FILE

21

LETTER OF NOTIFICATION FOR THE

ASHLAND TO WHITTIER 138KV TRANSMISSION LINE

PUCO Case Number 11-5471 -EL- BLN

Submitted pursuant to OAC 4906-11-01

Duke Energy Ohio

October 14, 2011

(A) Need Statement

(1) Project Name, Description, and Need

(a) Name: This proposed project is the Ashland to Whittier 138,000 (138 kV) Electric Transmission Line.

This project qualifies as a Letter of Notification (LON) because it meets the requirements outlined in the OAC 4906-1-01, Appendix A (1)(e) and (6)(a). Appendix A (1)(e) applies to "line(s) one hundred and twenty five kV and above, but less than three hundred kV, and greater than 0.2 miles in length, but not greater than two miles in length." Appendix A (6)(a) pertains to "upgrading existing line(s) less than one hundred twenty-five kV to a voltage of one hundred twenty-five kV or greater, for a distance of two miles or less." The proposed 138 kV transmission line will be approximately 0.95 mile in length and will connect the proposed Duke Energy Whittier Substation to the Ashland Substation. Approximately 0.50 mile or 52% of the 138 kV transmission line will be new or result from the conversion of existing 13kV and 69kV distribution lines. The remaining 0.45 mile of the project will be constructed by reconductoring an existing 69kV distribution circuit.

(b) Description: Duke Energy Ohio is planning a series of projects related to the construction of the new 'Whittier distribution substation' to be located on the north side of Whittier Street, slightly west of Interstate 71 in Cincinnati, Hamilton County, Ohio. This project outlined in this filing involves the installation of new and the upgrading of existing distribution circuits (i.e., 13kV and 69kV) to a 138 kV transmission line from the proposed Whittier Substation to the Ashland Substation, as illustrated on the Project Description Map (Figure 2).

A summary description of the project is provided below, which has been organized based on the location and existing circuit configuration, if applicable:

- Proposed Whittier Substation to the west side of Interstate 71 (I-71) – New wood poles and 138 kV conductors will be installed to replace the existing 13 kV distribution circuit.
- I-71 crossing – Currently no distribution or transmission line circuits exist at this location. Two (2) new steel poles will be installed, one on each side of the Interstate. Each of the two steel poles will be 120 feet in height as to accommodate the span of I-71 with the new 138kV circuit.
- East side of I-71 to the intersection of Mentor Street and Martin Luther King Drive – The existing 69kV circuit that is installed from Structure 54 to Structure 58 will be replaced with the 138 kV circuit.
- Intersection of Mentor Street and Martin Luther King Drive to the Ashland Substation – The existing wood poles along the south side of Foraker will be replaced with new wood poles and the 138kV transmission line. Currently, the wood poles are operating with a 69 kV distribution line, but have insulators that can accommodate a 138kV circuit. Based on engineering constraints at the Ashland Substation, the existing steel lattice structure at the substation can no longer be used. A 120-foot steel pole is planned to be installed to the west of the steel lattice structure and will serve as the final structure, prior to its interconnection with the Substation.

(c) ***Need:*** This project, in conjunction with the proposed Whittier distribution substation and construction of other distribution circuits in the vicinity, will improve the reliability of electric power being provided to the Children's Hospital and other health care facilities, businesses, residents and to meet electric demands from future development in the Avondale, Ohio community and the broader City of Cincinnati.

(2) Reference per Long-Term Forecast Report (LTFR)

This proposed project was included in the 2011 LTFRs. Filed July 15, 2011, Case# 11-1439-ELFOR, pg. 99, Capital to Ashland (138 Proposed). (Please note the Whittier project was being referred to as Capital Project at that time.)

(3) Alternatives Considered

Based upon the need for the Project to reinforce and expand the distribution system in the vicinity of the Avondale community and the broader City of Cincinnati, the only alternative that was considered for this Project was the span across Interstate 71. A more due east alternative was considered at this crossing location. This alternative alignment would have resulted in a slightly shorter route length. However, the disadvantages to this alternative included a longer span of Interstate 71, obstructions within the right-of-way including an interstate highway sign and a light pole, and routing of the line from I-71 to Whittier Substation past residential properties located north of the proposed alignment.

The location of the proposed interconnection site, identified as the Whittier Substation, was selected as part of a separate Project. Its location was determined through an analysis of cost, potential environmental impact, socio-economic considerations, and strategic location to meet the needs of the Project.

