AMERICAN TRANSMISSION SYSTEMS, INCORPORATED A SUBSIDIARY OF FIRSTENERGY CORP.

LETTER OF NOTIFICATION

EVERGREEN-NILES 138 kV RECONDUCTOR PROJECT

OPSB CASE NO.: 12-<u>2938</u>-EL-BLN

November 8, 2012

2012 NOV -9 PM 1:25
PUCO

American Transmission Systems, Incorporated 76 South Main Street Akron, Ohio 44308

LETTER OF NOTIFICATION **EVERGREEN-NILES 138 kV TRANSMISSION LINE** RECONDUCTOR PROJECT

The following information is being provided in accordance with the procedures delineated in Ohio Administrative Code Section 4906-11-01: Letter of Notification Requirements of the Rules and Regulations of the Ohio Power Siting Board.

4906-11-01 (B): General Information

4906-11-01 (B) (1) a : Name and Reference Number

Name of Project:

Evergreen-Niles 138 kV Transmission Line Reconductor

Project ("Project")

2012 LTFR Reference: This Project is identified on page 152 in FirstEnergy

Corp.'s 2012 Electric Long-Term Forecast Report

("LTFR") submitted to the Public Utility Commission of

Ohio in Case Number 12-504-EL-FOR.

4906-11-01 (B) (1) b: Brief Description of Project

In this Project, American Transmission Systems, Incorporated (ATSI), a subsidiary of FirstEnergy Corp., is proposing to rebuild and reconductor approximately 3.07 miles of the existing Evergreen-Niles 138 kV Transmission Line between the existing Evergreen Substation, located at 2401 Main Avenue SW and Structure 4780, located near 6107 Highland Avenue, Warren Ohio.

The Project area is located near the intersection of Burnett East Road and County Road 67 (Main Ave. SW), in Warren, Trumbull County, Ohio. The general location of the Project is shown in Exhibit 1, which is a partial copy of the United States Geologic Survey, Trumbull County and Mahoning County Ohio Quad Map, ID number 41080-B7. Exhibit 2 shows the general layout of the proposed Project.

The existing Evergreen-Niles 138 kV Transmission Line consists of approximately 2.5 miles of 336 ACSR 30/7 conductor starting at Evergreen Substation to structure 1787, as shown in Exhibit 2, and approximately 0.48 miles of 477 ACSR 26/7 conductor from structure 1787 to structure 4780, as shown in Exhibit 2. The transmission line is carried on twenty three (23) double circuit lattice towers and four (4) wood pole structures. Only one of the circuits is to be reconductored. The circuit to be reconductored starts on the west side of the structures at the Evergreen Substation and transitions to the east side of the structures between structure 13 and structure 1783, as shown in Exhibit 2. The transmission line will be reconductored with 795 ACSR 26/7. As part of the Project, the four wood pole structures will be replaced with four two – pole wood structures, shown in Exhibit 5 and an additional four two – pole wood intermediate structures, shown in Exhibit 5, will be installed within the transmission line. Structure 1787, location shown on Exhibit 2, will be replaced with a new two pole laminated wood structure, as shown in Exhibit 4. The existing shield wire, 7#8 Alumoweld, will be modified to accommodate new and replaced mid-span structures. A typical existing double circuit steel lattice tower is shown in Exhibit 3.

ATSI owns the existing Evergreen – Niles 138 kV Transmission Line and will own the new structures. ATSI and/or other FirstEnergy Corp. subsidiaries maintain, operate, and own the existing Evergreen Substation.

4906-11-01 (B) (1) c: Why the Project Meets the Requirements for a Letter of Notification

The Project meets the requirements for a Letter of Notification because the Project is within the types of project defined by Items (3) and (4)(a) of the Interim Application Requirement Matrix for Electric Power Transmission Lines in Appendix A of 4906-1-01 of the Ohio Administrative Code. These items state:

3) Replacing conductors on existing structures with larger or bundled conductors.

- (4) Replacing electric power transmission line structure(s) with a different type of structure(s) or adding structure(s) within an existing electric power transmission line and:
 - (a) Two miles or less of new right-of-way required.

