the seasonal tree clearing restriction recommended by the ODNR and the USFWS. The ODNR further recommends that the Applicant perform a desktop survey to identify any potential bat hibernacula within or near the project area. The Applicant's consultant conducted this survey and found no potential hibernacula.

The Scioto River presents potentially suitable habitat for various listed fish and mussel species. The Applicant is not proposing any impacts to these resources as the river would only be aerially spanned. The Applicant is proposing up to 83 linear feet of permanent impact in one other perennial stream due to improvement of an existing culvert. This stream is not of sufficient size to provide suitable habitat for mussel species. The ODNR has recommended that no in-water work in perennial streams occur from March 15 through June 30 to prevent impacts to indigenous aquatic species and their habitat. Staff recommends that the Applicant adhere to this seasonal in-water work construction restriction.

The project is within range of the northern harrier which utilizes grasslands for hunting. The ODNR recommends avoiding this habitat type from April 15 through July 31 to prevent impacts to this species. The Applicant is not currently proposing any impacts to this habitat type, however if the final site design necessitates construction in this habitat, Staff recommends that the Applicant adhere to this seasonal construction restriction.

The project is within range of the lark sparrow which utilizes grasslands as nesting habitat. The ODNR recommends avoiding this habitat type from May 1 through July 31 to avoid impacts to this species. The Applicant is not currently proposing any impacts to this habitat type, however if the final site design necessitates construction in this habitat, Staff recommends that the Applicant adhere to this seasonal construction restriction.

The project is within range of the upland sandpiper which utilizes grasslands as nesting habitat, including grasslands established through the CRP. The Applicant's consultant identified one property within the survey area that is registered as a CRP easement. The ODNR recommends avoiding this habitat type from April 15 through July 31 to prevent impacts to this species. The Applicant is not currently proposing any impacts to this habitat type, however if the final site design necessitates construction in this habitat, Staff recommends that the Applicant adhere to this seasonal construction restriction.

#### Vegetation

The following table reflects the different vegetative communities present in the project area for both the Preferred and Alternative Routes.

VEGETATIVE COMMUNITIES WITHIN PROJECT AREA*				
Vegetation Community Type	Survey Area (Acres)	Percent in Survey Area		
Cultivate crops	128.72	61.76%		
Developed – Open Space	19.92	9.40%		
Developed – Low Intensity	17.12	8.08%		
Developed – Medium Intensity	15.63	7.38%		
Hay/Pasture	9.42	4.45%		
Deciduous Forest	7.62	3.60%		
Open Water	6.80	3.21%		
Mixed Forest	2.92	1.38%		
Emergent Herbaceous Wetlands	2.03	0.96%		
Developed – High Intensity	1.65	0.78%		
Woody Wetlands	0.002	0.01%		
Total	211.84	100%		

<sup>\*</sup>The Survey Area encompasses both the Preferred and Alternate Routes.

The Applicant proposes to clear a 100-foot-wide right-of-way (ROW) for the transmission line. Vegetative impacts would occur primarily in agricultural land regardless of route selection. The amended Preferred Route would result in 51.8 acres of construction impacts and 37.9 acres of operational impacts to cultivated land. The amended alternate route would result in 43 acres of construction impacts and 29.1 acres of operational impacts to cultivated land. Both routes would require approximately 1.7 acres of impacts to forested land.

The Applicant has stated that temporarily impacted areas would be restored to their preconstruction conditions. Restoration activities would include removal of aggregate from temporary laydown areas and temporary access roads, decompacting the soil in disturbed agricultural fields and respreading of stockpiled topsoil, cleaning out of temporary stormwater management practices, and conversion of any temporary features into permanent practices, depending on the final project design and landowner preferences. Erosion control methods specified in the project SWPPP would be utilized along riparian areas to stabilize and restore vegetation.

Vegetation within the footprint of the project would be maintained primarily through mowing and through targeted herbicide applications, as needed. Herbicide would be sprayed in a manner that targets the invasive/noxious species and minimizes incidental impacts to native and desirable species. The Applicant has stated that any herbicide applications would be led by a certified professional holding a valid Commercial Pesticide Applicator license with the Ohio Department of Agriculture.

