FirstEnergy

76 South Main St.
Akron, Ohio 44308

1-800-646-0400

November 17, 2009

Mr. Randy Bournique
Manager, Division of Surface Water
401/Wetlands Section
Ohio Environmental Protection Agency
50 West Town Street, Suite 700
Columbus, OH 43215

Dear Mr. Bournique:

Re: Geauga County 138 kV Transmission Line Supply Project (the "Project")

Transmitted herewith on behalf of American Transmission Systems Inc. (ATSI) and The Cleveland Electric Illuminating Company (CEI) is the application for Ohio EPA Section 401 Water Quality Certification for the Ohio Power Siting Board Approved Route of the Geauga County 138 kV Electric Transmission Line.

On September 28, 2007, ATSI and CEI filed an application for a certificate of environmental compatibility and public need for the construction of the Geauga Transmission Line portion of the Project with the Ohio Power Siting Board ("OPSB"). On January 2, 2008, ATSI and CEI filed Revision I (dated December 2007) of the application for a certificate of environmental compatibility and public need ("OPSB Certificate Application") with the OPSB providing typographical corrections, clarification of wetland and stream data, and modifications to the proposed Preferred Route. In accordance with the OPSB rules, the OPSB Certificate Application described a proposed Preferred Route and an Alternate Route for the Geauga Transmission Line portion of the Project, and provides general data on the Stacy Substation and limited data on the 36 kV circuits portions of the Project. As part of the OPSB review process, adjustment, clarification, and revisions were made to the OPSB Certificate Application. Data on these changes are provided in the "Geauga County 138 kV Electric Transmission Line Project Summary of Clarifications and Revisions to the OPSB Approved Route "("Summary of OPSB Certificate Application Revisions"), which is provided with this application for Ohio EPA Section 401 Water Quality Certification. After an extensive review, evaluation, public hearing, and adjudicatory hearing process, the OPSB issued an Opinion, Order, and Certificate ("OPSB Certificate") for the Geauga County 138 kV Electric Transmission Line on November 24, 2008, including 43 conditions set forth in Section V of the OPSB Certificate. The "OPSB Approved Route" is therefore defined as the Preferred Route described in the OPSB Certificate Application, as approved and modified within the OPSB Certificate. Further, the 43 conditions from the OPSB Certificate are incorporated into this application for Ohio EPA Section 401 Water Quality Certification.

For the convenience of the Ohio EPA staff and to help other readers understand the project alternatives previously considered in the OPSB's review of the Project, data on the OPSB Approved Route is provided where the Section 401 Application instructions call for information

on the "Preferred Design." Where information on the "Minimal Degradation Alternative" is requested, we have provided information for the Alternate Route provided in the OPSB Certificate Application. Where information on a "Non-Degradation Alternative" is requested, we have provided information relating to not constructing the Project since the only alternative that avoids degradation is to abandon the Project entirely. As FirstEnergy indicated in the OPSB review process, and as the OPSB has determined, there is a demonstrated need for the Project, therefore the Non-Degradation Alternative is not viable, as the reliable supply of electricity to CEI's customers in the area of the Project will be adversely impacted. Further, as the OPSB has issued a certificate for the Project, we believe that the provisions of Section 4906.13(B) of the Ohio Revised Code eliminate the consideration of the Minimal Degradation Alternative and the Non-Degradation Alternative to the extent that these alternatives would relate to construction, initial operation, or the location of the Project in the review of the Section 401 Application.

As a part of ATSI's and CEI's development of the Project, an extensive route selection study was conducted to identify and evaluate potential routes for the Geauga Transmission Line. A summary of this study is included in Appendix 03-1 of the OPSB Certificate Application. Potential routes for the Project were identified, analyzed, scored, and ranked to facilitate the selection of a Preferred Route and Alternate Route and subsequent submittal to the OPSB in the OPSB Certificate Application. The objective of the route selection study was to identify routes that minimize the overall impacts to the community and the environment, while taking into account the engineering and construction needs of the Project.

The enclosed application for 401 Water Quality Certification includes the following documents:

1. The November 24, 2008, OPSB issued Opinion, Order, and Certificate for the Geauga County 138 kV Electric Transmission Line. Also included are the 43 conditions set forth in Section V of this Opinion, Order, and Certificate.

2. Revision 1 (dated December 2007) of Volume I and II of the September 2007 "Application to the Ohio Power Siting Board for a Certificate of Environmental Compatibility and Public Need for the Geauga County 138 kV Transmission Line Supply Project."

3. "Geauga County 138 kV Electric Transmission Line Project Summary of Clarifications and Revisions to the OPSB Approved Route," which details the supplemental data and field adjustments incorporated into the OPSB Approved Route during the OPSB review process.

4. The Wetland Delineation and Stream Assessment OPSB Approved Route of the Geauga County 138 kV Electric Transmission Line. This report was submitted to the U.S. Army Corps of Engineers (USACE) September 30, 2009 with a request for Jurisdictional Determination and a review and approval of the wetland delineation for the OPSB Approved Route.

5. The March 18, 2009 U.S. Fish and Wildlife Service (FWS) letter to allow no seasonal restrictions for clearing along the Geauga County project through July 28, 2010.

At the recommendation of FWS, ATSI conducted a mist net survey at five locations along the preferred route to evaluate the habitat suitability for the Indiana bat. The mist net survey was conducted in early August 2008, and no Indiana bats were captured. Upon review of the mist net survey, FWS agreed, in a letter dated March 18, 2009, to allow no seasonal restrictions for clearing during the Project through July 28, 2010. As referenced above, a copy of the March 18, 2009 letter is enclosed.

It is recognized that the Jurisdictional Determination from the USACE is required in order to complete the application for 401 Water Quality Certification. We respectfully request the remaining elements of this application be reviewed for completeness while the Jurisdictional Determination is being made.

As a final note, it is possible that the right-of-way acquisition process for the Project will suggest some alignment shifts of the OPSB Approved Route that could change the crossing locations of wetlands and streams. We do not expect any such alignment shifts to significantly modify or increase ecological impacts of the Project already quantified. If any substantial alignment shifts to the OPSB Approved Route are pursued, it will be necessary to submit an Amendment to the Application to the OPSB for their review and approval. Any substantive revisions to the characterization of the wetland and surface waters affected by this Project will be provided to the Ohio EPA and USACE in parallel with their proposal to the OPSB.

Enclosed with this submittal is a check for the $1790 payable to Treasurer, State of Ohio to cover the required $200 application fee, and one-half of the review fee. The review fee is based upon the conversion of 6.33 acres of palustrine forested wetland to scrub-shrub wetland and the filling of 0.03 acres of palustrine emergent wetland.

Please call me at (330) 384-3878 if you have any questions or concerns.

Sincerely,

William R. Beach, CPG
Advanced Scientist
Environmental Permitting and Compliance

Enclosures
By UPS Ground
ec: TRKrauss, FirstEnergy
SMalone, Ohio EPA - DEFA
JNicholas, URS
JO'Dell, OPSB
MEParke, FirstEnergy
RJSchmidt, Porter, Wright, Morris & Arthur, LLP
DJWeber, FirstEnergy
EWilk, Ohio EPA - DSW

APPLICATION FOR OHIO EPA
SECTION 401 WATER QUALITY CERTIFICATION

Effective October 1, 1996
Revised August, 1998

This application must be completed whenever a proposed activity requires an individual Clean Water Act Section 401 Water Quality Certification (Section 401 certification) from Ohio EPA. A Section 401 certification from the State is required to obtain a federal Clean Water Act Section 404 permit from the U.S. Army Corps Engineers, or any other federal permits or licenses for projects that will result in a discharge of dredged or fill material to any waters of the State. To determine whether you need to submit this application to Ohio EPA, contact the U.S. Army Corps of Engineers District Office with jurisdiction over your project, or other federal agencies reviewing your application for a federal permit to discharge dredged or fill material to waters of the State, or an Ohio EPA Section 401 Coordinator at (614) 644-2001.

The Ohio EPA Section 401 Water Qnality Certification Program is authorized by Section 401 of the Clean Water Act (33 U.S.C. 1251) and the Ohio Revised Code Section 6111.03(P). Ohio Administrative Code (OAC) Chapter 3745-32 outlines the application process and criteria for decision by the Director of Ohio EPA. In order for Ohio EPA to issue a Section 401 certification, the project must comply with Ohio's Water Quality Standards (OAC 3745-1) and not potentially result in an adverse long-term or short-term impact on water quality. Included in the Water Quality Standards is the Antidegradation Rule (OAC Rule 3745-1-05), effective October 1, 1996, revised October, 1997 and May, 1998. The Rule includes additional application requirements and public participation procedures. **Because there is a lowering of water quality associated with every project being reviewed for Section 401 certification, every Section 401 certification applicant must provide the information required in Part 10 (pages 3 and 4) of this application**. In addition, applications for projects that will result in discharges of dredged or fill material to wetlands must include a wetland delineation report approved by the Corps of Engineers, a wetland assessment with a proposed assignment of wetland category (ies), official documentation on evaluation of the wetland for threatened or endangered species, and appropriate avoidance, minimization, and mitigation as prescribed in OAC 3745-1-50 to 3745-1-54. Ohio EPA will evaluate the applicant's proposed wetland category assignment and make the final assignment.

Information provided with the application will be used to evaluate the project for certification and is a matter of public record. If the Director determines that the application lacks information necessary to determine whether the applicant has demonstrated the criteria set forth in OAC Rule 3745-32-05(A) and OAC Chapter 3745-1, Ohio EPA will inform the applicant in writing of the additional information that must be submitted. The application will not be accepted until the application is considered complete by the Section 401 Coordinator. An Ohio EPA Section 401 Coordinator will inform you in writing when your application is determined to be complete.

Please submit the following to "Section 401 Supervisor, Ohio EPA/DSW, P.O. Box 1049, Columbus, Ohio 43216-1049:

- Four (4) sets of the completed application form, including the location of the project (preferably on a USGS quadrangle) and 8-1/2 x 11" scaled plan drawings and sections.
- One (1) set of original scaled plan drawings and cross-sections (or good reproducible copies).

(See Application Primer for detailed instructions)

1. The federal permitting agency has determined this project: (check appropriate box and fill in blanks)

   a.____ requires an individual 404 permit/401 certification- Public Notice # (if known)_____

   b._X_ requires a Section 401 certification to be authorized by Nationwide Permit #_12_____

   c.____ requires a modified 404 permit/401 certification for original Public Notice #_____

   d.____ requires a federal permit under _____ jurisdiction identified by #_____

   e.____ requires a modified federal permit under_____ jurisdiction identified by #_____

Click to clear all entered information (on all 4 pages of this form) CLEAR

2. Application number (to be assigned by Ohio EPA):

3. Name and address of applicant:
Dennis Chack, Regional President
Cleveland Electric Illuminating Company
and American Transmission Systems, Inc.
76 South Main Street, Akron, Ohio 44308

Telephone number during business hours:
( ) (Residence)
(440) 546-8600 (Office)

3a. Signature of Applicant: Date: 11/11/09

4. Name, address and title of authorized agent:
William R. Beach, CPG
Environmental Dept., FirstEnergy Corp.
76 S. Main Street
Akron, Ohio 44308

Telephone number during business hours:
(330) 819-9998 (Residence)
(330) 384-3878 (Office)

4a. Statement of Authorization: I hereby designate and authorize the above-named agent to act in my behalf in the processing of this permit application, and to furnish, upon request, supplemental information in support of the application.

Signature of Applicant: Date: 11/11/09

5. Location on land where activity exists or is proposed. Indicate coordinates of a fixed reference point at the impact site (if known) and the coordinate system and datum used.

Address:

See Supplemental Response to Section 401 Application Question 5

Street, Road, Route, and Coordinates, or other descriptive location

Watershed	County	Township	City	State	Zip Code

6. Is any portion of the activity for which authorization is sought complete? _____ Yes __X__ No
If answer is "yes," give reasons, month and year activity was completed. Indicate the existing work on the drawings.

7. List all approvals or certifications and denials received from other federal, interstate, state or local agencies for any structures, construction, discharge or other activities described in this application.

Issuing Agency	Type of Approval	Identification No.	Date of Application	Date of Approval	Date of Denial
See Attached Supplemental Response	to Section 401 Application Question 7				

8. **DESCRIPTION OF THE ACTIVITY (fill in information in the following four blocks - 8a, 8b, 8c & 9)**

8a. Activity: Describe the Overall Activity:
See Supplemental Response to Section 401 Application Question 8.

8b. Purpose: Describe the purpose, need and intended use of the activity:

See Supplemental Response to Section 401 Application Question 8.

8c. Discharge of dredged or fill material: Describe type, quantity of dredged material (in cubic yards), and quantity of fill material (in cubic yards). **(OAC 3745-1-05(B)(2)(a))**

See Supplemental Response to Section 401 Application Question 8.

9. Waterbody and location of waterbody or upland where activity exists or is proposed, or location in relation to a stream, lake, wetland, wellhead or water intake (if known). Indicate the distance to, and the name of any receiving stream, if appropriate.

The entire project is within the Grand River watershed (04110004), which empties into Lake Erie. Wetlands and streams that are affected by the OPSB Approved Route are described in Wetland Delineation and Stream Assessment OPSB Approved Route of the Geauga County 138 kV Electric Transmission Line, September 2009.

5,090 linear feet of streams within the right-of-way of the OPSB Approved Route will be crossed

0.03 acres of PEM wetland area will be filled within the limits of the Stacy Substation

6.33 acres of palustrine forested wetland (PFO) will be converted to a scrub -shrub wetland (PSS)

10. To address the requirements of the Antidegradation Rule, your application must include a report evaluating the:

- Preferred Design (your project) and Mitigative Techniques
- Minimal Degradation Alternative(s) (scaled-down version(s) of your project) and Mitigative Techniques
- Non-Degradation Alternative(s) (project resulting in avoidance of all waters of the state)

At a minimum, item a) below must be completed for the Preferred Design, the Minimal Degradation Alternative(s), and the Non-Degradation Alternative(s), followed by completion of item b) for each alternative, and so on, until all items have been discussed for each alternative (see Primer for specific instructions). (Application and review requirements appear at **OAC 3745-1-05(B)(2), OAC 3745-1-05(C)(6), OAC 3745-1-05(C)(1) and OAC 3745-1-54).**

10a) Provide a detailed description of any construction work, fill or other structures to occur or to be placed in or near the surface water. Identify all substances to be discharged, including the cubic yardage of dredged or fill material to be discharged to the surface water. **(OAC 3745-1-05(B)(2)(b))**

10b) Describe the magnitude of the proposed lowering of water quality. Include the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species (include written comments from Ohio Department of Natural Resources and U.S. Fish and Wildlife Service), important commercial or recreational sport fish species, other individual species, and the overall aquatic community structure and function. Include a Corps of Engineers approved wetland delineation. **(OAC 3745-1-05(C)(6)(a, b) and OAC 3745-1-54)**

10c) Include a discussion of the technical feasibility, cost effectiveness, and availability. In addition, the reliability of each alternative shall be addressed (including potential recurring operational and maintenance difficulties that could lead to increased surface water degradation.) **(OAC 3745-1-05(C)(6)(h, j-k) and OAC 3745-1-54)**

10d) For regional sewage collection and treatment facilities, include a discussion of the technical feasibility, cost effectiveness and availability, and long-range plans outlined in state or local water quality management planning documents and applicable facility planning documents. **(OAC 3745-1-05(C)(6)(i))**

10e) To the extent that information is available, list and describe any government and/or privately sponsored conservation projects that exist or may have been formed to specifically target improvement of water quality or enhancement of recreational opportunities on the affected water resource. **(OAC 3745-1-05(B)(2)(g))**

10f) Provide an outline of the costs of water pollution controls associated with the proposed activity. This may include the cost of best management practices to be used during construction and operation of the project. **(OAC 3745-01-05(C)(6)(g))**

10g) Describe any impacts on human health and the overall quality and value of the water resource. **(OAC 3745-1-05(C)(6)(c) and OAC 3745-1-54)**

10h) Describe and provide an estimate of the important social and economic benefits to be realized through this project. Include the number and types of johs created and tax revenues generated and a brief discussion on the condition of the local economy. **(OAC 3745-1-5(B)(2)(e), and OAC 3745-1-05(C)(6)(i))**

10i) Describe and provide an estimate of the important social and economic benefits that may be lost as a result of this project. Include the effect on commercial and recreational use of the water resource, including effects of lower water quality on recreation, tourism, aesthetics, or other use and enjoyment by humans. **(OAC 3745-1-05(B)(2)(e,f), and OAC 3745-1-05(C)(6)(e))**

10j) Describe environmental benefits, including water quality, lost and gained as a result of this project. Include the effects on the aquatic life, wildlife, threatened or endangered species. **(OAC 3745-1-05 (B)(2)(e,f), OAC 3745-1-05 (C)(6)(b) and OAC 3745-1-54)**

10k) Describe mitigation techniques proposed (except for the Non-Degradation Alternative):

- Describe proposed Wetland Mitigation (see **OAC 3745-1-54** and Primer)
- Describe proposed Stream, Lake, Pond Mitigation (see Primer)

11. Application is hereby made for a Section 401 Water Quality Certification. I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true, complete and accurate., I further certify that I possess the authority to undertake the proposed activities or I am acting as the duly authorized agent of the applicant.

Signature of Applicant	11/11/09 Date	Wm R Beard Signature of Agent

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in Block 3 has been filled out and signed.

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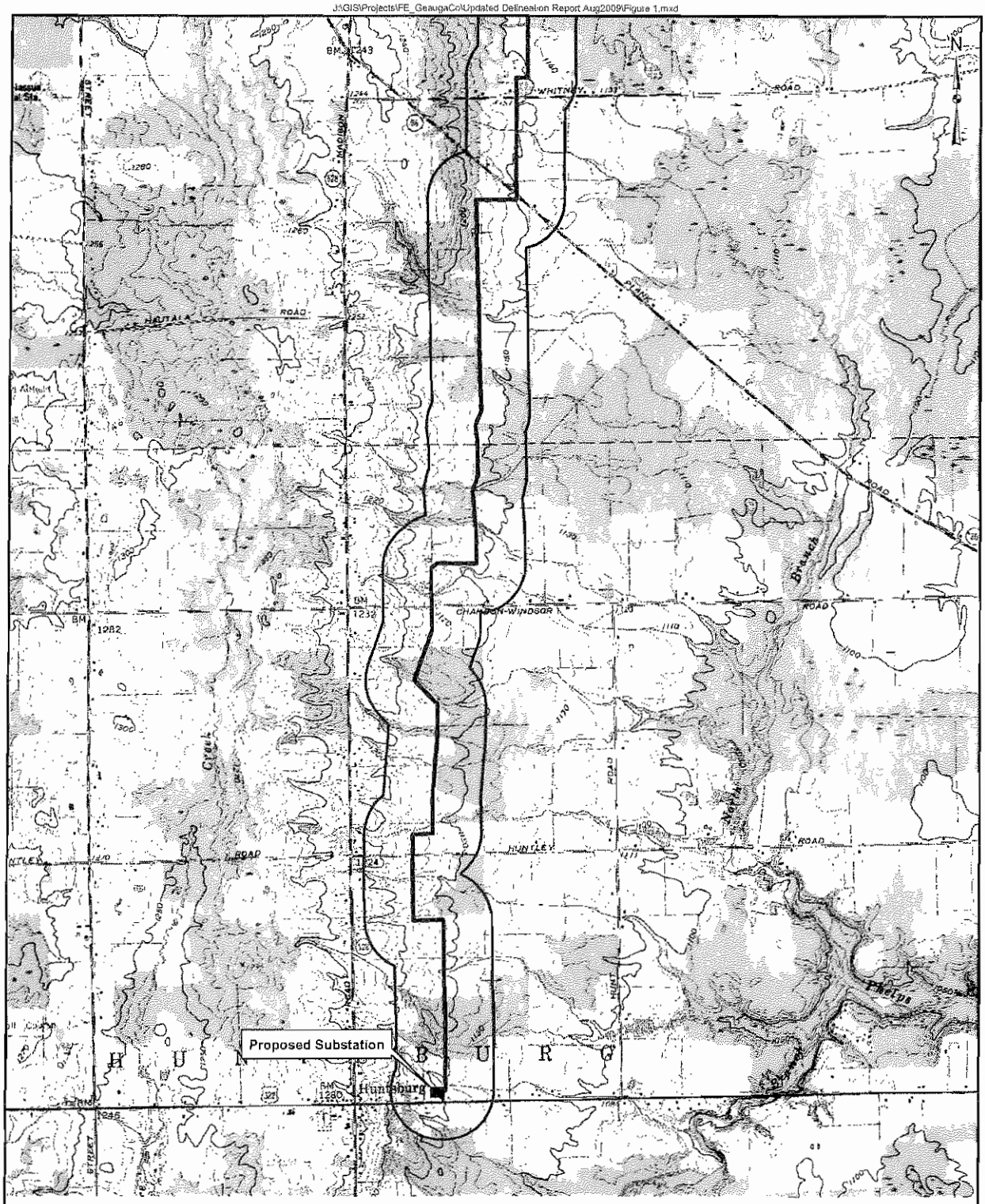


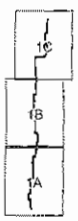
LEGEND:

- OPSB Approved Route
- 2000 ft. Corridor
- Proposed Substation
- Existing Transmission Line

0 2,000 4,000

Scale in Feet

Figure Key



BASE MAP SOURCE:
USGS 7.5-minute Topographic Maps
Thompson, Ohio (1971);
and East Claridon, Ohio (1970)

ATSI, American Transmission Systems, Inc. | The Illuminating Company, a FirstEnergy Company

Geauga County 138 kV Electric Transmission Line

FIGURE 1A
OBSB APPROVED ROUTE VICINITY MAP
REVISION 1

JOB NO. 14947866

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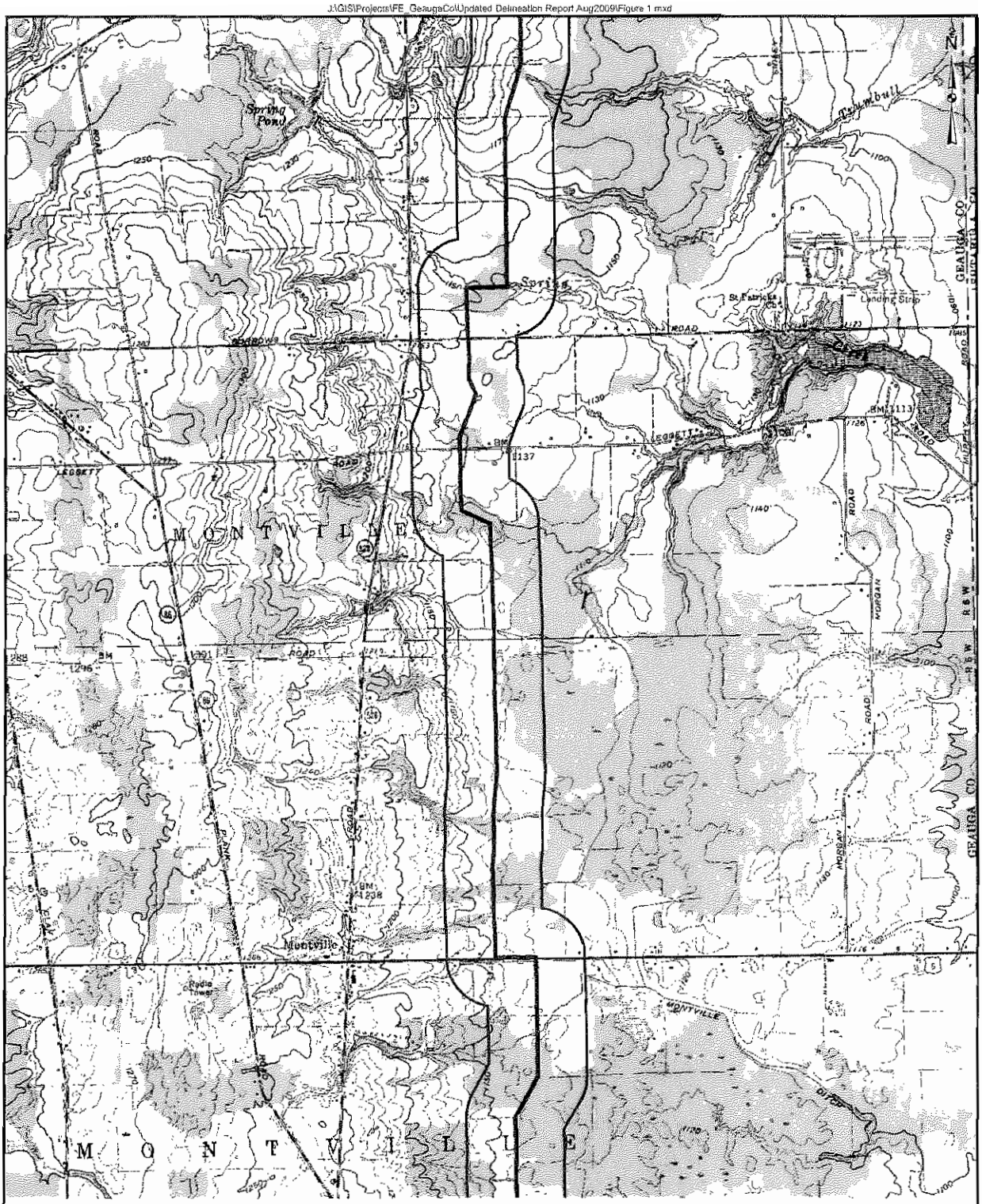

