

Staff Report of Investigation

Hayes Substation Project

Case Number
11-4711-EL-BSB

October 24, 2012



Power Siting
Board

Todd Snitchler, Chairman

In the Matter of the Application by ATSI for a)	
Certificate of Environmental Compatibility and Public)	Case Number
Need for the Hayes Substation Project)	11-4711-EL-BSB

Staff Report of Investigation

Submitted to the
OHIO POWER SITING BOARD

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BEFORE THE POWER SITING BOARD OF THE STATE OF OHIO

In the Matter of the Application by ATSI for a)	Case Number
Certificate of Environmental Compatibility and Public)	11-4711-EL-BSB
Need for the Hayes Substation Project)	

Members of the Board:

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

Louis Blessing, Jr., State Representative
Sandra Williams, State Representative
Tom Sawyer, State Senator
Shannon Jones, State Senator

To the Honorable Power Siting Board:

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

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

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

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

Respectfully submitted,


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

ACRONYMS

BMP	best management practices
DOW	ODNR Division of Wildlife
FAA	Federal Aviation Administration
kV	kilovolts
MW	megawatts
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OAC	Ohio Administrative Code
ODA	Ohio Department of Agriculture
ODSA	Ohio Development Services Agency
ODH	Ohio Department of Health
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
Ohio EPA	Ohio Environmental Protection Agency
OHPO	Ohio Historic Preservation Office
OPSB	Ohio Power Siting Board
ORC	Ohio Revised Code
PUCO	Public Utilities Commission of Ohio
SPCC	Spill Prevention, Containment, and Countermeasure
SWPPP	Storm Water Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service

I. POWERS AND DUTIES

OHIO POWER SITING BOARD

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

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

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

NATURE OF INVESTIGATION

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

Application Procedures

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

Within 60 days of receiving an application, the OPSB must determine whether the application is sufficiently complete to begin an investigation.³ If an application is considered complete, the Chairman of the OPSB will cause a public hearing to be held 60 to 90 days after the official filing date of the completed application. At the public hearing, any person may provide written

¹ ORC 4906.04 and 4906.20

² ORC 4906.10(A)(1) and 4906.20(B)(1)

³ OAC 4906-5-05(A)

or oral testimony and may be examined by the parties.⁴ Parties include the Applicant, public officials, and any person who has been granted a motion of leave for intervention.⁵

Staff Investigation and Report

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

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

Board Decision

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

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

⁴ ORC 4906.07

⁵ ORC 4906.08(A)

⁶ ORC 4906.07(C) and 4906.10

⁷ ORC 4906.09 and 4906.12

⁸ ORC 4906.10(A) and (B)

⁹ ORC 4906.11

¹⁰ ORC 4906.10(C)

¹¹ ORC 4903.10 and 4906.12

¹² ORC 4903.11, 4903.12, and 4906.12

CRITERIA

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

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

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

II. APPLICATION

APPLICANT

American Transmission Systems (ATSI or Applicant) is seeking authority to install the proposed Hayes Substation in Erie County, Ohio, in proximity to ATSI's existing Avery-Greenfield 138 kV Transmission Line, Beaver-Greenfield 138 kV Transmission Line, and Beaver-Davis Besse #1 345 kV Transmission Line. By extending and connecting to the nearby transmission lines, the project will provide 345 kV transmission line connections to the Davis Besse and Beaver substations and 138 kV transmission line connections to the Greenfield and Avery substations. ATSI will construct, own, operate, and maintain the proposed Hayes Substation.

ATSI is a wholly-owned subsidiary of The FirstEnergy Corporation. FirstEnergy Corp. was formed in 1997 through the merger of Ohio Edison Company and Centerior Energy Corporation. Through this merger, FirstEnergy became the holding company for Ohio Edison and its Pennsylvania Power Company subsidiary, as well as The Cleveland Electric Illuminating Company and The Toledo Edison Company.

In 2011, FirstEnergy completed a merger with Allegheny Energy, a Greensburg, PA-based company that served 1.6 million customers in Pennsylvania, West Virginia, Maryland and Virginia. The merger more than doubled FirstEnergy's highly efficient, supercritical coal capacity and provided opportunities for the company to grow and expand into new markets with a stronger, more focused competitive operation. Today, FirstEnergy is one of the nation's largest investor-owned electric systems based on the number of customers served.

HISTORY OF THE APPLICATION

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

On September 1, 2011, the Applicant held a public information meeting regarding the proposed electric substation project. On June 1, 2012 and August 15, 2012, the Applicant filed motions for waivers of the one-year notice provision and to allow itself to submit wetland and stream assessment information in electronic format with a limited number of hard copies. Staff did not object to these waivers.

On July 31, 2012, the Applicant filed the Hayes Substation Project application. On August 17, 2012, the Applicant filed supplemental data (the Wetland Delineation Report) to the Hayes Substation Project application. On September 11, 2012, the Applicant was issued a letter of compliance regarding the application from the Chairman of the Board.

A local public hearing has been scheduled for November 8, 2012, at 6:00 p.m., at the Bowling Green State University, Firelands College, Cedar Point Center, Auditorium B & C, One University Drive, Huron, Ohio 44839. The adjudicatory hearing will commence on November 20, 2012, at 10:00 a.m., in Hearing Room 11-D, at the offices of the PUCO, 180 East Broad Street, Columbus, Ohio.

This summary of the history of the application does not include every filing in case numbers 11-4711-EL-BSB. The docketing record for this case, which lists all documents filed to date, can be found in the Appendix to this report and online at <http://dis.puc.state.oh.us>.

PROJECT DESCRIPTION

ATSI proposes to construct, own, operate, and maintain the Hayes Substation in Perkins Township in Erie County, Ohio. The project is part of a major transmission reinforcement effort designed to help ATSI maintain an adequate level of reliability and availability of electric power to customers in Sandusky and northern Ohio.