(4) Construction Schedule

Construction on the transmission line is planned to begin November 2011. The overall project has an in-service date of June 2012.

(5) Area Maps and Directions to Project Area

A project vicinity map is included as Figure 1. To access the Project from downtown Columbus, take Interstate 71 south for approximately 100 miles to Exist 3, Taft Road. Proceed west on William Howard Taft Road for approximately 350 feet to Reading Road. Turn right and continue north on Reading Road for approximately 0.6 mile to the intersection of Reading Road and Whittier Street. Turn right on Whittier Street and continue for approximately 0.2 mile to the proposed Whittier Substation, located on the north side of the street. This proposed interconnection site represents the western terminus of the project route. The eastern extent of the project can be most quickly accessed by traveling west on Whittier Street to the intersection of Reading Road and Whittier Street. Turn left on Reading Road and travel south for approximately 0.2 mile to the intersection of Martin Luther King and Reading Road. Turn left on Martin Luther King and continue east for approximately 0.75 mile to Lincoln Ave. Turn left on Lincoln Avenue and continue for approximately 500 feet to the Ashland Substation, located on the north side of the road.

(B) Technical Features

(1) Operating Characteristics

The proposed transmission line will operate at 138 kV and require approximately 1 mile of new Tern 795 ACSR conductor, 16 new wooden poles, 4 steel poles, and the associated appurtenances. The locations and heights of the new poles are identified on the included engineering line drawings. The wood poles will be between 65 and 80 feet in height, the steel poles between 115 and 140 feet in height. The specifications for these structures are included in Appendix A. I will get you the specifications for both types of poles.

(2) Electric and Magnetic Fields

Duke Energy ran estimates of the electric and magnetic fields using the "Enviro" program for the proposed 138 kV transmission line. This study shows that the magnetic field directly under the conductors at one meter above ground at normal maximum load conditions would be 9.1 milligauss (mG), tapering off to 4.15 mG at a distance of 50 feet from the line. At the distance of the nearest residence to the proposed transmission line overbuild, this home's front door is located approximately 20 feet south of the line at the southwest intersection of Foraker Avenue and Alms Place at pole #25 (nearer to Ashland Substation at the eastern end of the project), the normal maximum load field level is expected to be 7.47 mG, while the emergency line load field level is expected to be 36.77 mG. Note that emergency line loading conditions are infrequent and only occur during emergency conditions. The overbuild portion of the project on the western side of I-71 runs through a commercial and light industrial area with no nearby residences.

Electromagnetic field conditions under the steel lattice towers currently occupied by the 69kV line, to be replaced by the 138kV line, are expected to be similar after the conductor is swapped out for the higher voltage line. Duke Energy and other utility companies have found that it is common for 69kV and 138kV transmission lines to have comparable magnetic field levels. This is because the current flowing in the line, not the voltage, creates the magnetic field. This factor along with the additional height of the conductors on the steel lattice structures, compared to the overbuild portions of the line, means that EMF conditions are expected to be similar to existing conditions once the project is complete and below the modeled levels stated in the previous paragraph.

It is reasonable that the electric field strengths, measured in kilovolts per meter (kV/m), are the same regardless of line loadings because the electric fields are dependent on voltage, which is held constant at 138,000, while magnetic field strengths depend on amperage or loading, which varies by demand for electricity.

Duke Energy designs its facilities according to the National Electric Safety Code (NESC), at a minimum. The structure height and configuration was chosen based on the NESC, engineering parameters, and cost.

(3) Estimated Cost

The project is expected to cost approximately $1.8 million.

(C) Socioeconomic Data

(1) Land Use and Population Density

The project is located in the City of Cincinnati, Hamilton County, Ohio. The immediate surrounding area is mixed residential, commercial, and industrial. The project area (Hamilton County, Ohio) has a population density of 1,969.7 people per square mile based upon 2010 census data.

(2) Agricultural District Land

According to information received from the Butler County Auditors' Office, no property along the project route is included in the ORC 929 agricultural district program.

(3) Cultural Resources

No buried cultural resource investigation is proposed for the project as the poles or towers are either existing structures or will be installed in areas that have been previously disturbed by either roads or other infrastructure development.

(4) Notification of Officials

A copy of the letter transmitting this Letter of Notification to the mayor of the City of Cincinnati is included in Appendix B. A public information meeting for the Whittier Substation was held on September 21, 2010, from 7 to 8:30pm at the Corinthian Baptist Church at 772 Whittier Street. Although this meeting was specific to the substation, some attendees also had questions about the project addressed in this filing, which Duke Energy representatives were on-hand to answer.