LEGEND:

- OPSB Approved Route
- 2000 ft. Corridor
- Proposed Substation
- Existing Transmission Line

0 2,000 4,000

Scale in Feet

Figure Key

BASE MAP SOURCE:
USGS 7.5-minute Topographic Maps
Thompson, Ohio (1971);
and East Claridon, Ohio (1970)

ATSI | The Illuminating Company | Geauga County 138 kV Electric Transmission Line

FIGURE 1B
OBSB APPROVED ROUTE VICINITY MAP
REVISION 1

JOB NO. 14947866

URS

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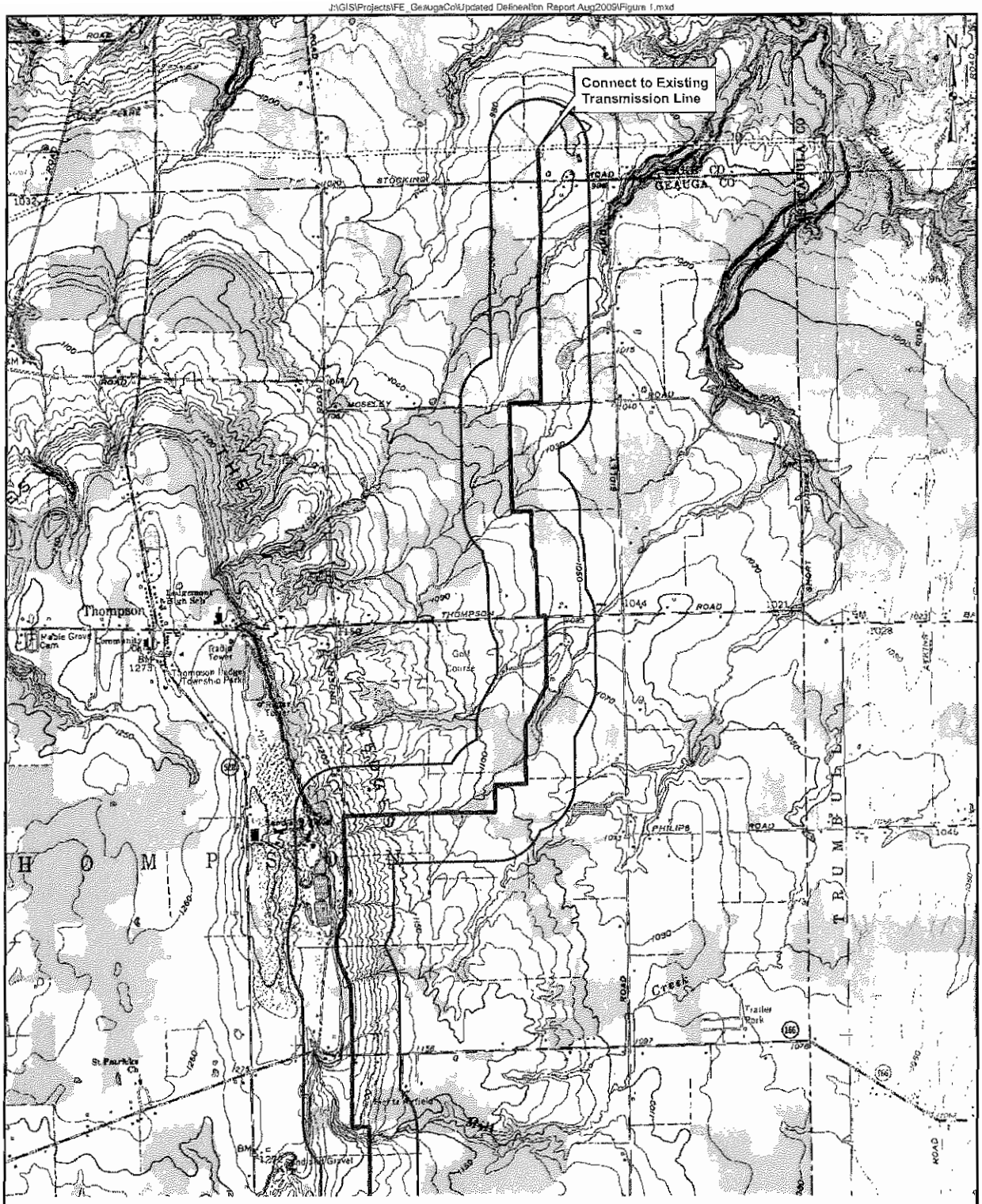


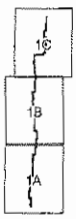
LEGEND:

- OPSB Approved Route
- 2000 ft. Corridor
- Proposed Substation
- Existing Transmission Line

0 2,000 4,000

Scale in Feet

Figure Key



BASE MAP SOURCE:
USGS 7.5-minute Topographic Maps
Thompson, Ohio (1971);
and East Claridon, Ohio (1970)

ATSI. The Illuminating Company

Geauga County 138 kV Electric Transmission Line

FIGURE 1C
OBSB APPROVED ROUTE VICINITY MAP
REVISION 1

JOB NO. 14947866

URS

SUPPLEMENTAL RESPONSE TO SECTION 401 APPLICATION QUESTION 5
GEAUGA COUNTY 138 kV TRANSMISSION LINE SUPPLY PROJECT

Section 401 Application Question 5:

5. Location on land where activity exists or is proposed. Indicate coordinates of a fixed reference point at the impact site (if known) and the coordinate system and datum used.

Background:

On September 28, 2007, American Transmission Systems, Incorporated ("ATSI") and the Cleveland Electric Illuminating Company ("CEI"), the "Applicants" and subsidiaries of FirstEnergy Corp., filed an *Application to the Ohio Power Siting Board For a Certificate of Environmental Compatibility and Public Need for the Geauga County 138 kV Electric Transmission Line Supply Project* with the Ohio Power Siting Board ("OPSB"). Revision 1 of this Application ("OPSB Application"), which incorporated typographical corrections, clarification of wetland data, clarification of stream data and a revision to the Proposed Preferred Route in the area approximately 1,000 to 3,000 feet south of Thompson Road, was docketed with the OPSB on January 2, 2008. In the OPSB Application and as supplemented during the OPSB review process, the Applicants proposed construction of a looped extension of an existing 138 kV electric transmission line to supply a new 138 to 36 kV distribution substation ("Stacy Substation") located along Mayfield Road (US 322) in the Huntsburg Township area of Geauga County. The Stacy Substation would connect to existing nearby 36 kV circuitry located along Mayfield Road via the installation of new 36 kV circuits ("36 kV Circuits"). The existing transmission line proposed to be extended in the Project is ATSI's Ashtabula-Mayfield 138 kV Q3 Transmission Line (circuit designation Q-3-AT-MF), which is one of four existing 138 kV transmission lines in an existing transmission line corridor located near the border of Geauga and Lake counties. The new looped extension of the transmission line was proposed to be constructed as a double circuit 138 kV transmission line primarily supported on single wood pole tangent structures.

In accordance with the OPSB rules, the OPSB Application described a proposed Preferred Route and an Alternate Route. The OPSB issued an Opinion, Order and Certificate for the Geauga County 138 kV Electric Transmission Line on November 24, 2008, including 43 conditions set forth in Section V of the OPSB Certificate. The "OPSB Approved Route" is therefore defined as the Preferred Route described in OPSB Certificate Application as approved and modified within the OPSB Certificate. The OPSB Approved Route for the Geauga Transmission Line and the associated location of the Stacy Substation and the 36 kV Circuits is described here as the Project location.

Project Location:

The Geauga Transmission Line portion of the Project location follows the OPSB Approved Route and is described throughout the OPSB Certification Application and

associated review process as the Preferred Route. Along the OPSB Approved Route, the Geauga Transmission Line largely follows a cross country alignment, and is approximately 14.7 miles long. The Stacy Substation and the 36 kV Circuits are located at the southern terminus of the OPSB Approved Route, which is located on the north side of Mayfield Road (US 322) approximately 1,530 feet east of Madison Road in Huntsburg Township (Zip Code 44046) in Geauga County (approximately 041° 32' 08.24" N and 081° 02' 44.96" W). From there the Geauga Transmission Line follows the OPSB Approved Route running north, generally paralleling Madison Road (State Route 528) to the east, through Thompson, Montville, and Huntsburg townships in Geauga County. The line then ties into the northern terminus located in Madison Township (Zip Code 44057) of Lake County, just north of Stocking Road. The approximate latitude-longitude coordinates of the northern terminus are: (041° 42' 59.16" N and 081° 01' 12.35" W) (WGS 1984 datum). The Project location is shown on the attached Figures listed below and attached to this document. The original versions of these Figures were provided in the OPSB Certification Application. A number of the Figures were revised as a part of the OPSB review and approval process. The current versions of these Figuresand a complete list of the figures is identified below. The attached *Geauga County 138 kV Electric Transmission Line Project Summary of Clarifications and Revisions to the OPSB Approved Route* describes the clarifications and revisions to the route approved by the OPSB and includes copies of revised figures provided during the OPSB review process.

Figure 04-1A, Rev. 1:	Land Use and Constraint Map Route Alternatives
Figure 04-1B, Rev. 1:	Land Use and Constraint Map Route Alternatives
Figure 04-1C, Rev. 3:	Land Use and Constraint Map Route Alternatives
Figure 04-1D, Rev. 1:	Land Use and Constraint Map Route Alternatives
Figure 07-2A:	Preferred Route Wetland and Stream Maps
Figure 07-2B:	Preferred Route Wetland and Stream Maps
Figure 07-2C:	Preferred Route Wetland and Stream Maps
Figure 07-2D:	Preferred Route Wetland and Stream Maps
Figure 07-2A:	Preferred Route Wetland and Stream Maps
Figure 07-2E:	Preferred Route Wetland and Stream Maps
Figure 07-2F, Rev. 1:	Preferred Route Wetland and Stream Maps
Figure 07-2G, Rev. 1:	Preferred Route Wetland and Stream Maps
Figure 07-2H:	Preferred Route Wetland and Stream Maps
Figure 07-2I:	Preferred Route Wetland and Stream Maps
Figure 07-2J:	Preferred Route Wetland and Stream Maps
Figure 07-2K:	Preferred Route Wetland and Stream Maps
Figure 07-2L, Rev. 1:	Preferred Route Wetland and Stream Maps
Figure 07-2M:	Preferred Route Wetland and Stream Maps
Figure 07-2N, Rev. 1:	Preferred Route Wetland and Stream Maps
Figure 07-2O:	Preferred Route Wetland and Stream Maps
Figure 07-2P;	Preferred Route Wetland and Stream Maps
Figure 07-2Q:	Preferred Route Wetland and Stream Maps
Figure 07-2R,	Preferred Route Wetland and Stream Maps
Figure 07-2S,	Preferred Route Wetland and Stream Maps
Figure 07-2T,	Preferred Route Wetland and Stream Maps

Figure 07-2U, Rev. 1:	Preferred Route Wetland and Stream Maps
Figure 07-2V, Rev. 1:	Preferred Route Wetland and Stream Maps
Figure 07-2W, Rev. 1:	Preferred Route Wetland and Stream Maps
Figure 07-2X:	Preferred Route Wetland and Stream Maps
Figure 07-2Y:	Preferred Route Wetland and Stream Maps
Figure 07-2Z,	Preferred Route Wetland and Stream Maps
Figure 07-2AA,	Preferred Route Wetland and Stream Maps

Minimal Degradation Alternative Location

An Alternate Route for the Geauga Transmission Line portion of the Project was proposed and described in the OPSB Certificate Application and is provided here, along with the associated location of the Stacy Substation and 36 kV Circuits, as the Minimal Degradation Alternative. The Minimal Degradation Alternative largely parallels Clay Street through Thompson, Montville and Huntsburg townships of Geauga County. The total length of the Alternate Route is approximately 12.05 miles. The southern terminus is at a site for the Stacy Substation located on the southwest corner of Clay Street and Mayfield Road (US 322) in Huntsburg Township (Zip Code 44046) in Geauga County (approximately at 041° 32' 03.16" N and 081° 04' 21.57" W). The northern terminus is located in Thompson Township (Zip Code 44086) of Geauga County, northwest of the intersection of Clay Street and Moseley Road. The approximate latitude-longitude coordinates of the northern terminus are: (041° 42' 23.12" N and 081° 05' 00.65" W) (WGS 1984 datum). The Minimal Degradation Alternative location is shown on the attached Figures listed below. Figures 04-1A, 04-1B and 04-1C series are included in the *Geauga County 138 kV Electric Transmission Line Project Summary of Clarifications and Revisions to the OPSB Approved Route*, and the Figure 07-3 series are provided in Revision 1 of the OPSB Application.

Figure 04-1A, Rev. 1:	Land Use and Constraint Map Route Alternatives
Figure 04-1B, Rev. 1:	Land Use and Constraint Map Route Alternatives
Figure 04-1C, Rev. 3:	Land Use and Constraint Map Route Alternatives
Figure 04-1D, Rev. 1:	Land Use and Constraint Map Route Alternatives
Figure 07-3A:	Alternate Route Wetland and Stream Maps
Figure 07-3B:	Alternate Route Wetland and Stream Maps
Figure 07-3C:	Alternate Route Wetland and Stream Maps
Figure 07-3D:	Alternate Route Wetland and Stream Maps
Figure 07-3E:	Alternate Route Wetland and Stream Maps
Figure 07-3F:	Alternate Route Wetland and Stream Maps
Figure 07-3G:	Alternate Route Wetland and Stream Maps
Figure 07-3H:	Alternate Route Wetland and Stream Maps
Figure 07-3I:	Alternate Route Wetland and Stream Maps
Figure 07-3J:	Alternate Route Wetland and Stream Maps
Figure 07-3K:	Alternate Route Wetland and Stream Maps
Figure 07-3L:	Alternate Route Wetland and Stream Maps
Figure 07-3M:	Alternate Route Wetland and Stream Maps
Figure 07-3N:	Alternate Route Wetland and Stream Maps
Figure 07-3O:	Alternate Route Wetland and Stream Maps

Figure 07-3P:	Alternate Route Wetland and Stream Maps
Figure 07-3Q:	Alternate Route Wetland and Stream Maps
Figure 07-3R:	Alternate Route Wetland and Stream Maps
Figure 07-3S:	Alternate Route Wetland and Stream Maps
Figure 07-3T:	Alternate Route Wetland and Stream Maps
Figure 07-3U:	Alternate Route Wetland and Stream Maps
Figure 07-3V:	Alternate Route Wetland and Stream Maps
Figure 07-3W:	Alternate Route Wetland and Stream Maps

Watersheds

All waterbodies along the Project Location are in the Grand River watershed (04110004), which empties into Lake Erie. Waterbodies in the southern portion of the Minimal Degradation Alternate Location are in the Cuyahoga River watershed (04110002) and waterbodies in the northern portion of the Minimal Degradation Alternative Location are in the Grand River watershed (04110004), both of which empty into Lake Erie.

GEAUGA COUNTY 138 kV TRANMISSION LINE SUPPLY PROJECT
RESPONSE TO SECTION 401 APPLICATION QUESTION 7

QUESTION 7:

"List all approvals or certifications and denials received from other federal, interstate, state or local agencies for any structures, construction, discharge or other activities described in this application"

Permits, Approvals/Denials, Certifications Pending or Received:

ATSI and CEI submitted an application for a Certificate of Environmental Compatibility and Public Need for construction of the Geauga County 138 kV Transmission Line Supply Project to the Ohio Power Siting Board (OPSB) on September 28, 2007. The OPSB issued an Opinion, Order and Certificate for the project on November 24, 2008 in OPSB Case Number 07-0171-EL-BTX. This order provides: "ORDERED, That a certificate be issued to ATSI and CEI for the construction, operation, and maintenance of the Project as proposed along the Preferred Route. It is, further, ORDERED, That the certificate contain the 43 conditions set forth in Section V of this Opinion, Order and Certificate...."

A Jurisdictional Determination and Wetland Delineation Approval was requested from the U.S. Army Corps of Engineers Buffalo District Office on September 30, 2009.

A National Pollutant Discharge Elimination System Construction General Permit will be obtained prior to construction through Ohio EPA.

A mist net survey was conducted to evaluate the habitat suitability for the Indiana Bat at the request of U.S. Fish & Wildlife (FWS). The mist net survey was conducted in early August 2008, and no Indiana bats were captured. Upon review of the mist net survey, in a letter dated March 18, 2009 the FWS response included: "The Service agrees that, due to the results of the mist net survey, it is unlikely that Indiana bats occur on the property. While removal of trees is allowed anytime during the 2 year period ending on July 28 2010, as permitted by the negative Indiana bat survey, we recommend that onsite tree clearing occur between September 30 and April 1 to protect the diversity of non-listed bats and nesting migratory birds that use the property."

The following Plans will be provided to the OPSB Staff for Review and Approval in accordance with the OPSB's November 24, 2008 Opinion, Order and Certificate for the project:

1.) **Right-of-Way Off Road Vehicle Use Minimization Plan**
Addresses Condition(s): 40
Develop & submit to OPSB Staff
Approval must occur: Prior to start of construction.

2.) **Public Information Program**
Addresses Condition(s): 33
Develop & submit to OPSB Staff
Approval must occur: 45 days prior to start of construction

3.) **Phase I Cultural Resources Survey**
Addresses Condition(s): 32
Develop & submit to State Historic Preservation Office (SHPO)
And subsequently submit to OPSB Staff
Approval must occur: Prior to start of construction.

4.) **Vegetative Clearing Plan**
Applicable Subsections include: Planned Herbicide Use; Tree Snag Retention; Coordination with Threatened and Endangered Species Review and Protection Plan; Tree Clearing Plan; Riparian Area Clearing; No-Clear Cut Signage Plan
Addresses Condition(s): 12, 15, 17, 18, 28, 29, 30
Related Condition(s): 13(a), 13(b), 14, 16
Develop & submit to OPSB Staff
Approval must occur: Prior to start of construction.

5.) **Threatened and Endangered Species Review and Protection Plan**
Applicable Subsections include: Indiana Bat; Yellow-Bellied Sapsucker; Bald Eagles; Endangered Species Locations - Flagging, Access Limitations and Herbicide Use; Contingency Plans if Threatened and Endangered Presence is Confirmed During Construction
Addresses Condition(s): 13(a), 13(b), 14, 15, 16, 18
Related Condition(s): 5
Develop & submit to OPSB Staff
Approval must occur: Prior to start of construction.

6.) **Construction Access and Stream - Wetland Crossing and Restoration Plan**
Applicable Subsections include: Construction Access Plan, Stream Crossing Plans and Details, Stream Crossing Restoration, Wetland Crossings Plans and Details, Wetland Crossing Details
Addresses Condition(s): 35
Related Condition(s): 5, 6, 7, 8, 9, 10
Develop & submit to OPSB Staff
Approval must occur: Prior to start of construction.

7.) **Wetland-Stream Enhancement/Preservation Plan**
Addresses Condition(s): 41(a), 41(b), 41(c)
Related Condition(s): 10
Finalize after Ohio EPA 401 Certification Issued
Develop & submit to OPSB Staff
Approval must occur: Prior to start of construction.

8.) Residential Landscape Planting
Addresses Condition(s): 36
Develop & submit to OPSB Staff
Approval must occur: Prior to start of construction.

9.) NPDES Permit and Construction Stormwater Erosion Control Plan
Addresses Condition(s): 4(a), 4(b), 4(c), 4(d), 23
Related Condition(s): 6, 7, 8, 9, 10, 11
Develop & submit to OEPA, and subsequently submit permit to OPSB Staff
Approval must occur: Prior to start of construction.

10.) Engineering Drawing Submittal
Addresses Condition(s): 26
Related Condition(s): 10, 30
Develop & submit to OPSB Staff by preconstruction meeting
Approval must occur: Prior to start of construction.

11.) Preconstruction Conference Schedule
Addresses Condition(s): 24, 25, 26
Related Condition(s): 10, 35
Approval must occur: Prior to start of construction in any given area

12.) Future Right-of-Way Maintenance Plan
Addresses Condition(s): 30
Develop & submit to OPSB Staff
Approval must occur: Prior to start of construction.

SUPPLEMENTAL RESPONSE TO SECTION 401 APPLICATION QUESTION 8
GEAUGA COUNTY 138 kV TRANSMISSION LINE SUPPLY PROJECT

8a. Activity: Describe the Overall Activity:

The overall scope of the Geauga County 138 kV Electric Transmission Line Project ("Project") includes installing a 138 kV overhead electric transmission line ("Geauga Transmission Line"), the Stacy 138 to 36 kV Substation ("Stacy Substation"), and extending 36 kV circuitry ("36 kV Circuits") from the Stacy Substation to nearby existing 36 kV circuits located along Mayfield Road. The Project is described throughout Revision 1 of Volume I of the September 2007 *Application to the Ohio Power Siting Board For a Certificate of Environmental Compatibility and Public Need for the Geauga County 138 kV Transmission Line Supply Project,* and in particular in Section 4906-15-01: Project Summary and Facility Overview, and Section 4906-15-04: Technical Data. Additionally, many details of the overall activity are summarized in the November 24, 2008 OPSB Opinion, Order and Certificate for the Geauga County 138 kV Electric Transmission Line.

8b. Purpose: Describe the purpose, need and intended use of the activity:

The purpose, need and intended use of the Geauga Transmission Line has been previously considered and established by the OPSB. Specifically item 21 of the Findings of Fact and Conclusions of Law of the November 24, 2008 OPSB Opinion, Order and Certificate for the Geauga County 138 kV Electric Transmission Line provides "(21) The record establishes the need for the Project as required by Section 4906.10(A)(1), Revised Code."

In addition to the OPSB Order and OPSB record, the purpose, need and intended use of the Geauga County 138 kV Electric Transmission Line Project ("Project") is also described in Revision 1 of Volume I of the September 2007 *Application to the Ohio Power Siting Board For a Certificate of Environmental Compatibility and Public Need for the Geauga County 138 kV Transmission Line Supply Project* and in particular Section 4906-15-01: Project Summary and Facility Overview, and Section 4906-15-02: Review of Need for Proposed Project. The purpose, need and intended use of the activity is summarized on page 02-1 of the application as: "Areas in Geauga and Ashtabula Counties have been experiencing higher than average electric load growth. One result, which is demonstrated by the load flow studies described in this section, is that CEI's existing electric distribution system in this area is stretched to its limit. The proposed Geauga County 138 kV Transmission Line Supply Project will address this problem by extending an existing transmission line circuit to the proposed Stacy Substation and interconnecting this new circuit to CEI's existing electric distribution system. Thus, construction of the Project will provide a new robust electric supply into this portion of CEI's existing electric distribution system, and thereby will correct inadequate distribution capacity and voltage regulation."