The Hayes Substation Project is a necessary component of the larger transmission system upgrade known as the Beaver-Davis Besse 345 kV Transmission Line Project. The Beaver-Davis Besse Transmission Line Project and any subsequent transmission line connections to the proposed Hayes Substation will be submitted to the Board separately at a later date.

The substation would have two 345 kV transmission line exits and three 138 kV transmission line exits, which will provide connections to the Davis Besse, Beaver, Avery, and Greenfield substations.

The Applicant has proposed two locations for the substation for the Board's consideration (hereinafter referred to as a Preferred and Alternate). Both sites would require approximately seven acres of land. The substation would be fenced and contain a 345 kV to 138 kV transformer, control building, capacitor banks, capacitor voltage transformers, surge arresters, line traps, and disconnect switches.

The Applicant plans to begin construction in 2013 and place the facility in service by June 2014.

Preferred Site

The Preferred Site is located on a 119-acre parcel near the northwest corner of the intersection of Fox Road and Patten Tract Road. ATSI owns this property, and the property is currently used as agricultural land. Proposed access to the Hayes Substation is from Patten Tract Road to the east via an existing permanent access drive.

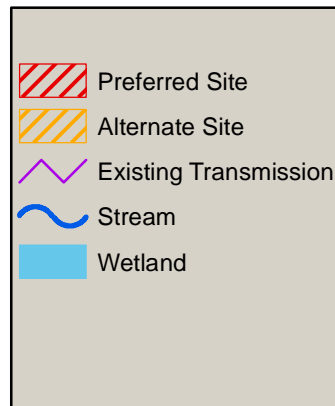
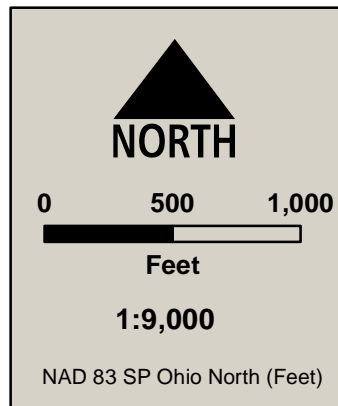
Alternate Site

The Alternate Site of the Hayes Substation is located on a 34-acre parcel situated a half-mile north of the intersection of Miller Road and Hayes Avenue (State Route 4) on the west side of State Route 4. The property is currently used as agricultural land. Proposed access to the Alternate Site is from State Route 4 via an existing permanent access drive.

The Preferred and Alternate sites are shown on the map in this report.

PROJECT MAP

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Overview Map

11-4711-EL-BSB

Hayes Substation

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

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III. CONSIDERATIONS AND RECOMMENDED FINDINGS

In the matter of the application of ATSI, the following considerations and recommended findings are submitted pursuant to ORC Section 4906.07(C) and ORC Section 4906.10(A).

Considerations for ORC Section 4906.10(A)(1)

BASIS OF NEED

Purpose of Proposed Facility

The purpose of the Hayes Substation Project is to reinforce the 138 kV transmission system in Sandusky, Ohio. This project is part of the larger project to construct the Beaver-Davis Besse #2 345 kV Transmission Line, which will be submitted to the Board under a separate application. The Hayes Substation Project is needed to ensure reliability and service to a large portion of northern Ohio. Without the project, ATSI will not be able to maintain compliance with PJM and NERC reliability criteria. This section of the staff report focuses on reviewing the need of the proposed substation.

Long Term Forecast

The proposed substation project has been identified in the 2012 *American Transmission Systems, Incorporated Long-Term Forecast Report to the Public Utilities Commission of Ohio*. The Public Utilities Commission assigned this document case number 12-0504-EL-FOR.

PJM Regional Transmission Expansion Plan

PJM Interconnection LLC (PJM), a Regional Transmission Organization, is charged with the operation of the regional transmission system and maintaining the reliability of their footprint. PJM issues an annual Regional Transmission Expansion Plan (RTEP) report that explains the rationale behind transmission upgrades that are needed to maintain reliability.

The proposed Hayes Substation Project was identified in the 2011 PJM RTEP¹³ and approved by the PJM Board. PJM's analysis shows that without the proposed Hayes Substation Project and the Beaver-Davis Besse #2 345 kV Transmission Line, the area will experience thermal violations and voltage collapse.

Load Growth

PJM projects that electric demand will grow at an average rate of approximately 1 percent¹⁴ per year in the ATSI footprint. During the early 2000's, prior to the recession, demand was increasing at 2 percent or greater. Even during the recession, ATSI set a 2011 summer peak record of 14,739 MW. The ATSI summer peak was 5 percent greater than what PJM projected for the summer of 2011. PJM's ten-year summer load growth average for the entire footprint is 1.4 percent.

¹³ PJM 2011 Regional Transmission Expansion Plan. February 28, 2012. p.70. Retrieved September 14, 2012, from <http://pjm.com/documents/reports/rtep-report.aspx>

¹⁴ PJM 2012 Load Forecast Report. January 2012. Retrieved September 14, 2012, from <http://pjm.com/~media/documents/reports/2012-pjm-load-report.ashx>

System Economy and Reliability

The proposed Hayes Substation Project will reinforce the 138 kV transmission system in Sandusky, Ohio. Without this project, studies show that under certain outage contingency conditions, voltage levels on the 69 kV and 138 kV systems do not meet reliability criteria. With the low voltage levels, ATSI will be unable to provide safe, reliable electric service, and under the right outage contingency conditions, the system could experience a regional outage. A more-detailed investigation of voltage and electric grid concerns is found in the Electric Grid section of this report.

Conclusion

Staff concludes that ATSI has demonstrated the basis of need due to the projected load growth and the inability of the transmission system to provide safe, reliable electric service while meeting all the applicable NERC and PJM reliability criteria.

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 ORC Section 4906.10(A)(1), provided that any certificate issued by the Board for the proposed facility include the conditions specified in the section of this report entitled Recommended Conditions of Certificate.