The Duke Energy project team met with City of Cincinnati transportation and engineering representatives on two occasions. On March 25, 2010, Duke Energy staff discussed with the City representatives the relationship between Duke's proposed Ashland to Whittier 138 kV transmission line, a planned distribution substation, and several future projects within the City. On October 22, 2010, Duke staff met with the City's staff again to introduce refined plans for multiple projects in the hospital district and University of Cincinnati vicinity, within the communities of Avondale and Walnut Hills. This included the subject 138 kV Whittier to Ashland transmission line in conjunction with other transmission and distribution improvements. The City representatives generally agreed with the placement of the 138kV line.

The Duke Energy project team met with the Avondale Community Council on May 11, 2010, to present plans for a new distribution substation to be constructed in the Avondale area, in addition to the Ashland to Whittier 138 kV overhead line. The Council requested that Duke Energy provide an update on refined plans during a future meeting, which was conducted on June 15, 2010 during the Avondale Community Council meeting. Duke Energy staff provided an update on the project and there were no objections about the project from the ten council members present at both meetings.

Additionally, Duke Energy held a Public Open House meeting on September 21, 2010 in the community of Avondale to discuss plans for several projects in the vicinity and to respond to attendees' questions and concerns. The plans for the Ashland to Whittier 138 kV transmission line was included as part of this public open house.

(5) Current and Pending Litigation

There is no current or pending litigation involving the proposed transmission line.

(6) Other Agency Permits and Requirements

No other agency permits or requirements exist for the proposed transmission line.

(D) Environmental Data

A GAI biologist conducted a field survey of the project route on September 28, 2011. This survey included an evaluation of potential habitat for species of concern likely to be found on the project route, a wetland delineation, and an assessment of surface drainages in the project vicinity. A summary of the findings is given below.

(1) Federal and State Designated Species

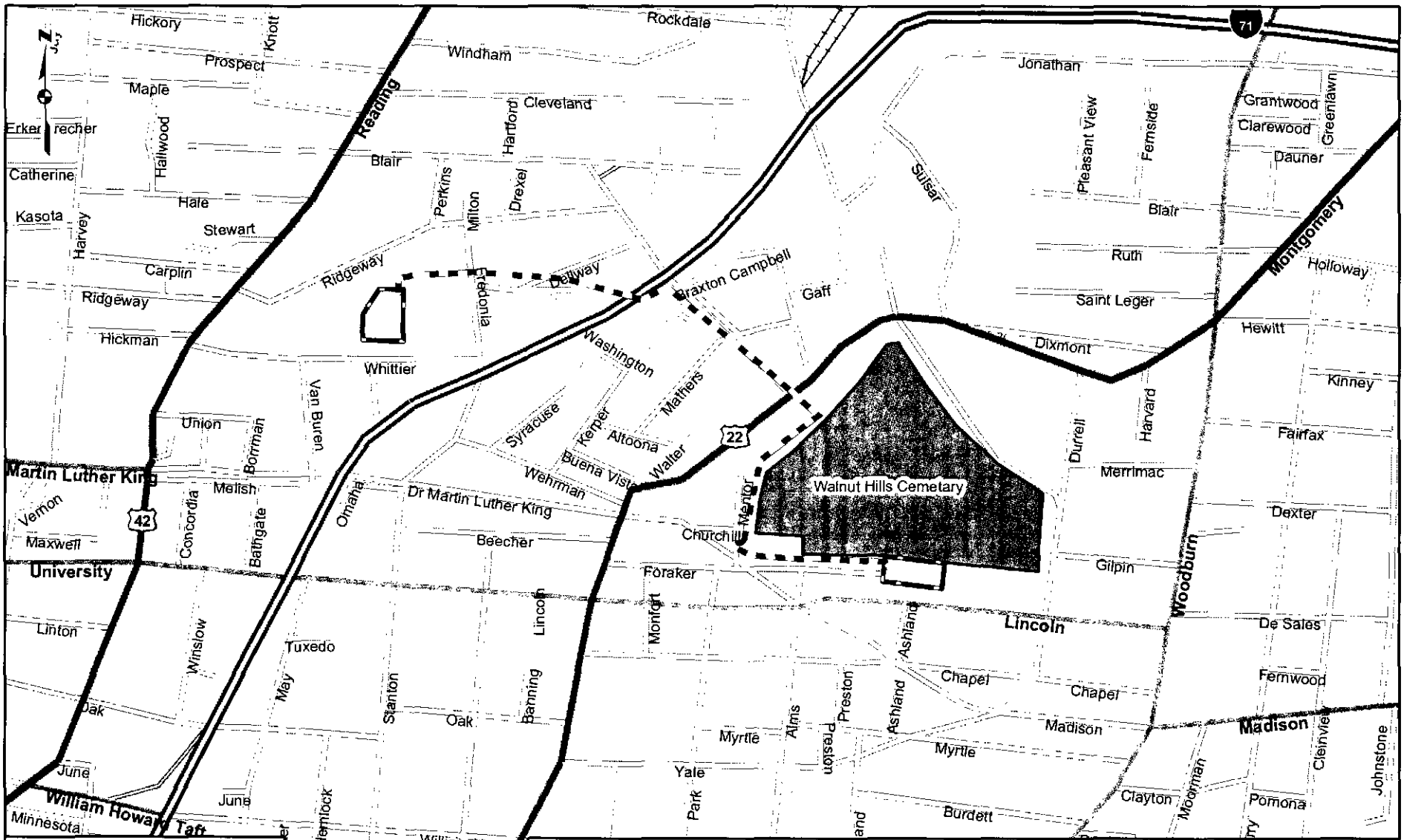
The United State Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources were contacted regarding the potential for the occurrence of rare, threatened, and endangered species within the study area. In a letter response dated September 28, 2011, the USFWS reported no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. The USFWS does not anticipate any impact on federally listed endangered, threatened, or candidate species, or their habitats. No federal or state designated species of concern or habitat suitable for such species were observed during the field survey. No suitable Indiana bat roosting trees were observed along the project route. The habitat along the project route is limited to residential lawns and scrub-shrub habitat.