8c. Discharge of dredged or fill material: Describe type, quantity of dredged material (in cubic yards), and quantity of fill material (in cubic yards). (OAC 3745-1-05(B)(2)(a))

Stacy Substation:
The Applicants, ATSI and CEI, are proposing to fill only one wetland as a part of the Project, identified as wetland Pr-w001, a 0.03 acre Palustrine Emergent (PEM) wetland at the location of the Stacy Substation. Part of the substation construction activities will include establishing a rough grade by largely utilizing a cut and fill operation with primarily on site materials. Except for some foundations, the substation facilities, including an aggregate surface, will be installed above the rough grade. As the low point of the wetland is at the approximate elevation of the rough grade, the construction activities could also be described as removing the wetland and replacing it with clean fill materials that will support the substation facilities.

36 kV Circuits:
The 36 kV Circuits extend only a short distance from the Stacy Substation to the existing 36 kV circuits supported on wood poles located on the north and south side of Mayfield Road. No wetlands exist along the route of the 36 kV Circuits, and therefore no wetlands along the route of the 36 kV circuits are proposed to be filled.

Geauga Transmission Line:
No wetlands along the 14.7 mile OPSB Approved Route of the Geauga Transmission are proposed to be filled.

A maximum of five (5) and more likely three (3) wood poles are expected to be placed in wetlands along the OPSB Approved Route. It is also anticipated that four additional poles will require installation of guying and anchors that will be placed in wetlands. It is the Applicant's understanding that the US Army Corps of Engineers typically does not consider the placement of poles or guying anchors in wetlands as fill materials. Further, the footprint of the wooden poles and guying anchors represent a de minimus area (the anchors are screwed into the ground below the wetland with only a steel rod extending through the wetland, and an approximately 7 square feet area would be augured for installation of 30-inch diameter pole.) Excess soils generated during placement of these features will be removed from wetland areas.

Woody vegetation within the wetlands along the 14.7 mile OPSB Approved Route that are not compatible with the construction, operation or maintenance of the transmission line will be removed utilizing non-mechanized clearing techniques. As part of the construction of the Geauga Transmission Line, it is expected that it will be necessary to cross through some of the wetlands. To the extent feasible, access to construct the transmission line will be from existing paved roads, and existing unpaved roads, farm lanes and other existing access routes on private property. The specific nature of these crossings is dependent on the obtained right-of-way and access rights for the project. Condition 35 of the OPSB Order provides the following requirements for this construction access:

(35) That at least 30 days prior to the first preconstruction conference, the Applicants shall submit a detailed construction and restoration plan for all stream and wetland crossings for Staff's review and approval. The plan shall include sufficiently detailed information to address the following:

(a) Construction methods to be used at each location, including site-specific access and equipment crossing proposals. Construction methods and equipment movement during both dry and wet conditions should be included.

(b) Storm water erosion control practices to be used during construction work in and around each crossing location.

(c) Any and all stream stabilization and wetland, stream, and riparian area restoration practices to be used.

(d) Applicants shall use all necessary means to ensure that, to the extent practicable, no trees, limbs, branches, or other clearing residue is placed or disposed of in any stream, wetland, or other water body, except in accordance with the approved tree clearing plan.

(e) Applicants shall use all practicable means to ensure that no fill, topsoil, stone, or other construction-related material is placed or disposed of in any stream, wetland, or other water body, except for the short-term placement of stone, culvert pipe, timber mats, or other temporary stream crossing materials, as pre-approved by Staff.

(f) To the extent practicable, crossings of ephemeral streams should occur during no flow periods.

The required detailed construction and restoration plan may be subdivided for partial sections of the Project, and will be submitted to the OPSB staff for their review and approval prior to starting construction in each section of the Project. It is envisioned that once the clearing activities have been completed, that construction matting will be utilized for all necessary wetland crossings by equipment used to construct the transmission line. This plan will be finalized and submitted to the OPSB staff as soon as practical after the right-of-way and access rights for the Project are obtained in each section of the Project.

GEAUGA COUNTY 138 kV TRANSMISSION LINE SUPPLY PROJECT
RESPONSE TO SECTION 401 APPLICATION QUESTION 10

This document describes the components of the report provided in response to the evaluation requirements of Question 10 of the Section 401 Application for Geauga County 138 kV Electric Transmission Line Project ("Project"). A portion of the report data is provided below, while much of the report data described below is provided in the documents submitted with the Section 401 Application.

On September 28, 2007, ATS1 and CEI filed an application for a certificate of environmental compatibility and public need for the construction of the Geauga Transmission Line portion of the Project with the Ohio Power Siting Board ("OPSB"). On January 2, 2008, ATSI and CEI filed Revision I (dated December 2007) of the application for a certificate of environmental compatibility and public need ("OPSB Certificate Application") with the OPSB providing typographical corrections, clarification of wetland and stream data and modifications to the proposed Preferred Route. In accordance with the OPSB rules, the OPSB Certificate Application described a proposed Preferred Route and an Alternate Route for the Geauga Transmission Line portion of the Project, and provides general data on the Stacy Substation and limited data on the 36 kV Circuits portions of the Project. As part of the OPSB review process, adjustment, clarification and revisions were made to the OPSB Certificate Application. Data on these changes are provided in the *Geauga County 138 kV Electric Transmission Line Project Summary of Clarifications and Revisions to the OPSB Approved Route* ("Summary of OPSB Certificate Application Revisions"), which is provided with this Application for Ohio EPA Section 401 Water Quality Certification. After an extensive review, evaluation, public hearing, and adjudicatory hearing process, the OPSB issued an Opinion, Order and Certificate ("OPSB Certificate") for the Geauga County 138 kV Electric Transmission Line on November 24, 2008, including 43 conditions set forth in Section V of the OPSB Certificate. The "OPSB Approved Route" is therefore defined as the Preferred Route described in the OPSB Certificate Application, as approved and modified within the OPSB Certificate. Further, the 43 Conditions from the OPSB Certificate are incorporated into this Application for Ohio EPA Section 401 Water Quality Certification.

For the convenience of the Ohio EPA staff and to help other readers understand the project alternatives previously considered in the OPSB's review of the Project, data on the OPSB Approved Route is provided where the Section 401 Application instructions call for information on the "Preferred Design." Where information on the "Minimal Degradation Alternative" is requested, we have provided information for the Alternate Route provided in the OPSB Certificate Application. Where information on a "Non-Degradation Alternative" is requested, we have provided information relating to not constructing the Project, since the only alternative which avoids degradation is to abandon the Project entirely. As FirstEnergy indicated in the OPSB review process, and as the OPSB has determined, there is a demonstrated need for the Project, therefore the Non-Degradation alternative is not viable, as the reliable supply of electricity to CEI's customers in the area of the Project will be adversely impacted. Further, as the OPSB has issued a certificate for the Project, we believe that the provisions of Section 4906.13(B) of the Ohio Revised Code eliminate the consideration of the Minimal Degradation

Alternative and the Non-Degradation Alternative to the extent that these alternatives would relate to construction, initial operation or the location of the Project in the review of the Section 401 Application.

As a part of ATSI's and CEI's development of the Project, an extensive route selection study was conducted to identify and evaluate potential routes for the Geauga Transmission Line. A summary of this study is included in Appendix 03-1 of the OPSB Certificate Application. Potential routes for the Project were identified, analyzed, scored and ranked to facilitate the selection of a Preferred Route and Alternate Route and subsequent submittal to the OPSB in the OPSB Certificate Application. The objective of the route selection study was to identify routes that minimize the overall impacts to the community and the environment, while taking into account the engineering and construction needs of the Project.

The following response to Question 10 provides specific references to the sections of the OPSB Certificate Application or the Summary of OPSB Certificate Application Revisions which evaluate the OPSB Approved Route and Alternate Route, and the mitigative techniques to be applied to the OPSB Approved Route to minimize and compensate for potential impacts to water quality. To reduce confusion of terms, the following will be used for all answers to Question 10: OPSB Approved Route (in reference to the Preferred Route or Preferred Design); Alternate Route (in reference to the Minimum Degradation Alternative) and the Non-Degradation Alternative.

ANTIDEGRADATION RULE QUESTIONS 10A – 10K

QUESTION 10-A:

"Provide a detailed description of any construction work, fill or other structures to occur or to be placed in or near the surface water. Identify all substances to be discharged, including the cubic yardage of dredged or fill material to be discharged to the surface water. (OAC 3745-1-05(B)(2)(b))"

OPSB Approved Route

A detailed description of construction work planned for the OPSB Approved Route for the Project is provided in Section 4906-15-04(B) of the OPSB Certificate Application. This includes maps, plans, topographic maps and cross-sectional drawings of the project.

The engineering design and right-of-way acquisition for the Project is currently under way. Condition 26 of the OPSB Certificate provides for the submittal of detailed drawings of the Project prior to the start of construction so that the OPSB staff can determine that the final Project design is in compliance with the terms of the certificate. Condition 26 is as follows:

> (26) That at least 30 days before the first preconstruction conference, the Applicants shall submit to the Staff, for review and approval, one set of detailed drawings for the certificated electric transmission line, including all laydown areas and access points, so that Staff can determine that the final Project design is in compliance with the terms of the certificate. The access plan shall consider the location of streams, wetlands, wooded areas and sensitive plant species.

Several conditions issued by the OPSB in the OPSB Certificate detail requirements for minimizing the potential for adverse impacts to aquatic life and wildlife, including threatened and endangered species. These Conditions will be met prior to, and throughout construction of the Project, and are listed below in response to other portions of question 10.

A description of fill material to be placed and/or dredge material to be removed for the OPSB Approved Route is discussed in response to Question 8c of this application.

Alternate Route

A detailed description of construction work planned for the OPSB Approved Route for the Project is provided in Section 4906-15-04(B) of the OPSB Certificate Application. This includes maps, plans, topographic maps and cross-sectional drawings of the project.

Non-Degradation Alternative

The non-degradation alternative is to not construct the Project, therefore a description of the planned construction work is not applicable.

QUESTION 10-B:

"Describe the magnitude of the proposed lowering of water quality. Include the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species (include written comments from Ohio Department of Natural Resources and U.S. Fish and Wildlife Service), important commercial or recreational sport fish species, other individual species, and the overall aquatic community structure and function. Include a Corps of Engineers approved wetland delineation. (OAC 3745-1-05(C)(6)(a, b) and OAC 3745-1-54)"

OPSB Approved Route

Section 4906-15-07 of the OPSB Certificate Application provides a summary of the ecological studies conducted in the Project area and describes any ecological impact of the Project for the OPSB Approved Route including biological and physical impacts, impacts to water bodies (streams, wetlands, lakes/ponds). Additional detail about these impacts is provided in the Wetland Delineation, Stream Assessment and Threatened and Endangered Species Habitat Survey presented as Appendix 07-1 of the OPSB Certificate Application (contained in Volume II of the OPSB Certificate Application) and as supplemented in Section V of the Summary of OPSB Certificate Application Revisions. Volume II of the OPSB Certificate Application also includes:

- Copies of correspondence with the Ohio Department of Natural Resources – Division of Natural Areas and Preserves (ODNR-DNAP), Ohio Department of Natural Resources – Division of Wildlife (ODNR-DOW), and U.S. Fish and Wildlife Service (FWS) regarding any potential impact to rare, threatened or endangered species are provided in Appendix E;
- Description of the type, category and size of wetlands in the Project area;
- Name, use designation, linear footage and QHEI of each stream in the Project area;
- Photographs of surface water bodies and vegetation in the Project area.

After the OPSB Certificate was issued for the OPSB Approved Route in November 2008, FirstEnergy began the land survey efforts needed to complete the engineering design of the Project and to prepare legal descriptions of the right-of-way for the Project. As a part of the survey efforts, wetland boundaries were updated and reflagged along the OPSB Approved Route where it was expected to be necessary to install a pole in close proximity to a wetland. FirstEnergy included locating the wetland boundaries as part of the land survey effort in order to include the precise location of the wetland boundary in the survey data used for the engineering design of the Project with the goal to select pole locations that minimize inadvertently locating a pole in a wetland. Once this process was underway, FirstEnergy expanded the field work to update and reflag the majority of the wetland boundaries in conjunction with FirstEnergy's land survey efforts. The updated wetland delineation work occurred in April, May, June and August 2009 and is documented in the September 2009 Wetland Delineation and Stream Assessment OPSB Approved Route of the Geauga County 138 kV Electric Transmission Line. This Wetland Delineation report is included in this application for 401 Water Quality Certification and has

been submitted to U.S. Army Corps of Engineers for approval and a Jurisdictional Determination.

Since the September 2007 filing of the OPSB Application, the Applicants, URS, OPSB, and FWS staff met (to discuss this project, specifically potential biological and physical impacts to the forested habitat along the OPSB Selected Route. FWS recommended ATSI conduct a mist net survey at five locations along the route to determine the presence/absence of the Indiana bat. As requested, the mist net survey was conducted in early August 2008, and no Indiana bats were captured. In a letter dated March 18, 2009, FWS indicated "[t]he Service agrees that, due to the results of the mist net survey, it is unlikely that Indiana bats occur on the property. While removal of trees is allowed anytime during the 2 year period ending on July 28 2010, as permitted by the negative Indiana bat survey, we recommend that onsite tree clearing occur between September 30 and April 1 to protect he diversity of non-listed bats and nesting migratory birds that use the property. We recommend that the Corps provide a list of avoidance and minimization measurers that will be implemented and a determination of effects to the Indiana bat for our concurrence." A copy of the mist net report and the March 18, 2009 letter is provided in Attachment A. Although the FWS has indicated that removal of trees could occur through July 28, 2010, the Applicant's intent, to the extent practicable, is to conduct onsite tree clearing in the period between September 30 and April 1.

Conditions 5, and 13 though 18, of the OPSB Certificate detail requirements for minimizing the potential for adverse impacts to aquatic life and wildlife, including threatened and endangered species. These Conditions will be met prior to, and throughout construction of the Project, and are listed below:

(5) That the Applicants shall have an environmental specialist on site at all times that construction (including vegetation clearing) is being performed in or near a sensitive area such as a designated wetland, stream, river, or in the vicinity of identified threatened/endangered species or their identified habitat.

(13) (a) If tree clearing must be conducted outside of the October through March period, Applicants shall, prior to tree clearing, conduct Indiana bat surveys in areas identified as suitable habitat in coordination with Staff, including the following specific locations: (a) forest stand including woodlots 8, 9, 10 and 11; (b) forest stand including woodlots 20, 21, 22, 23, and 24; (c) forest stand including woodlots 36, 37, and 38. The results of this study shall be forwarded to Staff for review and approval prior to any clearing or construction in the areas of concern.

(b) Prior to any tree clearing, Applicants shall conduct yellow-bellied sapsucker surveys in areas identified as suitable habitat for these birds in coordination with Staff and the Ohio Department of Natural Resources, Division of Wildlife (ODNR-DOW). If the results of the study identify the presence of the nesting/breeding yellow-bellied sapsuckers, then the tree clearing in that area shall be limited to that period of time when the yellowed-bellied sapsuckers are not present. The results of this study, together with a tree clearing plan, shall be forwarded to Staff for review and approval prior to any clearing or construction in the areas of concern.

(14) That the Applicants shall contact Crane Creek Wildlife Research Station shortly before initiating construction to ensure there are no bald eagle nests within 0.5 miles of the selected Project r-o-w.

(15) That the Applicants shall flag endangered plant species locations within the r-o-w and prevent vehicle access to these areas. Use of herbicides within 50 feet of these flagged areas during construction and maintenance activities shall be prohibited, unless otherwise approved as part of Applicants' herbicide use plan. Prior to construction, the Applicants shall provide for Staff review and approval a threatened and endangered species protection plan. For plants, this should include specific r-o-w clearing/avoidance recommendations, herbicide restrictions, and potential monitoring procedures, while for animal species it should also include construction timing limitations related to breeding activities and the potential impacts of long-term r-o-w maintenance work.

(16) That Staff, the ODNR-DOW, and the United States Fish and Wildlife Service (USFWS) shall be immediately contacted if the presence of threatened or endangered species is confirmed during construction activities. Activities that could adversely impact the identified plants or animals will be halted until an appropriate course of action has been agreed upon by the Applicants and Staff.

(17) That the Applicants, to the extent practicable, shall retain all tree snags within the r-o-w that do not present a safety or reliability concern for the construction and operation of the new electric transmission line.

(18) That, prior to finalizing engineering plans for the Project, the Applicants shall identify the area known to support snowshoe hare. The Applicants shall submit a plan for this area to the Staff and the ODNR-DOW for review and Staff's approval. The Applicants shall not employ clear-cutting or generalized broadcasting of herbicide for vegetation maintenance and, to the maximum extent possible, shall leave shrub and scrub woody vegetation within this identified area of the r-o-w.

Alternate Route

Section 4906-15-07 of the OPSB Certificate Application provides a summary of the ecological studies conducted in the Project area and describes any ecological impact of the Project for the Alternate Route including biological and physical impacts, impacts to water bodies (streams, wetlands, lakes/ponds). Additional detail about these impacts is provided in the Wetland Delineation, Stream Assessment and Threatened and Endangered Species Habitat Survey presented as Appendix 07-2 of the OPSB Certificate Application (contained in Volume II of the OPSB Certificate Application.)

Non-Degradation Alternative

The non-degradation alternative is to not construct the Project. If the Project is not constructed, a reliable power supply to CEI's customers in the area of the Project will be adversely impacted. Operation of public and private water treatment systems located throughout the area of the project could be impacted if a reliable power supply is unavailable. A detailed evaluation of how this would directly impact water quality has not been conducted.

QUESTION 10-C:

"Include a discussion of the technical feasibility, cost effectiveness, and availability. In addition, the reliability of each alternative shall be addressed (including potential recurring operational and maintenance difficulties that could lead to increased surface water degradation.) (OAC 3745-1-05(C)(6)(h, j-k) and OAC 3745-1-54)"

The OPSB Certificate Application provides information on the technical feasibility, cost effectiveness and availability of the OPSB Approved Route and the Alternate Route. Technical feasibility is primarily discussed in Sections 4906-15-02 and 4906-15-04. Anticipated costs are included in Section 4906-15-05. Availability is discussed in Sections 4906-15-03 and 4906-15-06.

The Project will apply well proven technology, which is used extensively on existing transmission lines. Upon completion of the Project, the reliability of the Geauga Transmission Line, Stacy Substation and 36 kV Circuits will be comparable to other existing facilities. These facilities and in particular the Geauga Transmission Line will be routinely inspected, and the right-of-way vegetation maintained. Occasionally, the Project facilities will require maintenance from either a storm event or routine equipment life expectancy. These maintenance and repair activities will not significantly impact water quality, and will be temporary and transient in nature. Section 4906-15-07 of the OPSB Certificate Application provides information regarding operations and maintenance activities anticipated for the transmission line, once it is constructed.

QUESTION 10-D:

"For regional sewage collection and treatment facilities, include a discussion of the technical feasibility, cost effectiveness and availability, and long-range plans outlined in state or local water quality management planning documents and applicable facility planning documents. (OAC 3745-1-05(C)(6)(i))"

This Project is not a sewage collection and treatment facility; therefore, this section is not applicable.

QUESTION 10-E:

"To the extent that information is available, list and describe any government and/or privately sponsored conservation projects that exist or may have been formed to specifically target improvement of water quality or enhancement of recreational opportunities on the affected water resource. (OAC 3745-1-05(B)(2)(g))"

No conservation projects directed at water quality were identified for the OPSB Approved Route, Alternate Route or Non-Degradation Alternative.

QUESTION 10-F:

"Provide an outline of the costs of water pollution controls associated with the proposed activity. This may include the cost of best management practices to be used during construction and operation of the project. (OAC 3745-01-05(C)(6)(g))"

OPSB Approved Route

Specific conditions issued by the OPSB with the November 24, 2008 Certificate detail requirements for water pollution controls associated with the proposed activity for the OPSB Approved Route. Condition 4 includes specific requirements for best management practices to be used during construction and operation of the project. Condition 23 includes obtaining all applicable permits and in relation to water pollution controls the Applicants intend to seek coverage under Ohio EPA Permit No. OHC000003 for Authorization For Storm Water Discharges Associated With Construction Activity Under The National Pollution Discharge Elimination System. These Conditions will be met prior to, and throughout construction of the Project. Conditions 4 and 23 of the OPSB Certification provide:

(4) That the Applicants shall properly install and maintain erosion and sedimentation control measures at the Project site in accordance with the following requirements:

(a) During construction of the facility, seed all disturbed soil, except within 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. Reseeding 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) Obtain National Pollution Discharge Elimination System (NPDES) permits for storm water discharges during construction of the facility. A copy of each permit or authorization, including terms and conditions, shall be provided to the Staff within seven days of receipt. Prior to construction, the construction Storm Water Pollution Prevention Plan shall be submitted to the Staff for review and acceptance.

(d) Utilize "best management practices" (BMPs) when working in the vicinity of environmentally sensitive areas. This includes, but is not limited to, the installation of silt fencing (or similarly effective tool) prior to initiating construction near streams and wetlands. The installation shall be done in accordance with generally accepted construction methods and shall be inspected regularly.

As required, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared and submitted to OPSB Staff for review and approval prior to the start of construction activities. The SWPPP shall incorporate all of the above listed requirements of the OPSB Certification. Costs to

implement the water pollution controls are included in the total Project cost estimates provided in Section 4906-15-05 of the OPSB Certificate Application.

QUESTION 10-G:

"Describe any impacts on human health and the overall quality and value of the water resource. (OAC 3745-1-05(C)(6)(c) and OAC 3745-1-54)."

Installation of the OPSB Approved Route or the Alternate Route is anticipated to not impact human health and is discussed in Section 4906-15-06 of the OPSB Certificate Application. The overall quality of the water resource is discussed in Section 4906-15-07 of the OPSB Certificate Application.

An evaluation of impacts on human health from implementation of the Non-Degradation Alternative (not constructing the Project resulting is a less reliable electric supply to the Project area) has not been developed.

QUESTION 10-H:

"Describe and provide an estimate of the important social and economic benefits to be realized through this project. Include the number and types of jobs created and tax revenues generated and a brief discussion on the condition of the local economy. (OAC 3745-1-5(B)(2)(e), and OAC 3745-1-05(C)(6)(I))"

QUESTION 10-I:

"Describe and provide an estimate of the important social and economic benefits that may be lost as a result of this project. Include the effect on commercial and recreational use of the water resource, including effects of lower water quality on recreation, tourism, aesthetics, or other use and enjoyment by humans. (OAC 3745 1-05(B)(2)(e, f), and OAC 3745-1-05(C)(6)(e))"

The OPSB Certificate Application provides a summary of the social and economic benefits and impacts of the Project. Therefore, the response to Questions 10-H and 10-I are combined below with references to the pertinent sections of the OPSB Certificate Application.

Section 4906-15-02 (A) provides an explanation of need for the proposed project, including a description of the existing 36 kV system. This section includes references to specific businesses that will benefit from the Project.

Section 4906-15-06(D)(7) provides a description of the Projected impact on Regional Development.

Section 4906-15-06(D)(6) provides an estimate of tax revenues associated with the OPSB Approved Route and the Alternate Route.

Section 4906-15-06 (A) provides a description of the socioeconomic characteristics of the OPSB Approved Route and the Alternate Route.

Section 4906-15-06(C) provides a description of the Land Use Impacts of the Project associated with the OPSB Approved Route and the Alternate Route.

Section 4906-15-(E)(3) provides a description of the aesthetic impacts associated with the Project and the OPSB Approved Route and the Alternate Route.

Additionally, as provided within the OPSB Docket, testimony was provided by many persons during the OPSB's three public hearings for the Project regarding the important social and economic benefits to be realized through this project and/or the important social and economic benefits that may be lost as a result of this project.

QUESTION 10-J:

"Describe environmental benefits, including water quality, lost and gained as a result of this project. Include the effects on the aquatic life, wildlife, threatened or endangered species. (OAC 3745-1-05 (B) (e,f), and OAC 3745-1-05 (C)(6)(b) and OAC 3745-1-54)"

OPSB Approved Route

Section 4906-15-06 of the OPSB Certificate Application provides a summary of the studies that have been made of the ecological impacts of the Project on the OPSB Approved Route. Minimal amounts of surface water are anticipated to be impacted by the OPSB Approved Route, and few environmental losses are expected as a result. ATSI is proposing to fill only one 0.03-acre PEM wetland in the Project limits. ATSI does not propose to disturb the soil in any of the wetlands except at the location of the three to five poles and guying which will be placed in wetland areas, and will install temporary matting, after clearing activities are completed, to cross wetlands during construction, thereby minimizing impacts to the wetlands natural pollutant filtering capabilities.