Considerations for ORC Section 4906.10(A)(2)

NATURE OF PROBABLE ENVIRONMENTAL IMPACT

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

Socioeconomic Impacts

Demographics

The project is located within the unincorporated portion of Perkins Township in Erie County, a predominantly rural area that contains large agricultural tracts, wooded areas, and scattered residences. Over the last ten years, the population of this region has been gradually declining. According to the U.S. Census, the population of Erie County decreased between the years of 2000 and 2010 by 3.1 percent, from 79,468 to 77,079.¹⁵ Likewise, over the same period the population of Perkins Township declined by 3 percent, from 12,578 to 12,202.¹⁶ In 2010, Perkins Township had an average population density of 470 persons per square mile, compared to 306 persons per square mile in Erie County.¹⁷ The population of both Perkins Township and Columbiana County is estimated to have decreased by 0.3 percent between 2010 and 2011.¹⁸ The project is not expected to impact the demographics of the region.

Land Use

The Applicant identified one residence within 1,000 feet of the both the Preferred and Alternate site. A residence is located approximately 675 feet from the Preferred Site and approximately 843 feet from the Alternate Site. No residences would be relocated or removed during the construction of the substation at either the Preferred or Alternate site, and the majority of residential impacts would be temporary, associated with construction of the facilities. Construction of the substation is not expected to affect residential land use patterns in the vicinity of the project.

No commercial, industrial, institutional, or recreational land uses are located within 1,000 feet of the either the Preferred or Alternate site. No adverse impacts to these land uses are expected as a result of construction or operation of the substation.

Both the Preferred and Alternate sites are located entirely on agricultural land, which has been previously used for growing row crops. The majority of land within 1,000 feet of both sites is also agricultural. Construction of the substation on either site would take approximately seven acres out of agricultural production.

As a means of mitigating the potential for erosion or sedimentation on nearby agricultural land that may result during project construction, the Applicant would develop a Storm Water Pollution Prevention Plan for the project that would include silt fencing, straw bales, and other

¹⁵United States Census. American Factfinder. *Profile of General Demographic Characteristics: 2010 Census 2010 Summary File 1 (SF1) 100 Percent Data and General Demographic Characteristics*. Retrieved September 18, 2012, from the U.S. Census Bureau website: <http://factfinder2.census.gov>

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ohio Department of Development. July 2011. *2011 Population Estimates by County, City, Village, and Township*. Retrieved, September 18, 2012, from the ODOD website: <http://development.ohio.gov/files/research/P5027.pdf>

erosion and sedimentation management practices. Following substation construction and final grading, disturbed land would be restored to its original condition.

Cultural and Archeological Resources

No previously-recorded archeological sites, National Register of Historic Places (NRHP) structures, or Ohio Historic Inventory (OHI) structures were identified within 1,000 feet of the project.

Aesthetics

The Applicant has located both the Preferred and Alternate site in remote agricultural land. The introduction of a large-scale utility facility to the landscape would permanently alter the agricultural character of the surrounding countryside. However, aesthetic impacts would differ between the Preferred and Alternate sites and would vary by viewer and vantage point. The visibility of the substation at the Preferred Site would be largely screened by woodlots to the north and southwest of the site. However, the substation at the Preferred Site would be clearly visible from a nearby residence approximately 675 feet to the southeast along Fox Road, and would be partially visible from residences further to the southeast along Patten Tract Road.

The Alternate Site is located in a more open field, and would therefore be visible from a greater number of vantage points. Specifically, the substation at the Alternate Site would be visible from a nearby residence approximately 843 feet to the east, as well as several others further to the east and northeast along Hayes Avenue. Consequently, aesthetic impacts associated with the Preferred Site are less than those of the Alternate Site. However, exploring further mitigation strategies at the Preferred Site to benefit the affected residence on Fox Road would be necessary to minimize adverse visual effects from that vantage point, as outlined in the Recommended Conditions of Certificate.

Economics

The estimates of applicable intangible and capital costs for the proposed Hayes Substation are \$15,348,000 and \$16,616,000 for the Preferred Site and Alternate Site, respectively. In the first year following completion of the Hayes Substation Project, ATSI will pay approximately \$1,054,469 in property taxes to Perkins Township and \$91,963 in property taxes to Erie County.

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

Ecological Impacts

Surface Waters

No streams, wetlands, lakes, ponds, reservoirs, or Federal Emergency Management Agency flood zones were delineated within 100 feet of either the Preferred or Alternate sites and no impacts to these resources are expected as a result of this project. Impacts to nearby surface waters would be minimized by the implementation of a Storm Water Pollution Prevention Plan (SWPPP) and best management practices (BMPs).

Threatened and Endangered Species

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

BIRDS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA & MBTA ¹⁹	N/A	Known range. If any active nests are located within 660 feet of the project, then further coordination with ODNr and OPSB Staff would be recommended.
American bittern	<i>Botaurus lentiginosus</i>	N/A	Endangered	Known range, no suitable habitat available
common tern	<i>Sterna hirundo</i>	N/A	Endangered	Known range, no suitable habitat available
king rail	<i>Rallus elegans</i>	N/A	Endangered	Known range, no suitable habitat available
Kirtland's warbler	<i>Setophaga kirtlandii</i>	Candidate	Endangered	Known range. The USFWS requested that the Applicant avoid suitable habitat for species during the spring from late April through May and in the fall from late August to early October.
pipin plover	<i>Charadrius melodus</i>	Endangered	Endangered	Known range, no suitable habitat available
sedge wren	<i>Cistothorus platensis</i>	N/A	Species of Concern	Known range, no suitable habitat available
trumpeter swan	<i>Cygnus buccinator</i>	N/A	Endangered	Known range, no suitable habitat available

REPTILES & AMPHIBIANS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Eastern massasauga	<i>Sistrurus catenatus</i>	Candidate Species	Endangered	Known range, no suitable habitat available
Eastern foxsnake	<i>Pantherophis gloydi</i>	N/A	Species of Concern	Known range, suitable habitat, ODNr requests notice if encountered
Lake Erie watersnake	<i>Nerodia sipedon insularum</i>	Species of Concern	Endangered	Known range, no suitable habitat available