(2) Areas of Ecological Concern

No wetlands, streams, or other areas of ecological concern were observed along the project route. No areas of ecological concern or significance are expected to be impacted as a result of the proposed project.

(3) Unusual Conditions Resulting in Significant Environmental, Social, Health, or Safety Impacts

There is no unusual conditions or circumstances associated with this project that will result in significant environmental, social, health or safety impacts.



PROJECT LOCATION

HAMILTON COUNTY, OHIO

REFERENCE:
ESRI Streetmap Data, 2004

LEGEND

- Proposed Ashland to Whittier 138 kV Transmission Line
- Proposed Whittier Substation
- Ashland Substation

0 500 1,000 1,500 2,000

Scale in Feet

gai consultants

FIGURE 1
PROJECT VICINITY MAP

Duke Energy.

Ashland to Whittier 138 kV Transmission Line Project

DRAWN BY: JEN DATE: 9/29/11
CHECKED: JAV APPROVED: JAV

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PROJECT LOCATION

HAMILTON COUNTY, OHIO

REFERENCE:
2006 Ohio Statewide Imagery Program (OSIP) Aerial Photography of Hamilton County, Ohio

LEGEND

- New Transmission Line - No existing line
- New Transmission Line - Rebuild from 13kV to 138kV
- New Transmission Line - Rebuild from 69kV to 138kV
- Upgraded Transmission Line - Reconductor from 69kV to 138kV
- Proposed Whittier Substation
- Ashland Substation