#### **Recommended Findings**

Staff recommends that the Board find that the Applicant has determined the nature of the probable environmental impact for the proposed facility, and therefore complies with the requirements specified in R.C. 4906.10(A)(2), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled <u>Recommended Conditions of Certificate</u>.

## Considerations for R.C. 4906.10(A)(3)

#### MINIMUM ADVERSE ENVIRONMENTAL IMPACT

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.

#### **Route Selection**

The primary factors in route selection were the location of the proposed Solar Facility collection substation and the closest point to the existing Circleville Substation. The Applicant identified and quantified sensitive land uses. The analysis evaluated ecological factors such as wetlands, protected species and plant habitats, streams and preservation of existing woodlots. Visual impact assessments and proximity to residences and road crossings were also quantified. Cultural resources were evaluated in consultation with the OHPO, along with consideration of known cemetery locations. Finally, engineering and maintenance costs were weighed. As part of its analysis, the Applicant solicited landowner feedback in finalizing potential routes.

#### **Minimizing Impacts**

Geologic features are similar for both routes and no portion of either route is precluded from construction due to geological features or soil condition concerns. However, the geotechnical studies to date suggest soil conditions found in the far eastern portion of the project will require further evaluation in order to finalize engineering construction plans.

The Applicant has sited the facility to avoid surface waters to the greatest extent possible. The amended Preferred Route would result in approximately 4.01 acres and 1.21 acres of temporary and permanent impact to wetlands, respectively. The amended Alternate Route would result in approximately 4.61 acres and 0.1.21 acres of temporary and permanent impact to wetlands, respectively. Both amended routes would result in 83 linear feet of impact to one perennial stream. Both amended routes would result in 1.7 acres of impact to forested land. The Applicant identified several listed species within range of the project. Impacts to these species can be avoided by following the seasonal restrictions for construction in certain habitat types, as detailed by the ODNR and the USFWS.

The Applicant would mitigate noise impacts by limiting construction activities to daylight hours whenever feasible. Impacts to cultural and recreational resources are not anticipated. Visual impacts are limited due to low population density, nearby agricultural land use and limited transportation corridors. To minimize individual land use conflicts, the Applicant sought feedback from the transmission line landowners to reduce footprint impacts to their properties.

#### Conclusion

While both the Preferred and Alternate Routes are viable, Staff concludes that the Preferred Route is a more efficient land use and best minimizes overall potential impacts.

# **Recommended Findings**

Staff recommends that the Board find that the proposed facility represents the minimum adverse environmental impact, and therefore complies with the requirements specified in R.C. 4906.10(A)(3), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled <u>Recommended Conditions of Certificate</u>.

# CONSIDERATIONS FOR R.C. 4906.10(A)(4)

#### **ELECTRIC GRID**

Pursuant to R.C. 4906.10(A)(4), the Board must determine that the proposed electric 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 will serve the interests of electric system economy and reliability. The purpose of this section is to evaluate the impact of integrating the proposed facility into the BPS and the existing regional transmission grid.

The Applicant proposed to construct a new 138 kilovolt (kV) primarily overhead transmission line of approximately 3.9 miles in length to connect the Circleville Solar generating facility to the 138 kV Circleville Substation. The line would originate at the collector substation and would terminate at the Circleville Substation. The Applicant expects to use approximately 72 direct embed wood poles or steel pole structures for the support of the line. A number of upgrades and additions would be expected at the substation, but the fenceline of the substation is not expected to be expanded to accommodate the upgrades and additions.

#### **NERC Planning Criteria**

The NERC is responsible for the development and enforcement of the federal government's approved Reliability Standards, which are applicable to all owners, operators, and users of the BPS. As an owner, operator, and/or user of the BPS, the Applicant is subject to compliance with various NERC reliability standards. The NERC reliability standards are included as part of the system evaluations conducted by PJM.

