



Legal Department

American Electric Power
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February 22, 2017

Chairman Asim Z. Haque
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215

Erin C. Miller
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**Re: EMF Supplemental Information
Waverly-Ware 138 kV Transmission Line Project
Case No. 17-0172-EL-BLN**

Dear Chairman Haque,

AEP Ohio Transmission Company, Inc. submits this EMF data as a supplement to the Letter of Notification docketed on February 3, 2017.

If you have any questions, please do not hesitate to contact me.

Respectfully Submitted,

/s/ Erin C. Miller
Erin C. Miller
Contract Counsel
AEP Ohio Transmission Company, Inc.

cc: Jon Pawley, OPSB Staff

B(9)(b)(i) Calculated Electric and Magnetic Field Strength Levels

Three loading conditions were examined: (1) normal maximum loading, (2) emergency line loading, and (3) winter normal conductor rating. Normal maximum loading represents the peak flow expected with all system facilities in service; daily/hourly flows fluctuate below this level. Emergency loading is the maximum current flow during unusual (contingency) conditions, which exist only for short periods of time. Winter normal (WN) conductor rating represents the maximum current flow that a line, including its terminal equipment, can carry during winter conditions. It is not anticipated that this line would operate at its WN rating in the foreseeable future. Loading levels and the calculated electric and magnetic fields ("EMF") are summarized below.

Waverly-Ware Road 138kV Circuits			
Condition	Load (A)	Electric Field (kV/m)*	Magnetic Field (mG)*
(1) Normal Max. Loading	237	0.8/1.4/0.8	16.8/46.7/17
(2) Emergency Line Loading	398	0.8/1.4/0.8	28.3/78.5/29
(3) WN Conductor Rating	791	0.9/2.3/0.9	66.5/2460.0/67.6

*EMF levels (left ROW edge/maximum/right ROW edge) computed one meter above ground at the point of minimum ground clearance, assuming balanced phase currents and nominal voltages. Electric fields reflect normal and emergency operations; lower electric fields are expected during emergency conditions when one mutually coupled line is out of service.

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Case No(s). 17-0172-EL-BLN

Summary: Notice Supplemental EMF Data for the Waverly-Ware 138 kV Transmission Line Project electronically filed by Mrs. Erin C Miller on behalf of AEP Ohio Transmission Company