0 250 500 750 1,000

Scale in Feet

gai consultants

FIGURE 2
PROJECT DESCRIPTION MAP

Duke Energy

Ashland to Whittier
138 kV Transmission
Line Project

DRAWN BY: JEN
CHECKED: JAV

DATE: 9/29/11
APPROVED: JAV

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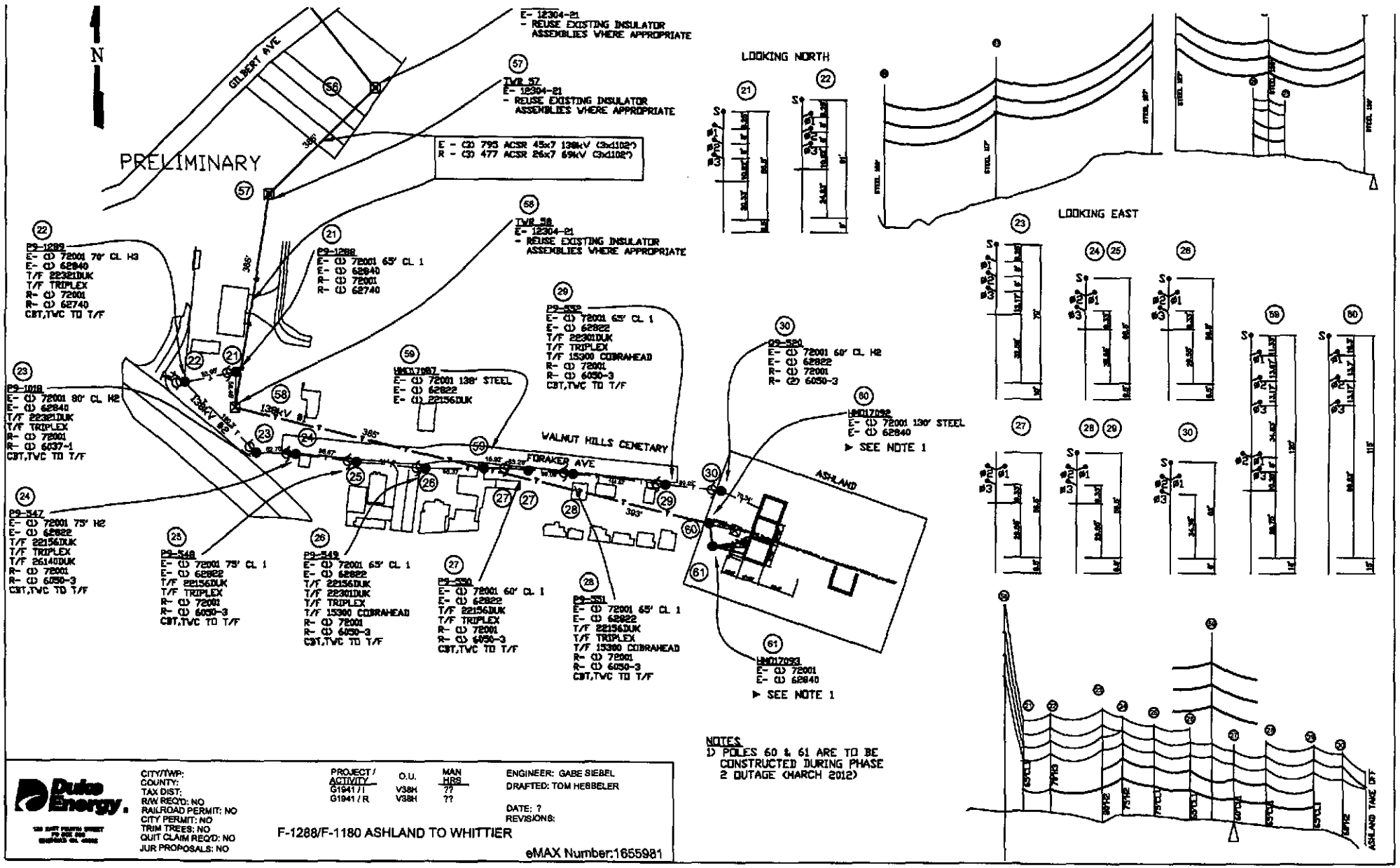
APPENDIX A

ENGINEERING SPECIFICATIONS



NOTES
1) POLES 60 & 61 ARE TO BE CONSTRUCTED DURING PHASE 2 OUTAGE (MARCH 2012)