The proposed Project includes installing approximately 3.07 miles of 795 ACSR 26/7 conductor on the existing Evergreen – Niles 138 kV Transmission Line, replaces four wood poles with four two – pole structures and adds four new two – pole intermediate structures within the existing right of way.

4906-11-01 (B) (2): Need for the Project

The proposed Project is essential for preventing thermal overload under post contingency conditions. The loss of the Highland – Salt Springs 138 kV Transmission Line causes the Evergreen – Niles 138 kV Transmission Line to overload to 112% of summer normal and load to 95% of summer emergency loading.

4906-11-01 (B) (3): Location Relative to Existing or Proposed Lines

The location of the Project relative to existing or proposed transmission lines is shown in the FirstEnergy System Facilities map, included as the last page of Chapter 3 of the confidential portion of the FirstEnergy Corp. 2012 Long-Term Forecast Report submitted to the PUCO in case no. 12-504-EL-FOR under rules 4901:5-5:04 (C) of the Ohio Administrative Code. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations, including the location of the Evergreen – Niles 138 kV Transmission Line. The project area is located approximately 2 ¾ inches (11 by 17 inch printed version) from the right edge of the map box and 3 ¼ inches (11 by 17 inch printed version) from the top of the map box. The general location of the Project is shown on Exhibit No. 1. The general layout of the Project is shown in Exhibit No. 2.

4906-11-01 (B) (4): Alternatives Considered

Alternatives considered were to add the Niles 345 kV to 138 kV Substation Project. The new substation source would be from the Highland – Shenango 345 kV Transmission Line. This project was rejected as a possible alternative as it is unlikely to meet the required in-service date.

4906-11-01 (B) (5): Construction Schedule

Construction on the Project is expected to begin on approximately February 1, 2013 and is expected to be completed and placed in-service by May 1, 2013.

4906-11-01 (B) (6): Area Map

Exhibit No. 1 is a map depicting the general location of the project site. To locate and view the project site from the Columbus, Ohio area, travel north on I-71 for approximately 102 miles. Take Exit 209 onto I-76 east for approximately 57 miles, to exit 57. Turn left onto CR-65 (N Bailey Road) for approximately 2 miles. The road name changes to Ellsworth Bailey Road for approximately 2 miles. Turn right onto CR-72 (Carson Salt Springs Road) for approximately 4.4 miles. Turn left onto Austintown Warren Road approximately 1 mile. The Project site will be on the west side of Main Street.

4906-11-01 (B) (7): Property Owner List

The Project will be located on existing easements and right-of-way by the Ohio Edison Company ("Ohio Edison"), a FirstEnergy Corp. subsidiary. No new easements or right-of-way will need to be acquired.

4906-11-01 (C): Technical Features of the Project

4906-11-01 (C) (1): Operating Characteristics

The reconductored transmission line will have the following characteristics:

Voltage:

138 kV

Conductor:

795 kcmil 26/7 ACSR

Static Wire:

7#8 Alumoweld

Insulators:

138 kV Polymer Suspension and Polymer Horizontal Post

4 American Transmission Systems, Incorporated Evergreen – Niles 138 kV Transmission Line Reconductor Project Structure types: Exhibit No. 3 – Typical Double Circuit Steel Lattice Tower Structure

Exhibit No. 4 – Double Circuit, Two – Pole Laminated

Structure

Exhibit No. 5 – Double Circuit, Two – Pole Tangent Structure

The proposed project is located within the existing right-of-way of the Evergreen – Niles 138 kV Transmission Line.

4906-11-01 (C) (2) (a): Calculated Electric and Magnetic Fields

The following table itemizes the line loading of the existing transmission line. The normal line loading represents FirstEnergy's peak system load for the transmission lines. The emergency line loading represents the maximum line loading under contingency operation. The winter rating for the proposed Project is based on the continuous maximum conductor ratings (MCR) of the circuits for an ambient temperature of zero degrees centigrade (32 deg. F), wind speed of 1.3 miles per hour, and a circuit design operating temperature of 100 degrees centigrade (212 deg. F).