MAMMALS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered	Known range, no suitable habitat available
black bear	<i>Ursus americanus</i>	N/A	Endangered	Known range, not likely to impact due to mobility of species

FISH

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
lake sturgeon	<i>Acipenser fulvescens</i>	N/A	Endangered	Known range, no suitable habitat available
spotted gar	<i>Lepisosteus oculatus</i>	N/A	Endangered	Known range, no suitable habitat available

¹⁹ bald eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act

INSECTS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
blazing star stem borer moth	<i>Papaipema beeriana</i>	N/A	Endangered	Known range, no suitable habitat available
silphium borer moth	<i>Papaipema silphii</i>	N/A	Endangered	Known range, no suitable habitat available
spartina borer moth	<i>Spartiniphaga inops</i>	N/A	Endangered	Known range, no suitable habitat available
marked noctuid moth	<i>Tricholita notata</i>	N/A	Endangered	Known range, no suitable habitat available
many-lined cordgrass moth	<i>Photedes enervata</i>	N/A	Endangered	Known range, no suitable habitat available

PLANTS

Common Name	Scientific Name	Federal Status	State Status	Presence in Project Area
prairie false indigo	<i>Baptisia lactea</i>	N/A	Potentially Threatened	Known range, not likely in agricultural setting
tufted fescue sedge	<i>Carex brevier</i>	N/A	Threatened	Known range, not likely in agricultural setting
field sedge	<i>Carex conoidea</i>	N/A	Threatened	Known range, not likely in agricultural setting
bushy horseweed	<i>Conyza ramosissima</i>	N/A	Potentially Threatened	Known range, not likely in agricultural setting
round-fruited hedge-hyssop	<i>Gratiola virginiana</i>	N/A	Threatened	Known range, not likely in agricultural setting
lakeside daisy	<i>Hymenoxys hervacea</i>	Threatened	Endangered	Known range, not likely in agricultural setting
Canada St. John's-wort	<i>Hypericum canadense</i>	N/A	Endangered	Known range, not likely in agricultural setting
least St. John's-wort	<i>Hypericum gymnanthum</i>	N/A	Endangered	Known range, not likely in agricultural setting
Greene's rush	<i>Juncus greenei</i>	N/A	Threatened	Known range, not likely in agricultural setting
flat-leaved rush	<i>Juncus platyphyllus</i>	N/A	Endangered	Known range, not likely in agricultural setting
dwarf bulrush	<i>Lipocarpa micrantha</i>	N/A	Threatened	Known range, not likely in agricultural setting
small-flowered evening-primrose	<i>Oenothera parviflora</i>	N/A	Potentially Threatened	Known range, not likely in agricultural setting
common prickly pear	<i>Opuntia humifusa</i>	N/A	Potentially Threatened	Known range, not likely in agricultural setting
Virginia meadow-beauty	<i>Rhexia virginica</i>	N/A	Potentially Threatened	Known range, not likely in agricultural setting
blue-leaved willow	<i>Salix myricoides</i>	N/A	Potentially Threatened	Known range, not likely in agricultural setting
tall nut-rush	<i>Scleria triglomerata</i>	N/A	Potentially Threatened	Known range, not likely in agricultural setting

bushy aster	<i>Symphotrichum dumosum</i>	N/A	Threatened	Known range, not likely in agricultural setting
lance-leaved violet	<i>Viola lanceolata</i>	N/A	Potentially Threatened	Known range, not likely in agricultural setting
twisted yellow-eyed-grass	<i>Xyris torta</i>	N/A	Threatened	Known range, not likely in agricultural setting

The USFWS recommends that the Applicant contact the Ohio Department of Natural Resources, Division of Wildlife for the location(s) of the eagle nest(s) in the county. If any active nests are located within 660 feet of the project, then additional coordination with ODNR-DOW and OPSB Staff would be recommended. None of the species listed above were found during May or September field surveys and they are not expected to be negatively impacted by the proposed project, including the Indiana bat and the Kirkland's warbler or either species' suitable habitat.

Vegetation

The vegetative communities within the boundaries of the Preferred and Alternate sites are limited to agricultural land. Impacts associated with both sites would be limited to removal of approximately seven acres of cultivated crops. Property owners would be compensated for any crop damage that would result from construction of this project. If any tree clearing should become necessary, the Applicant has indicated that vegetative waste would be removed from the site. Staff concludes that no significant vegetative impacts are expected at either site.

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

Recommended Findings

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

Considerations for ORC Section 4906.10(A)(3)

MINIMUM ADVERSE ENVIRONMENTAL IMPACT

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

Site Selection

The Applicant retained a consultant to identify Preferred and Alternate sites that would meet economic and engineering requirements for the project, while also minimizing associated ecological, cultural, and land use impacts. A project study area was defined to include land within a mile of the existing Beaver-Davis Besse 345 kV Transmission Line and the existing Beaver-Greenfield and Avery-Greenfield 138 kV transmission lines. The consultant then identified and mapped ecological and cultural features in the study area that represent possible constraints to project construction. Primary constraints included woodlots, wetlands, habitat of endangered or threatened species, sensitive land uses, and sites of historic or archeological significance.

Six potential properties were identified that contain desirable attributes and avoid major constraints to the greatest extent practicable. The consultant ranked the overall desirability of these potential sites based on their quantitative and qualitative characteristics. The Applicant then selected the two highest ranking locations as the Preferred and Alternate sites. Due to a high degree of attribute homogeneity between the candidate locations, the selection of the Preferred and Alternate Sites was largely determined by site control and engineering considerations. The Preferred Site is owned by the Applicant, while the Alternate Site is under private ownership. Furthermore, the Preferred and Alternate sites require the least amount of new transmission line construction out of all the sites considered in the study.

