



JCKETING

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## FILE

November 21, 2008

Ms. Reneé Jenkins, Secretary Public Utilities Commission of Ohio 180 East Broad Street Docketing Division 13<sup>th</sup> Floor Columbus, Ohio 43215-3973

Re: <u>Letter of Notification:</u> <u>Line F5381 138 kV Electric Transmission Line Tap to Rockies Express Substation</u> <u>PUCO Case No. 08- -EL-BLN</u> /273 Dear Ms. Jenkins:

Enclosed for filing are one original and ten copies of a Letter of Notification regarding a Duke Energy project.

If you have any questions regarding this submittal, please contact me at (513) 287-2379.

Sincerely, Duke Energy

Stephen R. Lane Environmental Scientist

Enclosures

Cc Mr. Jim O'Dell (OPSB) (1/1)

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## LETTER OF NOTIFICATION FOR

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## LINE F5381 138 KV ELECTRIC TRANSMISSION LINE TAP TO ROCKIES EXPRESS SUBSTATION

PUCO Case Number 08- 273 -EL- BLN

Submitted pursuant to OAC 4906-11-01

**Duke Energy Ohio** 

November 21, 2008

#### (A) <u>Need Statement</u>

#### (1) **Project Name, Description, and Need**

(a) Name: This proposed project is the Line F5381 138,000 (138 kV) Electric Transmission Line Tap to Rockies Express Substation.

This project qualifies as a Letter of Notification (LON) because it fits the criteria of OAC 4906-1-01, Appendix A (1)(c), "Line(s) one hundred twenty-five kV and above but less than three hundred kV, and not greater than two miles in length." The proposed new 138 kV transmission line tap is approximately 1.5 miles in length and will extend from Duke Energy Ohio's existing 138 kV Line F5689 to the Rockies Express Substation.

(b) Description: This project will provide back-up 138 kV service to the Rockies Express Substation. The substation project in-turn is required to provide back-up electric service to the Rockies Express Hamilton Compressor Station.

A project vicinity map and engineering line drawings for the project are included.

(c) Need: This project is required to provide 138kV electric service to the Rockies Express Hamilton Compressor Station.

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

This proposed project is not included in the 2008, or earlier, LTFRs.

#### (3) Alternatives Considered

One alternative route was considered along Greentree Road. Unfortunately Greentree Road is located roughly midspan of the existing Dayton Power & Light 138 kV double circuit transmission line. As a result the clearances do not exist along Greentree Road to pass under this existing lattice tower transmission line safely.

Another alternative route was located completely to the south of Greentree Road across the Frick properties. The Frick properties are located immediately to the west of the property acquired by Rockies Express for the compressor station Due to property owner resistance, Duke Energy decided to look north of Greentree Road for part of the route

#### (4) Construction Schedule

Work on the transmission line loop is planned to begin March 2009. The overall project has an in-service date of June 2009.

#### (5) Area Maps and Directions to Project Area

A street line map of the project vicinity is attached to this LON; smaller scale engineering line drawings of the project route are also attached. One way to reach the project location from Columbus is to take I-71 south for about 73 miles then take exit #32 west on State Route 123 (SR-123) for 3.4 miles to Lebanon. Continue to travel west on SR-123/48 through Lebanon and on SR-63 for approximately 8.5 miles, over I-75, to Main Street (Cincinnati-Dayton Road). Turn right (north) on Main Street and continue about 2 miles until reaching Greentree Road. At Greentree Road turn right (east) and continue on Greentree Road for approximately 0.5 mile before reaching the point where the proposed tap crosses over Greentree Road. The Rockies Express Substation is about 0.5 mile southeast from this location and the northwestern end of the route is on Main Street (Cincinnati-Dayton Road) about 550 feet north of the intersection with Greentree Road.

#### (B) <u>Technical Features</u>

#### (1) **Operating Characteristics**

The proposed transmission line loop will operate at 138 kV and require approximately 1.5 miles of new 954ACSR45x7 conductor, 39 new wood poles, and the associated appurtances. The locations of the new poles are identified on the included engineering line drawings, the poles will be between 60 and 85 feet in height. The specifications for these structures are included in Appendix A.