Line Name	Normal Loading Amps	Emergency Loading Amps	Winter Rating Amps
Evergreen – Niles 138 kV Transmission Line	550	925	1320
Evergreen – Highland #1 138 kV Transmission Line	575	895	950
Evergreen – Highland #2 138 kV Transmission Line	575	895	950

The following calculations provide an approximation of the magnetic and electric fields strengths of the new 138 kV transmission line loop. The calculations provide an approximation of the electric and magnetic field levels based on specific assumptions utilizing the EPRI EMF Workstation 2009 program software. This program software assumes the input transmission line configuration is located on flat terrain. Also, a balanced, three-phase circuit loading is assumed for the

transmission circuit. The model utilizes the normal, emergency, and winter rating of the tap.

EMF	CALCULATIONS	Electric Field kV/meter	Magnetic Field mGauss
Normal	Under Lowest Conductors	1.76	115.89
Loading.	At Right-of-Way Edges	0.07	15.65
Emergency Loading	Under Lowest Conductors	1.76	189.43
	At Right-of-Way Edges	0.07	25.07
Winter Rating	Under Lowest Conductors	1.76	247.66
	At Right-of-Way Edges	0.07	30.20

4906-11-01 (C) (2) (b): EMF Discussion

Background Information

Electric and magnetic fields (EMFs) are naturally occurring in the environment and can be found in the Earth's interior and in the human body. EMFs are generated essentially anywhere there is a flow of electricity, including electrical appliances and power equipment. Electric fields are associated with the voltage of the source; magnetic fields are associated with the flow of current in a wire. The strength of these fields decreases rapidly with distance from the source. EMFs associated with electricity use are not disruptive to cells like x-rays or ultraviolet rays from the sun. These fields are thought to be too weak to break molecules or chemical bonds in cells. Extensive research has been conducted over the past three decades to determine whether EMFs are associated with adverse health effects. A number of independent scientific panels have reviewed the research and have stated that there is no basis to conclude that EMFs cause adverse health effects nor has it been shown that levels in everyday life are harmful.

Recent Developments

As a part of the National Energy Policy Act of 1992, the Electric and Magnetic Fields Research and Public Information Dissemination (EMF RAPID) program was initiated within the five-year effort under the National EMF Research Program. The culmination of this five-year effort resulted in a final RAPID Working Group report, which was released for public review in August 1998. The Director of the National

Institutes of Environmental Health Sciences (NIEHS) then prepared a final report to Congress after receiving public comments.

The NIEHS' Director's final report, released to Congress on May 4, 1999, concluded that extremely low frequency electric and magnetic fields (ELF-EMF) exposure cannot be recognized at this time as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard. The Director further stated that the conclusion of this report is insufficient to warrant aggressive regulatory concern.

Sources for Additional Information

The following websites sponsored by federal agencies or other organizations provide additional information on EMF:

- Centers for Disease Control/National Institute for Occupational Safety and Health: http://www.cdc.gov/niosh/topics/emf/
- National Institute of Environmental Health Sciences (NIEHS) EMF Rapid Program: http://www.niehs.nih.gov/emfrapid/home.htm

4906-11-01 (C) (3): Estimated Costs

The estimated capital costs by FERC Accounts for the proposed Project are:

Account	Cost
350 Land Rights, Engineering, Ect.	\$134,784
355 Poles and Fixtures	\$291,619
356 Overhead Conductors & Devices	\$ 26,072
Removal	\$ 59,762
Total	\$512,237

4906-11-01 (D): Socioeconomic Data

4906-11-01 (D) (1): Land Use

The Project area is located in an agricultural area. Neighboring land use in the area of the proposed Project includes agricultural, industrial and residential use. Based on the U.S. Bureau of Census estimates, the 2010 population of the City of Warren

was 41,557 and Trumbull County, Ohio was 210,312. The Village of Lordstown had a population of 3,663 in 2000 and Warren Township had a population of 7,817 in 2000.

4906-11-01 (D) (2): Agricultural Land

The placement of the new structures and guying will be within existing Right-of-Way and on the outer edge of agricultural land. Agricultural land will not be adversely impacted by the proposed project.