Minimizing Impacts

The Preferred and Alternate Sites are located in a lightly-populated, rural setting. Both sites are currently being used for agricultural production. The Applicant owns the 119-acre parcel that contains the Preferred Site. While seven acres would be permanently taken out of agricultural production, it is likely that the remaining acres would continue to be leased for farming activities. The Alternate Site is located on agricultural district land. The Alternate Site presents greater aesthetic impacts, while the Preferred Site would require modest mitigation for one residential property. The Alternate Site would cost significantly more to construct, requiring the expenditure of an additional \$1,268,000. No streams, wetlands, or other water bodies are present within the boundary of either site. Significant vegetative clearing should not be required and the Applicant would utilize best management practices during construction to contain potential soil erosion. It is unlikely that construction and operation of this facility would negatively impact any threatened or endangered species.

Conclusion

While the Preferred and Alternate Sites are viable options, the Preferred Site minimizes overall land use impacts. Staff concludes that the selection of the Preferred Site represents the minimum adverse environmental impact.

Recommended Findings

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

Considerations for ORC Section 4906.10(A)(4)

ELECTRIC GRID

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

The purpose of this section is to evaluate the impact of integrating the proposed Hayes Substation Project into the existing regional transmission grid. The Hayes Substation Project will reinforce the 138 kV transmission system in Sandusky, Ohio, and is part of a larger project to construct the Beaver-Davis Besse #2 345 kV Transmission Line, which will be submitted to the Board under a separate application. The proposed substation will provide 345 kV to 138 kV transformation and will have two 345 kV line exits and three 138 kV line exits. The project is needed to ensure reliability and service to a large portion of northern Ohio. Without the project, ATSI will not be able to maintain compliance with PJM and NERC reliability criteria.

PJM Interconnection

PJM annually publishes the Regional Transmission Expansion Plan (RTEP). The RTEP summarizes the results of planning studies and explains the rationale behind system upgrades that are needed to maintain reliability within the PJM footprint. Stakeholders are encouraged to participate in the Transmission Expansion Advisory Committee, which provides advice and recommendations to aid in the development of the RTEP.

The Hayes Substation Project was identified in the 2011 PJM RTEP²⁰ and approved by the PJM Board. PJM's analysis shows that without the proposed Hayes Substation Project and the Beaver-Davis Besse #2 345 kV Transmission Line, the area will experience thermal violations and voltage collapse.

Load Deliverability Analysis

The annual load deliverability analysis is performed to ensure the transmission system is able to deliver capacity resources to load under peak system conditions. The analysis is performed by increasing load in the study area, while removing generation, under many scenarios and contingencies. PJM used a 2015 RTEP case to perform their analysis. The results showed that, during increased load and a loss of Perry generating unit one and Avon generating unit nine, the contingencies did not reach a solution. The solution wasn't reached due to a reactive power constraint in Cleveland. The inability to import power could result in a large-scale voltage collapse. There were a total of 23 cases that did not reach a solution.

The addition of the proposed Hayes Substation Project and the Beaver-Davis Besse #2 345 kV Transmission Line enables these cases to be solved.

Generator Deliverability

The annual generator deliverability assessment is run to ensure the transmission system has the resources to deliver the output of all generators to the remainder of PJM during peak system conditions. The analysis is performed by ramping up generation in one area and scaling down generation in another area, under many scenarios and contingencies, to verify that all of the

²⁰ PJM 2011 Regional Transmission Expansion Plan. February 28, 2012. p.70. Retrieved September 14, 2012, from <http://pjm.com/documents/reports/rtep-report.aspx>

generators' output can be delivered. PJM used a 2015 RTEP case to perform their analysis. The results showed that two generator queue projects are not deliverable.

The addition of the proposed Hayes Substation Project and the Beaver-Davis Besse #2 345 kV Transmission Line allows the two queue projects to be deliverable.

NERC Category B & C

The North American Electric Reliability Corporation (NERC) is responsible for the development and enforcement of the federal government's approved reliability standards, which are applicable to all owners, operators, and users of the bulk power system. NERC requires planners of the bulk electric transmission system to meet Reliability Standards²¹ TPL-001-0.1 through TPL-004-0 under transmission outage conditions for categories A, B, C, and D contingencies. According to NERC, a contingency is an unexpected failure or outage of a system component, such as a generator, transmission line, circuit breaker, switch, or other electrical element. Below is a partial list of the NERC categories and their meanings:

- Category B (single contingency outage, n-1), the planning authority and transmission planner shall demonstrate that the interconnected transmission system can operate to supply projected customer demands and firm transmission service at all demand levels over the range of forecast system demand; and,
- Category C (multiple contingency outages, n-1-1), the planning authority shall demonstrate that the interconnected transmission system can operate to supply projected customer demands and firm transmission service at all demand levels over the range of forecast system demand and may rely upon the controlled interruption of customers or curtailment of firm transmission service.

ATSI used NERC categories B and C for contingency planning of the Hayes Substation Project. The tables below show the overload and voltage problems with the Beaver-Davis Besse #2 Transmission Line in-service and with and without the Hayes Substation Project in-service.

During system normal conditions and categories B and C system outages, transmission lines shall not exceed their conductor thermal rating, and substation bus voltages must range from 0.95 per unit to 1.05 per unit with a minimum contingency voltage of .092 per unit. Transformer ratings are specific to each transformer and are based on seasonal conditions, considering loss of life and thermal stresses, and ratings should not be exceeded during normal conditions or emergency conditions.

The chart below shows voltage levels with and without the Hayes Substation in-service. The chart shows that all voltage levels return to normal operating limits when the Hayes Substation is in-service.