#### PJM Interconnection

The Applicant submitted one generation interconnection request for the proposed facility to PJM. For the request of January 31, 2017, PJM has assigned the queue ID AC2-029 under the name "Circleville 138 kV" which requested an injection of 70 MW. PJM has completed and issued the Feasibility Study report in July 2017.<sup>33</sup> PJM has completed and issued the PJM SIS in June 2018.<sup>34</sup>

The Table below shows the queue position assigned to the Applicant by PJM.

PJM QUEUES: CIRCLEVILLE SOLAR I FACILITY			
Queue ID	Queue Date	Power Output (MW)	Capacity (MW)
AC2-029	January 31, 2017	70.0	26.6
	Totals	70.0	26.6

<sup>33.</sup> PJM Interconnection, "New Services Queue", Feasibility Study for Queue IDs: AC2-029, https://www.pjm.com/pub/planning/project-queues/feas\_docs/ac2029.pdf (Accessed June 22, 2022).

<sup>34.</sup> PJM Interconnection, "New Services Queue", System Impact Study for Queue IDs: AC2-029, https://www.pjm.com/pub/planning/project-queues/impact\_studies/ac2029\_imp.pdf (Accessed June 22, 2022).

PJM studied the interconnection as an injection into the BPS using the Circleville 138 kV transmission line. The point of interconnection would be the Circleville Substation owned by AEP. The Applicant requested a total injection of 70.0 MW, of which 26.6 MW could be available in the PJM capacity market. The capacity market ensures that there is an adequate availability of generation resources that can meet current and future demand. The need and solution of the interconnection project were presented and reviewed with PJM stakeholders at the Subregional RTEP-West Committee Meeting of August 31, 2018 and September 28, 2018, respectively. Transmission owners plan supplemental projects in accordance with PJM's Open Access Transmission Tariff, Amendment M-3 process. The gen-tie line interconnection project was assigned supplemental PJM upgrade ID s1711. The content of the circleville Substation owners are circleville Substation owners and injection of 70.0 MW, of which 26.6 MW could be available in the PJM capacity of which 26.6 MW could be available in the PJM substation owner and adequate available in the PJM stakeholders at the Subregional RTEP-West Committee Meeting of August 31, 2018 and September 28, 2018, respectively.

#### **Recommended Findings**

Staff recommends that the Board find that the proposed facility is consistent with regional plans for expansion of the electrical power grid of the electric systems serving this state and interconnected utility systems, and that the facility would serve the interests of electric system economy and reliability. Therefore, Staff recommends that the Board find that the facility complies with the requirements specified in R.C. 4906.10(A)(4), provided that any certificate issued by the Board for the proposed facilities include the conditions specified in the section of this *Staff Report of Investigation* entitled <u>Recommended Conditions of Certificate</u>

<sup>35.</sup> PJM Interconnection, "Subregional RTEP Committee-Western Meeting", September 28, 2018, https://www.pjm.com/-/media/committees-groups/srrtep-w/20180928/20180928-reliability-analysis-update.ashx (Accessed June 22, 2022).

<sup>36.</sup> PJM Interconnection, "Transmission Construction Status", https://www.pjm.com/planning/project-construction.ashx (Accessed June 22, 2022).

# Considerations for R.C. 4906.10(A)(5)

# AIR, WATER, SOLID WASTE AND AVIATION

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

#### Air<sup>37</sup>

Air quality permits are not required for construction or operation of the proposed facility. However, fugitive dust rules adopted under R.C. Chapter 3704 may be applicable to the construction of the proposed facility. The Applicant would control temporary and localized fugitive dust by using best management practices (BMP), such as minimizing exposed/disturbed areas, containment of excavated material, the implementation of rock pads at construction exits, and the use of water or calcium carbonate as a dust suppressant.

This project would not include any stationary sources of air emissions and, therefore, would not require air pollution control equipment.