4906-11-01 (D) (3): Archaeological or Cultural Resources

As part of ATSI's investigation of the project site, a search of the Ohio Historic Preservation Office (OHPO) National Register of Historic Places on-line database was conducted. This search did not identify the existence of any historic sites within the project area. Properties in the OHPO database include all Ohio listings on the National Register of Historic Places as well as districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

4906-11-01 (D) (4) a: Documentation of Letter of Notification Transmittal

This Letter of Notification is being provided concurrently to the following officials of West Township, and Columbiana County, Ohio.

Trumbull County

The Honorable Frank S. Fuda President, Trumbull County Commissioner 160 High Street NW, 5th Floor Warren, OH 44481

The Honorable Paul E. Heltzel Trumbull County Commissioner 160 High Street NW, 5th Floor Warren, OH 44481 Mr. Lewis Kostoff Chairman, Trumbull County Planning Commission 347 N. Park Avenue Warren, OH 44481

Mr. William Miller Director, Trumbull County Planning Commission 347 N. Park Avenue Warren, OH 44481 The Honorable Daniel E. Polivka Trumbull County Commissioner 160 High Street NW, 5th Floor Warren, OH 44481

Ms. Paulette Godfrey Clerk/Interim Administrator Trumbull County Commissioners 160 High Street NW, 5th Floor Warren, OH 44481 Mr. Randy Smith, P.E., P.S. Trumbull County Engineer 650 North River Road N.W. Warren, OH 44483

City of Warren

Mr. William Franklin Mayor, City of Warren 391 Mahoning Avenue N.W. Warren, OH 44483 Mr. Robert Dean, Jr.
President of Council, City of Warren
391 Mahoning Avenue N.W.
Warren, OH 44483

Village of Lordstown

Mr. Arno Hill Mayor, Village of Lordstown 1455 Salt Springs Road Warren, OH 44481

Mr. Michael Sullivan President of Council, Village of Lordstown 1455 Salt Springs Road Warren, OH 44481 Mr. William Blank Clerk, Village of Lordstown 1455 Salt Springs Road Warren, OH 44481

Warren Township

Ms. Terry Ambrose Chairwoman, Warren Township Trustees 3765 W. Market Street Leavittsburg, OH 44430

Ms. Kay Anderson V. Chairwoman, Warren Township Trustees 3765 W. Market Street Leavittsburg, OH 44430 Ms. Cheryl Ranttila Zaben Warren Township Trustees 3765 W. Market Street Leavittsburg, OH 44430

Ms. Debra D'Orio Fiscal Officer, Warren Township 3765 W. Market Street Leavittsburg, OH 44430 Copies of the transmittal letters to these officials have been included with the transmittal letter submitting this Letter of Notification to the Ohio Power Siting Board.

4906-11-01 (D) (4) b: Public Information Program

Ohio Edison's Manager of External Affairs will advise local officials of features and the status of the proposed transmission line Project as necessary.

4906-11-01 (D) (5): Current or Pending Litigation

There is no known current or pending litigation involving this Project.

4906-11-01 (D) (6): Local, State, and Federal Requirements

There are no known local, state, or federal requirements that must be met prior to commencement of construction on the proposed transmission line Project.

