Legal Department

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April 2, 2020

Chairman Sam Randazzo
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215-3793

Tanner Wolffram
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Re: In the Matter of the Letter of Notification Application of AEP Ohio Transmission Company, Inc. for a Certificate of Environmental Compatibility and Public Need for the Bethel-Sawmill 138 kV Transmission Line Project (Bethel-Brookside) Case No. 20-389-EL-BLN

Dear Chairman Randazzo,

On March 20, 2020, AEP Ohio Transmission Company, Inc. (the "Company") filed its Letter of Notification Application ("Application") for the above-referenced project.

The Company hereby submits the following supplemental information to update the Electric and Magnetic Fields data provided in Sections (B)(9)(b) and (B)(9)(b)(i) of the Application.

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

Respectfully submitted,

/s/ *Tanner S. Wolffram*
Christen M. Blend (0086881), Counsel of Record
Tanner S. Wolffram (0097789)
Counsel for AEP Ohio Transmission Company, Inc.

cc: Jon Pawley

B(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

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

i) Calculated Electric and Magnetic Field Levels

Three loading conditions were examined: (1) normal maximum loading, (2) emergency line loading, and (3) winter normal (WN) 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. 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 are summarized below.

Bethel - Sawmill 138 kV EMF Levels**				
Condition	**Brookside – Bethel / Linworth to Bethel 138 kV Load (A)**	**Ground Clearance (feet)**	**Electric Field (kV/m)***	**Magnetic Field (mG)***
(1) Normal Max. Loading^	369 / 19	40.5	0.76/ 1.37 /0.76	16.60/20.02 /13.62
(2) Emergency Line Loading^^	780 / 148	39.5	0.76/1.42/0.76	39.86/48.98/34.11
(3) Winter Conductor Rating^^^	2607 / 1247	40.5	0.76/ 1.37 /0.76	154.51/193.00/142.79

*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 1.0 P.U. Voltages. ROW width is 25 feet (left) and 25 feet (right) of centerline, respectively.
**Our results, calculated using EPRI's EMF Workstation 2015 software are summarized below
^Peak line flow expected with all system facilities in service
^^Maximum flow during a critical system contingency
^^^Maximum continuous flow that the line, including its terminal equipment, can withstand during winter conditions

The above EMF levels are well within the limits specified in IEEE Standard C95.6TM-2002. Those limits have been established to "prevent harmful effects in human beings exposed to electromagnetic fields in the frequency range of 0-3 kHz."

Summary: Notice Notice of supplemental information for the Bethel-Sawmill 138 kV Transmission Line Project (Bethel-Brookside) electronically filed by Tanner Wolffram on behalf of AEP Ohio Transmission Company, Inc.