

**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  
  
GRANT MARCHEWKA  
  
ON BEHALF OF  
  
PENNSYLVANIA ELECTRIC COMPANY  
  
STATEMENT NO. 2-R**

**Re: Electrical Need and Planning**

Dated: February 20, 2017



1 A. The purpose of my rebuttal testimony is to address the following issues discussed in the  
2 direct testimony of Michael Philip Anderson:

- 3 • Alternatives to the Project;
- 4 • Benefits of the project to the Central City area power supply.
- 5

6 **Q. Have you sponsored direct testimony in this proceeding?**

7

8 A: Yes. My direct testimony was previously submitted in the proceeding as Penelec Statement  
9 2.

10

11 **Q. Are you sponsoring any exhibits in your rebuttal testimony?**

12

13 A. No.

14

15 **Q. Please address the testimony of Michael Anderson about upgrading existing electric**  
16 **lines versus constructing the proposed Project.**

17

18 A. Mr. Anderson would like Penelec to upgrade its existing lines instead of building a new  
19 line. As stated on pages 8 and 9 of my direct testimony, FirstEnergy and PJM identified  
20 thermal loading and low voltage Planning Criteria violations that could occur under  
21 certain system conditions. A thermal overload occurs when the amount of power flowing  
22 on a transmission line exceeds the rated capability of that line. In addition to monitoring  
23 flows on transmission lines to identify potential overloads in studies, voltages at  
24 substation buses are also monitored to determine if the voltages will be within the limits  
25 discussed on pages 6 and 7 of my direct testimony. As stated on page 10 of my direct

1 testimony, FirstEnergy considered upgrading the existing overloaded lines serving the  
2 Bedford North area in order to increase the capacity of those lines. As further discussed,  
3 upgrading these lines would mitigate the thermal loading concerns, but would not  
4 mitigate the low voltage concerns. As such, FirstEnergy determined that constructing the  
5 Project was the best alternative to mitigate both the thermal and voltage Planning Criteria  
6 violations.

7  
8 **Q. Mr. Anderson states that there is a sufficient power supply to Central City. Can you**  
9 **address the power supply to Central City?**

10  
11 A. Penelec's Central City West substation is served by a single 115 kV line emanating from  
12 Penelec's Hooversville substation. This Central City West – Statler Hill - Hooversville  
13 115 kV line is a radial line, meaning it is the only direct 115 kV source to Central City  
14 area. Should an outage occur on the Central City West – Statler Hill – Hooversville  
15 115 kV line, the load normally served by the 115 kV source at the Central City West  
16 substation would instead need to be served through the underlying distribution system  
17 from other substations that are farther away from the Central City area. Serving load from  
18 more distant sources can result in reduced service reliability to customers served by these  
19 facilities due to increased line exposure on the facilities serving the load. As secondary  
20 benefit to relieving the thermal loading and low voltage issues in the Bedford North area,  
21 the Project will provide a second transmission source to the Central City West substation.  
22 This means that during an outage of either one of the existing Central City West – Statler  
23 Hill – Hooversville 115 kV line or the proposed Bedford North – Central City West

1           115 kV line, the Central City West substation could still be served from the remaining  
2           115 kV without needing to use the underlying distribution system to serve the load.

3

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

5

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