#### (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 loop at the lowest point of conductor sag along the length of the tap. This study shows that the maximum magnetic field directly under the middle conductor at one meter above ground would be 44.5 milligauss (mG), tapering off to 1.9 mG at 300 feet if the line were loaded to its maximum winter rating. The modeling also shows that at normal maximum loading directly under the middle conductor at one meter above ground would be 19.5 milligauss (mG), tapering off to 0.8 mG at 300 feet.

At the nearest residence to the transmission line loop, located approximately 180 feet south-southwest of pole #528 north of Greentree Road, this translates into a magnetic field strength of approximately 1.9 mG under the normal maximum loading condition at this residence.

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 \$1,200,000.

#### (C) <u>Socioeconomic Data</u>

#### (1) Land Use

The portion of the project route south of Greentree Road is currently used as a nursery and will be converted to industrial use once the Rockies Express Compressor Station is constructed. Much of the project route north of Greentree Road is in agricultural rowcrops. An area of oldfield is located immediately east of Cincinnati-Dayton Road. No land uses along the project route will be significantly altered by the construction or operation of the proposed project. Agricultural activities will continue under the transmission line post-construction.

#### (2) Agricultural District Land

According to data received from the Warren and Butler County Auditors' Offices, none of the properties along the project route are included in the ORC 929 agricultural district program. Use of agricultural land along the project route will be largely unaffected by the single pole transmission line route as proposed.

#### (3) Cultural Resources

Natural and Ethical Environmental Solutions, a cultural resource services consultant, will be retained to perform a Section 106 compliance Phase I Cultural Resources Study for pole locations along the project route, which will include a literature review and field survey to identify existing cultural or historic resources within the immediate project vicinity. A copy of the Phase I Archaeology Survey will be forwarded to the Ohio Power Siting Board Staff (OPSB) staff under separate cover.

#### (4) Notification of Officials

Copies of the letters transmitting this Letter of Notification to officials of the City of Monroe, Butler County, Lemon Township, Warren County, and Turtle Creek Township are included in Appendix B. No public information program, materials, or meetings were conducted for the siting of this proposed facility.

#### (5) Current and Pending Litigation

There is no current or pending litigation involving the proposed facility.

#### (6) Other Agency Permits and Requirements

No other agency permits or requirements exist for this transmission line loop project.

#### (D) Environmental Data

A Duke Energy biologist/environmental scientist conducted a field survey of the project route on November 14, 2008. This survey included an evaluation of potential habitat for species of concern likely to be found on the project route, a wetland determination, and an assessment of surface drainages in the project vicinity. A summary of the findings is given below.

#### (1) Species of Concern

Limited Indiana bat (Myotis sodalis) roosting habitat was observed in a few of the American sycamores (Platanus occidentalis) in these wooded areas. These trees are

deemed to be low quality roosting habitat as they are exposed trees located in narrow bands of woods adjacent to active agricultural fields, not expected to be used by this reclusive species. No other species of concern or habitat suitable for such species were observed during the field survey.

The habitat along the project route consists primarly of active agricultural land including soybeans, corns, and winter wheat. Wooded areas are limited to the field boundaries and the narrow riparian zone along Dicks Creek. Dominant species in these wooded areas included American Sycamore, hackberry (*Celtis occidentalis*), and Amur honeysuckle (*Lonicera maackii*). An oldfield area is located at the west end of the project route and included species such as yellow foxtail (*Setaria pumila*), mutliflora rose (*Rosa multiflora*), couchgrass (*Agropyron repens*), crabgrass (*Digitaria* spp.), goldenrod (*Solidago* spp.), wild carrot (*Daucus carota*), and common ragweed (*Ambrosia artemisiifolia*).

