76 South Main Street Akron, Ohio 44308

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1-800-646-0400

May 21, 2014

Ms. Barcy F. McNeal Docketing Division The Public Utilities Commission of Ohio 180 East Broad Street Columbus, OH 43215-3793

PUCO

# Letter of Notification Burger-Knox 138 kV Transmission Line Tap to Stacy Substation Project Case No. 14-0786-EL-BLN

Dear Ms. McNeal:

In accordance with Rule 4906-1-11, American Transmission Systems, Incorporated ("ATSI") transmits one (1) original and eleven (11) copies of the enclosed Letter of Notification for the above captioned project. In this project, ATSI is proposing to extend the existing ATSI owned Burger-Knox 138 kV Transmission Line as a tap approximately 0.03 mile (150 feet) to connect to a new proposed South Central Power Company's 138kV transmission line. The South Central Power Company's 138kV transmission line will run approximate 0.32 mile (1,715 feet) from the point of connection with the Burger-Knox 138kV Transmission Line to the existing Stacy Substation, which is owned by South Central Power Company. It is anticipated that South Central Power will submit a separate application to the Board for its project. The Project is located in Archer Township, Harrison County, Ohio.

Please be advised of the following:

a) Name and address of the applicants:

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

b) Name of proposed facilities:

Burger-Knox 138kV Transmission Line Tap to Stacy Substation Project

c) Location of proposed facilities:

The Project area is located in both an existing transmission line corridor and new right-of-way, extending from the Burger-Knox 138 kV Transmission Line towards the Stacy Substation in the Archer Township, Harrison County, Ohio.

This is to certify that the mages appearing are an accurate and complete reproduction of a c.se file locument delivered in the regular course of husiness 201/

#### d) Description of proposed facilities:

The Project involves extend the existing ATSI owned Burger-Knox 138 kV Transmission Line as a tap approximately 0.03 mile (150 feet) to connect to a new proposed South Central Power Company's 138kV transmission line. The South Central Power Company's 138kV transmission line will run approximate 0.32 mile (1,715 feet) from the point of connection with the Burger-Knox 138kV Transmission Line to the existing Stacy Substation, which is owned by South Central Power Company. It is anticipated that South Central Power will submit a separate application to the Board for its project. The Project is located in Archer Township, Harrison County, Ohio.

#### e) Applicant's representative:

John Toth
Supervisor
Energy Delivery Transmission and Substation Design
FirstEnergy Service Company
76 South Main Street
Akron, OH 44308-1890

We have provided a copy of the Letter of Notification by certified mail, with return receipt requested, to each official of the political subdivisions immediately affected by the proposed project as listed in the attached Exhibit 1. Copies of the transmittal letters addressed to the local government representatives of the Archer Township and Harrison County are enclosed for your file.

After docketing this filing, please return one time-stamped copy of the Letter of Notification for our records to us in the enclosed envelope. Should staff of the Ohio Power Siting Board desire further information or discussion of this submittal, please contact me at (330) 384-4564.

Sincerely,

John Toth Supervisor

Energy Delivery Transmission and Substation Design

FirstEnergy Service Company

John 7.70A

Attachments

## AMERICAN TRANSMISSION SYSTEMS, INCORPORATED A FIRSTENERGY COMPANY

### LETTER OF NOTIFICATION

### **BURGER-KNOX 138 kV TRANSMISSION LINE** TAP TO STACY SUBSTATION PROJECT

OPSB CASE NO.: 14-0786-EL-BLN

May 21, 2014

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

# LETTER OF NOTIFICATION BURGER-KNOX 138 kV TRANSMISSION LINE TAP TO STACY SUBSTATION PROJECT

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

#### 4906-11-01 (B): LETTER OF NOTIFICATION REQUIREMENTS

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

Name of Project: Burger-Knox 138 kV Transmission Line Tap to Stacy

Substation Project ("Project")

2013 LTFR Reference: This Project is not included in FirstEnergy Corp. 2013

Long-Term Forecast Report submitted to the Public Utility

Commission of Ohio in Case Number 13-925-EL-FOR.

