

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**APPLICATION OF PENNSYLVANIA :  
ELECTRIC COMPANY FOR APPROVAL :  
TO LOCATE AND CONSTRUCT THE :  
BEDFORD NORTH-CENTRAL CITY :  
WEST 115 KILOVOLT TRANSMISSION :     Docket No. A-2016-2565296  
LINE PROJECT IN CENTRAL CITY :  
BOROUGH AND SHADE TOWNSHIP, :  
SOMERSET COUNTY, AND NAPIER, :  
EAST ST. CLAIR, AND BEDFORD :  
TOWNSHIPS, BEDFORD COUNTY, :  
PENNSYLVANIA :**

**REBUTTAL TESTIMONY OF  
  
BRINTON T. MCINTOSH  
  
ON BEHALF OF  
  
PENNSYLVANIA ELECTRIC COMPANY  
  
STATEMENT NO. 4-R**

**Re: Engineering and Construction**

Dated: February 20, 2017



1 first two years on a rotational assignment, working in four different departments for six  
2 months at a time in the Energy Delivery business unit. This opportunity allowed me to  
3 gain perspective from different areas of electric utility engineering, including distribution  
4 engineering and transmission engineering. In 2010 I transferred into the Transmission  
5 Engineering department and served as the lead engineer on dozens of transmission line  
6 projects for the following five years. In 2015, I moved into the External Engineering  
7 departments. During the past year and a half, I have served as Supervisor, External  
8 Transmission Engineering. Since transferring into his current position, Larry Mattei has  
9 been my direct report. Our department focuses on the direct oversight of external  
10 engineering consultants.

11  
12 **Q. On whose behalf are you providing this testimony?**

13  
14 A. I am providing this testimony on behalf of Penelec for approval to locate and construct the  
15 Bedford North-Central City West 115 kV Transmission Line (“Project”).

16  
17 **Q. What is your role on the Project?**

18  
19 A. Mr. Mattei has directly overseen the engineering provided by Realtime Utility Engineers  
20 under my direct supervision.

21  
22 **Q. What is the purpose of your testimony?**

23  
24 A. The purpose of my testimony is to provide responses to the testimony concerning  
25 engineering and construction of the Project. My responses will focus on the design and

1 construction methodology of Pennsylvania Electric Company (“Penelec”) for the proposed  
2 Bedford North-Central City West 115 kV HV Transmission Line Project. Penelec is a  
3 FirstEnergy company. I will also provide responses related to the operations and  
4 maintenance of this line.

5  
6 **Q. Jeffrey & Kathy Kelley would like the proposed transmission line moved to the edge  
7 of their property. Is this feasible?**

8 A. Moving the proposed transmission line to the edge of the Kelly property is possible;  
9 however, it is not practical due to the following issues that would arise. First, moving the  
10 angle point on top of the Allegheny Ridge to the west, that is, farther back and away from  
11 the abrupt slope of Allegheny Ridge, would result in an increase in structure height by 80  
12 feet, and the span traversing the Allegheny Ridge would be in excess of 1,700 feet. This  
13 would require that the structure at the top of the ridge to be approximately 220 feet tall to  
14 meet required clearances over this terrain. A structure this tall would need to be permitted  
15 with the FAA and would require appropriate lighting, a remote monitoring system, and an  
16 electrical distribution source for the lighting.

17  
18 **Q. Please describe the cost difference in reference to above.**

19 A. The cost difference may be approximately \$200,000. This figure does not include the  
20 potential cost of FAA lighting of the tower nor the cost of additional foundation  
21 reinforcement. If FAA lighting is required permanent access and 120-volt distribution  
22 service will be necessary.

1

2 **Q. Please describe the height, location and description of poles planned for Albert and**  
3 **Kimberly Stiles' property.**

4 A. Based on the current alignment, there will be a total of five transmission structures located  
5 on Albert and Kimberly Stiles' property. These structures will consist of (3) 2-pole wood  
6 H-frame structures and (2) single wood or steel pole structures with guying. The above  
7 ground structure heights will range from 70 to 115 feet.

8

9

10 **Q. Will the proposed transmission line interfere with "mining" of decorative stone from**  
11 **Albert and Kimberly Stiles' property?**

12 A. All work within to FirstEnergy's right-of-way will need to follow the restrictions as  
13 outlined on FirstEnergy's Transmission Rights-of-Way Restrictions website.

14 [https://www.firstenergycorp.com/content/customer/help/safety/real-estate-power-  
16 lines/transmission-right-of-way.html](https://www.firstenergycorp.com/content/customer/help/safety/real-estate-power-<br/>15 lines/transmission-right-of-way.html)

16

17

18 **Q. Would John and Lorrain Anderson's property lose use of their water well?**

19 A. The location of property owner wells, water lines and related appurtenances will be  
20 confirmed prior to construction to avoid damage during construction. Transmission  
21 structures planned for these properties will be wood or steel monopoles, with directly-  
22 embedded foundations. Installation requires a hole augured to a depth of approximately

1 fifteen feet, with native soils used to backfill around the structure. As such, ground water  
2 flow characteristics (quality and volume) would not be affected by these structures.  
3 Geological conditions of the area, and the sensitivity of ground water resources to pollution  
4 is described in the testimony of Mr. Barry Baker.

5  
6  
7 **Q. Would the proposed project damage the artesian well on John and Lorrain  
8 Anderson's property?**

9 A. See answer to previous question. See also, testimony of Shawn Standish and of Salvatore  
10 Quattrocchi regarding use of herbicides for vegetation maintenance.

11  
12  
13 **Q. Could structures fall in high wind scenarios causing a safety issue?**

14 A. The transmission structures to be located on the Anderson's property will be designed in  
15 accordance with the National Electrical Safety Code (NESC). Furthermore, FirstEnergy  
16 will be designing these facilities to withstand wind loads above and beyond those required  
17 by the NESC in order to provide an additional level of safety.

18  
19 **Q. How will FirstEnergy communicate with property owners regarding construction  
20 activities and traffic?**

21 A. A company representative will be responsible for communicating with property owners to  
22 keep them informed and apprised of project activities throughout initial construction. The

1 representative will act as a point of contact should property owners have any questions or  
2 concerns about Project issues, such as increased traffic, noise, timing of construction  
3 activities. However, FirstEnergy is unable to state at this time the hours of operation for  
4 any particular day.

5

6 **Q. Does this complete your rebuttal testimony?**

7

8 A. Yes it does. However, I would like to reserve the right to supplement my testimony if  
9 anything changes with respect to the status of the application.