4906-11-01 (E): Environmental Data

4906-11-01 (E) (1): Endangered, Threatened, and Rare Species Investigation

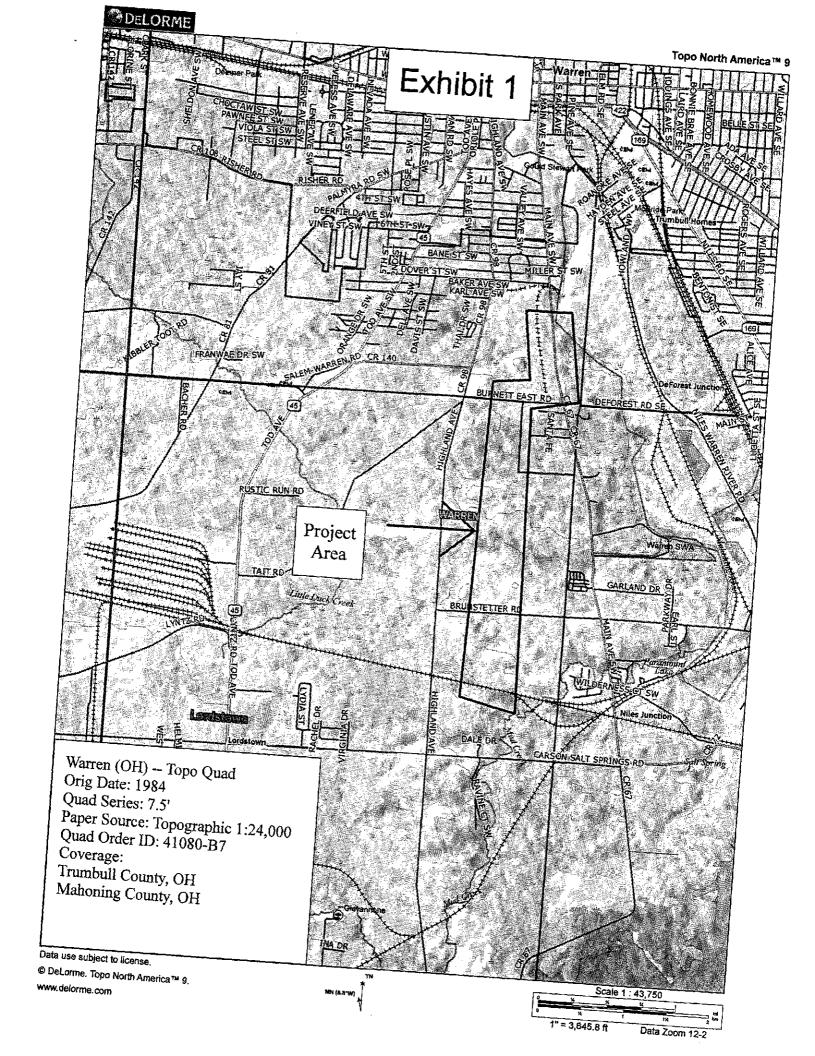
A written request was submitted to the Ohio Department of Natural Resources (ODNR) to research the presence of any endangered, threatened, or rare species within the Project area. The ODNR's response of October 12, 2012, attached as Exhibit 6, indicated that they have no records of rare or endangered species within one half mile of the identified Project area.

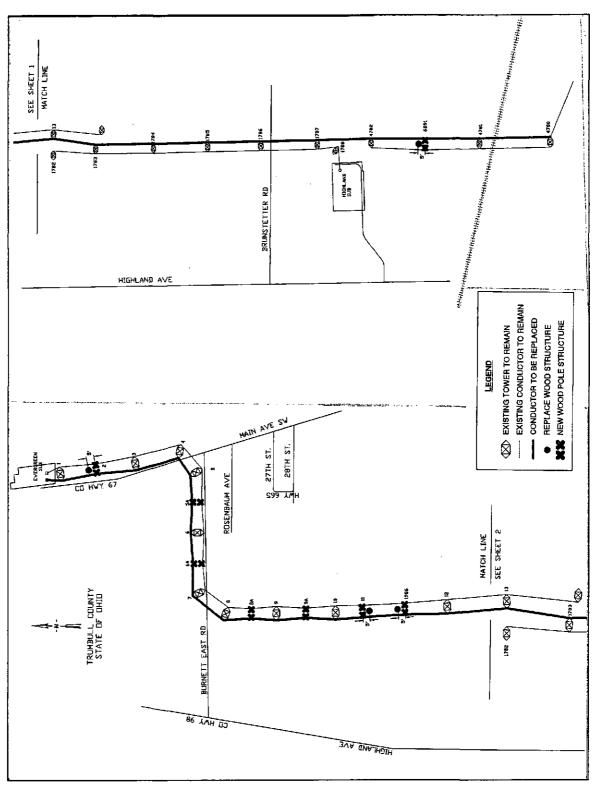
4906-11-01 (E) (2): Areas of Ecological Concern

A visual assessment of the Project area did not identify areas of ecological concern in the immediate vicinity of the Project.