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

In this Project, American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, is proposing to extend the existing ATSI owned Burger-Knox 138 kV Transmission Line as a tap approximately 0.03 mile (150 feet) to connect to a new proposed South Central Power Company's 138kV transmission line. The South Central Power Company's 138kV transmission line will run approximate 0.32 mile (1,715 feet) from the point of connection with the Burger-Knox 138kV Transmission Line to the existing Stacy Substation, which is owned by South Central Power Company. It is anticipated that South Central Power will submit a separate application to the Board for its project.

As part of the Project, two (2) new switch structures and one (1) new tap structure will be installed. Also, one (1) new switch structure will replace an existing structure. Exhibit 1 shows the General Location of the Project. The general layout of the Project is shown in Exhibit 2. The proposed structures are shown in Exhibits 3 through 5. The three (3) new switch structures and one (1) new tap structure

associated with the Project will be owned by ATSI. The Project is located in Archer Township, Harrison County, OH.

# 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 projects defined by Items (1)(d) and (4)(a) of the Interim Application Requirement Matrix for Electric Power Transmission Lines in the Finding and Order issued on September 4, 2012, as subsequently modified on December 17, 2012, in Case No. 12-1981-GE-BRO which modified Appendix A of Rule 4906-1-01 of the Ohio Administrative Code. These items state:

- (1) Rerouting or extension or new construction of single or multiple circuit electric power transmission line(s) as follows:
  - (d) Line(s) one hundred twenty-five kV and above, but less than three hundred kV, and not greater than 0.2 miles in length but not greater than two miles in length.
- (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 is required.

The proposed Project includes extending the existing Burger-Knox 138 kV Transmission Line approximately 0.3mile (150 feet) towards the Stacy Substation, adding several structures and changing an existing structure.

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

The 138 kV Transmission Line is needed in order for South Central Power Company to provide service to a new customer.

#### 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. 2013 Long-Term Forecast

Report. This map was submitted to the PUCO in Case No. 13-925-EL-FOR under Rule 4901:5-5:04 (C) of the Ohio Administrative Code. The map is incorporated by reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations, including the location of the Burger-Knox 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 and 6 ¼ inches (11 by 17 inch printed version) from the top of the map. The general location and layout of the Project is shown on Exhibit 1.

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

No alternatives were considered for the Project.

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

Construction on the project is expected to begin as early as October 1, 2014 and be completed by October 24, 2014.

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

Exhibit 1 depicts the general location of the Project. This exhibit provides a partial copy of the United States Geologic Survey, Jewett, Ohio Quad, Map ID 40081-C1. To locate and view the project site from the Columbus, Ohio area, travel east on Interstate 70 for approximately 89 miles. Take exit 180B for Interstate 77 North toward Cleveland. Merge onto I-77 North and travel for approximately 3.4 miles. Take exit 47 to merge onto US-22 E/Cadiz Road and travel for approximately 38 miles. Take the US-250 E/OH-9 E ramp to Scio/Cadiz, and then turn right onto OH-9 N/US-250 W/Cadiz-Jewett Road and travel for approximately 4 miles. Turn left onto Lower Clearfork Road and travel for approximately 1.4 miles. The Stacy Substation will be on the right.

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

A portion of the Project is located on existing right-of-way and new right-of-way will also be required. A list of property owners where new easements have been or will be acquired is below:

Parcel Number(s)	Property Owner	Easement(s) Obtained
01-0000564001	Samuel A. and Sheri V. Pritchard	No

#### 4906-11-01 (C): TECHNICAL FEATURES OF THE PROJECT

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

The transmission line construction will have the following characteristics:

Voltage:

138 kV

Conductors:

336 kcmil ACSR 18/1 'chickadee'

Static wire:

7 # 10 Alumoweld

Insulators:

Polymer

Structure Types: Exhibi t 3: Wooden 3-Pole Switch Structure

Exhibit 4: Typical Switch Structure

Exhibit 5: Typical Tap Structure

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

The following table itemizes the line loading of Burger - Knox 138 kV Transmission Line Tap to Stacy Substation Project. The normal line loading represents FirstEnergy's peak system load for the transmission lines. emergency line loading represents the maximum line loading under contingency operation. The winter rating is based on the continuous maximum conductor ratings (MCR) of the circuits for the single conductors per phase 336 kcmil 18/1 ACSR conductors and 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	Emergency Loading	Winter Rating
	Loading Amps	Amps	Amps
Burger – Knox 138 kV Transmission Line Tap to Stacy Substation Project		96	745

The following calculations provide an approximation of the magnetic and electric fields strengths of the Burger – Knox 138 kV Transmission Line Tap to Stacy Substation in the right-of-way. 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 transmission lines.