Duke Energy

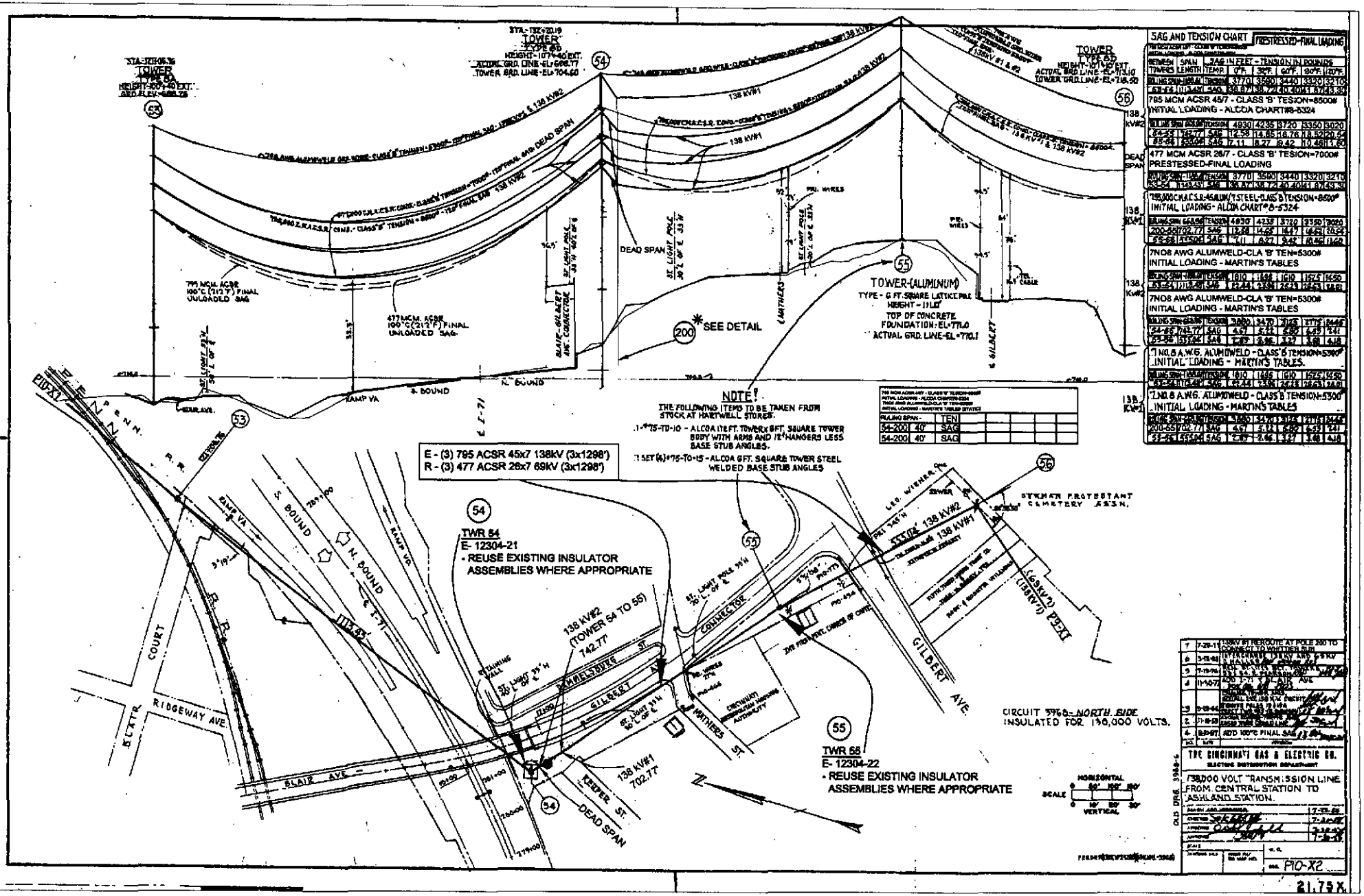
CITY/TWP:
COUNTY:
TAX DIST:
R/W REQ'D: NO
RAILROAD PERMIT: NO
CITY PERMIT: NO
TRIM TREES: NO
QUIT CLAIM REQ'D: NO
JUR PROPOSALS: NO

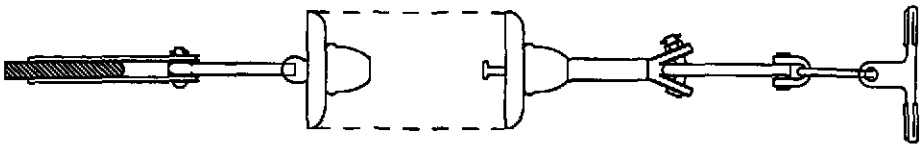
PROJECT / ACTIVITY	O.U.	MAN HRS
G1941 / I	V38H	??
G1941 / R	V38H	??