²¹ North American Electric Reliability Corporation, Reliability Standards, Transmission Planning (TPL-001-0.1-TPL-004-0). Retrieved September 14, 2012, from <http://www.nerc.com/page.php?cid=2|20>

**Category B & C - Load Flow Analysis, Hayes Substation Project,
WITH Beaver- Davis Besse #2 345 kV Transmission Line In-Service**

Outage	Element Loaded	WITHOUT Hayes Voltage kV (per unit)	WITH Hayes Voltage kV (per unit)
Carlisle-Shinrock 138 kV Line Ottawa-Lakeview 138 kV Line	Central Soya 69 kV	58.4 (0.847 pu)	68.1 (0.988 pu)
Greenfield 138 kV Bus	Central Soya 69 kV	50.6 (0.733 pu)	63.9 (0.926 pu)
Avery-Greenfield 138 kV Line Lakeview-Ottawa 138 kV Line	Flatrock 69 kV	61.5 (0.891 pu)	68.2 (0.989 pu)
Avery-Greenfield 138 kV Line Lakeview-Ottawa 138 kV Line	Lakeview 138 kV	124.9 (0.905 pu)	135.2 (0.98 pu)
Lakeview-Ottawa 138 kV Line	Lakeview 138 kV	126.5 (0.917 pu)	136.3 (0.988 pu)
Lakeview 138 kV Breaker #6 145 (Lakeview-Ottawa 138 kV Line, Lakeview 138/34.5 kV Transformer #5)	Lakeview 138 kV	126 (0.913 pu)	136 (0.985 pu)
Lakeview 138 kV Breaker #145 (Lakeview- Ottawa 138 kV Line, Lakeview 138/34.5 kV Transformer #4)	Lakeview 138 kV	126 (0.913 pu)	138 (0.998 pu)
Ottawa 138 kV Breaker #2 (Lakeview- Ottawa 138 kV Line, Bayshore-Toussaint- Ottawa 138 kV)	Lakeview 138 kV	126.5 (0.917 pu)	136.4 (0.988 pu)
Ottawa 138 kV Breaker #3 (Lakeview- Ottawa 138 kV Line, Ottawa 138/69 kV Transformer)	Lakeview 138 kV	126.5 (0.917 pu)	136.3 (0.988 pu)

Conclusion

The Applicant provided details on studies that were performed by ATSI and PJM. These studies demonstrated that, without the proposed Hayes Substation Project and associated Beaver-Davis Besse #2 345 kV Transmission Line projects, ATSI will be unable to provide safe, reliable electric service. In addition, the studies also revealed that the system could collapse on a greater scale. When the proposed Hayes Substation Project and associated Beaver-Davis Besse #2 345 kV Transmission Line projects are in-service, losses will be reduced by 8.9 megawatts, reliability will be increased, and ATSI, NERC, and PJM planning criteria will be met. The proposed facility is consistent with plans for expansion of the regional power system, and serves the interests of electric system economy and reliability.

Recommended Findings

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

Considerations for ORC Section 4906.10(A)(5)

AIR, WATER, SOLID WASTE, AND AVIATION

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

Air

Air quality permits are not required for construction of the proposed facility. However, fugitive dust rules adopted pursuant to the requirements of ORC Chapter 3704 (air pollution control laws) may be applicable to the proposed facility. The Applicant will control fugitive dust through dust suppression techniques such as irrigation, mulching, or application of tackifier resins. These methods of dust control are sufficient to comply with fugitive dust rules.

Water

Neither construction nor operation of the proposed facility would require the use of significant amounts of water, so requirements under ORC Sections 1503.33 and 1501.34 are not applicable to this project.

No surface water resources would be directly impacted by construction or operation at the Preferred or Alternate site. Therefore, neither a 404 Army Corps Permit nor an Ohio EPA 401 Water Quality Certification would be required for construction or operation of this facility.

The Applicant has indicated that it intends to submit a Notice of Intent (NOI) for coverage under the Ohio EPA's National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity, and a related Storm Water Pollution Prevention Plan (SWPPP). This SWPPP will be developed for the project pursuant to Ohio EPA regulations and will conform to the ODNr's Rainwater and Land Development Manual. Construction of this facility would comply with requirements of ORC Chapter 6111, and the rules and laws adopted under this chapter.

Solid Waste

The Applicant indicates that solid waste generated from construction activities would include items such as conductor scrap, construction material packaging including cartons, insulator crates, conductor reels, and wrapping, and used storm water erosion control materials. The Applicant estimates that approximately 200 cubic yards of construction debris could be generated from the project. All construction-related debris would be disposed of in Ohio EPA-approved landfills, or other appropriately-licensed and operated facilities.

Any contaminated soils discovered or generated during construction would be handled in accordance with applicable regulations. The Applicant states that all on-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage, and workers would follow manufacturer's recommendations for any spill cleanup. Petroleum products will be stored in tightly-sealed, clearly-labeled containers. Vegetation waste from clearing activities will be removed. Additionally, Staff recommends that the Applicant be required to prepare a Spill Prevention, Containment, and Countermeasure (SPCC) Plan. With Staff's recommended conditions, the Applicant's solid waste disposal plans comply with solid waste disposal requirements in ORC Chapter 3734, and the rules and laws adopted under this chapter.

Aviation

The height of the tallest anticipated above-ground structure and construction equipment is designed to be 85 feet. A total of 14 airports, landing strips, or heliports are located in Erie County. Of these registered facilities, only two landing strips are located within one mile of the Preferred and Alternate sites. In order to determine whether FAA notice was required, the proposed 85-foot structure height was added to the base elevation of the center of the footprint for both the Preferred and Alternate sites and entered into the FAA's Notice Criteria Tool website. Based on the coordinates, elevations, and heights of the Alternate Site, no notice criteria were exceeded. Therefore, construction and operation at the Alternate Site is not anticipated to impact any airports, landing strips, or heliports. However, based on the coordinates, elevations, and heights of the Preferred Site, notification is required. An FAA Form 7460-1 was submitted on February 3, 2012. The FAA issued a determination of no hazard to air navigation on May 23, 2012.

In accordance with ORC 4561.32, Staff contacted the Ohio Office of Aviation during review of this application in order to coordinate review of potential impacts of the facility on local airports. As of the date of preparation of this report, no such concerns have been identified. Construction and operation at neither the Preferred nor Alternate Site is expected to have an impact on aviation.