EMF	CALCULATIONS	Electric Field kV/meter	Magnet Field mGauss
Normal	Under Lowest Conductors	15.28	137.3
Loading	At Right-of-Way Edges	0.28/0.30	7.3/12.5
Emergency	Under Lowest Conductors	15.28	149.8
Loading	At Right-of-Way Edges	0.28/0.30	7.9/14.5
Winter Rating	Under Lowest Conductors	15.28	1162.8
	At Right-of-Way Edges	0.28/0.30	61.5/101.0

#### 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 where 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. EMF fields are thought to be too weak to break molecules or chemical bonds in cells. Scientists have conducted extensive research over the past two decades to determine whether EMFs are associated with adverse health effects, and although the research and debate of this issue continues, at this time there is no firm basis to conclude that EMFs cause 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 Institute 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 was 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/health/topics/agents/emf/

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

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

Account		Cost	
350	Land Rights, Engineering, etc.	\$ 16,500	
355	Poles and Fixtures	\$ 85,500	
356	Overhead Conductors & Devices	\$ 44,000	
	Total	 \$ 146,000	
	TOTAL	D LTOLOUV	

#### 4906-11-01 D: SOCIOECONOMIC DATA

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

The Project is located in Archer Township, in Harrison County, Ohio. The various land uses along the route of the line are open field and wooded riparian. Based on the U.S. Bureau of Census estimates, the 2010 population of Archer Township was 311. The 2010 population of Harrison County was 15,864. As the proposed Project involves extending the existing transmission line as a tap, no significant changes or impacts to the current land use is anticipated.

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

Agricultural land use does not exist through Project right-of-way.

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

As part of ATSI's investigation of the project site, a search of Ohio Historic Preservation Office (OHPO) National Register of Historic Places on-line database was conducted and did not identify the existence of any historic sites within the project area. The OHPO database includes all Ohio listings on the National Register of Historic Places, including 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 Archer Township and Harrison County, Ohio.

#### Harrison County

Dale Norris, Chair Harrison County Board of Commissioners 100 W Market Street Cadiz, OH 43907

Don Bethel Harrison County Board of Commissioners 100 W Market Street Cadiz, OH 43907 William Host Harrison County Board of Commissioners 100 W Market Street Cadiz, OH 43907

Robert Sterling Harrison County Engineer 100 W Market Street Cadiz, OH 43907

#### Archer Township

Larry Powell Archer Township Trustee 84624 Cadiz-Jewett Road Cadiz, OH 43907

James Albright Archer Township Trustee 84624 Cadiz-Jewett Road Cadiz, OH 43907 Aaron Dodds Archer Township Trustee 84624 Cadiz-Jewett Road Cadiz, OH 43907

Robert Positan Archer Township Fiscal Officer 84624 Cadiz-Jewett Road Cadiz, OH 43907

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

ATSI'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 of the proposed transmission line project.