ENGINEER: GABE SIEBEL
DRAFTED: TOM HEBBELER
DATE: ?
REVISIONS:

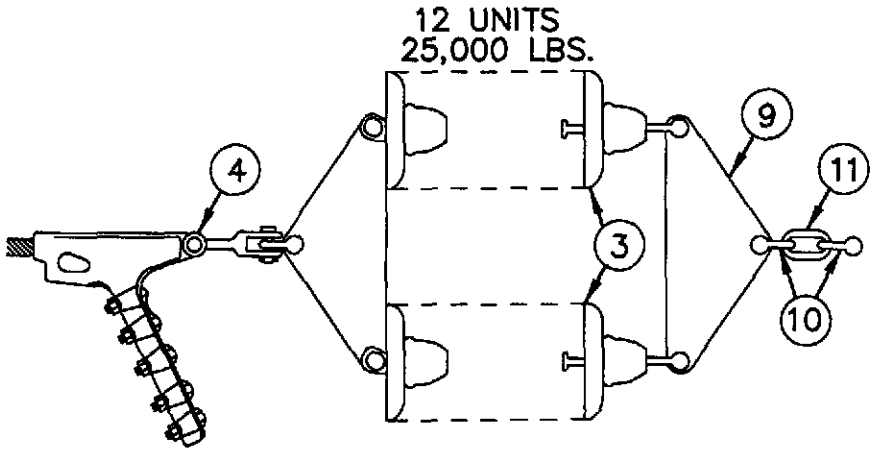
F-1288/F-1180 ASHLAND TO WHITTIER

eMAX Number:1655981


SAG AND TENSION CHART
PRESTRESSED-FINAL LOADING
795 MCM ACSR 45/7 - CLASS 'B' TESION=8500#
INITIAL LOADING - ALCOA CHART#8-5324
477 MCM ACSR 26/7 - CLASS 'B' TESION=7000#
PRESTRESSED-FINAL LOADING
795,000 CM A.C.S.R.-45 ALUM/7 STEEL-CLASS B TENSION=8500#
INITIAL LOADING - ALCOA CHART#8-5324
7N08 AWG ALUMWELD-CLA 'B' TEN=5300#
INITIAL LOADING - MARTIN'S TABLES
7N0.8 A.W.G. ALUMWELD - CLASS 'B' TENSION=5300#
INITIAL LOADING - MARTIN'S TABLES
TOWER (ALUMINUM)
TYPE - 6 FT. SQUARE LATTICE PILE
HEIGHT - 11'-0"
TOP OF CONCRETE FOUNDATION-EL=771.0
ACTUAL GRD. LINE-EL=770.1
SEE DETAIL
NOTE!
THE FOLLOWING ITEMS TO BE TAKEN FROM STOCK AT HARTWELL STORES.
1-#75-TD-10 - ALCOA 11'E FT. TOWER x 6FT. SQUARE TOWER BODY WITH ARMS AND 12'-4" HANGERS LESS BASE STUB ANGLES.
1 SET (4)#75-TD-15 - ALCOA 6FT. SQUARE TOWER STEEL WELDED BASE STUB ANGLES
E - (3) 795 ACSR 45x7 138KV (3x1298')
R - (3) 477 ACSR 26x7 69KV (3x1298')
TWR 54
E-12304-21
- REUSE EXISTING INSULATOR ASSEMBLIES WHERE APPROPRIATE
TWR 55
E-12304-22
- REUSE EXISTING INSULATOR ASSEMBLIES WHERE APPROPRIATE
CIRCUIT 5966-NORTH SIDE
INSULATED FOR 138,000 VOLTS.
THE CINCINNATI GAS & ELECTRIC CO.
138,000 VOLT TRANSMISSION LINE FROM CENTRAL STATION TO ASHLAND STATION.
PIO-X2
21.79 X