In addition to the Conditions listed within the response to Question 10-B, OPSB Certificate Conditions 7 through 12, 26, 29, 30, 31, and 35, provided below, will also be met in order to minimize the impact to water quality, aquatic life, wildlife, threatened and endangered species:

(7) That all watercourses and/or wetlands shall be delineated by fencing, flagging, or other prominent means.

(8) That all construction equipment shall avoid watercourses and/or wetlands, except at specific locations where Board Staff has approved access.

(9) That storage, stockpiling and/or disposal of equipment and materials in watercourses and/or wetlands shall be prohibited.

(10) That structures shall be located outside of watercourses and/or wetlands, except at locations where Board Staff has approved placement.

(11) That all storm water runoff is to be diverted away from fill slopes and other exposed surfaces, to the greatest extent practicable, and directed instead to appropriate catchment structures, sediment ponds, etc., using diversion berms, temporary ditches, check dams, or similar measures.

(12) That, for construction and for the period of two years of initial operation, the Applicants shall limit, to the greatest extent possible, the use of herbicides in proximity to surface waters, including wetlands along the right-of-way ("r-o-w"). Individual treatment is preferred, while general, widespread use of herbicides is strongly discouraged. Prior to initiation of construction, the Applicants shall submit a plan describing the planned herbicide use throughout the project corridor, for review and approval by the Staff. After the two year period of initial operation, Applicants shall comply with all federal and state laws, rules and regulations governing the application of herbicides in the r-o-w.

(26) That at least 30 days before the first preconstruction conference, the Applicants shall submit to the Staff, for review and approval, one set of detailed drawings for the certificated electric transmission line, including all laydown areas and access points, so that Staff can determine that the final Project design is in compliance with the terms of the certificate. The access plan shall consider the location of streams, wetlands, wooded areas and sensitive plant species.

(29) That the Applicants shall limit clearing in all riparian areas and within at least 25 feet from the top of the bank on each side on all streams during construction and operation of the facility; provided, however, that Applicants may selectively hand clear taller-growing trees that are incompatible with the operation and maintenance of the transmission line, leaving all low-growing plant species, including other trees and other woody vegetation, undisturbed unless otherwise directed by Staff. All stumps shall be left in place.

(30) That, prior to construction, the Applicants shall develop and submit to Staff for review and approval a long-term plan, consistent with federal and state laws, rules and regulations, to be implemented by the Applicants, that will require, among other things, the installation and maintenance of signs, written in both English and Spanish, that identify the boundary of all "no clear-cut" areas for all identified wetlands and riparian areas within the Project r-o-w. These "no clear" areas shall also be identified on the engineering drawings for the Project as well as noted on future maintenance plans and protected from clear cutting and generalized broadcasting of herbicides during all future r-o-w maintenance, unless otherwise approved by Staff. This plan as approved by Staff shall be integrated into the Applicants' long-term maintenance practices for this transmission line.

(31) That the Applicants shall ensure that Montville Swamp, Thompson Ledges Park, and any other identified natural areas in proximity to the proposed Project are protected from any construction-related activity.

(35) That at least 30 days prior to the first preconstruction conference, the Applicants shall submit a detailed construction and restoration plan for all stream and wetland crossings for Staff's review and approval. The plan shall include sufficiently detailed information to address the following:

(a) Construction methods to be used at each location, including site-specific access and equipment crossing proposals. Construction methods and equipment movement during both dry and wet conditions should be included.

(b) Storm water erosion control practices to be used during construction work in and around each crossing location.

(c) Any and all stream stabilization and wetland, stream, and riparian area restoration practices to be used.

(d) Applicants shall use all necessary means to ensure that, to the extent practicable, no trees, limbs, branches, or other clearing residue is placed or disposed of in any stream, wetland, or other water body, except in accordance with the approved tree clearing plan.

(e) Applicants shall use all practicable means to ensure that no fill, topsoil, stone, or other construction-related material is placed or disposed of in any stream, wetland, or other water body, except for the short-term placement of stone, culvert pipe, timber mats, or other temporary stream crossing materials, as pre-approved by Staff.

(f) To the extent practicable, crossings of ephemeral streams should occur during no flow periods.

Alternate Route

Section 4906-15-06 of the OPSB Certificate Application provides a summary of the studies that have been made of the ecological impacts of the Project on the Alternate Route. Minimal amounts of surface water would be anticipated to be impacted by the Alternate Route, and few environmental losses are expected to result.

Non-Degradation Alternative

The non-degradation alternative is to not construct the Project. If the Project is not constructed, a reliable power supply to CEI's customers in the area of the Project will be adversely impacted. Operation of public and private water treatments systems located throughout the area of the project could be impacted if a reliable power supply is unavailable. A detailed evaluation of how this would directly impact water quality has not been conducted.

QUESTION 10-K:

"Describe mitigation techniques proposed (except for Non-Degradation Alternative):

- *Describe proposed Wetland Mitigation (OAC 3745-1-54)*
- *Describe proposed Stream, Lake, Pond Mitigation"*

OPSB Approved Route

For the OPSB Approved Route, a Wetland-Stream Crossing Enhancement/Preservation Plan describing proposed mitigation will be provided to OPSB Staff for approval prior to construction in accordance with Condition 41 of the OPSB Order. Condition 41 states:

(41) That, if the Board certificates the Preferred Route, at least 30 days prior to the pre-construction conference, the Applicants shall submit to Staff for review and approval a wetland-stream crossing enhancement/preservation plan that will be included as part of any application submitted for an Ohio 401 Water Quality Certification or a Clean Water Act Section 404 Permit and that will include, to the extent feasible, at least the following or its equivalent:

(a) Propose preservation easements for the portion of two Applicant-owned properties along the Preferred Route. For the Applicant owned property at the site of the Stacy substation, Parcel 16-011052, the area of the preservation easements shall generally include the area of the property between the northern boundary of the property and approximately 25 feet south of stream Pr-s001, excluding the area of the r-o-w and associated danger trees of the transmission line, and any access route to or through the transmission line r-o-w. For the Applicant owned property located on the south side of Burrows Road, Parcel 20-070824, the area of the preservation easements shall generally include the entire parcel, except for the area of the r-o-w and associated danger trees of the transmission line, and any access route to or through the transmission line r-o-w.

(b) Along, or in proximity to, the Preferred Route obtain rights to real property that include not less than 6.7 acres of existing wetland, excluding wetland that is within the right of way for the Project, that can be enhanced through appropriate replanting and/or deed restriction to a forested wetland.

(c) To the extent reasonably possible, acquire 2,500 linear feet of conservation easements (as measured in the bed of the stream) for a higher quality stream with a minimum width of 25 feet on either side, including the upper limits of a stream bank along or in proximity to the Preferred Route. The Applicants shall document all efforts to accomplish the above mitigation to Staff upon request.

The properties identified in Condition 41 part (a) are owned by ATSI and are readily accessible for review and implementation of the Wetland-Stream Crossing Enhancement/Preservation Plan. ATSI has obtained an option to purchase real property along the OPSB Approved Route located on the north side of Burrows Road to meet the requirements of Condition 41 part(b). This area is readily accessible for review. Based on previous field review of this area with the OPSB Staff,

the Applicants believe that this parcel has the ideal potential to meet the expectations of part (b) of Condition 41.

Alternate Route

For the Alternate Route, as provided in the OPSB Certificate Application, the Applicants proposed to minimize placement of structures in wetlands, minimize operating equipment in wetland and riparian corridors but did not proposed any wetland or stream mitigation. It is the Applicant's opinion, had the OPSB authorized construction of the Project on the Alternate Route that the OPSB's conditions would not have included a requirement for wetland or steam mitigation and that none would be provided for the Project.

Attachment A
Mist Net Survey Report and U.S. Fish and Wildlife Service Correspondence

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

COPY FOR YOUR INFORMATION

March 18, 2009

Chris Leftwich
Copperhead Environmental Consulting, Inc.
P.O. Box 73, 11641 Richmond Rd.
Paint Lick, Kentucky 40461

TAILS: 2009-TA-0457

Dear Mr. Leftwich:

This is in response to the Indiana bat mist net survey report for the proposed American Transmission Systems, Inc. project, Geauga County 138 kV Preferred Route Transmission Line Corridor, Geauga County, Ohio, received by this office on March 10, 2009. The Service previously commented on this project in letters dated September 24, 2007, December 26, 2007, April 17, 2008, and an email dated June 26, 2008. The Service requested a mist net survey for the American Transmission Systems, Inc. project in June 2008, due to the presence of suitable Indiana bat habitat onsite. The mist net survey was conducted by Copperhead Environmental Consulting, Inc. July 28 through August 2, 2008. The mist net survey met the Service's standard recommended protocol for Indiana bat surveys, and the weather during the survey was conducive to capturing Indiana bats.

The mist net survey resulted in the capture of 33 individual bats, including adult and juvenile male and female Big brown bats (*Eptesicus fuscus*), adult and juvenile male, and juvenile female Little brown bats (*Myotis lucifugus*), one juvenile female Red bat (*Lasiurus borealis*), and adult male and adult and juvenile female Northern Long-eared bats (*M. septentrionalis*). Big and Little brown bats are Ohio's most common species of bats, and are adapted to using human-made structures for roosting. The presence of post-lactating and juvenile Little and Big brown bats indicates the presence of a maternity colony of these bats within the project area. The Red bat, a wide-ranging, solitary, foliage-roosting bat is not necessarily common, but is not considered rare in Ohio or rangewide. Northern long-eared bats have similar habitat requirements to Indiana bats, and the presence of several adults of this species reinforces that the habitat onsite is suitable for Indiana bats. However, the mist net survey results indicate that it is unlikely that Indiana bats are using the project site on a regular basis.

The Service agrees that, due to the results of the mist net survey, it is unlikely that Indiana bats occur on the property. While removal of trees is allowed anytime during the 2 year period ending on July 28 2010, as permitted by the negative Indiana bat survey, we recommend that onsite tree clearing occur between September 30 and April 1 to protect the diversity of non-listed bats and nesting migratory birds that use the property. We recommend that the Corps provide a list of avoidance and minimization measures that will be implemented and a determination of effects to the Indiana bat for our concurrence. **If the Applicant plans to clear trees prior to issuance of a 404 and/or 401 permit the following two conditions must be adhered to: 1) Section 7 consultation for the Indiana bat between the Service and the Corps of Engineers must be completed; and 2) No tree clearing on any portion of the parcel should occur until both the Corps and Ohio EPA anticipate that issuance of both a 404/NWP and a 401 permit authorizing the project as a whole is imminent. No tree clearing should occur until these two conditions have been satisfied.**

The proposed project lies within the range of the **snuffbox mussel** (*Epioblasma triquetra*), a Federal freshwater mussel species of concern and an Ohio endangered species, and the **bald eagle**, a species protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act. Due to the project type, location, and onsite habitat, no impacts to these species are expected. Relative to these species, this precludes the need for further action on this project as required by the 1973 Endangered Species Act, as amended, the Bald and Golden Eagle Protection Act, and Migratory Bird Treaty Act.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (ESA), as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U. S. Fish and Wildlife Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

We appreciate this opportunity to provide the above comments. If you have questions, or if we may be of further assistance in this matter, please contact Megan Seymour at extension 16 in this office.

Sincerely,

Mary Knapp, Ph.D.
Supervisor

cc: ODNR, DOW, SCEA Unit, Columbus, OH
Mark Gronceski, Regulatory Section, Buffalo District Corps of Engineers, Orwell, OH
Matthew Thomayer, URS Corporation, 36 East Seventh Street, Suite 2300, Cincinnati, OH 45202

BEFORE

THE OHIO POWER SITING BOARD

In the Matter of the Application of American Transmission Systems, Incorporated and The Cleveland Electric Illuminating Company for a Certificate of Environmental Compatibility and Public Need for the Geauga County 138 kV Transmission Line Supply Project.	))))))	Case No. 07-171-EL-BTX

OPINION, ORDER AND CERIFICATE

The Ohio Power Siting Board, coming now to consider the above-entitled matter, having appointed administrative law judges to conduct the hearings, having reviewed the exhibits introduced into evidence in this matter, and being otherwise fully advised, hereby issues its Opinion, Order and Certificate in this case, as required by Section 4906.10, Revised Code.

APPEARANCES:

Porter, Wright, Morris & Arthur, LLC, by Christopher Schraff and Robert J. Schmidt, Jr., 41, South High Street, Columbus, Ohio 43215, and Morgan Parke, FirstEnergy Service Company, 76 South Main Street, Akron, Ohio 44308, on behalf of American Transmission Systems, Inc., and the Cleveland Electric Illuminating Company.

Taft, Stettinius & Hollister, LLP, by Thomas J. Lee and Julie A. Crocker, 200 Public Square, Suite 3500, Cleveland, Ohio 44114, on behalf of Citizens Advocating Responsible Energy.

Bricker & Eckler, by Sally W. Bloomfield, 100 South Third Street, Columbus, Ohio 43215, and James M. Gillette, Law Director & Police Prosecutor, 117 South Street, Suite 208, Chardon, Ohio 44024, on behalf of the City of Chardon.

McNees, Wallace & Nurick, by Samuel C. Randazzo, Lisa G. McAlister, and Joseph M. Clark, Fifth Third Center, Suite 1700, 21 East State Street, Columbus, Ohio 43215, on behalf of Industrial Energy Users – Ohio.

Thrasher, Dinsmore & Dolan, by David M. Ondrey and Todd C. Hicks, 100 Seventh Avenue, Suite 150, Chardon, Ohio 44024, and Bricker & Eckler, by Sally W. Bloomfield, 100 South Third Street, Columbus, Ohio 43215, on behalf of the Geauga Park District.

David L. McCombs, 100 Public Square, Andover, Ohio 44003, on behalf of the Village of Orwell.

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.
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Tucker, Ellis & West LLP, by Robert J. Hanna and Matthew S. Romano, 1150 Huntington Building, 925 Euclid Avenue, Cleveland, Ohio 44115, on behalf of George Davet.

Nancy H. Rogers, Attorney General, by Duane W. Luckey, Section Chief, and Thomas W. McNamee and Thomas Lindgren, Assistant Attorneys General, Public Utilities Section, 180 East Broad Street, 9th Floor, Columbus, Ohio 43215, and by Margaret A. Malone and Lauren C. Angell, Assistant Attorneys General, Environmental Enforcement Section, State Office Tower, 25th Floor, 30 East Broad Street, Columbus, Ohio 43215, on behalf of the Staff of the Board.

OPINION:

I. Summary of the Proceedings

All proceedings before the Ohio Power Siting Board (Board) are conducted according to the provisions of Chapter 4906, Revised Code, and Chapter 4906, Ohio Administrative Code (O.A.C.).

On February 21, 2007, American Transmission Systems, Inc., (ATSI) filed a notice that it proposed to construct a 138 kilovolt (kV) transmission line, primarily in Geauga County, in order to reinforce the electric system of the Cleveland Electric Illuminating Company (CEI) in Geauga and Ashtabula counties. In that notice, ATSI informed the Board that it was inviting members of the public to attend an informational meeting regarding the proposed Project. On March 8, 2007, ATSI filed proof of publication of notices of public informational meetings held on March 5 and 6, 2007.

On September 28, 2007, ATSI and CEI filed an application for a certificate of environmental compatibility and public need (certificate) for the construction of a 138 kV transmission line, primarily in Geauga County (hereinafter referred to as the Project or the proposed facility). On November 28, 2007, the Board notified the Applicants that their application had been found to comply with Chapters 4906-01, et seq., O.A.C. The Applicants filed a revised version of the application on January 2, 2008, and, on January 9, 2008, filed proof of service of the application upon public officials, as required under Rule 4906-5-06, O.A.C.

By entry of March 3, 2008, a local public hearing was scheduled for May 12, 2008, and an adjudicatory hearing was scheduled for May 21, 2008, at the offices of the Public Utilities Commission of Ohio (Commission) in Columbus, Ohio. The entry also directed the Applicants to publish notices of the hearings, as required by Rule 4906-5-08, O.A.C., and directed that petitions to intervene by interested persons may be filed up to 30 days following publication of the notice, or later if good cause is shown. On March 7, 2008, an

entry directed that the location of the local public hearing be changed. The local public hearing schedule was further modified, by entry dated March 14, 2008, to order that public hearings be held on May 12, 2008, at 4:30 p.m., at the Ledgemont Elementary-Middle School gymnasium, 16200 Burrows Road, Thompson, Ohio 44086, and on May 13, 2008, at 1:00 p.m. at the Huntsburg Town Hall, 16534 Mayfield Road, Huntsburg, Ohio 44046. On April 15, 2008, the Applicants moved to continue the local public and adjudicatory hearing to June. On April 17, 2008, a motion was filed to move the adjudicatory hearing from Columbus to Geauga County. By entry dated May 7, 2008, it was agreed that the schedule would be continued. On June 18, 2008, the administrative law judge denied the motion to relocate the adjudicatory hearing to Geauga County. By entry dated July 11, 2008, the hearings were rescheduled. The local public hearings were set for August 27, 2008, at 4:30 p.m. at the Ledgemont Elementary – Middle School gymnasium, 16200 Burrows Road, Thompson, Ohio 44086, and August 28, 2008, at 1:30 p.m. at the Huntsburg Town Hall, 16534 Mayfield Road, Huntsburg, Ohio 44046. The adjudicatory hearing was set, by that entry, for 10:00 a.m. on September 2, 2008, at the offices of the Commission. By entry dated August 6, 2008, the administrative law judge added a third local public hearing, to be held on September 10, 2008, at 6:00 p.m., at the Huntsburg Town Hall, 16534 Mayfield Road, Huntsburg, Ohio 44046. On August 7, 2008, a motion was filed to continue the adjudicatory hearing until October 1, 2008, or later. By entry dated August 14, 2008, the adjudicatory hearing was continued until September 16, 2008. Proofs of notice of the public hearings were docketed on August 20, 22, and 27, 2008.

Motions to intervene were filed by the following entities, on the identified dates: Citizens Advocating Responsible Energy (CARE), January 15, 2008; Huntsburg Township Board of Trustees (Huntsburg), April 2, 2008; Geauga Park District (GPD), June 2, 2008; Industrial Energy Users-Ohio (IEU), June 23, 2008; City of Chardon (Chardon), June 30, 2008; Village of Orwell (Orwell), July 21, 2008; George K. Davet (Davet), July 30, 2008; and Chris Parker, August 18, 2008. Other than the motion by Chris Parker, which was denied, those petitions were granted by entries dated March 3, June 18, and September 4, 2008.

On May 19, 2008, the applicants responded to a Staff discovery request (Interrogatory 16) and, on May 29, 2008, the applicants supplemented that response.

On August 12, 2008, Board Staff filed a report of its investigation of the proposed facility.

At the local public hearings, 17 people testified on August 27, 2008; 16 people testified on August 28, 2008; and 42 people testified on September 10, 2008. Numerous witnesses testified as to problems suffered as a result of power outages, voltage fluctuations, and general quality of electric service. Those witnesses described costs to the businesses involved, loss of jobs, loss of pay by employees, and loss of businesses by the community. Other witnesses doubted the need, citing business closures over the last several years and questioning the applicants' studies and forecasts. Numerous witnesses

opposed either the Preferred Route or the Alternate Route, or both. Witnesses described numerous concerns, including the aesthetic impact of the proposed facility, loss or injury to farmland, wetlands, wooded areas, wildlife, property values, and rural lifestyle. Witnesses were concerned about safety, health problems, potential trespass, soil erosion, transmission line efficiency, and parklands. Many people testified that the Applicants should propose a route that follows existing utility corridors, follows property boundaries, or is underground. Some witnesses also questioned the accuracy of the facts being supplied to the Board. In addition to appearing at local hearings, numerous customers contacted the Board by mail, most of whom opposed the proposed facility on the same or similar grounds as the opinions expressed at the hearings.

The adjudicatory hearing was held on September 16, 17, and 18, and October 1, 1008. At that hearing, six witnesses testified on behalf of the Applicants, eight witnesses testified on behalf of CARE, two witnesses testified on behalf of GPD, two witnesses testified on behalf of Chardon, one witness testified on behalf of Davet, and one witness testified on behalf of Staff. Initial briefs were filed on October 15 and 16, 2008, by the Applicants, Orwell, Chardon, CARE, IEU, GPD, Davet, and Staff. On October 23, 2008, reply briefs were filed by the Applicants, IEU, CARE, and Staff. Orwell filed a reply brief on October 27, 2008.

II. Proposed Facility and Siting

The Applicants propose to construct a 138 kV transmission line in northeast Geauga County and southern Lake County, in order to provide additional capacity and reliability to CEI's distribution system in the Project area. The proposed facility would create a looped extension of an existing line to supply a new 138 to 36 kV distribution substation (Stacy Substation) to be located along U.S. Route 322 (Mayfield Road). The Applicants proposed that the line would be a double circuit 138 kV line supported by single wood pole structures and that it would generally require a 60-foot right of way (r-o-w). (Staff Ex. 2 [Staff Report], at 5.)

The Preferred Route, as presented in the application, is 14.7 miles in length.[1] The route runs cross country through Huntsburg, Montville, and Thompson townships in Geauga County, and across the southern border of Lake County. The Preferred Route originates on the north side of Mayfield Road at 1,500 feet east of Madison Road (State Route 528), where it connects to the proposed Stacy Substation at the preferred substation location.

After crossing Whitney Road, the Preferred Route heads north and crosses GAR Highway (U.S. Route 6) at 3,900 feet east of Madison Road. The route follows along the north side of GAR Highway for 820 feet then turns northward, crossing Hart Road at 2,700

[1] All measures of distance are approximate.

feet east of Madison Road. Continuing generally to the north, the Preferred Route crosses Leggett Road and Burrows Road at 1,400 feet and 1,200 feet east of Madison Road, respectively.

From the substation, the Preferred Route heads generally northward, shifting to the east or west to avoid sensitive areas or follow the edge of property lines. The route crosses Huntley Road at 1,250 feet east of Madison Road. Continuing to the north, the route crosses Chardon Windsor Road at 1,700 feet east of Madison Road. The Preferred Route continues northward to the intersection of Plank Road (State Route 86) and Sun Road, then follows along the east side of Sun Road to Whitney Road.

The Preferred Route continues its northward path with occasional shifts to the east or west until it reaches the intersection of Rock Creek Road (State Route 166) and Ledge Road. The route follows along the west side of Ledge Road for 1,300 feet before crossing to the east side, then follows along the east side for 1,650 feet. The route crosses back to the west side of Ledge Road to avoid agricultural structures and continues along the road for 1,950 feet, then turns to the east and heads cross country for 3,100 feet.

The Preferred Route continues generally northward to Thompson Road, crossing at 1,550 feet west of Sidley Road. The route carries on to the north and crosses Moseley Road at 2,150 feet west of Sidley Road, then heads east along the north side of Moseley Road for 660 feet before resuming its northward path. The Preferred Route crosses Stocking Road at 1,350 feet west of Sidley Road, enters Lake County, and comes to an end at the Ashtabula-Mayfield 138 kV Q3 Transmission Line, 650 feet north of Stocking Road. (Staff Report at 5-6.)

The Alternate Route, as presented in the application, is 12 miles in length. The Alternate Route runs just outside of the road r-o-w along Clay Street through Huntsburg, Montville, and Thompson townships, crossing the street in several places to avoid impacts. The Alternate Route originates on the south side of Mayfield Road at 400 feet west of Clay Street, where it would connect to the proposed Stacy Substation at the alternate substation location.

From the substation, the Alternate Route heads east to Clay Street, turns north and crosses Mayfield Road, then continues north along the west side of Clay Street for 3,350 feet. The route crosses the street diagonally then continues north until crossing back to the west side of Clay Street at 250 feet south of Huntley Road. The Alternate Route crosses Huntley Road and continues along the west side of Clay Street, crossing Chardon Windsor Road and passing by Hautala Road. At 4,450 feet south of GAR Highway, the route crosses over Clay Street and continues north along the east side of the road for 2,650 feet before crossing back to the west side.