#### 4906-11-01 (E): ENVIRONMENTAL DATA

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

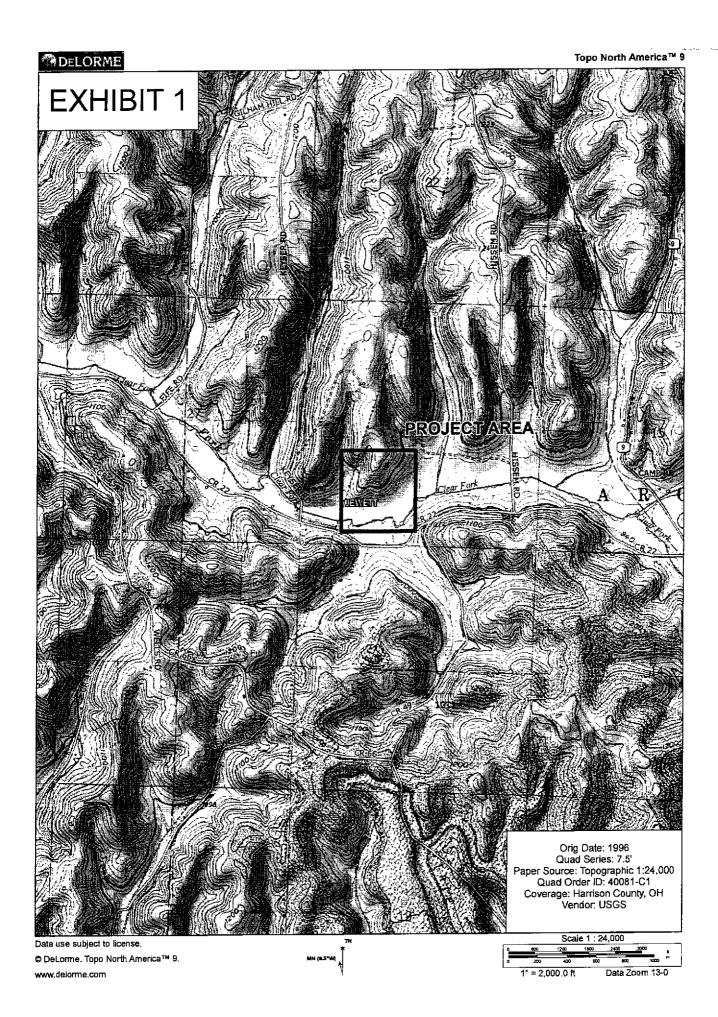
As part of the investigation, a request was submitted to the Ohio Department of Natural Resources-Division of Wildlife (ODNR) on March 4, 2014, to research the presence of any endangered, threatened, or rare species within the project area. The ODNR's March 6, 2014 response, attached as Exhibit No. 6 indicated that they have no records of rare or endangered species within one mile of the identified project area.

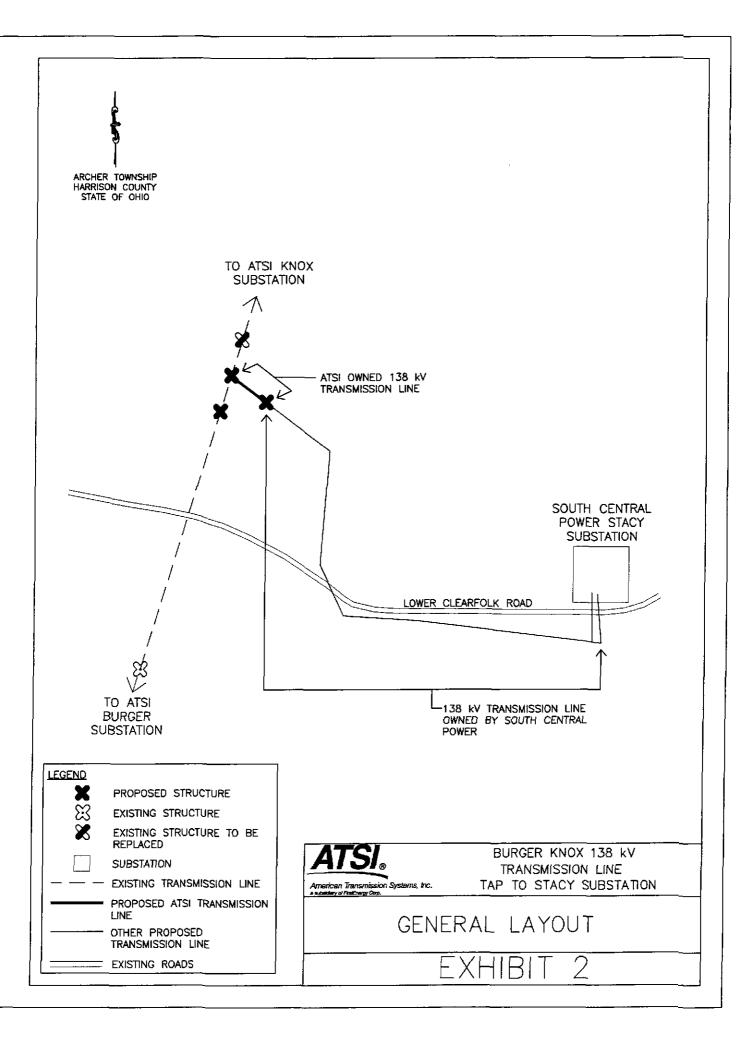
#### 4906-11-01 (E) (2): Areas of Ecological Concern