#### (2) Areas of Ecological Concern

One agricultural drainage ditch is crossed at the southern end of the project route between the Rockies Express Substation and Greentree Road between poles #510 and #511, this drainage ditch is representative of low quality limited resource water (LRW). Dicks Creek is crossed north of Greentree Road between poles #528 and #529 and just east of the Dayton Power & Light 138kV double circuit lattice tower transmission line. According to the Ohio Administrative Code (OAC) 3745-1-21 Dicks Creek is classified as a warmwater habitat (WHH) where it is crossed by the project route. Observations made at the time of the field survey support this designation. Construction of the transmission line tap as proposed will require approximately 100 feet of clearing within the easement to support the construction and operation of the line. This project is expected to result in the removal of approximately 6 mature trees along Dicks Creek.

No wetlands or other areas of ecological concern were identified along the project route.

### (3) Additional Information

There is no known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.



When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.











## APPENDIX A

## **ENGINEERING SPECIFICATIONS**

VLVL I

138kV Overhead Construction Horizontal Post Type Insulators Straight Line And Angles to 5 Degrees



Not the Version Alex

138kV Overhead Construction Horizontal Post Type Insulators Straight Line And Angles To 16 Degrees



138kV Overhead Construction Horizontal Post Type Insulators Transitions From Straight Line And Angles To Vertical Construction



This document is for Cinergy use only.

11/09/04

#### VEVET

138kV Overhead Construction Horizontal Post Type Insulators Straight Line & Angles To 16 Degrees



3 BOLT 5 DETAIL "A-A"

		SPANS UP TO 250 FT		SPANS 250 FT. TO 400 FT.
FRAM DIMEN	ing Siôn	DESIGN TENSION 3000 LBS. OR LESS	DESIGN TENSION 3000 LBS. TO 4500 LBS.	UP TO 4500 LBS.
A		8'-11"	8'-11"	8'-11"
В		8'~0"	8'-0"	8'-0"
С		8'-0"	8'-0"	8'-0"
D		11'-6"	10 <b>'-0</b> "	<u> </u>
E		36'-5"	34'-11"	

#### NOTES:

SEE CONSTRUCTION STANDARD FOR NUMBER AND SIZE OF GUYS.

SEE STANDARD 99150 FOR INSTALLATION OF INSULATORS IN GUYS.

SEE STANDARD 72001 FOR GROUNDING, SETTING DEPTH, POLE RAKING INFORMATION AND ALTERNATE BOLT INFORMATION.

MAXIMUM SPAN LENGTHS ARE LIMITED TO 250 FT. WITH DISTRIBUTION UNDERBUILD AND TO 400 FT. WITHOUT DISTRIBUTION UNDERBUILD.

PHASES ARE PREFERRED TO BE ON THE ROAD SIDE OF THE POLE WHERE POSSIBLE. ANGLES SHOULD ALWAYS BREAK AWAY FROM THE POLE.

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11/09/04

#### VEUJU

SPANS 250 FT.

TO 400 FT.

UP **10** 4500 LBS.

8'-11"

8'-0"

8'-0"

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138kV Overhead Construction For Line Angles 17 to 60 Degrees

SPANS UP TO 250 FT.

DESIGN

TENSION 3000 LBS. OR LESS

8'-11

8'-0"

8'~0"

14'-0"

38'-11"

DESIGN

TENSION 3000 LBS.

TO 4500 LBS

8'-11

8'-0"

8-0"

12'-6"

37'-5"



NOTES:

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В

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D

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SEE CONSTRUCTION STANDARD FOR NUMBER AND SIZE OF GUYS. . . . . . · . .....

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SEE STANDARD 72001 FOR GROUNDING, SETTING DEPTH, POLE RAKING INFORMATION AND ALTERNATE BOLT INFORMATION.

MAXIMUM SPAN LENGTHS ARE LIMITED TO 250 FT. WITH DISTRIBUTION UNDERBUILD AND TO 400 FT. WITHOUT DISTRIBUTION UNDERBUILD.

11/10/04

#### 138kV Overhead Construction Two And Three Way Deadend



This document is for Cinergy use only.