The Alternate Route heads north along the west side of Clay Street, crossing GAR Highway and Hart Road. The route crosses to the east side of Clay Street at 650 feet south of Leggett Road and continues north, crossing Leggett Road and Plank Road. At the intersection of Clay Street and Rock Creek Road (State Route 166), the Alternate Route crosses diagonally through the intersection to the west side of Clay Street. The route continues along the road, crossing back to the east side of Clay Street at 900 feet south of Valentine Road. The route continues north for 1,500 feet before crossing back to the west side of Clay Street.

The Alternate Route follows Clay Street on the west side for 3,300 feet, crosses to the east side, and continues north, crossing Thompson Road. The route remains on the east side until 1,250 feet south of Moseley Road, where it crosses back to the west side and follows Clay Street north. After crossing Moseley Road, the Alternate Route leaves Clay Street and heads northwest for 400 feet, coming to an end at the Ashtabula-Mayfield 138 kV Q3 Transmission Line. (Staff Ex. 2, at 6.)

III. Certificate Criteria

Pursuant to Section 4906.10(A), Revised Code, 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) 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, such 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 such facilities will serve the interests of electric system economy and reliability;

(5) The facility will comply with Chapters 3704, 3734, and 6111, Revised Code, and all rules and standards adopted under those chapters and under Sections 1501.33, 1501.34, and 4561.32, Revised Code;

(6) The facility will serve the public interest, convenience, and necessity;

(7) The impact of the facility on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929, Revised Code, that is located within the site and alternate site of the proposed major facility; and

(8) The facility incorporates maximum feasible water conservation practices as determined by the Board, considering available technology and the nature and economics of various alternatives.

IV. Summary of the Evidence

We will review the evidence presented with regard to each of the eight criteria by which we are required to evaluate this application.

A. Basis of Need (Section 4906.10(A)(1), Revised Code).

1. Applicants' Position.

In the application, the Applicants contend that certain areas in Geauga and Ashtabula counties have been experiencing higher than average electric load growth and, as demonstrated by its load flow studies, the existing distribution system in this area is stretched to its limit. The proposed facility, according to the Applicants, will address this problem by extending an existing transmission line circuit to a new substation and interconnecting this circuit to the existing electric distribution system. They state that the Project will also reduce system losses of approximately 6.5 megawatts (MW) during peak loading, translating into an annual savings of approximately 35,000 megawatt-hours (mWh) of energy, with a corresponding reduction of consumption of fossil fuels at generating plants and of emissions into the environment. (Applicants' Ex. 1, at 01-2. *See also* Applicants' Initial Brief at 9-25.)

According to Applicants' witness Theodore Robert Krauss, the Project is anticipated to ensure adequate and reliable electric service in the area, thereby having a positive impact on regional development (Applicants' Ex. 2, at 49). Applicants' witness James A. Sears, Jr., also testified regarding the need for the Project, pointing out that the existing distribution system is currently loaded beyond its design limits and that, as load continues to grow, the system will become unable to provide reliable service to CEI's customers in the local area. In its current state, he advises, deviations from normal system conditions, such as during maintenance or repair work, and peak load conditions, result in unacceptable voltage fluctuations and other service issues for customers. He opines that construction of the

Project will provide the necessary voltage support and system capacity to address current and forecasted loading on the system, thereby allowing the Applicants to provide safe and reliable electric service in the area. (Applicants' Ex. 4, at 11-12.)

The Applicants also discuss their exploration of whether the use of distributive generation, as an alternate means of power generation for the area, could obviate the need for the Project. Although disputing whether Ohio law requires a showing that the need for additional power could not otherwise be met through distributed generation alternatives, the Applicants' witness, Mr. Sears, testified regarding problems with the viability of this option. Among the issues raised by Mr. Sears are the need for customers who desire distributive generation, the high cost of distributive generation, the cost of environmental permitting and compliance, possible constraints due to air pollution control requirements, load growth in the area that would likely outstrip the distributive generation capabilities, reliability of distributive generator turbine units, intermittent usage, and upgrades to convert the current radial system to a networked system. (Applicants' Ex. 3, at 52-54; Applicants' Ex. 13, at 12; Applicants' Reply Brief at 61.) The Applicants believe that the cost of distributive generation, which cost would have to be paid by ratepayers, would exceed its benefits, especially when compared to the Project. (Applicants' Reply Brief at 65, 66.)

2. Staff's Position.

Board Staff explains that power to the area is currently supplied by CEI's 36 kV distribution system, primarily from ATSI's 138/36 kV transformers at the Mayfield substation, located approximately 15 miles west of the proposed new Stacy Substation. The system delivers power, says Staff, to several local distribution substations in the area. It reports that the Applicants project three percent annual load growth, causing the existing transformer at the Mayfield substation to exceed its operating capability by 2014. Staff continues that a second source, about 23 miles northeast of the proposed substation, currently supplies about one-quarter of the power requirements for the area. According to Staff, the proposed facility would add a new 138/36kV source of power and would thereby relieve capacity and voltage problems on the existing distribution system. Staff also believes that the Project would increase system efficiency and would reduce distribution system losses by reducing the distance between the power supply and the load. Staff opines that the Project would resolve issues relating to distribution circuit reliability in the area to be served, low voltages at local distribution substations in the Project area, and lack of spare capacity for peak usage periods. (Staff Ex. 2, at 22-23.)

In its Initial Brief, Staff summarizes the current and expected future situations. At present, staff explains, the area is supplied by six circuits, emanating from two substations, and the capacity is such that it is expected to reach its limit as early as 2014. Under current loads, according to staff, both of the substations and half of the circuits would overload if any one component of the system were to fail. From a voltage standpoint, staff points out that, under peak demand, the system currently experiences scattered voltage levels below

the planning criteria. Staff also notes that the Project would result in significant improvement in reliability. (Staff Initial Brief at 6-7.)

Staff also considered other options to resolve these issues, including increasing the local supply of power through distributive generation or reducing demand through demand-side management or energy efficiency measures. Staff points out that construction of a power plant in the area is cost-prohibitive and would have higher environmental and social impacts. Reduction in demand would not suffice, in Staff's opinion, as such efforts would need to eliminate all of the forecasted growth in demand and, in addition, immediately drive down the current demand. Thus, Staff does not believe that other options are viable. (Staff Initial Brief at 7-8.)

For these reasons, Staff recommends that the Board find that the basis of need for the Project has been demonstrated (Staff Ex. 2, at 23).

3. Intervenors' Positions.

Orwell also opined that the existing system serving the area is currently loaded beyond its design limits, resulting in unacceptable voltage fluctuations and other service issues for industrial and other customers in Orwell. It also underlines testimony showing that, under hypothetical circumstances in which one component of the system has failed, the system will exceed rated capacity under peak load conditions, in all simulated years. Orwell emphasizes that its citizens and businesses need and deserve reliable service.

Orwell also submits that adding an additional transformer to the Sanborn Substation would not suffice, as use of that additional capacity would require extension of at least two new 36 kV circuits to the Project areas. It also disputes the viability of distributive generation as a solution on the grounds of reliability, cost, and feasibility. (Orwell Initial Brief at 7.)

IEU also agrees that the Project is needed in order for the local industrial and manufacturing community not to suffer further economic harm. It advises that the area's low voltage conditions result in serious negative economic consequences to its businesses. IEU also agrees that nontransmission alternatives will not alleviate the reliability issues facing the existing system. IEU urges approval of the Project. (IEU Initial Brief at 2-9.)

CARE, on the other hand, points out that a similar proposal was certificated in 1997 and that, in 1999 in that proceeding, the Applicants stated that an alternative strategy could alleviate the need for that transmission line and would satisfy the area's power needs until 2038. Although CARE recognizes that there have been changes in the area, it questions whether there is proof that the growth in the area has been so rapid that the need that the Applicants had not anticipated until 2038 is already present. (CARE Reply Brief at 3-4.)

Mr. Davet raised the issue of distributive generation alternatives, pointing out that the Applicants did not produce evidence of any study or analysis of this option. Mr. Davet contends that an analysis of the rationale for rejecting distributive generation must be provided. He also seeks detailed analysis of the expected rate of growth in demand in the region. Further, Mr. Davet believes that Staff's rejection of each nontransmission alternative is an incomplete answer, as he maintains that Staff did not consider the effect of all three nontransmission alternatives used together, which might result in the need for a smaller increase in transmission capacity. Finally, Mr. Davet looks for additional economic support for the cost analysis of distributive generation. Thus, Mr. Davet believes that the Applicants have failed to meet their burden of proof on this point. (Davet Brief at 3-4, 7-9.)

4. Board Analysis and Determination.

The Board finds that this criterion has been met. It is clear from the evidence that the area that is proposed to be served by the Project currently suffers from capacity, reliability, and voltage stability problems. We recognize that these issues affect residential and nonresidential consumers alike. The likely growth in demand in the area will only exacerbate the problem. We also find that the Project is designed to address these issues.

With regard to distributive generation, demand-side management, and energy efficiency, we find that the Applicants have refuted the suggestion that such nontransmission options would, individually or in the aggregate, obviate the need for the Project. The Applicants pointed out the intermittent nature of distributive generators' use and their lower reliability than standard generators, as well as increased costs to customers and both environmental and societal concerns regarding their installation and use. Although Mr. Davet contends that the use of all three options in the aggregate, thus lowering demand while increasing local supply, could be effective, we conclude that demand-side management and energy efficiency efforts will not reduce the current and future demands dramatically and that many of the problems with associated with distributive generation would be faced regardless of whether demand reduction were attempted at the same time or not. Therefore, we do not believe that nontransmission options result in a lack of need for the Project.

B. Nature of Probable Environmental Impact (Section 4906.10(A)(2), Revised Code).

1. Application and Applicants' Testimony.

The application includes a review of the Applicants' opinion on the probable environmental impacts of the Project. The Applicants state, with regard to land use impacts, that usage in the surrounding area is predominantly agricultural or wooded, with residences located primarily along the roads. They calculate that about 30 percent of the Preferred Route and 25 percent of the Alternate Route crosses agricultural land, with

permanent loss limited to the footprint of poles and guy wires, as well as an area around those items associated with plowing patterns. The application did identify one golf course along the Preferred Route. The Alternate Route crosses a golf course, a park district property, and an astronomical observatory. The application also notes that both routes are located within a private, grass airstrip, flight path. Overall, the Applicants summarize, the Preferred Route has fewer land use impacts (Applicants' Ex. 1, at 01-6 to 01-7).

The Applicants assert that economic impacts of the Project are anticipated to be positive, based on the availability of reliable electric service (Applicants' Ex. 1, at 01-7).

From an ecological standpoint, the Applicants report that they have not identified the presence of any state or federally listed threatened or endangered species along either route. The application notes that the Indiana bat's known range includes this area, but there are no known records of Indiana bats within 1,000 feet of either route. According to the application, construction impacts to streams and wetlands along the Preferred Route will be minimal and access routes will be selected to minimize those impacts. However, they anticipate that they may have to place up to five poles in the wetlands. Along the Alternate Route, construction impacts to streams and wetlands will be minimal (Applicants' Ex. 1, at 01-7 to 01-9).

Testimony of the Applicants' witnesses will be discussed in the section below titled, "Minimum Adverse Environmental Impact."

2. Staff Report.

Staff also reviewed the environmental information in the application, as well as making site visits to the Project area and discussing the issues with employees and representatives of the Applicants.

According to Staff, eighty-four residences are located within 1,000 feet of the Preferred Route, of which five are within 100 feet and none are within 30 feet of the proposed centerline. As such, the Applicants have indicated that no residential structures would need to be removed from the r-o-w for the Preferred Route. Regarding the Alternate Route, Staff counts that 299 residences are located within 1,000 feet, of which 43 are within 100 feet and six are within 30 feet of the proposed centerline of the Alternate Route. Staff reports that the Applicants state that these six residences would need to be removed from the Alternate Route r-o-w.

Staff states that the Preferred Route crosses 57 streams, totaling approximately 5,000 linear feet, whereas the Alternate Route crosses 23 streams, totaling 988 linear feet. Impacts associated with these crossings could, according to Staff, include erosion from vegetation clearing, sedimentation from storm water runoff, water temperature increase and loss of habitat. Staff also reports that there are two ponds within 100 feet of the Preferred Route

and that one pond will be crossed. In contrast, Staff says that there are six ponds within 100 feet of the Alternate Route, but no ponds will be crossed by that route. Therefore, Staff concludes that no impacts to ponds on either route are expected. Regarding wetlands, Staff indicates that the Preferred Route crosses 64 wetlands, totaling 13,744 linear feet, and that the Alternate Route crosses 30 wetlands, totaling 2,662 linear feet of wetland. Impacts to wetlands, Staff states, include permanent loss of trees and other habitat, habitat fragmentation, soil compaction, surface water flow disruption, and aesthetic impacts.

Approximately 63 acres of woodlot would be cleared for the Preferred Route, according to the Staff Report, while 15 acres would be cleared for the Alternate Route. Staff opines that, in addition to significantly altering or eliminating existing vegetated communities and associated woodland wildlife populations, tree clearing poses impacts to the physical, chemical and biological characteristics of soils and that soil productivity and nutrient regime are important functions in forested wetlands. Staff concludes that significant impacts to soils can alter the function of forested wetlands as well as the function of non-wetland forest communities.

Staff also points out that implementation of the Preferred Route could expand access to high quality streams and wetlands, and to large forested areas, by all-terrain vehicle (ATV) users and other off-road vehicles, which could lead to potentially extensive and significant adverse aquatic and terrestrial resource impacts. However, because it borders an existing roadway, Staff notes that this would not be an issue for the Alternate Route.

Staff states that trees are present along many of the streams where they would be crossed by either the Preferred or Alternate Route, and goes on to explain the many positive impacts of trees on the environment. Staff points out that tree clearing will be required at stream crossings for both the Preferred and Alternate Routes and that such clearing activities will have negative consequences. Similarly, Staff suggests that riparian vegetation removal will also lead to increased downstream sedimentation because of streambank erosion and that certain streams along the Preferred Route, with very narrow riparian areas, will be permanently altered, leading to increased erosion, channel widening, and a basic change in their overall water quality function. Larger streams that have wider riparian areas, according to Staff, will be fragmented, which may lead to a change in the function of the forested communities through which the streams flow.

According to the Staff Report, all vegetation within the 60-foot r-o-w and adjacent to the r-o-w that presents a danger to the line or access to the line will be cleared, including wetlands. Staff opines that, because of the large quantity of tree clearing, the wetland soils may suffer negative consequences and interior wetland habitat may be altered to form edge habitat.

Staff does report that there are no nature preserves, state parks, wildlife areas or scenic rivers in the vicinity of the Project site and that there are no federal wilderness areas, wildlife refuges, or designated Critical Habitats within the vicinity of the proposed Project.

Also, Staff states that a records survey at the Ohio Department of Natural Resources did not indicate the presence of any protected plants within either proposed route.

Staff contends that the Preferred Route includes numerous wetlands, streams, and wooded areas, containing habitat supporting numerous common reptile, amphibian, bird, and mammal species. Species along the Project route will likely be impacted, both directly and indirectly, during the construction and operation of the proposed electric transmission line, in Staff's opinion. However, Staff notes that, because the Alternate Route follows an existing road corridor, fewer pockets of suitable wildlife habitat are expected to be impacted when compared to the Preferred Route and that forest fragmentation is expected to be significantly less with the Alternate Route, as the required tree clearing would be along existing edges rather than bisecting wooded areas.

The Staff Report states that one recreational land use, a golf course, is located within 1,000 feet to the west of the Preferred Route and that two recreational properties are crossed by the Alternate Route. It also states that no institutional land use is located within 1,000 feet of the Preferred Route and that one institutional land use is crossed by the Alternate Route. The reports sets forth that industrial land use crossed by the Preferred Route includes properties associated with quarry operations and that the Alternate Route crosses nearly 500 feet of a concrete materials operation property. No commercial uses, according to the report, were identified within 1,000 feet of either the Preferred Route or the Alternate Route.

Four Agricultural District parcels are reported to be located within 1,000 feet of the Preferred Route, two of which are crossed by the Preferred Route, totaling approximately 3,900 linear feet. The report states that 20 Agricultural District parcels are within 1,000 feet of the Alternate Route and that eight Agricultural District parcels, totaling approximately 4,600 linear feet, are crossed by the Alternate Route.

Staff concludes that, from a construction and operations standpoint, the Alternate Route would be easier to install and maintain than would the Preferred Route, given its proximity to Clay Street and the ease of access that provides, particularly when responding to emergency outages, while construction and operation of the Preferred Route poses significant challenges, due to its difficult access, especially during unfavorable weather conditions. Staff points out that both the Preferred and Alternate Routes cross several roads and that no active railroads were identified in the Project vicinity.

According to Staff, the predominant aesthetic impacts for either route are anticipated to be in the form of r-o-w clearing, with the Preferred Route introducing a new, man-made

element into an open, pastoral setting and a new cleared corridor through wooded areas, as well as introducing taller poles to a rural roadway, with r-o-w clearing involving residential screen trees. Staff also reports that noise sensitive areas along either route would primarily include existing residences and that there would be a temporary, minor increase in noise during construction of the proposed Project.

The report notes that there are several public airports in the Project vicinity but that construction and operation of the proposed facility is not expected to have a significant impact on these airports. However, it does state that selection of either route would impact three potentially active private grass airstrips in the vicinity.

Staff reported on one potential land use conflict with the future entrance to a Geauga County Park District property, which would likely be crossed by the Alternate Route.

According to Staff, there was one previously recorded archaeological site within 1,000 feet of the Preferred Route, as identified by the Applicants, but none within 1,000 feet of the Alternate Route and none within 100 feet of either route. No structures were identified by Staff within 1,000 feet of either route and the Project is not expected to impact the previously identified cultural resource. Staff states that costs to construct the Preferred Route would total approximately $7,830,000 and approximately $8,640,000 to construct the Alternate Route. (Staff Ex. 2 at 24-30.)

Staff recommends that the Board find that the nature of the probable environmental impact has been determined for the proposed transmission routes provided that any certificate issued by the Board, for the proposed facility, include the conditions specified in the section of the report entitled Recommended Conditions of Certificate, as revised in Staff's rebuttal testimony (Staff Ex. 2 at 30; Staff Ex. 3, Ex. A, at 1-7).

3. Intervenor Testimony and Arguments.

CARE argues that the application should be denied because a proper ecological impact analysis was not conducted by the Applicants or URS. CARE points out that Rule 4906-15-07, O.A.C., requires that an applicant provide "a description of each major species of commercial or recreational value and species designated as endangered or threatened, in accordance with U.S. and Ohio species lists, that is present and may be affected" by construction of the Project. CARE asserts that the rule also requires the Applicants to describe the probable impact to the habitat of these species, included but not limited to:

(1) Construction: The applicant shall estimate the probable impact of the construction of the proposed facility on the vegetation. This would include the impacts from route clearing, types of vegetation waste generated, and the methods of disposal or dispersal.

(2) Operation and maintenance: The applicant shall estimate the probable impact of the operation and maintenance of the proposed facility after construction on species described above. This would include the permanent impact from route clearing and any impact to natural nesting areas.

(3) Mitigation procedures: The applicant shall describe the mitigation procedures to be used during construction of the proposed facility and during the operation and maintenance of the proposed facility to minimize the impact on species described above.

Rule 4906-15-07(F), O.A.C. CARE asserts that testimony during the public hearings indicated that at least one state endangered species was not properly identified and documented by the Applicants and that their review of the areas impacted by the Project was not complete. One resident along the Preferred Route testified that she has observed yellow-bellied sapsuckers (*Sphyrapicus varius*), which is a species on the Ohio endangered species list. (September 10, 2008 Tr. at 170.) This endangered species, according to CARE, is not identified in the Application as being found in the Project area and is not listed in the application's Table of Animal Species Identified or Likely to Occur in the Study Area (Applicants' Ex. 1, Section 4906-15-07, Table 07-2.) Further, CARE asserts that the Applicants failed to satisfy Rule 4906-15-07(E), O.A.C, because the application does not contain a list of the naturally occurring vegetation that will be affected by the Project. CARE witness Dr. James Galm testified that his black walnut trees (seedlings) will be impacted by the Project. (Tr. II at 88-89; CARE Ex. Galm-6.) However, according to CARE, this species is not listed on the Table of Major Plant Species Observed or Expected to Occur in the Study Area. (Applicants' Ex. 1, Section 4906-15-07, Table 07-1.) CARE further argues that 24 plant species were identified by two other persons during a survey of four properties along the Preferred Route but that the Applicants failed to observe and identify them during the field surveys conducted prior to submitting their application. CARE contends that this evidence illustrates that the ecological impact studies conducted for this Project were inadequate. CARE also argues that the Applicants failed to properly identify the impacts of construction of the Project on vegetation, as required by Rule 4906-15-07(F)(1). CARE contends that, because the Applicants have failed to comply with the requirements of this rule, the application should be denied. (CARE Initial Brief at 12-16.)

Staff disagrees with CARE's argument that the Applicants' failed to comply with Rule 4906-15-07, O.A.C. First, Staff asserts that CARE's argument is flawed because it is based on evidence that was not properly admitted into evidence in the adjudicatory hearing (September 16, 2008 letter sent by Dr, Jim Bissell to the Public Utilities Commission). Next, Staff asserts that CARE's argument is fatally flawed because it ignores all of the information generated and provided after the filing of the application. Last, Staff asserts that CARE's argument ignores the analysis of impacts set out in the Staff Report.

Staff disagrees with CARE's contention that the presence of the yellow-bellied sapsucker was newly raised by a resident at a local public hearing. Staff asserts that the potential presence of this species and the impact of the project were discussed in the Staff Report issued August 12, 2008, prior to the local public hearings. (Staff Ex. 2, at 27.) Staff also asserts that the Staff Report specifically included recommended condition 13, which required the Applicants to perform a habitat suitability assessment for nesting/breeding yellow-bellied sapsuckers and precluded clearing or construction in these areas until Staff's review and approval of the assessment. (Staff Ex. 2, at 45.) Further, Staff's rebuttal testimony recommended a more specific approach to the protection of the yellow-bellied sapsuckers, including habitat surveys and mitigation of the potential impact that may occur from tree removal. (Staff Ex. 3, at 2, and Ex. A, at 2, Condition 13(B).

4. Board Analysis and Conclusion.

With regard to CARE's arguments, we find that the totality of the record reflects that the Applicants did comply with Rule 4906-15-07, O.A.C. We are also not convinced that the yellow-bellied sapsucker was not appropriately addressed in the Staff Report and rebuttal testimony. The Board finds that, based on the record in this proceeding, the nature of the probable environmental impact has been determined for the proposed transmission routes, in accordance with Section 4906.10(A)(2), Revised Code.

C. Minimum Adverse Environmental Impact (Section 4906.10(A)(3), Revised Code).

1. Application and Applicants' Testimony.

The Applicants assert that they undertook extensive efforts to propose a Project that represents the minimum adverse environmental impact, including authorizing their consultants to undertake one of the most comprehensive, detailed, and extensive route selection studies ever proposed for a utility transmission line project. (Applicants' Ex. 5, at 19-20; Applicant's Initial Brief at 25.) The Applicants further assert that the Route Selection Study produced an "objective and comparative analysis of the potential routes." (Staff Ex. 2, Staff Report, at 3.) Because the Applicants carefully evaluated and adjusted possible routes to avoid environmental damage, the Applicants argue that the Preferred and Alternate Routes represent the minimum adverse environmental impact.

In support of their argument, the Applicants submit that any discussion of the efforts of Applicants to minimize the impacts of the proposed Project on the environment must start with the Route Selection Study undertaken by Applicants' consultant, URS Corporation ("URS"). The Applicants assert that the Route Selection Study, which was the culmination of work that began in December 2005, was conceived as a mechanism to identify the routing options that minimized the impacts associated with the Project, taking into account the need to minimize the environmental impacts as well as serving the public

interest, convenience, and necessity (Applicants' Ex. 4, at 10, 12). The Applicants and URS believe that the statutory considerations found in Section 4906.10(A)(3), Revised Code, which requires minimization of environmental impacts, calls for consideration of more factors than simply the ecological impacts of the proposed project. The Applicants assert, therefore, that each route was evaluated on the basis of 27 quantifiable ecological, cultural, land use, and engineering attributes. (Staff Ex. 2, at 3.) The Applicants also assert that, as part of the Route Selection Study, the Applicants and URS took into account all relevant impacts, including socioeconomic, ecological, cultural, and land use, that a proposed route would create. (Applicants' Ex. 4, at 17). The Applicants opine that they selected the Preferred and Alternate Routes after carefully considering feasible alternatives to minimize the overall environmental impacts (i.e., the impacts on all features of the environment) from the Project. (Applicants' Initial Brief, at 26.)