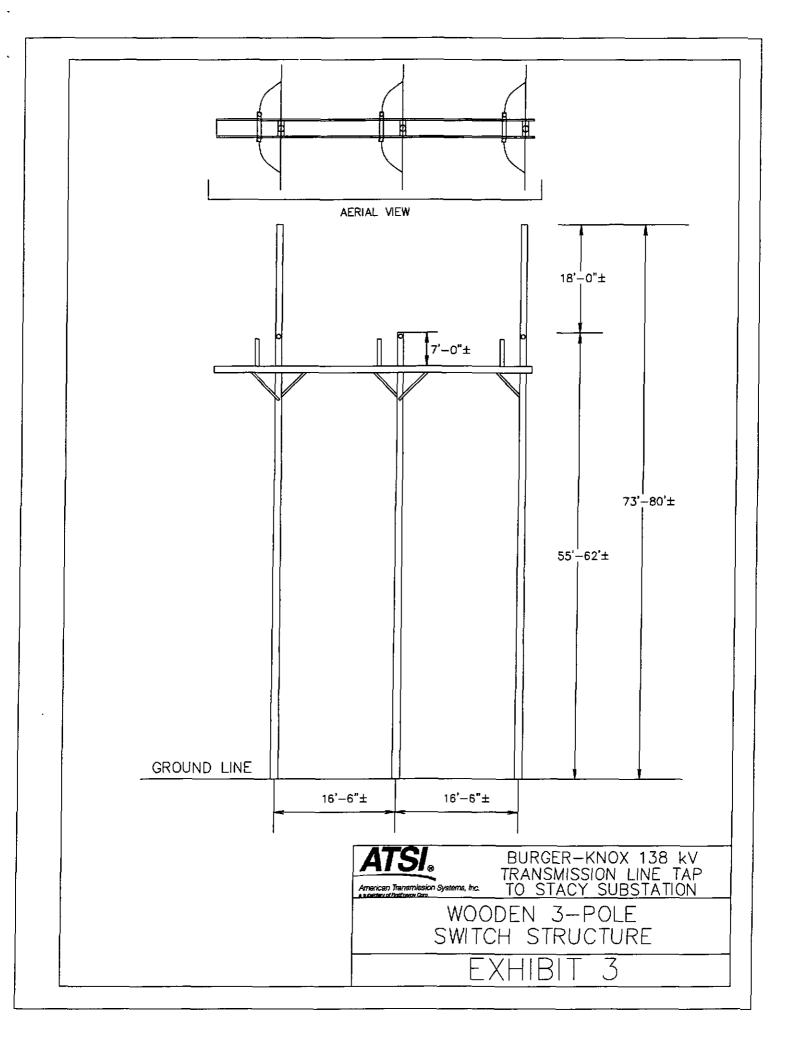
As part of the investigation, a request was submitted to the Ohio Department of Natural Resources-Division of Wildlife (ODNR) on March 4, 2014, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, or other protected natural areas within the project area. The ODNR's March 6, 2014 response, attached as Exhibit No. 6, indicated that they have no records of the aforementioned "areas" within one mile of the identified project area.

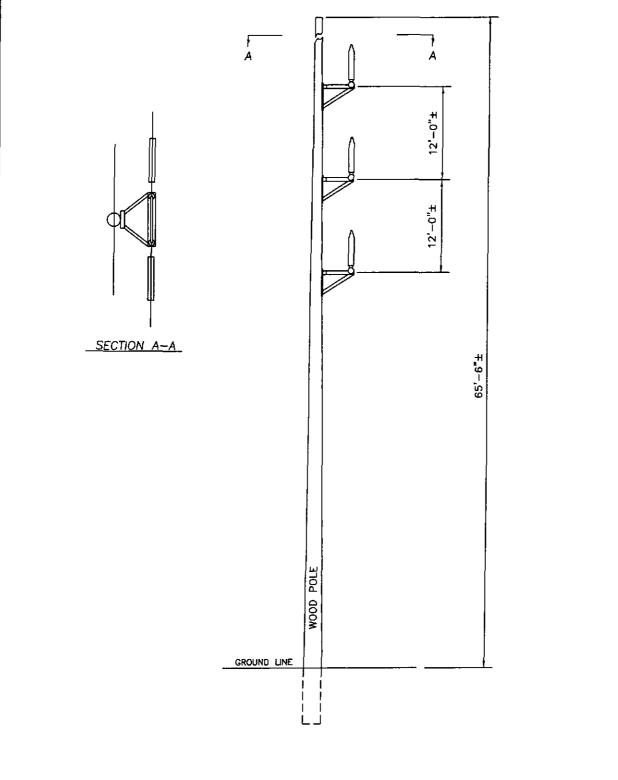
#### 4906-11-01 (E) (3): Additional Information