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

Recommended Findings

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

Considerations for ORC Section 4906.10(A)(6)

PUBLIC INTEREST, CONVENIENCE, AND NECESSITY

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

The Hayes Substation Project is part of a larger transmission system reinforcement project, known as the Beaver-Davis Besse 345 kV Transmission Line project, whose purpose is to maintain, improve, and reinforce electric service quality and reliability for communities in the Sandusky and northern Ohio areas. The Hayes Substation will alleviate post-contingency thermal and voltage violations in the ATSI system and ensure compliance with PJM planning standards. The substation project will serve the public interest because it would ensure that future electrical supply needs are met at a reasonable cost to consumers, even during periods of peak demand.

The Applicant will comply with safety standards set by the Occupational Safety and Health Administration, the Public Utilities Commission of Ohio, NERC Mandatory Reliability Standards, and equipment specifications. The Applicant has designed the facility to meet the requirements of the National Electric Safety Code.

Radio or television interference is not expected to occur from the operation of the proposed substation at either the Preferred or Alternate sites. Any likely source of radio or television interference would be a localized effect primarily from defective hardware that should be easily detected and replaced.

EMF

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

Because these concerns exist, the Applicant is required to compute the EMF associated with the new circuits. The fields were computed based on the maximum loadings of the lines, which would lead to the highest EMF values that might exist at the proposed substation. Daily current load levels would normally operate below the maximum load conditions, thereby further reducing nominal EMF values.

The magnetic fields are a function of the electric current, the configuration of the conductors, and the distance from transmission lines. The magnetic fields were estimated at the substation fence to be less than 49.46 milligauss, comparable to that of common household appliances. For example, a corded power tool has a magnetic field output of 123 milligauss. The maximum magnetic field scenarios for the proposed substation sites are listed in the application (Table 06-2). The magnetic fields generated by the substation are attenuated very rapidly as the distance from them increases. Past experience has shown that within 100 feet of the fence line of the substation, the magnetic field is not of sufficient strength to be measureable because the background effects overwhelm the measurements. The nearest residence is over 675 feet from the Preferred Site, and about 843 feet from the Alternate Site. Therefore, the Applicant expects that magnetic fields would not affect residences near the Hayes Substation.

The electric field is a function of the voltage, the line configuration, and the distance from substation. Electric fields are produced by voltage or electric charge. For example, a plugged in lamp cord produces an electric field, even if the lamp is turned off. The electric field would be

less than 2.669 kilovolt/meter at the substation fence. The electric fields are easily shielded by physical structures such as the walls of a house, foliage, or other barriers.

Recommended Findings

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

Considerations for ORC Section 4906.10(A)(7)

AGRICULTURAL DISTRICTS

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

Six agricultural district parcels were identified within 1,000 feet of the Preferred Site. None of the six parcels is located within 100 feet of the Preferred Site. Therefore, no impacts would be expected as a result of construction at the Preferred Site. However, impacts would be expected at the Alternate Site. Eight agricultural district parcels were identified within 1,000 feet of the Alternate Site. Two of the parcels are located within 100 feet, and the Alternate Site is located on agricultural district land.

Recommended Findings

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

Considerations for ORC Section 4906.10(A)(8)

WATER CONSERVATION PRACTICE

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

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

Recommended Findings

The Staff recommends that the Board find that the requirements specified in ORC Section 4906.10(A)(8) are not applicable to this project.

IV. RECOMMENDED CONDITIONS OF CERTIFICATE

Following a review of the application filed by ATSI 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 issuance of this report.

GENERAL CONDITIONS

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

- (1) The facility shall be installed at the Applicant's Preferred Site as presented in the application, and as modified and/or clarified by the Applicant's supplemental filings and further clarified by recommendations in this *Staff Report of Investigation*.
- (2) The Applicant shall utilize the equipment and construction practices as described in the application and as modified and/or clarified in supplemental filings, replies to data requests, and recommendations in this *Staff Report of Investigation*.
- (3) The Applicant shall implement the mitigation measures as described in the application and as modified and/or clarified in supplemental filings, replies to data requests, and recommendations in this *Staff Report of Investigation*.
- (4) The Applicant shall conduct a preconstruction conference prior to the start of any construction activities. Staff, the Applicant, and representatives of the prime contractor and all subcontractors for the project shall attend the preconstruction conference. The conference shall include a presentation of the measures to be taken by the Applicant and contractors to ensure compliance with all conditions of the certificate, and discussion of the procedures for on-site investigations by Staff during construction. Prior to the conference, the Applicant shall provide a proposed conference agenda for Staff review. The Applicant may stage separate preconstruction meetings for grading versus clearing work.
- (5) At least 30 days before the preconstruction conference, the Applicant shall submit to Staff, for review and acceptance, one set of detailed engineering drawings of the final project design, including the substation, temporary and permanent access roads, construction staging areas, and any other associated facilities and access points, so that Staff can determine that the final project design is in compliance with the terms of the certificate. The final project layout shall be provided in hard copy and as geographically-referenced electronic data. The final design shall include all conditions of the certificate and references at the locations where the Applicant and/or its contractors must adhere to a specific condition in order to comply with the certificate.
- (6) If any changes are made to the project layout after the submission of final engineering drawings, all changes shall be provided to Staff in hard copy and as geographically-referenced electronic data. All changes outside the environmental survey areas and any changes within environmentally-sensitive areas will be subject to Staff review and acceptance, to ensure compliance with all conditions of the certificate, prior to construction in those areas.

- (7) 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. The Applicant shall provide as-built drawings in both hard copy and as geographically-referenced electronic data.
- (8) 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.
- (9) As the information becomes known, the Applicant shall provide to Staff the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation.

SOCIOECONOMIC CONDITIONS

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

- (10) Prior to commencement of construction, the Applicant shall prepare a mitigation plan that addresses the aesthetic impacts of the facility. The Applicant shall coordinate with the nearest resident on Fox Road in the development of this plan, and submit the plan to Staff for review and confirmation that it complies with this condition.
- (11) 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 and hoe ram operations, if required, shall be limited to the hours between 10:00 a.m. to 5:00 p.m., Monday through Friday. Construction activities that do not involve noise increases above ambient levels at sensitive receptors are permitted outside of daylight hours when necessary. The Applicant shall notify property owners or affected tenants within the meaning of Rule 4906-5-08(C)(3), OAC, of upcoming construction activities including potential for nighttime construction activities.