#### Water<sup>38</sup>

The Applicant would submit a Notice of Intent for coverage under the Ohio NPDES construction stormwater general permit, Ohio EPA Permit No. OHC000005. This permit is required by the OEPA for facilities that wish to discharge water to a surface water of the State, including construction stormwater runoff. All construction sites which result in ground disturbance of one acre or more are required to obtain an NPDES permit. The permit regulates wastewater discharges by limiting the quantities of pollutants to be discharged and imposing monitoring requirements or conditions.<sup>39</sup> Coverage under the NPDES construction general permit also

<sup>37.</sup> The Revised Code provides for the Ohio EPA to administer and enforce the provisions of R.C. Ch. 3704 with regards to air pollution control. See e.g., RC 3704.03, 3704.161. The Ohio EPA Division of Air Pollution Control ensures compliance with the federal Clean Air Act and the Emergency Planning and Community Right-to Know Act as part of its mission to attain and maintain air quality at a level that protects the environment and public health. (Ohio EPA, Division of Air Pollution Control, https://www.epa.ohio.gov/dapc/#188913097-featuredtopics>). The Division of Air Pollution Control develops and enforces rules in the Ohio Administrative Code, which assist the state of Ohio to: attain and maintain the National Ambient Air Quality Standards (NAAQS) contained in the Clean Air Act; fulfill the requirements set forth by the Ohio General Assembly in R.C. 3704; and protect and maintain healthy air quality for the citizens of the state of Ohio. (See, Ohio EPA, Division of Air Pollution Control Rules and Laws).

<sup>38.</sup> The Revised Code provides for the Ohio EPA to be the lead agency in administering the provisions of Ch. 6111 with regards to water quality. See e.g., RC 6111.041. For example, the Ohio EPA, among other things, "ensures compliance with the federal Clean Water Act and works to restore and enhance the integrity of Ohio's waters." (Ohio EPA Website, Division of Surface Water,

https://www.epa.ohio.gov/dsw/SurfaceWater/LiveTabId/113292#:~:text=Ensures%20compliance%20with%20the %20federal,the%20integrity%20of%20Ohio's%20waters.&text=We%20issue%20permits%20to%20regulate,aimed %20at%20improving%20polluted%20streams). The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. (US EPA, Summary of Clean Water Act, https://www.epa.gov/laws-regulations/summary-clean-water-act.

<sup>39.</sup> OEPA, "NPDES General Permits", https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/npdes-general-permits.

requires the development of a SWPPP, which outlines BMP for soil erosion control. BMPs are outlined in the Rainwater and Land Development Manual, which defines Ohio's standards and specifications for stormwater management practices implemented during land development. The Rainwater and Land Development Manual includes pre-, during, and post-construction practices and measures to be taken to ensure compliance with Ohio's water quality laws, rules, and regulations and policy.<sup>40</sup>

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

#### Solid Waste<sup>41</sup>

Debris generated from construction activities would include items such as conductor scrap, construction material packaging (including pallets, cartons, boxes, insulator crates, conductor reels, and wrapping), wire scraps, and used storm water erosion control materials. Construction materials with salvage value would be removed from the construction area for reuse or salvage. Construction debris would be hauled away in construction dumpsters and disposed of in accordance with state and federal requirements. Sanitary waste would be collected in portable units and emptied regularly by a licensed sanitary waste management contractor. The Applicant estimates that construction of the transmission line would only result in minimal waste. The Applicant's solid waste disposal plans must comply with solid waste disposal requirements set forth in R.C. Chapter 3734.

#### Aviation<sup>42</sup>

The tallest above ground structures would be the gen-tie transmission line's support structures at approximately 65.5 to 115 feet tall.<sup>43</sup> Those heights are under the height requirement from the Federal Aviation Administration (FAA), pursuant to 14 CFR Part 77.9(a), for filing a Form 7460-1.

According to the Applicant, there are no public use airports or heliports within five miles of the project. Staff confirmed through the FAA, that the closest public-use airport is the Pickaway County (CYO) airport which is approximately 5.7 miles south of the proposed transmission line

<sup>40.</sup> OEPA, "Rainwater and Land Development", https://epa.ohio.gov/divisions-and-offices/surface-water/guides-manuals/rainwater-and-land-development?msclkid=cb5f60f4b48d11ec8b5ece1ef5e16d3c.

<sup>41.</sup> The Revised Code generally provides for Ohio EPA to administer and enforce the provisions of Chapters 3714. and 3734., in particular with regard to solid waste facilities, infectious waste treatment facilities and construction and demolition debris facilities.