Next, the Applicants submit that they contracted with URS to design a detailed route selection process to determine the best possible location for the Project. Conceptually, the Route Selection Study consists of two phases, a preliminary screening study and the final Route Selection Study (Applicants' Ex. 4, at 9). Further, each study phase involved collection and evaluation of environmental, cultural, land use, and engineering data to identify potential routes for the Project. (Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 1.) The Applicants submit that, as is the case with every utility transmission line project subject to the Board's jurisdiction, the consideration of routing alternatives must balance all of the impacts associated with the proposed project in an effort to identify the options with the fewest environmental impacts. (Applicants' Ex. 4, at 12.) Because the Board rules, in particular Rules 4906-15-06 and 4906-15-07, O.A.C., require the identification and consideration of ecological, socioeconomic, and cultural characteristics of the study area, the Applicants assert that the Route Selection Study was conceptually designed to take into account and balance these potential impacts. (Applicants' Ex. 4, at 18; Applicants' Initial Brief at 26-27.)

The route selection process began with the preliminary screening of two possible "corridors" where a transmission line could be located: the Middlefield Area and Ashtabula Area concepts, according to the Applicants. Generally, the Middlefield Area option involved a new or expanded substation in the area of the current Ruth, Mercury, Burton, and Parkman substations or in the general area of Mayfield Road in Claridon and Huntsburg townships of Geauga County. (Applicants' Ex. 4, at 10; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 2-3.) The Ashtabula Area concept generally involved connecting the Ashtabula Substation to a new substation to the south. (Applicants' Ex. 4, at 10; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 2-3.) The Applicants submit that maps of these preliminary screening areas were included in the Route Selection Study, which is Attachment AG-1 to Applicants' Ex. 5. The Applicants assert that the preliminary screening phase concluded that the Ashtabula Area concept was less attractive from a siting perspective than the Middlefield Area option. (Applicants' Ex. 4, at 11;

Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 3; Applicants' Initial Brief at 27-28.)

Once the Applicants reviewed the preliminary screening information and determined that the Middlefield Area option provided the best option for siting the Project, the examination then focused on a study area of approximately 120 square miles located in Geauga and Lake Counties. (Applicants' Ex. 4, at 11; Applicants' Ex. 5, at 19; Staff Ex. 2, Staff Report, at 3.) The Applicants submit that the study area was defined by the nature of the solution to the problem selected by the Applicants; once Mayfield Road was identified as the location for the new substation, the southern and northern boundaries of the study area were effectively determined. (Applicants' Ex. 4, at 13.) The Applicants explain that the southern limit for the study area was determined based on the need to install a new or expanded distribution substation close to the load center and near the existing circuit located along Mayfield Road in Claridon and Huntsburg townships, between approximately the intersection of Mayfield Road and Claridon-Troy Road and the Huntsburg Substation to the east. (Applicants' Ex. 4, at 11; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 4.) Next, they note, the northern extent of the study area was defined by the existing location of ATSI's Mayfield-Ashtabula 138 kV transmission line corridor, the source of the electricity for the new substation. (Applicants' Ex. 4, at 13; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 6.) Further, the western and eastern boundaries of the study area were, according to the Applicants, based on potential transmission line corridors and were selected to avoid encroaching into areas with significant occurrences of residential, commercial, and recreational land use, as well as ecologically sensitive areas. (Applicants' Ex. 5, at 17-18, 20-21; Applicants' Ex. 4, at 13-14; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 6.) The Applicants assert that the western boundary of the study area was set to avoid the City of Chardon, and the greater impacts associated with construction in more highly developed residential areas, and several sensitive land uses, including Bass Lake Preserve. (Applicants' Ex. 5, at 17-18; Applicants' Ex. 4, at 13-14.) Further, they contend that the eastern boundary was set to avoid additional impacts to more developed residential areas, including the Village of Orwell. The Applicants assert that the eastern boundary also was set based on the existence of significantly more ecological resources, including wetland, streams, and mapped locations for threatened, endangered, and protected species further to the east of the study area. (Applicants' Ex. 5, at 18, 20; Applicants' Ex. 4, at 14). Overall, according to the Applicants, the study area included more than 120 square miles, representing one of the largest study areas ever considered by URS for a similar utility transmission project. (Applicants' Ex. 5, at 19-20; Applicants' Initial Brief at 28-29.)

Next, the Applicants submit that, once the study area was defined, URS then evaluated existing and new potential transmission corridors within the study area that could serve as potential routes for the Project. The Applicants further submit that the major corridors included State Route 608, the former Baltimore and Ohio Railroad line, Clay Street, Madison Road (State Route 528), Plank Road (State Route 86), and three main cross-

county corridors. (Applicants' Ex. 5, at 21-22; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 8-9.) Within these corridors, URS then identified almost 900 "candidate routes." (Applicants' Ex. 5, at 38; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 10.) The Applicants assert that these candidate routes were then compared relative to each other using a "multi-attribute" decision system. According to the Applicants, the study used four major categories of attributes to compare the routes: environmental/ecological, cultural, land use, and engineering. (Applicants' Ex. 4, at 14; Applicants' Ex. 5, at 32; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 11-15.) These four factors were weighted to reflect the high importance of environmental/ecological and land use concerns, with those two factors each accounting for 40 percent of a route's score (Applicants' Ex. 4, at 20-21; Applicants' Ex. 5, at 32.) Cultural and engineering factors each accounted for 10 percent of a potential route's score. (Applicants' Ex. 4, at 20-21; Applicants' Ex. 5, at 32; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 19.) The Applicants opine that it is important to understand that URS, at the direction of the Applicants, selected the weighting factors assigned to each of the scored attributes to highlight the primary importance of the land use and ecological constraints on the Project. (Applicants' Ex. 4, at 21; Applicants' Ex. 5, at 32; Applicants' Initial Brief at 29-30.)

After identifying the lowest ("best") scoring route corridors, engineers and staff from URS and Applicants conducted additional detailed "windshield" investigations to evaluate the constructability and identify potential flaws in a potential candidate route. (Applicants' Ex. 5, at 34-35; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 25.) According to the Applicants, URS then performed a final detailed scoring and ranking of the potential routes (Applicants' Ex. 5, at 35). The Applicants submit that Route 856 along Clay Street (now the Alternate Route) received the best total score and was tied for the best environmental/ecological score. (Applicants' Ex. 5, at 38-39; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 29.) Route 709, the cross-country route to the east of State Route 528 (now the Preferred Route) received the best land use score and was the best cross-country route. (Applicants' Ex. 5, at 38-39; Applicants' Ex. 5, Route Selection Study, Attachment AG-1, at 30.) The Applicants note that many of the top 50 scoring routes in the Route Selection Study were primarily located along roads with similar, but slightly greater land use impacts, as compared to the Clay Street Route. As such, the Applicants contend that it was difficult to distinguish these other road routes as clear alternatives to the Clay Street Route. (Applicants' Ex. 5, at 38-39, Applicants' Ex. 4, at 26.) As a result of this analysis and the Applicants' desire to propose two clear alternatives (with distinctly different impacts), the Applicants selected the Clay Street route and the cross-country route east of State Route 528 to provide the Board with two distinct alternatives, both of which meet the requirements for the Project and which satisfy the requirements of Section 4906.10, Revised Code, according to the Applicants. (Applicants' Ex. 2, at 63; Applicants' Ex. 4, at 26; Applicants' Ex. 5, at 38-39.) Finally, although the Clay Street Route scored the best, the Applicants submit that they elected to select the cross-county route as the Preferred Route

to avoid the need to take any homes. (Applicants' Ex. 5 at 40; Applicants' Initial Brief at 30-31.)

With respect to the impacts of the Preferred Route, and viewed in the context of the previously outlined need, the Applicants assert their belief that the land use impacts of the transmission line on nonagricultural land use are minimal, consisting of clearance and maintenance of the right-of-way. (Applicants' Initial Brief at 31-32.)

Concerning the impacts of the Project on waterways and wetlands on the Preferred Route, Applicants assert that they have located the proposed routes in order to ensure minimal impact on streams and other waterways. The Applicants also assert that they took a number of steps during the planning and route selection process to minimize the impact on waterways and wetlands, including adjustments to the routes to avoid environmentally sensitive areas. (Staff Ex. 2, at 31.) The Applicants opine that these steps will effectively minimize the impacts on waterways and wetlands and achieve the statutory goal of imposing the minimum adverse impact on these areas. (Applicants' Initial Brief at 33-34.) The subject of impact on streams and other waterways will be discussed more fully in the Staff Report section below.

The Applicants submit that the Project will also have some impact on vegetation and wildlife in the areas along the transmission line route. However, the Applicants assert that none of the non-cropland vegetation to be cleared from either route is listed as endangered or threatened according to studies by the United States Fish and Wildlife Service ("USFWS") or the Ohio Department of Natural Resources. (Applicants' Ex. 1, Application, at 07-26; Applicants' Ex. 4, at 34.) Additionally, although there are several threatened, endangered, or protected animal species potentially present along the Preferred and Alternate Routes, the lines are not expected to significantly affect any of these animals. (Applicants' Ex. 1, at 07-18; Staff Ex. 2, at 26-28.) Applicants have not identified the presence of any threatened or endangered species along either route. (Applicants' Ex. 2, at 50.) The Applicants assert that they plan to undertake various measures to reduce the impact of the transmission line on plant and animal species. In a further effort to ensure that none of these species are impacted, recommended conditions 13, 14, 15, 16, 17, and 18 specifically require the Applicants to take additional mitigative measures to ensure that there are no impacts to Indiana bats, yellow-bellied sapsuckers, bald eagles, or snowshoe hares. (Applicants' Ex. 14, at 34, Attachment TRK-027, and Ex. 14-A; Applicants' Initial Brief at 34-36.) The subject of impact on vegetation and wildlife will be discussed more fully below.

Next, the Applicants opine that the Project will have minimal intangible impacts on the environment, including noise emissions, electric and magnetic fields, and aesthetic impacts. The Applicants assert that the primary noise emission impact will arise from construction of the transmission line, emitted from the equipment used for clearing and installation. (Applicants' Ex. 2, at 100.) The Applicants further assert that they will employ standard construction safety techniques and will conduct the bulk of construction activities

during the typical 40-hour Monday-to-Friday workweek. (Applicants' Ex. 2, at 100.) The Preferred Route would have less impact on residential use because it follows a cross-country route where there are comparatively fewer homes, according to the Applicants. (Applicants' Ex. 2, at 101.) The Applicants assert that they do not expect to engage in activities that would cause substantial noise emissions, such as dynamiting or blasting, or substantial earthmoving or excavation. (Applicants' Ex. 2, at 101.) Further, the Applicants assert that noise emission from operation and maintenance of the line, including visual helicopter inspections and periodic clearing of the r-o-w, will be temporary and infrequent, and therefore will not have a significant impact. (Applicants' Ex. 2, at 103.) Next, the Applicants submit that the transmission line will have some aesthetic impact due to the placement of a manmade element in the landscape and the removal of trees. (Applicants' Ex. 2, at 94.) The Applicants assert that they have limited the potential aesthetic impacts as much as possible through the route selection process and by taking advantage of overbuild opportunities. (Applicants' Ex. 2, at 97.) Additionally, the Applicants assert that they have selected single wood pole tangent structures as the primary means of supporting the transmission line. (Applicants' Ex. 2, at 96.) The Applicants opine that utilizing these single poles will minimize the visual disruption created by the transmission line. The Applicants also discuss electromagnetic fields, as is discussed in more detail below, in the section considering public interest, convenience, and necessity. Last, the Applicants submit that the Applicants and Staff have agreed to 43 conditions to the Certificate, which would further minimize environmental impacts from the proposed Project (Applicants' Ex. 14, and 14-A; Applicants' Initial Brief at 36-37, 39.)

2. Staff Report and Testimony.

Staff has studied the Applicant's description and analysis of the ecological, social, and economic impacts what would result from the construction and operation of the proposed 138 kV electric transmission line. Staff notes that it requested and received additional information from the Applicants to complete its review of the proposed Project. Staff reports that it also conducted field visits to supplement the information contained in the Applicants' filings.

(a) Ecological Impacts

With respect to plants and wildlife, Staff reports that the Applicants took many steps when planning its Preferred Route that result in a reduction to potential plant and wildlife impacts. Staff notes that certain segments of the Preferred Route were adjusted during the planning stages to avoid some of the environmentally sensitive area, including many Category 3 wetlands and wooded areas. Staff states that the Applicants are also working to identify access routes for construction equipment that would minimize any additional direct environmental impacts to sensitive habitats, the end result of which should be the retention of more habitats available for wildlife.

Staff reports that, despite these efforts, construction of either route is expected to introduce both direct and indirect impacts to plant and wildlife. Staff opines that the impacts would include the loss of habitat, increased habitat fragmentation, temporary and permanent displacement, and direct mortality due to construction activities. Staff notes that the Preferred Route has the potential to produce significantly greater negative wildlife impacts than the Alternate Route, as a result of the different habitat types that currently comprise the r-o-w for the routes. Staff asserts that some of the key ecological differences supporting this conclusion are: (1) the r-o-w for the Preferred Route would cross 64 wetlands totaling 14 acres, as compared to 30 wetlands for the Alternate Route; (2) the Preferred Route crosses 57 streams (5,000 linear feet) while the Alternate Route crosses 23 streams (988 linear feet); and (3) within the 60 foot r-o-w, the Applicants expect to clear approximately 63 acres of forest for the Preferred Route compared to 15 acres for the Alternate Route:

With respect to the Indiana bat (*Myotis sodalis*), which is a state and federally endangered species, Staff notes that the Indiana bat has a historical range that includes the Project area. Staff notes that, as a tree-roosting species during the non-winter months, the Indiana bat, if present at the site, could be negatively impacted as a result of the tree clearing associated with the Project construction and maintenance. While some segments of the route do appear to provide suitable potential habitat for the Indiana bat, Staff reports that other wooded portions do not possess the characteristics typically associated with Indiana bat habitat. Staff opines that limiting tree removal, particularly in the areas identified as potential Indiana bat habitat, would help reduce potential impacts to this species. In addition, Staff states that the Applicants have proposed to conduct any necessary tree clearing outside of the Indiana bat's typical summer roosting season, which would help to minimize potential direct impacts to the Indiana bat. Next, Staff notes that, although the Applicants intend to remove trees for the Project, additional acres of trees will remain adjacent to the proposed routes. Therefore, Staff opines, these remaining trees may offer suitable habitat for the Indiana bat. Last, Staff reports that leaving any tree snags that do not present safety or reliability concerns for the line's operation would also retain potential habitat.

With regard to the snowshoe hare, Staff reports that the snowshoe hare is a state endangered species that has been the subject of ODNR reintroduction efforts in northeast Ohio within the past decade. Staff opines that this electric transmission line Project, and specifically the Applicant's Preferred Route, could negatively impact this species through a reduction of suitable habitat primarily associated with the fragmentation of existing wooded areas. Staff states that preserving suitable snowshoe hare habitat where possible would help minimize negative impacts to this species, if present, along the route.

Concerning wetlands, Staff reports that, although the Applicants have no plans to place fill within wetlands, (other than transmission line poles) the Preferred Route alignment does represent significant permanent impacts to wetlands. Staff notes that all

vegetation within the 60-foot r-o-w and adjacent to the r-o-w that presents a danger to the line or access to the line will be cleared. According to Staff, the r-o-w will be permanently maintained, meaning that presently forested wetlands will be converted to non-forested (i.e., lower quality) wetlands. While Staff expects that all felled trees will be left within the wetland boundaries to provide wildlife habitat, Staff opines that this does not compensate for the many adverse changes that clearing will bring to a forested wetland site.

Staff also reports that, regardless of the route selected, the Applicants will mark any wetlands with appropriate flagging. Staff states that the flagging will help prevent construction vehicles from accidently entering or crossing wetlands on either route. According to Staff, three transmission poles would be placed within wetland boundaries on the Preferred Route, while no transmission poles would be placed within any wetlands for the Alternate Route.

The Preferred Route, according to Staff, crosses over 10,000 linear feet more of wetlands than does the Alternate Route. Staff opines that the impacts to wetlands along the Preferred Route would be significant and permanent, while the Alternate Route poses much less adverse impact to wetlands than the Preferred Route alignment.

Concerning the impacts to streams, Staff reports that tree clearing will be required at stream crossings for both the Preferred and Alternate Routes. According to Staff, the removal of trees and other vegetation along a stream increases the direct sunlight to the streams, increases water temperature and reduces the food source for birds, mammals and aquatic species. Staff reports that these are long-term impacts and cannot be mitigated because the r-o-w will be permanently maintained. Although lower-growing vegetation species will be re-established eventually in the r-o-w, Staff indicates that these species will not provide the same type and amount of shading or food supply as do the existing trees.

Next, Staff reports that riparian vegetation removal will also lead to increased downstream sedimentation because of streambank erosion. Sediment (from erosion) impacts the overall health of a stream because it can reduce water quality through turbidity. For streams with very narrow riparian areas, Staff opines that a relatively large portion of the riparian areas along these streams will be permanently altered, leading to increased erosion, channel widening, and a basic change in their overall water quality function. However, Staff notes that larger streams that have wider riparian areas will be in impacted in a different way, as the larger riparian areas will be fragmented, which may lead to a change in the function of the forested communities through which the streams flow.

In order to minimize impacts to stream banks, Staff reports that tree clearing within 25 feet of the bank will be done using hand-clearing methods only, with low-growing trees and shrubs to be left undisturbed. Staff further states, to minimize soil erosion, all stumps will be left in place. Following construction, Staff reports that the natural seed bank will be permitted to reestablish vegetation. Where the natural seed bank does not reestablish

satisfactorily, Staff notes that the Applicants will replant appropriate vegetation along all stream banks.

During the Project, some streams will need to be crossed by construction equipment, according to Staff, while others will be accessed from both sides, eliminating the need for crossing (this also applies to wetland areas). Staff states that some of these crossings would be on a one-pass basis. Staff also notes that, where equipment must cross streams, a particular crossing method and location will be determined that will minimize impacts to the stream and the riparian vegetation. If access must occur during high flow periods, Staff reports that temporary culverts or bridges will be used for vehicle crossing.

In total, the Preferred Route crosses 4,000 linear feet of stream more than the Alternate Route does, so Staff concludes that adverse stream impacts associated with the Preferred Route are significantly greater than those of the Alternate Route.

With respect to the impact to soils, Staff reports that tree clearing poses impacts to the physical, chemical and biological characteristics of soils. Staff notes that significant impacts to soils can alter the function of forested wetlands as well as the function of non-wetland forest communities. According to Staff, the Applicants will clearly mark wetland areas prior to clearing to minimize incidental vehicle impacts. To minimize rutting, Staff states that only rubber-tired or low-impact tracked vehicles, depending on soil saturation conditions, will be permitted to cross wetland areas. Also, Staff notes that, to minimize puddling, wetland matting will be used to reduce soil compaction. Further, Staff states that natural revegetation in disturbed wetland areas will begin after construction crews have completed the installation activities.

(b) Social Impacts

Staff reports that the Preferred Route is approximately 14.7 miles in length, and generally follows a cross-country alignment. The Preferred Route would cross 87 properties, according to Staff, and the majority of properties impacted by the Preferred Route are larger in nature. Staff notes that these parcels consist of agricultural land uses with some residences located on them, as well as parcels that are undeveloped or in a natural state. Staff also reports that the Alternate Route is approximately 12.1 miles in length and generally follows a rural road (Clay Street) alignment and would cross 182 properties. The majority of properties impacted by the Alternate Route are smaller parcels in comparison to the Preferred Route, and generally residential in nature, according to Staff.

As noted in the "Nature of Probable Environmental Impact" section above, eighty-four residences are located within 1,000 feet of the Preferred Route, of which five are within 100 feet and none are within 30 feet of the proposed centerline. As such, the Applicants have indicated that no residential structures would need to be removed from the r-o-w for the Preferred Route. Regarding the Alternate Route, Staff counts that 299 residences are

located within 1,000 feet, of which 43 are within 100 feet and six are within 30 feet of the proposed centerline of the Alternate Route. Staff reports that the Applicants state that these six residences would need to be removed from the Alternate Route r-o-w. The Applicants state that when the r-o-w for the transmission line along either route cannot be obtained through negotiations, appropriation will be pursued.

Staff reports that there is an additional impact on residences outside of the r-o-w, but within 100 feet of the transmission line. These are properties that the Applicants would not purchase; however, these homes would still have all the impacts of the 138 kV transmission line located within 100 feet of their residential structures, according to Staff. Staff opines that mature trees and other incompatible screening vegetation would be totally removed, exposing their houses to traffic noise and significant aesthetic/privacy losses. The report indicates that the Preferred Route has five residences within 100 feet of the proposed line, while the Alternate Route has 43 residences within 100 feet of the proposed line. Therefore, Staff believes that the selection of the Preferred Route represents far fewer impacts to residential properties.

Next, Staff reports that two recreational properties and one institutional land use would be crossed by the Alternate Route, while the Preferred Route will cross the corner of one recreational land use. Staff notes that both routes would impact properties with existing private grass airway strips. The Preferred Route will cross approximately 7,700 more linear feet of agricultural land than the Alternate Route, according to Staff. Staff states that impacts associated with crossing agricultural land include temporary impacts related with access and crossing, and loss of crop production where poles would be placed.

Aesthetic impacts for the Preferred Route include the introduction of man-made structures and a new cleared 60-foot r-o-w in a predominately natural setting, according to Staff. Conversely, Staff notes, the Alternate Route will impact residential screen and frontage trees along Clay Street, changing the landscape of the rural road. Staff also states that the Applicants would incorporate existing distribution lines into the design of either route when practicable. Further, Staff reports that the Applicants have proposed to develop a landscape planting plan where residential landscape screening is removed, in front of structures within 100 feet of the centerline of the Preferred or Alternate Routes. Staff notes that the Applicants propose to utilize single wood pole construction for most structures, with some double poles at angles and dead end structures in lieu of steel pole or tower structures.

Additional impacts associated with the Preferred Route include the bifurcation of larger parcels, according to Staff. To minimize these impacts along the Preferred Route, the Applicants state that the route was aligned along the edges of parcels when possible. Staff notes that, in some instances, to avoid greater ecological impact, the Applicants' route follows the edge of a cleared field and proceeds through the middle of a property. The Applicants further state that several property owners along Ledge Road (Preferred Route)

had expressed an interest in having the line placed closer to their residences in order to preserve the panoramic view facing to the east.

Staff opines that aesthetic impacts would be significant for either route. Staff notes that the Preferred Route will introduce a manmade element to an otherwise pastoral setting, and will establish openings in wooded areas that have the potential to be used by recreation seekers. On the other hand, Staff opines that the Alternate Route will introduce larger pole structures to a highly visible public corridor (Clay Street) and cause the removal of established street trees and frontage screening for numerous residential properties.

With respect to noise, Staff reports that likely noise-sensitive areas located within the 1,000 foot corridor of either route would include residences. As such, noise impacts would be expected to be more significant along the Alternate Route, as there are 215 more occupied homes located within 1,000 feet of the proposed routes, according to Staff. During construction, a temporary increase in noise is anticipated from the operation of clearing equipment and for the installation of the transmission line and pole structures. Staff opines that construction noise impacts will be minimized by applicable construction equipment standards and daylight hours of operation. Staff reports that the Applicants do not anticipate continuous construction activities at any one location to last more than a month in duration.

Concerning project cost, Staff reports that there is a cost differential of roughly 10 percent between the Preferred and Alternate Routes. Staff states that, although the Preferred Route is 2.6 miles longer, overall costs including land and land rights, infrastructure, access, and road repair would render the Alternate Route the higher cost alternative.