ECOLOGICAL CONDITIONS

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

- (12) The Applicant shall have a construction and maintenance access plan based on final plans for the access roads, substation facilities, and types of equipment to be used. Prior to commencement of construction, the Applicant shall submit the plan to Staff, for review and confirmation that it complies with this condition. The plan shall include the measures to be used for restoring the area around all temporary access points, and a description of any long-term stabilization required along permanent access routes.
- (13) The Applicant shall contact Staff, ODNR, and the USFWS within 24 hours if state or federal threatened or endangered species are encountered during construction activities. Construction activities that could adversely impact the identified plants or animals shall be halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and ODNR in coordination with the USFWS. Nothing in this condition shall preclude agencies having jurisdiction over the facility with respect to threatened or endangered species from exercising their legal authority over the facility consistent with law.

- (14) The Applicant shall contact the Ohio Department of Natural Resources, Division of Wildlife, (419) 898-0960, for the location(s) of the eagle nest(s) in the county. If any active nests are located within 660 feet of the project, then additional coordination with the ODNR-DOW and OPSB Staff is required.

AIR, WATER, SOLID WASTE, AND AVIATION CONDITIONS

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

- (15) Prior to the commencement of construction activities that require permits or authorizations by federal or state laws and regulations, the Applicant shall obtain and comply with such permits or authorizations. The Applicant shall provide copies of permits and authorizations, including all supporting documentation, to Staff within seven days of issuance or receipt by the Applicant. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference.
- (16) At least seven days before the preconstruction conference, the Applicant shall submit to Staff, for review and acceptance, a copy of all NPDES permits including its approved SWPPP, approved SPCC procedures, and its erosion and sediment control plan. Any soil issues must be addressed through proper design and adherence to the Ohio EPA BMPs related to erosion and sedimentation control.
- (17) The Applicant shall employ the following erosion and sedimentation control measures, construction methods, and BMPs, in accordance with the Ohio NPDES permit(s) and SWPPP obtained for the project:
- (a) During construction of the facility, seed all disturbed soil, except within actively cultivated agricultural fields, within seven days of final grading with a seed mixture acceptable to the appropriate County Cooperative Extension Service. Denuded areas, including spoils piles, shall be seeded and stabilized within seven days, if they will be undisturbed for more than 21 days. Re-seeding shall be done within seven days of emergence of seedlings as necessary until sufficient vegetation in all areas has been established.
 - (b) Inspect and repair all erosion control measures after each rainfall event of one-half of an inch or greater over a 24-hour period, and maintain controls until permanent vegetative cover has been established on disturbed areas.
 - (c) Divert all storm water runoff away from fill slopes and other exposed surfaces to the greatest extent possible, and direct instead to appropriate catchment structures, sediment ponds, etc., using diversion berms, temporary ditches, check dams, or similar measures.
- (18) The Applicant shall remove all temporary gravel and other construction staging area and access road materials after completion of construction activities, as weather permits. Impacted areas shall be restored to preconstruction conditions in compliance with the NPDES permit(s) obtained for the project and the approved SWPPP created for this project.
- (19) The Applicant shall comply with fugitive dust rules by the use of water spray or other appropriate dust suppressant measures whenever necessary.

APPENDIX

1. DOCKETING RECORD

CASE NUMBER: 11-4711-EL-BSB

DESCRIPTION: Hayes Substation Project

FILINGS AS OF: 10/22/2012

10/12/2012	Affidavit of Proof of Mailing of Notification Letters electronically filed by Mr. Robert J Schmidt on behalf of American Transmission Systems Inc.
10/05/2012	Proof of Publication. (Erie County)
09/18/2012	Notice that the required application fee for the Hayes Project has been paid filed by S. Humphrys on behalf of FirstEnergy Service Company.
09/14/2012	Service Notice
09/14/2012	Entry by Administrative Law Judge ordering that applicant's waiver requests be granted and establishing the procedural schedule to be followed in this case. - electronically filed by Sandra Coffey on behalf of Daniel Fullin, Attorney Examiner, Public Utilities Commission of Ohio
09/14/2012	Affidavit of Proof of Service of complete application on public officers, electronically filed by Mr. Robert J Schmidt on behalf of American Transmission Systems Inc.
09/14/2012	Letter of Notification filed by John H. Jones, Assistant Attorney General, on behalf of the Staff of the Ohio Power Siting Board stating that Staff does not object to the waivers requested by applicant in its June 1, 2012 and August 9, 2012 motions for certain waivers. electronically filed by Kimberly L Keeton on behalf of Ohio Power Siting Board.
09/11/2012	Letter of compliance to Morgan Parke, ATSI from T. Snitchler, OPSB Staff.
08/17/2012	Application for a Certificate of Environmental Compatibility and Public Need for the Hayes Substation Project filed by S. Humphreys on behalf of ATSI.
08/15/2012	Amendment to Motion for Waiver electronically filed by Ms. Catherine Darcy Copeland on behalf of American Transmission Systems, Incorporated.
08/09/2012	Motion For Waiver and Memorandum in Support electronically filed by Ms. Catherine Darcy Copeland on behalf of American Transmission Systems, Incorporated
07/31/2012	Application For A Certificate of Environmental Compatibility and Public Need - Hayes Substation Project filed by Scott Humphrys on behalf of FirstEnergy Service Company.
06/01/2012	Motion for Certain Waivers and Memorandum in Support electronically filed by Mr. Robert J Schmidt on behalf of American Transmission Systems Inc.
08/15/2011	In the matter of the pre-application notification of Hayes Substation Project filed on behalf of FirstEnergy Service Company by S. Humphrys.

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