<sup>42.</sup> The FAA is the authority in the U.S. government responsible for regulating all aspects of civil aviation, including issuing determinations on petitions for objects that penetrate the nation's airspace. The FAA conducts aeronautical studies for new structures that will exceed 200 feet in height under the provisions of 49 U.S.C. 44718, and applicable 14 CFR Part 77. Pursuant to R.C. 4561.32, ODOT regulates the height and location of structures and objects within any airport's clear zone surface, horizontal surface, conical surface, primary surface, approach surface, or transitional surface.

<sup>43.</sup> In the Matter of the Application of Circleville Solar, LLC for a Certificate of Environmental Compatibility and Public Need for a Generation Tie Transmission Line in Pickaway County, Case No. 22-0117-EL-BTX, Application Narrative at page 95 (June 8, 2022) and Amendment Application at page 7 (March 15, 2023).

project. According to the Applicant, there is also one private-use helipad used by Berger Hospital located approximately 1.1 miles northeast proposed transmission line project.

In accordance with R.C. 4906.10(A)(5), Staff contacted the ODOT Office of Aviation during the review of this application in order to coordinate review of potential impacts of the facility on local airports.<sup>44</sup> As of the date of this filing, no such concerns have been identified.

#### **Recommended Findings**

Staff recommends that the Board find that the proposed facility complies with the requirements specified in R.C. 4906.10(A)(5), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled Recommended Conditions of Certificate.

<sup>44.</sup> R.C. 4906.10(A)(5) states: "[i]n determining whether the facility will comply with all rules and standards adopted under section 4561.32 of the Revised Code, the board shall consult with the office of aviation of the division of multi-modal planning and programs of the department of transportation under section 4561.341 of the Revised Code." R.C. 4561.341 states: "[p]ursuant to any consultation with the power siting board regarding an application for certification under section 4906.03 or 4906.10 of the Revised Code, the office of aviation of the division of multi-modal planning and programs of the department of transportation shall review the application to determine whether the facility constitutes or will constitute an obstruction to air navigation based upon the rules adopted under section 4561.32 of the Revised Code. Upon review of the application, if the office determines that the facility constitutes or will constitute an obstruction to air navigation, it shall provide, in writing, this determination and either the terms, conditions, and modifications that are necessary for the applicant to eliminate the obstruction or a statement that compliance with the obstruction standards may be waived, to the power siting board under section 4906.03 or 4906.10 of the Revised Code, as appropriate."

# Considerations for R.C. 4906.10(A)(6)

## PUBLIC INTEREST, CONVENIENCE, AND NECESSITY

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

#### **Electromagnetic Fields**

Electric transmission lines, when energized, generate electromagnetic fields (EMF). Laboratory studies have failed to establish a strong correlation between exposure to EMF and effects on human health. There have been concerns, however, that EMF may have impacts on human health.<sup>45</sup> The gen-tie transmission line is not within 100 feet of an occupied structure, therefore calculation of the production of EMF during operation of the proposed gen-tie transmission line is not warranted per Ohio Adm.Code 4906-5-07(A)(2).<sup>46</sup> The Applicant states that the equipment including transmission facilities would be designed and installed according to best utility practices and standards of NESC.

#### **Public Interaction and Participation**

The Applicant hosted a public informational meeting on March 10, 2022. The Applicant maintains a website at www.nexteraenergyresources.com/circleville-solar.html with information about the solar project, including an email point of contact.

The Applicant has committed to receive and document complaints regarding the facility, in accordance with the complaint resolution plan provided in Exhibit I of the Circleville Solar generation facility application (21-1090-EL-BGN). The Applicant further commits to distribute the complaint resolution plan to affected property owners and tenants at least seven days prior to the start of construction. Staff recommends that the applicant adhere to all public notification and complaint resolution and reporting requirements outlined in the staff report of investigation in case number 21-1090-EL-BGN.