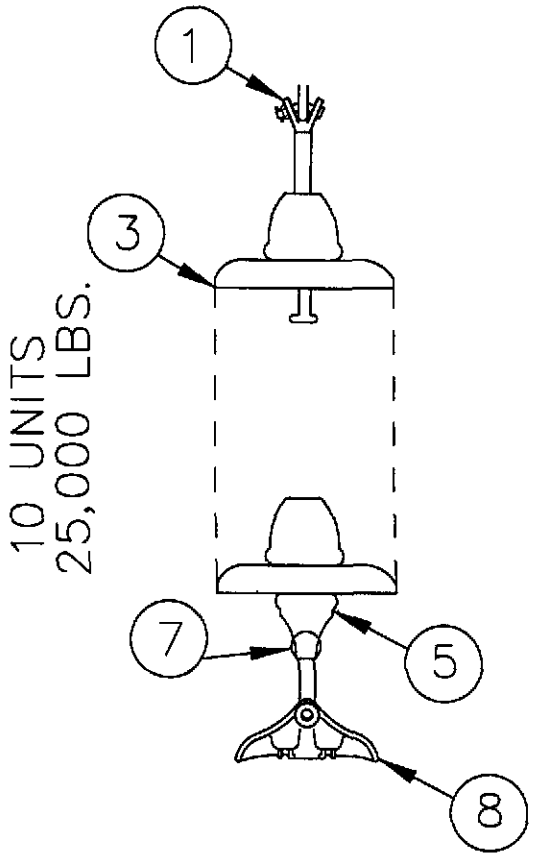
PLAN



ELEVATION

	Material	Item #
3	Insulator: line, suspension,porcelain,30,000lb	13174
4	Bolted DE, single tongue	8134
9	Plate:yoke,18"CtoC,galv.,50,000lb	8706
10	Shackle:anchor,3/4",galv,50,000lb,3/4"pin	8716
11	Link:extension,chain,3-1/2"to1"x3/4"inside	8661

Duke Energy.	INDEX F1288/F1180	
	DETAIL STEEL TOWER ASSEMBLY DETAILS ASHLAND TO WHITTIER	
DATE 9/07/11	LOCATION WALNUT HILLS, OH	
DRAWN J. GABE SEIBEL	TECH/ENG	
TRANSMISSION ENGINEERING	LINE NO F1288/F1180	DWG NO 12304-21



	Material	Item #
1	Clevis: ball-y, 7/8" Dia., 9-5/16"-10-1/8"Lg	8024
3	Insulator: line, suspension,porcelain,30,000lb	13174
5	Clevis: socket-y,gal, 2-3/4" Lg Center of Ball	8024
7	Clevis: eye-Y,galv, 2-7/16" Lg	8024
8	Phase Suspension Clamp Assembly	8954

Duke Energy.	INDEX F1288/F1180	
	DETAIL STEEL TOWER ASSEMBLY DETAILS ASHLAND TO WHITTIER	
DATE 9/07/11	LOCATION WALNUT HILLS, OH	
DRAWN J. GABE SEIBEL	TECH/ENG	
TRANSMISSION ENGINEERING	LINE NO F1288/F1180	DWG NO 12304-22

APPENDIX B

LETTER TO OFFICIAL

DUKE ENERGY CORPORATION
1000 East Main Street
Plainfield, IN 46168-1782

October 14, 2011

Natural Resources Management
Room EX552
139 East Fourth Street
Cincinnati, Ohio 45202

Mayor Mark Mallory
801 Plum Street, Rm 150
Cincinnati, OH 45202-1979

Dear Mayor Mallory:

RE: Ashland to Whittier 138 kV Electric Transmission Line Project

Please find enclosed a copy of a Letter of Notification that Duke Energy Ohio sent to the Ohio Power Siting Board regarding a planned new 138 kV transmission line. This project is being completed to improve the reliability of electric power and to meet the electric demands from future development in the Avondale, Ohio community and the broader City of Cincinnati.

In accordance with Ohio Administrative Code (OAC) 4906-1-01 Appendix A, we are required to prepare this Letter of Notification for the Ohio Power Siting Board and in compliance with OAC 4906-11-01(D)(4), we are hereby providing you with a copy. Please feel free to call me at (317) 838-2428 if you have any questions about this project.

Sincerely,
Duke Energy

Glenn E. Hauser
Power Delivery Engineering

Enclosure

Cc Public Utilities Commission of Ohio

APPENDIX C

AGENCY 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
September 28, 2011

Tails: 31420-2010-TA-1084

Joey A. Van Skaik
GAI Consultants
625 Eden Park Drive
Suite 1000
Cincinnati, OH 45202

Re: Duke Energy, Inc.
Ashland to Whittier 138 kV Overheard Transmission Line
Cincinnati, Hamilton County, Ohio

Dear Mr. Van Skaik:

We have received your recent correspondence requesting information about the subject proposal. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. Based on the information you have provided, at this time we have no objection to the proposed project.

ENDANGERED SPECIES COMMENTS: Due to the project type, size, and location, we do not anticipate any impact on federally listed endangered, threatened, or candidate species, or their habitats. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts.

If you have additional questions or require further assistance with your project proposal, please contact me at the following number (614) 416-8993 x12. I would be happy to discuss the project in further detail with you and provide additional assistance if necessary. In addition, you can find more information on natural resources in Ohio by visiting our homepage at: http://www.fws.gov/midwest/ohio.

Sincerely,

Mary Knapp

Mary Knapp, Ph.D.
Field Supervisor