While both routes are viable, the routes have issues unique to each other, according to Staff. From a socioeconomic perspective, the Preferred Route will cost less to construct while the Alternate Route would require the condemnation and removal of six existing residences. Staff notes that at least 43 residential properties will be greatly affected by the Alternate Route, and these properties are generally smaller, with less space to minimize impacts of a transmission line. Though more agricultural land use will be impacted by the Preferred Route, Staff concludes that agricultural activities will still be possible and the impacts will generally be of a temporary nature.

Staff notes that the construction and operation of the Preferred Route poses several significant ecological challenges. Similarly, the Alternate Route presents impacts to residential properties that are difficult to resolve. Staff opines that overall impacts from the Preferred Route are less than the Alternate Route because they can be more effectively addressed. Staff states that the Applicants have proposed many routing adjustments to avoid and minimize potential impacts to the Preferred Route. The Alternate Route follows an exiting road corridor and does not easily lend itself to modification, according to Staff.

Although the Applicants have proposed avoidance and minimization measures to reduce overall impacts on the Preferred Route, Staff believes that additional mitigation efforts are needed. These mitigation efforts are included in the Recommended Conditions of Certificate. In summary, Staff's recommended mitigation conditions include the following. First, undeveloped land owned by the Applicants that is adjacent to proposed transmission facilities should be set aside as a vegetative buffer zone. Second, the Applicants should purchase properties adjacent to the r-o-w that would enable lower quality wetlands to evolve into forested wetlands through appropriate replanting and/or deed restrictions. Third, the Applicants should purchase riparian buffer zones along higher quality streams and secure the health of those streams through permanent conservation easement restrictions.

After careful consideration of all impacts and recommended mitigation, Staff concludes that the Preferred Route will result in less overall land use conflicts, will cost less, and will be less disruptive to residents during construction. Staff, therefore, recommends that the Board find that the Preferred Route presents the minimum adverse environmental impact provided that any certificate issued by the Board, for the proposed facility, include the conditions specified in the section of the report entitled Recommended Conditions of Certificate, and as revised in Staff's rebuttal testimony (Staff Ex. 2 at 36; Staff Ex. 3, Ex. A, at 1-7).

3. Intervenor Testimony and Arguments.

CARE argues that the Applicants have failed to meet the statutory requirements necessary for the issuance of a Certificate of Environmental Compatibility and Public Need for this Project. Accordingly, CARE requests that this application be denied. (CARE Initial Brief at 3.) CARE raises four primary arguments in support of its position. Each argument will be discussed in paragraphs below.

CARE contends that the application should be denied, first, because it fails to describe the qualitative factors utilized by the Applicants in the selection of the Preferred and Alternate Routes. CARE points out that, under Rule 4906-15-03(A)(1)(g), O.A.C., the Applicants must provide a "description of any qualitative or other factors utilized by the applicant in the selection of the preferred and alternate routes or sites." CARE asserts that the application fails to identify the qualitative factors considered during the route selection process that resulted in the selection of the Preferred and Alternate Routes. CARE argues that the Applicants should not be permitted to damage private property and disrupt the lives of the residents of Geauga County without providing a detailed description of each and every factor that was considered in selecting the Preferred and Alternate Routes. (CARE Initial Brief at 12.)

Second, CARE contends that the application should be denied because the route selection study employed by the Applicants is flawed in that the process did not consider agricultural land use or recreational land use. In support of its argument, CARE cites to the testimony of the Applicants' witness, Dr. Nicholas, who testified on cross-examination regarding the land use scoring (analysis) process that, "we [URS] cannot count things that we cannot see." (Tr. I at 66-67.) CARE asserts that the evidence demonstrates that both agricultural land use and recreational land use are prevalent in Geauga County. CARE notes that a number of Geauga County residents testified during the public hearings that their farms will be impacted by construction of the proposed transmission line along the Preferred or Alternate Routes. (August 27, 2008 Tr. at 44-45; August 28, 2008 Tr. at 43-46, 70, 73; September 10, 2008 Tr. at 20-22, 25-26, 38, 86-87, 91-95, 98-99, 101, 108-113, 129-130, 133, 143, 147-148, 156.) At hearing, CARE witness Dr. Michael Youshak testified regarding the soil compaction from the proposed project and the likely impact on the "no-till" farming practices that he uses. (CARE Ex. D, at 2-6.) CARE witness Charles Lausin also testified at hearing concerning the impact of the proposed project on his 650-acre dairy farm, which will result in a loss of crop yield and productivity due to soil compaction. (CARE Exs. E, E-1.) CARE argues that this testimony demonstrates that the Applicants ignored agricultural land uses throughout the siting process. CARE also argues that testimony at both the public hearings and the adjudicatory hearing demonstrated that property owners affected by the proposed Project use their property for multiple and varied types of recreational activities, including hunting, fishing, deer feeding, bird watching, and camping. (September 10, 2008 Tr. at 25, 88, 98, 150-151; CARE Ex. B, at 2; CARE Ex. G, at 4-5; CARE Initial Brief at 4-8.)

In CARE's third argument it contends that the application fails to analyze the socioeconomic and land use impacts of the proposed project, as required by Rule 4906-15-06(C), O.A.C. CARE asserts that the application fails to address the impact of the proposed project on commercial use, agricultural use, and recreational use. With respect to commercial use, CARE cites to the testimony of its witnesses, Dr. Youshak and Mr. Lausin, who testified at the adjudicatory hearing that farming is their primary source of income. (Tr. II, at 33, 41.) CARE witness Nancy Kothera also testified at hearing that she owns and operates a tree farm along the Alternate Route and that this farm is her primary source of income. (Tr. II, at 22.) Eddie and Sharon Blankenship each testified at the September 10, 2008, local public hearing regarding the potential loss of land and their concerns regarding the potential impact on their business plans for a tree farm. (September 10, 2008 Tr. at 108-109, 111-112.) Based on this evidence, CARE argues that the Applicants disregarded the commercial aspects of farming. Next, CARE contends that the application fails to appropriately analyze agricultural land uses in the project area, because the application contains no discussion about the impact that either of the proposed routes would have on cultivated farm land, permanent pasture land, managed wood lots, orchards, nurseries, and agricultural-related structures, as required by Rule 4906-15-06(C), O.A.C. Further, CARE argues that the application fails to analyze recreational land uses in the project area. CARE asserts that the route analysis ignored whether and how areas that are currently used for recreational activities, such as hunting, camping, and fishing, will be impacted by

construction of the proposed Project along the Preferred or Alternate Routes. CARE submits that a number of witnesses testified during the local public hearings that their affected properties are used for recreational activities. Based on these arguments CARE contends that the application should be denied because it fails to satisfy the requirements of Rule 4906-15-06(C). (CARE Initial Brief at 8-12.)

CARE's fourth argument is that suitable, viable options exist for the location of the proposed routes that were not properly and fully evaluated by the Applicants. CARE asserts that the following options were not properly evaluated as potential routes for the proposed electrical transmission line: (1) the abandoned B&O railroad corridor in Geauga County; (2) Route 322; and (3) State Route 11.

With respect to the abandoned B&O railroad corridor, CARE asserts that the Applicants did not look at utilization of a combination of the Maple Highlands Bike Trail r-o-w and an abandoned railroad corridor through the City of Chardon (Combination Route) until Staff requested additional information through Interrogatory No. 16. Based on the evidence presented, CARE argues that the Applicants never seriously considered this option. (*See* Applicants' Response to Interrogatory No. 16, Applicants' Ex. 2, at TRK015; Tr. III, 82-83.) Further, CARE contends that the Applicants should be required to pursue the "Rachel Route," previously approved by the Board and not constructed, before seeking to carve a new 14-mile corridor through pristine and beautiful agricultural land. (CARE Reply Brief at 6.)

Concerning Route 322 (Mayfield Road), CARE argues that the evidence presented at hearing demonstrated that construction of a 138kV electrical transmission line along this route is technically possible. (Tr. I at 54; CARE Ex. F, at 10-13; CARE Ex. H, at 14-15.) CARE objects to the rebuttal testimony of Applicant witness Geckle, presented in response to CARE's contention that Route 322 was a possible route for the proposed line and that it was not properly explored by the Applicants. (Applicants' Ex. 15, at AG-004; Tr. IV at 52-53.) CARE contends it demonstrated that the Route 322 option would serve the same purpose as the Preferred and Alternate Routes. (CARE Ex. G, at 9-12; CARE Ex. H, at 14-15.)

With respect to State Route 11, CARE further asserts that there is no discussion of State Route 11 as a potential route in the application. CARE opines that Dr. Galm's testimony demonstrated that State Route 11 presents a desirable siting alternative for the proposed line, because it would take advantage of an existing corridor. (CARE Ex. F, at 17.) CARE asserts that its position is consistent with the Applicants' own statement that corridors such as "major roads, existing electric transmission lines, gas transmission lines, and railroads, are attractive because they are usually built in accessible areas where conditions are suitable for construction." (Applicants' Ex. 1, Section 4906-15-03, Appendix 03-1 at 7.) CARE rejects the Applicants' position that placement of the line along State Route 11 would not work because it is their "experience" that the Ohio Department of

Transportation will not allow a transmission line to be constructed within and parallel to the r-o-w of a limited access highway. (Applicants' Ex. 13, at 24-25). Last, CARE opines that the Applicants cannot demonstrate that the Preferred and Alternate Routes are the best possible routes, because the Applicants did not explore other plausible possibilities that would not involve the seizure of nearly as much private property or the harm to nearly as many agricultural uses. (CARE Initial Brief at 16-23.) In summary, CARE contends that the Applicants failed to establish that the Preferred and Alternate Routes are the best routes for the location of the proposed transmission line project, because the Applicants failed to conduct a proper evaluation of siting alternatives. (CARE Reply Brief at 10.)

Chardon disagrees with CARE's position that the Combination Route (option 1 discussed above) is a viable option to meet the transmission needs of this project. Chardon notes that, excluding the Maple Highland Bike Trail and one parcel owned by CSX, all of the abandoned B & O Railroad r-o-w is now privately owned and most of the parcels have been developed as commercial or residential uses; therefore, a "pre-existing civil corridor" no longer exists. Chardon also notes that the Geauga Park District acquired and developed a portion of the former B & O railroad r-o-w and built the Maple Highlands Trail. Further, Chardon submits that the Combination Route ranked 209th of 894 routes that were evaluated by the Applicants' consultant URS. (Chardon Initial Brief 2-8.)

GPD also disagrees with CARE's position that the Maple Highlands Trail is a "pre-existing civil corridor" that should be used by the Applicants before any other routes. GPD notes that it now owns this corridor and has developed it into a fully improved public park with $4 million worth of improvements in the form of an asphalt biking/hiking trail. GPD contends that this park benefits the public in multiple ways and should not be sacrificed to benefit the private interests of the members of CARE. GPD witness Tom Curtin testified that installation of an overhead transmission line within this park would threaten several endangered species of plants and animals, in both woodlands and wetlands. (GPD Ex. 1, at 10-11; GPD Initial Brief at 1-5.)

Orwell argues that the Route 11 route and variants thereof were evaluated on three separate occasions: April 2006, May 2007, and September 2008. Applicants' witness Geckle testified that each evaluation noted significant and undesirable constraints for that potential transmission route. (Applicants' Ex. 15, at 7-9; Orwell Initial Brief at 3-6.) With respect to CARE's arguments on brief, Orwell asserts that CARE's reading of the statute is flawed and, thus, presents arguments that are irrelevant to certification. Orwell notes that CARE's arguments focus on the contents of the application as they relate to the application instructions. (CARE Initial Brief at 4-16.) Orwell asserts that there is no basis in the record to discount the validity of the route selection process. Orwell maintains that the Preferred and Alternate Routes were selected according to a reasonable process and that there is no justifiable reason to further delay the certification of this project. (Orwell Reply Brief at 3-9.)

4. Board Analysis and Determination.

The Board has carefully reviewed the arguments raised by the parties with regard to this criterion. CARE's issues relate to the sufficiency of the Applicants' route selection study, whether based on the criteria used, the considerations discussed, or the specific routes considered and chosen. CARE believes that additional emphasis should have been placed, by the Applicants, on agricultural and recreational land uses and on the social and economic impacts of the Project on those uses. We recognize that many of the impacts of building a new transmission line are problematic from the perspective of neighboring landowners. However, we also recognize that these impacts are balanced by the positive effects of such a line on residential and business needs for improved electric service. In this particular situation, we note that the Applicants undertook a detailed and comprehensive effort to consider numerous factors related to site selection, in order to seek the route with the minimum adverse environmental impact. The Board's Staff evaluated the impacts of the proposed routes, including agricultural (which are further discussed below), environmental, aesthetic, recreational, and economic consequences. On the basis of the evidence presented, we do not believe that any of the alternatives raised by CARE would be more advantageous, overall, than the routes presented by the Applicants.

The Board finds that, based on the record in this proceeding, the minimum adverse environmental impact has been determined for the proposed transmission routes, in accordance with Section 4906.10(A)(3), Revised Code.

D. Electric Grid (Section 4906.10(A)(4), Revised Code).

1. Staff Report.

Staff reviews the impact of adding the proposed facility to the existing ATSI transmission system. According to Staff, the Applicants propose to add the new substation near Huntsburg, Ohio, by constructing a 12- to 15-mile, double-circuit 138 kV transmission line, tying the proposed new Stacy Substation to ATSI's 138 kV Ashtabula-Mayfield transmission system. Further, Staff states that, according to the application, the 138/36 kV transformer at the new Stacy Substation will be capable of delivering 110 megavolt amperes (MVA) of power to the local service area under normal conditions, which, according to the Applicants, should be enough capacity to last through 2014 before they need additional capacity. Staff reports that, currently, the area is served by six CEI 36 kV distribution lines capable of delivering 360 MVA of power to the local service area from ATSI's Mayfield and Sanborn 138/36 kV substations. The Mayfield substation, it says, supplies 76 percent of the area's load, while 24 percent comes from Sanborn. With the addition of the new Stacy Substation, Mayfield, Sanborn, and Stacy will supply 34 percent, 18 percent and 48 percent, respectively.

Staff points out that the primary purpose of the Project is to provide a new 138/36 kV power source to the local distribution load area to maintain reliable service to end use consumers and that studies conducted by ATSI indicate that extending the existing 138 kV transmission system into the local distribution area will have no impact the existing transmission 138 kV system. Staff notes that there are no plans for upgrades to the existing 138 kV system due to this Project.

Staff also reports that the Applicants considered three non-transmission alternatives: (1) demand-side management, (2) energy efficiency, and (3) distributive generation, all of which were rejected. Demand-side management, according to the report, relies heavily upon consumer participation and was not deemed to provide sufficient load relief to meet the growing load in the area. Staff states that energy efficiency measures were also thought not to be able to meet the growing load of the area. According to Staff, the Applicants did not perform a detailed study of meeting the area's load requirements with distributed generation resources but assert that the cost of these resources, along with their environmental impact, would be significantly higher than the proposed transmission line. Staff says that the Applicants estimated that the service area would need an additional 32 MW to 45 MW over the next seven years, the equivalent of planning to add approximately $2 to $3 million of generation each year without any assurance that such generation could be sited in the area. As noted by Staff earlier, the outage of one distribution circuit causes low voltage problems on other distribution circuits that try to pick up the load. As Staff points out that the current load on each circuit out of Mayfield is over 32 MWs, adding enough distributive generation to pick up 32 MWs would require the installation of $9.6 to $18.2 million of distributive generation at a minimum, along with operating and maintenance costs, which estimated costs are well above the estimated $7.8 to $8.6 million for the cost of the proposed Project. Therefore, reports Staff, distributive generation option was rejected as too costly and not meeting the area's needs in a reliable manner.

Staff recommends that the Board find that the Project is consistent with regional plans for expansion of the regional power grid and that it will serve the interests of electric system economy and reliability. Staff also recommends that any certificate issued by the Board for the proposed facility, include the conditions specified in the section of the report entitled Recommended Conditions of Certificate, as revised in Staff's rebuttal testimony (Staff Ex. 2, at 38; Staff Ex. 3, Ex. A, at 1-7).

2. Intervenors' Positions.

In its reply brief, CARE contends that the Board cannot make a determination on this issue because the Applicants presented no evidence on this issue. CARE rejects the Applicants' position that the proposed project "addresses a local system need" and "is not designed to address need on the regional electricity transmission system." (CARE Reply Brief at 7-9; Applicants' Initial Brief at 40.)

3. Board Analysis and Determination.

The Board does not agree with CARE's position on this criterion. We have sufficient evidence from the Staff Report to reach a determination.

Based on the record in this proceeding, the Board finds that the proposed facility is consistent with regional plans for expansion of the regional power grid and that it will serve the interests of electric system economy and reliability.

E. Air, Water, and Solid Waste (Section 4906.10(A)(5), Revised Code).

1. Staff Report.

According to the Staff Report, air quality permits are not required for construction and operation of the proposed facility, but fugitive dust rules adopted pursuant to the requirements of Chapter 3704, Revised Code, may be applicable to the proposed facility. Staff notes that, in response to interrogatories, the Applicants indicated that generation of fugitive dust is unlikely because no significant earth grading activities would take place and construction equipment traffic would not be concentrated in a single area but that, if fugitive dust would be generated during construction activities, the dust would be controlled by water spray suppression. Staff believes that this method of control should be sufficient to assure compliance with fugitive dust rules.

Staff reports that neither construction nor operation of the proposed facility will require the use of significant amounts of water, so requirements under Sections 1501.33 and 1501.34, Revised Code, are not applicable to this Project.

Staff points out that the application indicates that the Preferred Route would involve spanning 57 streams and 18.2 acres of wetland areas, while the Alternate Route would involve spanning 23 streams and 4.2 acres of wetland areas, many of which will need to be crossed with construction equipment. Staff also states that, along the Preferred Route, the Applicants propose to place three structures in wetland areas and advises that, due to the Project's potential to impact streams and wetlands, Clean Water Act 401/404 permits will be required. In addition, Staff submits that there could be indirect impacts through erosion from nearby construction activities as well as through tree clearing activities within the areas and, therefore, believes that the Applicants will also need an NPDES (Phase 2) – Construction Storm Water Permit, including a Storm Water Pollution Prevention Plan (SWPPP) developed for the Project, pursuant to Ohio Environmental Protection Agency (EPA) regulations, which will include a detailed construction access plan. Staff notes that tree clearing of incompatible species will be conducted by hand within 25 feet of any stream, or by other non-mechanized methods in the vicinity of wetlands, thus minimizing any direct, short-term, clearing-related disturbance to surface water bodies. Staff believes

that construction of this proposed facility will comply with requirements of Chapter 6111, Revised Code, and the rules and laws adopted under that chapter.

Further, Staff explains that, in response to Staff interrogatories, the Applicants indicated that solid waste generated from construction activities would include items such as cartons, crates, wrapping, conductor reels, conductor scraps, and stormwater erosion control materials and that the Applicants intend to remove construction debris as construction activities move along the r-o-w. According to Staff, all construction-related debris will be disposed of in Ohio EPA approved landfills, or other appropriately licensed and operated facilities and any contaminated soils discovered or generated during construction would be handled in accordance with applicable regulations. Where trees and other woody vegetation would be cleared, Staff advises, the timber would be cut into appropriate lengths for sale or use by the landowner, or chipped or windrowed at the edge of the r-o-w, as determined by landowner preference and local conditions. Woody vegetation cut in wetlands will generally be left in place, according to Staff, in order to avoid further disturbance to the wetlands. Staff believes that the Applicant's solid waste disposal plans will comply with solid waste disposal requirements in Chapter 3734, Revised Code, and the rules and laws adopted under this chapter.

Staff reviews the Applicants' findings regarding nearby airports, noting that there are no air transportation facilities within 1,000 feet of either the Preferred Route or the Alternate Route and that the application identifies several private landing strips that are located within a mile of the Preferred Route or the Alternate Route. To the extent that installation of the transmission line would render a landing strip unusable, Staff reports that the Applicants have indicated their intention to compensate the property owner for the loss of use of the landing strip.

In accordance with Section 4561.32, Revised Code, Staff reports that it contacted the Ohio Office of Aviation during review of this application, in order to coordinate review of potential impacts the facility might have on local airports and that, as of the date of preparation of the Staff Report, no such concerns had been identified.

Staff believes that the proposed electric transmission line facilities will comply with the requirements specified in Section 4906.10(A)(5), Revised Code. Further, the Staff also recommends that any certificate issued by the Board, for the proposed facility, include the conditions specified in the section of the report entitled Recommended Conditions of Certificate, as revised in Staff's rebuttal testimony (Staff Ex. 2, at 40; Staff Ex. 3, Ex. A, at 1-7).

2. Board Analysis and Determination.

No intervenor raised any concerns regarding this criterion. The Board finds that the proposed facilities will comply with the requirements specified in Section 4906.10(A)(5), Revised Code.

F. Public Interest, Convenience, and Necessity (Section 4906.10(A)(6), Revised Code).

1. Applicants' Position.

The Applicants contend that the Project meets the requirement that it serve the public interest, convenience, and necessity by fulfilling the established need for additional electrical supply and enhancing the reliability of that supply (Applicants' Brief at 42). In the application, the Applicants address the level of electromagnetic fields (EMFs) that would result from the Project. They note that the field strength is influenced by many factors, including width of the r-o-w, line loading, operating voltage, contingency operations, phase configuration, direction of current flows, conductor sag, ground elevation, unbalance conditions, and nearby magnetic field sources or conductors of neutral current such as water mains, metallic fences, and railroad tracks. The Applicants report that they considered four models, based on a variety of assumptions. They also point out that, at this time, there is no firm basis to conclude that EMFs from transmission lines cause adverse health effects. However, pointing out that EMFs can potentially be reduced by the configuration of conductors and by selecting certain conductor phasing, the Applicants state that they intend to install the transmission line with cross-phasing. (Applicants' Ex. 1, at 06-23 through 06-28.)

2. Staff Position.

Staff contends that, as discussed under the criterion of need, the public interest to be served by the Project is to provide greater reliability to the distribution system in the Project area. Staff also discussed concerns regarding EMFs, noting that there have been concerns that EMFs may be detrimental to human health. Staff reports that the Applicants' studies showed that, at normal loading conditions, the EMF level from the Project at the five houses that are within 100 feet of the centerline of the r-o-w for the Preferred Route would not exceed existing levels found in residential houses. According to Staff, there are several houses along the Alternate Route that are adjacent to the edge of the r-o-w and that could be exposed to slightly higher EMF levels, depending on the interaction of the load flows of the transmission and distribution circuits. (Staff Ex. 2, at 41; Staff Initial Brief at 11.)

Staff recommends that the Board find that the proposed facility will serve the public interest, convenience, and necessity. Further, the Staff recommends that any certificate

issued by the Board, for the proposed facility, include the conditions specified in the section of the report entitled Recommended Conditions of Certificate, as revised in Staff's rebuttal testimony (Staff Ex. 2, at 41; Staff Ex. 3, Ex. A, at 1-7).

3. Intervenors' Positions.

Mr. Davet asserts that the Project could have potentially hazardous health effects as a result of EMFs or the use of herbicides. He contends that the Applicants failed to provide evidence establishing that either the EMFs or herbicides will not cause health problems. (Davet Brief at 2, 5-6.)

4. Board Analysis and Determination.

The Board finds that this Project will serve the public interest, convenience, and necessity. The need for the Project was established under the first criterion discussed above. We find that the Applicants' studies of the effect of the Project on EMFs have adequately shown the level of effect on human health.

G. Agricultural Districts (Section 4906.10(A)(7), Revised Code).

1. Staff Report.

Staff explains that classification as Agricultural District land is achieved through an application and approval process that is administered through local county auditors' offices. In its report, Staff notes that, based upon parcel information obtained from the Geauga County Auditor's records, the Applicants have stated that two Agricultural District parcels are crossed by the Preferred Route, totaling approximately 3,900 linear feet, and eight Agricultural District parcels are crossed by the Alternate Route, totaling approximately 4,600 linear feet. Staff has also evaluated potential impacts on agricultural production and notes the Applicants' indication that the Preferred Route would span approximately 23,800 linear feet of agricultural land, whereas the Alternate Route would span approximately 16,000 linear feet of agricultural land.