The Administrative Law Judge scheduled a public hearing and an evidentiary hearing for this proceeding. The public hearing will be held on April 25, 2023, at 6:00 p.m., at Circleville High School, 380 Clark Drive, Circleville, Ohio 43113. The evidentiary hearing is scheduled for May 23, 2023, at 10:00 a.m., in Hearing Room 11-C, at the offices of the Public Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio 43215. The Pickaway County Engineer has intervened in this case.

#### **Public Comments**

As of the filing of this report, the OPSB has not received any public comments in this case. Public comments are available to view online in the case record at http://dis.puc.state.oh.us.

<sup>45.</sup> Information on Staff's consideration of potential health impacts of EMF can be found in the ODH fact sheet entitled Electromagnetic Fields (EMF) Summary and Assessments available on the ODH website at https://odh.ohio.gov/know-our-programs/health-assessment-section/media/summary-emf

<sup>46.</sup> Application at page 45.

# **Recommended Findings**

Staff recommends that the Board find that the proposed facility would serve the public interest, convenience, and necessity, and therefore complies with the requirements specified in R.C. 4906.10(A)(6), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled <u>Recommended Conditions of Certificate</u>.

# Considerations for R.C. 4906.10(A)(7)

#### AGRICULTURAL DISTRICTS AND AGRICULTURAL LAND

Pursuant to R.C. 4906.10(A)(7), the Board must determine the facility's impact on the agricultural viability of any existing agricultural district land within the Preferred and Alternate Routes of the proposed major utility facility. The agricultural district program was established under R.C. Chapter 929. Agricultural district land is exempt from sewer, water, and electrical service tax assessments.

Agricultural land can be classified as an agricultural district through an application and approval process that is administered through local county auditor's offices. Eligible land must be devoted exclusively to agricultural production or be qualified for compensation under a land conservation program for the preceding three calendar years. Furthermore, eligible land must be at least 10 acres or produce a minimum average gross annual income of \$2,500.

The Preferred Route is expected to impact approximately 35.2 acres of agricultural land, and the Alternate Route is expected to impact approximately 29.2 acres of agricultural land. Neither route would impact agricultural district land.

No agricultural structures would be impacted by the project. The Applicant plans to use public records and the knowledge of landowners to identify and avoid drain tiles to the extent practical. The Applicant also pledges to immediately resolve any damage that may happen to any field drainage tile affected by the project.

Staff agrees the Applicant has an adequate plan to mitigate the impact of the project on agricultural lands.

#### **Recommended Findings**

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

# Considerations for R.C. 4906.10(A)(8)

#### **WATER CONSERVATION PRACTICE**

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

During construction, the facility may require the use of minimal amounts of water for HDD and dust control. Dust suppression measures, such as irrigation, mulching, or the application of tackifier resins, would be implemented where necessary.

However, the transmission line would not require the use of any water during operation. Therefore, the facility would comply with and incorporate maximum feasible water conservation practices as specified under R.C. 4906.10(A)(8).

#### **Recommended Findings**

The Staff recommends that the Board find that the proposed facility would incorporate maximum feasible water conservation practices, and therefore complies with the requirements specified in R.C. 4906.10(A)(8), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this *Staff Report of Investigation* entitled Recommended Conditions of Certificate.

# IV. RECOMMENDED CONDITIONS OF CERTIFICATE

Following a review of the application filed by Circleville Solar, LLC, and the record compiled to date in this proceeding, Staff recommends that a number of conditions become part of any certificate issued for the proposed facility. These recommended conditions may be modified as a result of public or other input received subsequent to the issuance of this report. At this time, Staff recommends the following conditions to ensure conformance with the proposed plans and procedures as outlined in the case record to date, and to ensure compliance with all conditions listed in this Staff Report:

#### **General Conditions**

Staff has generally listed the below conditions in chronological order for ease of reference and review. The inclusion of a condition within a specified section is not intended to waive its potential application to other stages of a project and the specific language of each condition controls its application within the project.