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







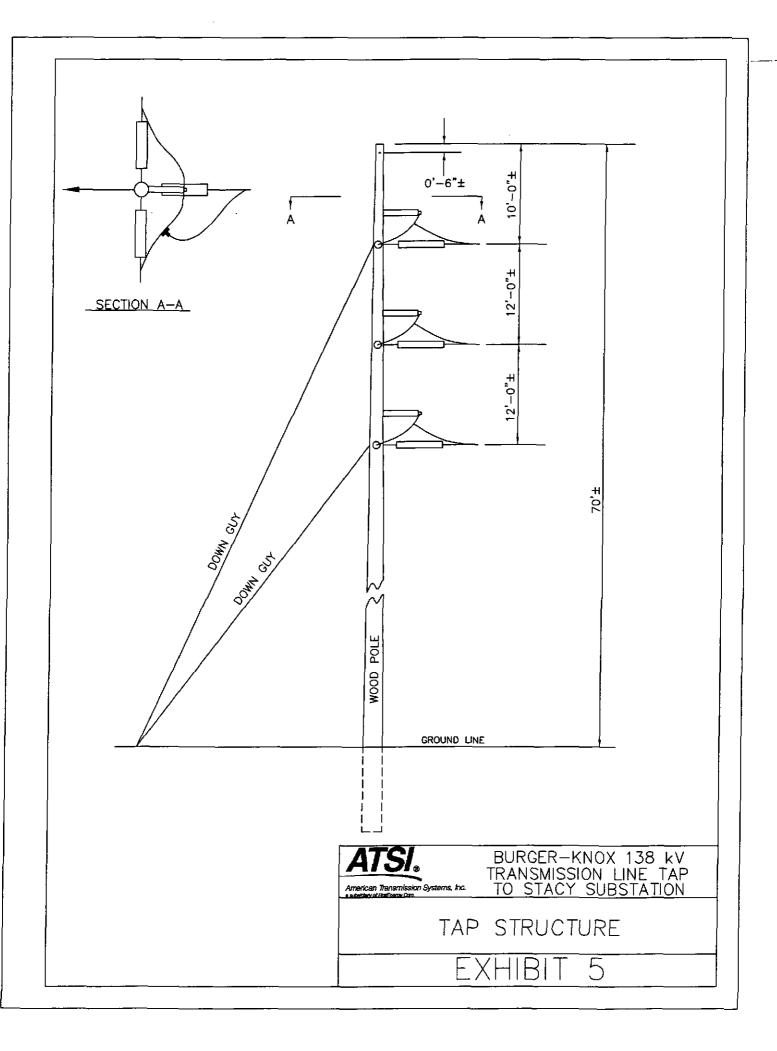


ATSI.

BURGER-KNOX 138 kV TRANSMISSION LINE TAP TO STACY SUBSTATION

TYPICAL SWITCH STRUCTURE

EXHIBIT 4





# Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Ohio Division of Wildlife Scott Zody, Chief 2045 Morse Rd., Bldg. G Columbus, OH 43229-6693

March 6, 2014

Janice Arch FirstEnergy Corporation 76 South Main Street Akron, OH 44308

Dear Ms. Arch

After reviewing the Natural Heritage Database, I find the Division of Wildlife has no records of rare or endangered species in the Burger-Knox 138 kV Transmission Line Tap to New Stacy Substation project area, including a one mile buffer, in Archer Township, Harrison County, Ohio. We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, 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 D atabase Program

Greg Schneiden