According to Staff, construction-related activities, such as vehicular traffic and materials storage, could lead to temporary reductions in farm productivity caused by direct crop damage, soil compaction, broken drainage tiles, and reduction of space available for planting. However, it reports that the Applicants have indicated that they intend to take precautionary steps in order to address such potential impacts to farmland, including repairing or replacing damaged drainage tiles to the landowners' satisfaction and reducing soil compaction during construction and reimbursing landowners for the value of any crops damaged by construction activities or by soil compaction. After construction, Staff notes that only the agricultural land associated with the actual pole locations would be removed

from production, although right-of-way access along the line would still be required for maintenance purposes.

It is Staff's conclusion that there would be no significant, permanent impacts from the construction or maintenance of this proposed electric transmission line on Agricultural Districts and that construction and maintenance of the proposed electric transmission line would not impact the viability, as agricultural land, of any Agricultural District land.

Staff recommends that the Board find that the impact of the proposed electric transmission line Project on the viability of existing farmlands and Agricultural Districts has been determined and will be minimal. Further, Staff recommends that any certificate issued by the Board, for the proposed facility, include the conditions specified in the section of the report entitled Recommended Conditions of Certificate, as revised in Staff's rebuttal testimony (Staff Ex. 2, at 42; Staff Ex. 3, Ex. A, at 1-7).

2. Board Analysis and Determination.

No intervenor raised any concerns regarding this criterion. The Board finds that the impact of the Project on the viability of existing farmlands and Agricultural Districts has been determined and will be minimal.

H. Water Conservation Practice (Section 4906.10(A)(8), Revised Code).

1. Staff Report

The Staff recommends that the Board find that Section 4906.10(A)(8), Revised Code, is not applicable to the Project. Further, the Staff recommends that any certificate issued by the Board, for the proposed facility, include the conditions specified in the section of the report entitled Recommended Conditions of Certificate, and as revised in Staff's rebuttal testimony (Staff Ex. 2, at 43; Staff Ex. 3, Ex. A, at 1-7).

2. Board Analysis and Determination.

No intervenor raised any concerns regarding this criterion. The Board finds that Section 4906.10(A)(8), Revised Code, is not applicable to the proposed Project.

V. Revised Recommended Conditions

As part of the Staff Report, Staff recommended that any certificate issued by the Board for the construction of the proposed facility include 42 specific conditions (Staff Ex. 2, at 44-50). At the hearing, Staff submitted a revised set of 43 conditions (Staff Ex. 3, Ex. A, at 1-7). The Applicants have agreed to the revised recommended conditions (Tr. IV. at 81).

Specifically, Staff recommends that any certificate issued by the Board for the proposed facility include the following conditions:

(1) That the facility be installed following the Applicants' Preferred Route as presented in the application filed on September 28, 2007, and as further clarified by the Applicants' supplemental filings.

(2) That the Applicants shall utilize the equipment and construction practices as described in the application, and as modified in supplemental filings, replies to OPSB Staff's data requests, and these conditions.

(3) That the Applicants shall implement the mitigative measures described in the application, any supplemental filings, and these conditions.

(4) That the Applicants shall properly install and maintain erosion and sedimentation control measures at the Project site in accordance with the following requirements:

(a) During construction of the facility, seed all disturbed soil, except within 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. Reseeding 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) Obtain National Pollutant Discharge Elimination System (NPDES) permits for storm water discharges during construction of the facility. A copy of each permit or authorization, including terms and conditions, shall be provided to the Staff within seven days of receipt. Prior to construction, the construction Storm Water Pollution Prevention Plan shall be submitted to the Staff for review and acceptance.

(d) Utilize "best management practices" (BMPs) when working in the vicinity of environmentally sensitive areas. This includes, but is not limited to, the installation of silt fencing (or similarly effective tool) prior to initiating construction near streams and wetlands. The installation shall be done in accordance with generally accepted construction methods and shall be inspected regularly.

(5) That the Applicants shall have an environmental specialist on site at all times that construction (including vegetation clearing) is being performed in or near a sensitive area such as a designated wetland, stream, river, or in the vicinity of identified threatened/endangered species or their identified habitat.

(6) That the Applicants shall employ construction methods as specified paragraphs 7, 8, 9, and 10 in proximity to any watercourses and/or wetlands.

(7) That all watercourses and/or wetlands shall be delineated by fencing, flagging, or other prominent means.

(8) That all construction equipment shall avoid watercourses and/or wetlands, except at specific locations where Board Staff has approved access.

(9) That storage, stockpiling and/or disposal of equipment and materials in watercourses and/or wetlands shall be prohibited.

(10) That structures shall be located outside of watercourses and/or wetlands, except at locations where Board Staff has approved placement.

(11) That all storm water runoff is to be diverted away from fill slopes and other exposed surfaces, to the greatest extent practicable, and directed instead to appropriate catchment structures, sediment ponds, etc., using diversion berms, temporary ditches, check dams, or similar measures.

(12) That, for construction and for the period of two years of initial operation, the Applicants shall limit, to the greatest extent possible, the use of herbicides in proximity to surface waters, including wetlands along the right of way (r-o-w). Individual treatment is preferred, while general, widespread use of herbicides is strongly discouraged. Prior to

initiation of construction, the Applicants shall submit a plan describing the planned herbicide use throughout the Project corridor, for review and approval by the Staff. After the two-year period of initial operation, Applicants shall comply with all federal and state laws, rules and regulations governing the application of herbicides in the r-o-w.

(13) (a) If tree clearing must be conducted outside of the October through March period, Applicants shall, prior to tree clearing, conduct Indiana bat surveys in areas identified as suitable habitat in coordination with Staff, including the following specific locations: (a) forest stand including woodlots 8, 9, 10 and 11; (b) forest stand including woodlots 20, 21, 22, 23, and 24; (c) forest stand including woodlots 36, 37, and 38. The results of this study shall be forwarded to Staff for review and approval prior to any clearing or construction in the areas of concern.

(b) Prior to any tree clearing, Applicants shall conduct yellow-bellied sapsucker surveys in areas identified as suitable habitat for these birds in coordination with Staff and the Ohio Department of Natural Resources, Division of Wildlife (ODNR-DOW). If the results of the study identify the presence of the nesting/breeding yellow-bellied sapsuckers, then the tree clearing in that area shall be limited to that period of time when the yellow-bellied sapsuckers are not present. The results of this study, together with a tree clearing plan, shall be forwarded to Staff for review and approval prior to any clearing or construction in the areas of concern.

(14) That the Applicants shall contact Crane Creek Wildlife Research Station shortly before initiating construction to ensure there are no bald eagle nests within 0.5 miles of the selected Project r-o-w.

(15) That the Applicants shall flag endangered plant species locations within the r-o-w and prevent vehicle access to these areas. Use of herbicides within 50 feet of these flagged areas during construction and maintenance activities shall be prohibited, unless otherwise approved as part of Applicants' herbicide use plan. Prior to construction, the Applicants shall provide for Staff review and approval a threatened and endangered species protection plan. For plants, this should include specific r-o-w clearing/avoidance recommendations, herbicide restrictions, and potential monitoring procedures, while for animal species it should also include construction timing limitations related to breeding activities and the potential impacts of long-term r-o-w maintenance work.

(16) That Staff, the ODNR-DOW, and the United States Fish and Wildlife Service (USFWS) shall be immediately contacted if the presence of threatened or endangered species is confirmed during construction activities. Activities that could adversely impact the identified plants or animals will be halted until an appropriate course of action has been agreed upon by the Applicants and Staff.

(17) That the Applicants, to the extent practicable, shall retain all tree snags within the r-o-w that do not present a safety or reliability concern for the construction and operation of the new electric transmission line.

(18) That, prior to finalizing engineering plans for the Project, the Applicants shall identify the area known to support snowshoe hare. The Applicants shall submit a plan for this area to Staff and the ODNR-DOW for review and Staff's approval. The Applicants shall not employ clear-cutting or generalized broadcasting of herbicide for vegetation maintenance and, to the maximum extent possible, shall leave shrub and scrub woody vegetation within this identified area of the r-o-w.

(19) That the Applicants shall avoid and minimize, if practicable, any damage to field drainage systems resulting from construction and operation of the facility. Damaged field tile systems shall be repaired to at least original conditions at Applicants' expense.

(20) That the Applicants shall not dispose of gravel or any other construction material during or following construction of the facility by spreading such material on agricultural land. All construction debris shall be promptly removed and properly disposed of.

(21) That the Applicant shall remove all temporary gravel and other construction laydown area and access road materials within ten days of completing construction activities.

(22) That the Applicants shall dispose of all contaminated soil and all construction debris in approved landfills in accordance with Ohio EPA regulations.

(23) That, prior to construction, the Applicants shall obtain and comply with all applicable permits and authorizations, as required by federal and state laws, rules and regulations for any activities where such permit or authorization is required. Copies of permits and authorizations, including all supporting documentation shall be provided to Staff within 15 days of issuance.

(24) That the Applicants shall conduct a preconstruction conference prior to the start of any Project work, which Staff shall attend, to discuss how environmental concerns will be satisfactorily addressed. Additional preconstruction conferences may be utilized in support of a staged sequence of construction.

(25) That, at the time of the preconstruction conference(s), the Applicants shall have marked structure locations as well as the route's centerline and r-o-w clearing limits in environmentally sensitive areas associated with the construction area being reviewed.

(26) That, at least 30 days before the first preconstruction conference, the Applicants shall submit to Staff, for review and approval, one set of detailed drawings for the certificated electric transmission line, including all laydown areas and access points, so that Staff can determine that the final Project design is in compliance with the terms of the certificate. The access plan shall consider the location of streams, wetlands, wooded areas and sensitive plant species.

(27) That the Applicants shall assure compliance with fugitive dust rules by the use of water spray, or other appropriate dust suppressant, whenever necessary.

(28) That the Applicants shall prepare a detailed tree clearing plan describing how compatible trees and shrubs along the proposed alignment will be protected from damage during construction, and, where clearing cannot be avoided, how such clearing work will be done so as to minimize removal of compatible woody vegetation. Priority should be given to protecting all woody vegetation in wetlands, to the extent practicable. This tree clearing plan shall be submitted to Staff for review and approval prior to initiation of construction.

(29) That the Applicants shall limit clearing in all riparian areas and within at least 25 feet from the top of the bank on each side on all streams during construction and operation of the facility; provided, however, that the Applicants may selectively hand-clear taller-growing trees that are incompatible with the operation and maintenance of the transmission line, leaving all low-growing plant species, including other trees and other woody vegetation, undisturbed unless otherwise directed by Staff. All stumps shall be left in place.

(30) That, prior to construction, the Applicants shall develop and submit to Staff for review and approval a long-term plan, consistent with federal and state laws, rules and regulations, to be implemented by the Applicants, that will require, among other things, the installation and maintenance of signs, written in both English and Spanish, that identify the boundary of all "no clear-cut" areas for all identified wetlands and riparian areas within the Project r-o-w. These "no clear" areas shall also be identified on the engineering drawings for the Project as well as noted on future maintenance plans and protected from clear cutting and generalized broadcasting of herbicides during all future r-o-w maintenance, unless otherwise approved by Staff. This plan as approved by Staff shall be integrated into the Applicants' long-term maintenance practices for this transmission plan.

(31) That the Applicants shall ensure that Montville Swamp, Thompson Ledges Park, and any other identified natural areas in proximity to the proposed Project are protected from any construction-related activity.

(32) That, prior to construction, the Applicants shall prepare a Phase I Cultural Resources Survey of the selected route. This survey shall be coordinated with the Ohio Historic Preservation Office and submitted to Staff for review and acceptance. If the survey discloses a find of cultural or archaeological significance, or a site that could be eligible for inclusion on the National Register of Historic Places, then the Applicants shall submit a route amendment, route modification, or mitigation plan for Staff's acceptance. The Applicants shall consult with Staff to determine the appropriate course of action.

(33) That a public information program be instituted that informs affected property owners of the nature of the Project, specific contact information for Applicants' personnel who are familiar with the Project, the anticipated proposed timeframe for Project construction, and the schedule for restoration activities. Notification letters shall be sent to property owners via United States Postal Service first-class mail postmarked at least 30 days prior to work on the affected property. This letter shall include the Applicants' offer to meet with each property owner prior to construction on their property to review construction activities on the property owner's property.

(34) That existing septic systems impacted by construction, operation or maintenance of either line be repaired or replaced by the Applicants to at least original condition.

(35) That, at least 30 days prior to the first preconstruction conference, the Applicants shall submit a detailed construction and restoration plan for all stream and wetland crossings for Staff's review and approval. The plan shall include sufficiently detailed information to address the following:

(a) Construction methods to be used at each location, including site-specific access and equipment crossing proposals. Construction methods and equipment movement during both dry and wet conditions should be included.

(b) Storm water erosion control practices to be used during construction work in and around each crossing location.

(c) Any and all stream stabilization and wetland, stream, and riparian area restoration practices to be used.

(d) Applicants shall use all necessary means to ensure that, to the extent practicable, no trees, limbs, branches, or other clearing residue is placed or disposed of in any stream, wetland, or other water body, except in accordance with the approved tree clearing plan.

(e) Applicants shall use all practicable means to ensure that no fill, topsoil, stone, or other construction-related material is placed or disposed of in any stream, wetland, or other water body, except for the short-term placement of stone, culvert pipe, timber mats, or other temporary stream crossing materials, as preapproved by Staff.

(f) To the extent practicable, crossings of ephemeral streams should occur during no flow periods.

(36) That removal of mature screening trees adjacent to residential properties should be avoided if possible. If such removal is necessary for the safe construction and the safe and reliable operation of the transmission line, then the Applicants shall consult with affected property owners and develop a residential landscape planting plan to be submitted to Staff for review and approval prior to the commencement of construction.

(37) That the Applicants will coordinate with the appropriate authority any vehicular lane closures due to the construction of the transmission line along either route.

(38) That, if the Alternate Route is selected by the Board, the Applicants shall coordinate with the Geauga County Park District in order to ensure that transmission line pole placement will not interfere with access/egress plans for any proposed parks by the Geauga County Park District.

(39) That, to further minimize impacts, the Applicants shall implement an alignment shift of the Preferred Route to adjacent to Wetland 65 (south of Leggett Road), by shifting the corner of the transmission line located to the southwest of Wetland 65 approximately 250 feet to the north to avoid a series of forested vernal pools.

(40) That, if the Preferred Route is selected by the Board, prior to the commencement of construction, the Applicants shall present a plan to Staff for review and approval that mitigates potential off-road recreational use of the utility corridor to the extent practicable.

(41) That, if the Board certificates the Preferred Route, at least 30 days prior to the preconstruction conference, the Applicants shall submit to Staff for review and approval a wetland-stream crossing enhancement/preservation plan that will be included as a part of any application submitted for an Ohio 401 Water Quality Certification or a Clean Water Act Section 404 Permit and that will include, to the extent feasible, at least the following or its equivalent:

(a) Propose preservation easements for the portion of two Applicant-owned properties along the Preferred Route. For the Applicant-owned property at the site of the Stacy substation, Parcel 16-011052, the area of the preservation easements shall generally include the area of the property between the northern boundary of the property and approximately 25 feet south of stream Pr-s001, excluding the area of the r-o-w and associated danger trees of the transmission line, and any access route to or through the transmission line r-o-w. For the Applicant-owned property located on the south side of Burrows Road, Parcel 20-070824, the area of the preservation easements shall generally include the entire parcel, except for the area of the r-o-w and associated danger trees of the transmission line, and any access route to or through the transmission line r-o-w.

(b) Along, or in proximity to, the Preferred Route obtain rights to real property that include not less than 6.7 acres of existing wetland, excluding wetland that is within the right of way for the Project, that can be enhanced through appropriate replanting and/or deed restriction to a forested wetland.

(c) To the extent reasonably possible, acquire 2,500 linear feet of conservation easements (as measured in the bed of the stream) for a higher quality stream with a minimum width of 25 feet on either side, including the upper limits of the stream bank along or in proximity to the Preferred Route. The Applicants shall document all efforts to accomplish the above mitigation to Staff upon request.

(42) That the certificate shall become invalid if the Applicants have not commenced a continuous course of construction of the proposed facility within five years of the date of journalization of the certificate.

(43) That the Applicants shall provide to Staff the following information as it becomes known:

(a) The date on which construction will begin.

(b) The date on which construction was completed.

(c) The date on which the facility began commercial operation.

(Staff Ex. 3, Ex. A, at 1-7.) We find these conditions to be reasonable and appropriate.

VI. Conclusion

The Board notes that there was significant criticism raised by intervenor CARE during this proceeding and in the briefs following the hearing that the Applicants failed to comply with the Board's rules and Section 4906.10(A), Revised Code. The Board also notes that we will make our decision, not on the application and its contents alone, but on all of the evidence admitted into the record in this adjudicatory proceeding. Based upon the record in this proceeding, the Board finds that all the criteria in Section 4906.10(A), Revised Code, are satisfied for the construction, operation, and maintenance of the project using the Preferred Route, subject to the 43 conditions set forth in Section V of this order.

Under Board rules, the Applicants were required to provide copies of the application to public libraries and other facilities, hold an informational meeting with the public about

the project, and provide notice of that meeting. In addition, the Board is required to hold a public hearing and an evidentiary hearing on the project and publish newspaper notices of both hearings. The record shows that three local public hearings and an evidentiary hearing were held. The Applicants provided copies of the application to libraries and other facilities, held two informational meetings in the local area, and provided all requisite newspaper notices.

Accordingly, based upon all of the above, the Board approves the application and hereby issues a certificate to ATSI and CEI for the construction, operation, and maintenance of the proposed transmission line project, along the Preferred Route and subject to the 43 conditions set forth in Section V of this order.

FINDINGS OF FACT AND CONCLUSIONS OF LAW:

(1) The Project is a "major utility facility" as defined in Section 4906.01(B)(2), Revised Code.

(2) ATSI and CEI are each a "person" under Section 4906.01(A), Revised Code.

(3) ATSI and CEI held public informational meetings on March 5, 2007, in Huntsburg, Ohio, and on March 6, 2007, in Thompson, Ohio. On March 8, 2007, ATSI and CEI filed the proof of publication of the public information meeting.

(4) On September 28, 2007, ATSI and CEI filed their application for a certificate for the Project. ATSI and CEI supplemented their application on January 2, 2008.

(5) By letter dated November 27, 2007, the Board notified ATSI and CEI that their application was complete.

(6) On January 9, 2008, ATSI and CEI filed proof of service of the certified application on local officials and libraries in accordance with Rule 4906-5-06, O.A.C.

(7) By entry issued March 3, 2008, a local public hearing was scheduled for May 12, 2008, at the Geauga County Commissioners Office, in Chardon, Ohio, and an adjudicatory hearing was scheduled for May 21, 2008, at the offices of the Commission, in Columbus, Ohio.

(8) By entry issued March 14, 2008, the location for the May 12, 2008 local public hearing was changed to the Ledgemont Elementary

Middle School gymnasium. A second local public hearing was scheduled for May 13, 2008, at the Huntsburg Township Hall, Huntsburg, Ohio, to accommodate the number of persons likely interested in presenting testimony.

(9) On April 15, 2008, ATSI and CEI filed a joint motion for a continuance of the proceeding, to evaluate additional route segments with respect to the Maple Highlands Bike Trail and an abandoned railroad corridor through the City of Chardon, as requested by the Staff of the Ohio Power Siting Board (Interrogatory No. 16). The joint motion also requested that the public and adjudicatory hearings be rescheduled for the earliest practicable time in June 2008.

(10) By entry issued May 8, 2008, the local public hearings set for May 12 and May 13, 2008, were cancelled, to be rescheduled at a future time. By the same entry, the adjudicatory hearing was still scheduled to commence on May 21, 2008, at the offices of the Public Utilities Commission, in Columbus, Ohio.

(11) On May 19, 2008, ATSI and CEI filed their response to Staff Interrogatory No. 16.

(12) On May 21, 2008, the adjudicatory hearing was opened and then continued to a date to be established by subsequent entry.

(13) On May 28, 2008, ATSI and CEI filed proof of posting notice of the cancellation of the May 12 and May 13, 2008, local public hearings.

(14) By entry issued July 11, 2008, local public hearings were scheduled for August 27, 2008, at the Ledgemont Elementary Middle School gymnasium and August 28, 2008, at the Huntsburg Township Hall, Huntsburg, Ohio. By the same entry, the adjudicatory hearing was scheduled to resume on September 2, 2008, at the offices of the Public Utilities Commission, in Columbus, Ohio.

(15) By entry issued August 6, 2008, a third local public hearing was scheduled for September 2, 2008, at Huntsburg Township Hall, Huntsburg, Ohio.

(16) On August 12, 2008, the Staff Report was filed. Therein, Staff recommended that ATSI and CEI be issued a certificate for the

Project along the Preferred Route subject to the 42 conditions listed in the Staff Report.

(17) By entry issued August 14, 2008, the adjudicatory hearing was continued to resume on September 16, 2008, at the offices of the Public Utilities Commission, in Columbus, Ohio.

(18) On August 20, 22, and 27, 2008, ATSI and CEI filed proof of publication of notice of the hearings as required by Rule 4906-5-08, O.A.C.

(19) Three local public hearing were held on August 27, 28, and September 2, 2008, as scheduled. Seventy-five members of the public elected to offer testimony about the proposed Project.

(20) The adjudicatory hearing resumed on September 16, 2008. Direct testimony was presented on September 16, 17, 18, and rebuttal testimony was presented on October 1, 2008.

(21) The record establishes the need for the Project as required by Section 4906.10(A)(1), Revised Code.

(22) The record establishes the nature of the probable environmental impact from construction, operation, and maintenance of the Project as required by Section 4906.10(A)(2), Revised Code.

(23) The record establishes that the Preferred Route for the Project, subject to the conditions set forth in this order, 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 as required by Section 4906.10(A)(3), Revised Code.

(24) The record establishes that the Preferred Route for the Project, subject to the conditions set forth in this order, is consistent with regional plans for expansion of the electric grid for the electric systems serving this state and interconnected utility systems and that the Preferred Route, subject to the conditions set forth in this order, will serve the interests of electric system economy and reliability as required by Section 4906.10(A)(4), Revised Code.

(25) The record establishes that the Preferred Route for the Project, subject to the conditions set forth in this order, will comply with Chapters 3704, 3734 and 6111, Revised Code, and Sections 1501.33, 1501.34, and 4561.32, Revised Code, and all rules and

regulations there under, to the extent applicable, as required by Section 4906.10(A)(5), Revised Code.

(26) The record establishes that the Project, subject to the conditions set forth in this order, will serve the public interest, convenience, and necessity as required by Section 4906.10(A)(6), Revised Code.

(27) The record contains adequate data on the Project for the Board to determine the Project's impact on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929, Revised Code, within the Preferred and Alternate Routes as required by Section 4906.10(A)(7), Revised Code.

(28) Inasmuch as water conservation practices are not involved with the Project, Section 4906.10(A)(8), Revised Code, does not apply in this circumstance.

(29) The record evidence provides sufficient factual data to enable the Board to make an informed decision.

ORDER:

It is, therefore,

ORDERED, That a certificate be issued to ATSI and CEI for the construction, operation, and maintenance of the Project as proposed along the Preferred Route. It is, further,

ORDERED, That the certificate contain the 43 conditions set forth in Section V of this Opinion, Order, and Certificate. It is, further,

ORDERED, That a copy of this Opinion, Order, and Certificate be served upon each party of record and any other interested persons of record.

THE OHIO POWER SITING BOARD

Alan R. Schriber, Chairman of the
Public Utilities Commission of Ohio

Lee Fisher, Board Member
and Director of the Ohio Department
of Development

Sean Logan, Board Member
and Director of the Ohio Department
of Natural Resources

for Alvin Jackson MD

Alvin Jackson M.D., Board Member
and Director of the Ohio Department
of Health

Christopher Korleski, Board Member and
Director of the Ohio
Environmental Protection Agency

Robert Boggs, Board Member and
Director of the Ohio Department
of Agriculture

JKS/JWK/geb

Entered in the Journal
NOV 24 2008

Renee J. Jenkins
Secretary