- (1) Certification of this transmission line facility shall be contingent on the certification of the generation facility (Circleville Solar 20-1090-EL-BGN) to which this transmission line facility would connect.
- (2) The Applicant shall install the Preferred Route, utilize equipment and construction practices, and implement mitigation measures as described in the application and as modified and/or clarified in supplemental filings, replies to data requests, and recommendations in this Staff Report of Investigation.
- (3) The certificate shall become invalid if the Applicant has not commenced a continuous course of construction of the proposed facility within five years of the date of journalization of the certificate unless the Board grants a waiver or extension of time.
- (4) As the information becomes known, the Applicant shall file in the public docket the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation.
- (5) The certificate authority provided in this case shall not exempt the facility from any other applicable and lawful local, state, or federal rules or regulations nor be used to affect the exercise of discretion of any other local, state, or federal permitting or licensing authority with regard to areas subject to their supervision or control.

#### **Preconstruction**

(6) The Applicant shall conduct a preconstruction conference prior to the commencement of any construction activities. Staff, the Applicant, and representatives of the primary contractor and all subcontractors for the project shall attend the preconstruction conference. The conference shall include a presentation of the measures to be taken by the Applicant and contractors to ensure compliance with all conditions of the certificate, and discussion of the procedures for on-site investigations by Staff during construction. Prior to the conference, the Applicant shall provide a proposed conference agenda for Staff review and shall file a copy of the agenda on the case docket. The Applicant may conduct separate preconstruction conferences for each stage of construction.

- (7) Prior to the commencement of construction activities in areas that require permits or authorizations by federal, state, or local laws and regulations, the Applicant shall obtain and comply with such permits or authorizations. The Applicant shall provide copies of permits and authorizations, including all supporting documentation, to Staff within seven days of issuance or receipt by the Applicant and shall file such permits or authorizations on the public docket. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference(s). Any permit violation received by the Applicant from the permitting agency shall be provided on the case docket within seven days of receipt.
- (8) At least 30 days prior to the initial preconstruction conference, the Applicant shall provide Staff, for review and acceptance, the final geotechnical engineering report. This report shall include the results and analyses of any additional geotechnical investigation studies. This report shall include a final summary statement addressing the geologic and soil suitability addressing any inadequacies found and proposed remedies if applicable.
- (9) At least 30 days prior to the start of construction, the Applicant shall file a copy of the final complaint resolution plan for construction and operation of the project on the public docket. At least seven days prior to the start of construction and at least seven days prior to the start of facility operations, the Applicant shall notify via mail affected property owners and tenants; all residents, airports, schools, and libraries located within one mile of the project area; parties to this case; county commissioners, township trustees, and emergency responders; and any other person who requests updates regarding the project. These notices shall provide information about the project, including contact information and a copy of the complaint resolution program. The start of construction notice shall include written confirmation that the Applicant has complied with all pre-construction related conditions of the certificate, as well as a timeline for construction and restoration activities. The start of facility operations notice shall include written confirmation that the Applicant has complied with all construction-related conditions of the certificate, as well as a timeline for the start of operations. The Applicant shall file a copy of these notices on the public docket.
- (10) The Applicant shall coordinate with the appropriate authorities regarding traffic and transportation requirements necessary for construction and operation of the proposed facility. To assure compliance with this condition, prior to the preconstruction conference, the Applicant shall file a final transportation management plan, this plan shall include (but not be limited to) the following:
  - a. A summary of coordination with appropriate authorities regarding traffic and transportation requirements, including temporary road closures, road

- use agreements, driveway permits, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility.
- Documentation of this coordination, with copies of applicable permits or authorizations, or schedule for obtaining permits or authorizations not yet applicable.
- c. A description of best management practices that would be implemented to maintain clean roads free of construction debris and excess mud.
- d. Details summarizing signage and other best management practices that would ensure construction vehicles only use designated transportation routes.
- e. Mapping of roads to be used for construction that includes identifying any anticipated permitting/authorization requirements in their respective locations.
- (11) Prior to construction, the Applicant shall file a copy of any floodplain permit required for construction of this project, or a copy of correspondence with the floodplain administrator showing that no permit is required.
- (12) Prior to the start of construction, the Applicant shall conduct an aquatic resources survey of the 0.4-acre portion of the project area which has not yet been surveyed, as described in the Amendment Application of Circleville Solar, LLC. At least 30 days prior to construction, the Applicant shall docket the results of this survey, as well as an updated table detailing the acreage of surface water impacts, and a description of appropriate mitigation measures to be taken should aquatic resources identified in this area be impacted. Proposed mitigation shall be subject to Staff review for confirmation of compliance with this condition.