11/09/04

## APPENDIX B

## LETTERS TO OFFICIALS



November 20, 2008

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

Mayor Robert Routson City of Monroe 233 South Main Street, Monroe, Ohio 45050

Dear Mayor Routson:

RE: Line F5381 138 kV Electric Transmission Line Tap to Rockies Express Substation

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 tap to connect Duke Energy Ohio's existing F5689 138 kV transmission line to the Rockies Express Substation, currently under construction and required for the Rockies Express Hamilton Compressor Station to be located south of Greentree Road and west of Interstate 75.

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 4906-11-02(B), we are hereby providing you with a copy. Please feel free to call me at (513) 287-2379 if you have any questions about this project.

Sincerely, Duke Energy

Stephen R. Lane Environmental Scientist

Enclosure

Ce Mr. C. Michael Kilburn, Warren County Board of Commissioners Mr. James VanDeGrift, Turtle Creek Township Trustees Mr. Michael Rossi, Lemon Township Trustees Mr. Charles R. Furmon, Butler County Commissioners Public Utilities Commission of Ohio



November 20, 2008

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

Mr. Michael Rossi, Trustee Lemon Township Trustees 274 Scott Alan Drive Monroe, Ohio 45050

Dear Mr. Rossi,

RE: Line F5381 138 kV Electric Transmission Line Tap to Rockies Express Substation

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 tap to connect Duke Energy Ohio's existing F5689 138 kV transmission line to the Rockies Express Substation, currently under construction and required for the Rockies Express Hamilton Compressor Station to be located south of Greentree Road and west of Interstate 75.

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 4906-11-02(B), we are hereby providing you with a copy. Please feel free to call me at (513) 287-2379 if you have any questions about this project.

Sincerely, Duke Energy

Stephen R. Lane Environmental Scientist

Enclosure

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Mr. C. Michael Kilburn, Warren County Board of Commissioners Mayor Robert Routson, City of Monroe Mr. James VanDeGrift, Turtle Creek Township Trustees Mr. Charles R. Furmon, Butler County Commissioners Public Utilities Commission of Ohio



November 20, 2008

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

Mr. Charles R. Furmon, President Butler County Commissioners 315 High Street, 6th Floor, Hamilton, Ohio 45011

Dear Mr. Furmon:

RE: Line F5381 138 kV Electric Transmission Line Tap to Rockies Express Substation

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 tap to connect Duke Energy Ohio's existing F5689 138 kV transmission line to the Rockies Express Substation, currently under construction and required for the Rockies Express Hamilton Compressor Station to be located south of Greentree Road and west of Interstate 75.

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Sincerely, Duke Energy

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November 20, 2008

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

Mr. C. Michael Kilburn, Commissioner Warren County Commissioner Administration Building 406 Justice Dr. Lebanon, Ohio 45036

Dear Mr. Kilburn:

RE: Line F5381 138 kV Electric Transmission Line Tap to Rockies Express Substation

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 tap to connect Duke Energy Ohio's existing F5689 138 kV transmission line to the Rockies Express Substation, currently under construction and required for the Rockies Express Hamilton Compressor Station to be located south of Greentree Road and west of Interstate 75.

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Sincerely, Duke Energy

Stephen R. Lane Environmental Scientist

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Mr. James VanDeGrift, Turtle Creek Township Trustees Mayor Robert Routson, City of Monroe Mr. Michael Rossi, Lemon Township Trustees Mr. Charles R. Furmon, Butler County Commissioners Public Utilities Commission of Ohio



November 20, 2008

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

Mr. James VanDeGrift, Trustee Turtle Creek Township Trustees 670 N. State Route 123 Lebanon, OH 45036

Dear Mr. VanDeGrift:

RE: Line F5381 138 kV Electric Transmission Line Tap to Rockies Express Substation

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 tap to connect Duke Energy Ohio's existing F5689 138 kV transmission line to the Rockies Express Substation, currently under construction and required for the Rockies Express Hamilton Compressor Station to be located south of Greentree Road and west of Interstate 75.

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 4906-11-02(B), we are hereby providing you with a copy. Please feel free to call me at (513) 287-2379 if you have any questions about this project.

Sincerely, Duke Energy

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