4906-11-01 (E) (3): Additional Information

Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the National Electrical Safety Code as adopted by the Public Utilities Commission of Ohio and will meet all applicable safety standards established by Occupational Safety and Health Administration.



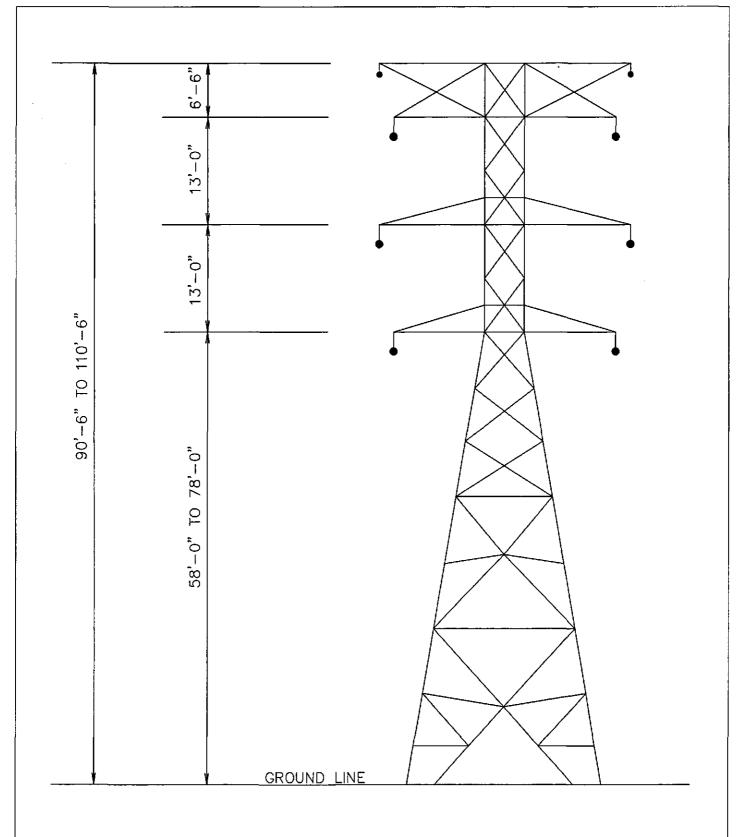


ATSI

EVERGREEN-NILES 138 kV

EVERGREEN-NILES 138 kV
TRANSMISSION LINE RECONDUCTOR PROJECT

EXHIBIT 2

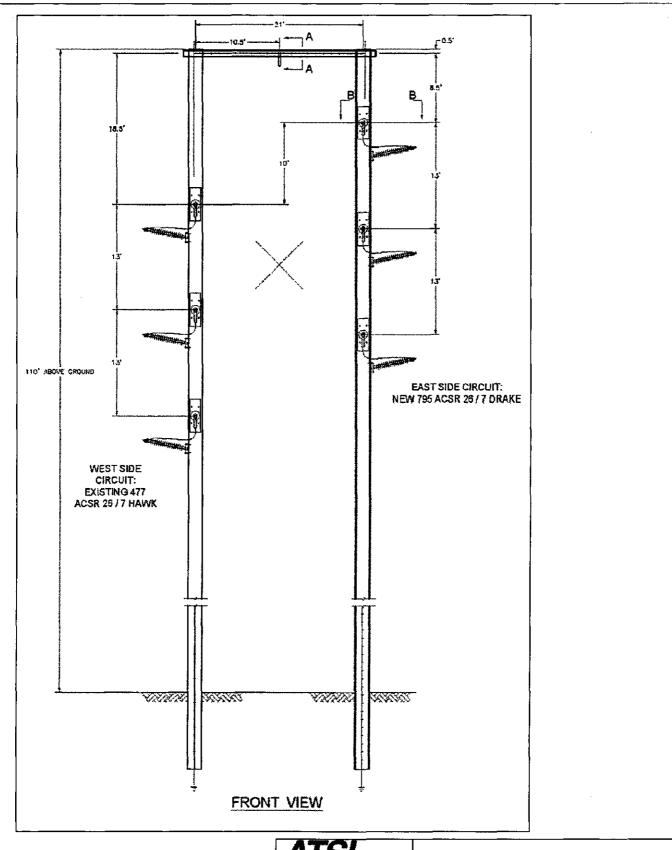




TYPICAL TOWER STRUCTURE

EVERGREEN-NILES 138 kV TRANSMISSION LINE RECONDUCTOR PROJECT

Exhibit 3

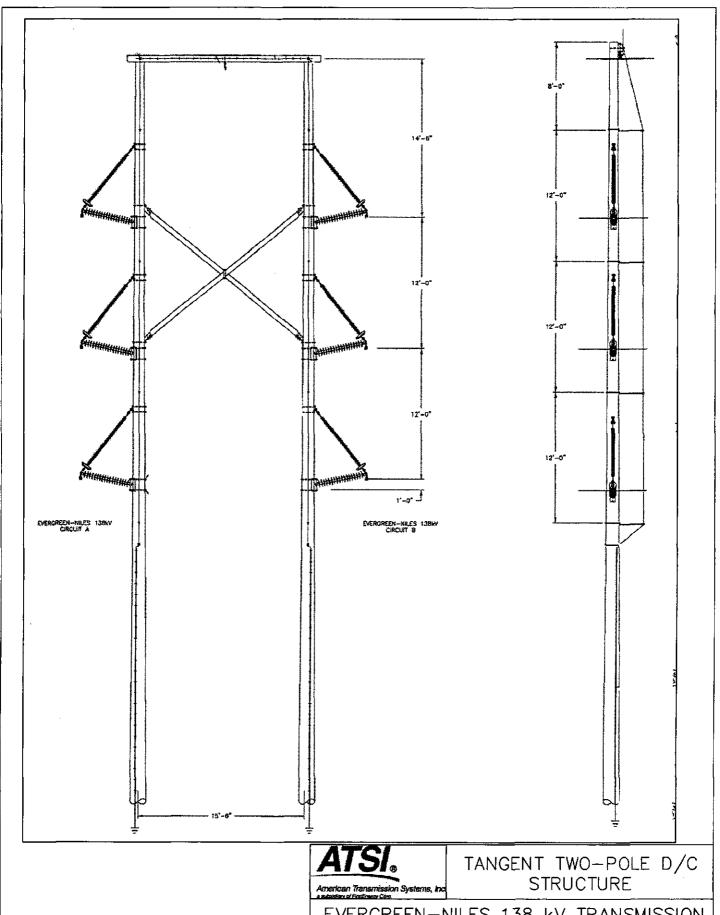


ATSI®

LAMINATED TWO POLE STRUCTURE

EVERGREEN-NILES 138 kV TRANSMISSION LINE RECONDUCTOR PROJECT

Exhibit 4



EVERGREEN-NILES 138 kV TRANSMISSION LINE RECONDUCTOR PROJECT

EXHIBIT 5

Exhibit 6 Page 1



Ohio Department of Natural Resources

JOHN R. KASICIL GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Ohio Division of Wildlife Scott Zody, Chief 2045 Morse Rd., Bldg. G Columbus, OH 43229-6693 Phone: (614) 265-6300

October 12, 2012

John Toth FirstEnergy Service Group 76 South Main Street Akron, OH 44308

Dear Mr. Toth

After reviewing the Natural Heritage Database, I find the Division of Wildlife has no records of rare or endangered species in the Evergreen-Niles Reconductor project area, including a one mile radius, in Warren and Lordstown Townships, Trumbull County, Ohio. There is a known nest for the Osprey, which was recently removed from state-listing, and also a State Wildlife Area in the vicinity of your project. A map showing these locations is included with this letter. We are unaware of any additional unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, parks or forests or other protected natural areas within a one mile radius of the project area.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although we inventory all types of plant communities, we only maintain records on the highest quality areas.

This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S. C. 661 et seq.) and does not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Please contact me at 614-265-6452 if I can be of further assistance.

Sincerely,

Greg Schneider, Administrator
Ohio Natural Heritage Database Program

Greg Schneiden