#### Construction

- (13) The Applicant shall file on the public docket a complaint summary report by the fifteenth day of April, July, October, and January of each year during construction and through the first five years of operation. The report shall include a list of all complaints received through the Applicant's complaint resolution program, a description of the actions taken toward the resolution of each complaint, and a status update if the complaint has yet to be resolved.
- (14) General construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m., or until dusk when sunset occurs after 7:00 p.m. Impact pile driving, if required, shall be limited to the hours between 10:00 a.m. to 5:00 p.m., Monday through Friday. HDD operations if started during general construction activities hours may continue until the completion of the HDD activity. Construction activities that do not involve noise increases above ambient levels or light pollution at sensitive receptors are permitted outside of daylight hours when necessary. The Applicant shall notify Staff and affected

- property owners or tenants of upcoming construction activities including potential for nighttime construction activities.
- (15) The Applicant shall remove all construction staging area and access road materials after completion of construction activities, as weather permits, unless otherwise directed by the landowner. Impacted areas shall be restored to preconstruction conditions in compliance with the Ohio EPA General NPDES permit(s) obtained for the project and the approved Stormwater Pollution Prevention Plan created for this project. All construction debris and any contaminated soil shall promptly be removed and properly disposed of in accordance with Ohio EPA regulations.
- (16) During construction, the Applicant shall retain a qualified geotechnical engineer to evaluate and confirm the soil suitability at all drilled shaft locations in addition to areas demonstrated to have elevated organic content and/or undocumented fill.
- (17) The Applicant shall adhere to seasonal cutting dates of October 1 through March 31 for the removal of trees three inches or greater in diameter to avoid impacts to listed bat species, unless coordination with the Ohio Department of Natural Resources and the U.S. Fish and Wildlife Service allows a different course of action. If coordination with these agencies allows clearing between April 1 and September 30, the Applicant shall docket proof of completed coordination on the case docket prior to clearing trees.
- (18) Construction in northern harrier preferred nesting habitat types shall be avoided during the species' nesting period of April 15 through July 31, unless coordination by the Applicant with the ODNR allows a different course of action during that period. If coordination with the ODNR allows clearing between April 15 and July 31, the Applicant shall file proof of such coordination on the docket. Absent coordination with the ODNR that allows a different course of action, mapping of these habitat areas shall be provided to the construction contractor along with instructions to avoid these areas during the restricted dates.
- (19) Construction in upland sandpiper preferred nesting habitat types shall be avoided during the species' nesting period of April 15 through July 31. If present, mapping of these habitat areas shall be provided to the construction contractor along with instructions to avoid these areas during the restricted dates, unless coordination with the Ohio Department of Natural Resources allows a different course of action which shall be filed on the docket.
- (20) Construction in lark sparrow preferred nesting habitat types shall be avoided during the species' nesting period of May 1 through July 31. If present, mapping of these habitat areas shall be provided to the construction contractor along with instructions to avoid these areas during the restricted dates, unless coordination with the Ohio Department of Natural Resources allows a different course of action which shall be filed on the docket.

- (21) Should construction be delayed beyond five years of the date of the certificate, certain wildlife surveys may be required to be updated as determined by Staff and the ODNR.
- (22) The Applicant shall contact Staff, the ODNR, and the USFWS within 24 hours if state or federal listed species are encountered during construction activities. Construction activities that could adversely impact the identified plants or animals shall be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and the appropriate agencies.
- (23) The Applicant shall conduct no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat, unless coordination efforts with the ODNR allows a different course of action. If coordination with the ODNR allows in-water work in perennial streams between April 15 and June 30, the Applicant shall file proof of such coordination on the docket.

#### **Post Construction/Operation**

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



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Case No(s). 22-0117-EL-BTX

Summary: Staff Review and Recommendation electronically filed by Mark C. Bellamy on behalf of OPSB Staff.