## 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

2 3	Q.	Please state your name and business address.
4	A.	My name is Grant Marchewka and my business address is 800 Cabin Hill Drive,
5		Greensburg, Pennsylvania 15601.
6		
7	Q.	By whom are you employed and in what capacity?
8 9	A.	I am employed by FirstEnergy Service Company as an Engineer IV assigned to the Energy
10		Delivery Planning and Protection group.
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.	My primary role as an Engineer IV in the Transmission Planning group is the planning of
20		FirstEnergy's transmission system, including the transmission system with Penelec's
21		service territory, to ensure the system operates reliably over a wide range of conditions. As
22		part of this role, I identify system reinforcements, like the Project, that support continued
23		reliable operation of the transmission system.
24		
25 26	Q.	What is the purpose of your rebuttal testimony?

**INTRODUCTION AND PURPOSE OF TESTIMONY** 

1

Witness: Grant Marchewka Rebuttal Statement No. 2-R Docket No. A-2016-2565296 Page 3 of 5

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 16	Q.	Please address the testimony of Michael Anderson about upgrading existing electric 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

Witness: Grant Marchewka Rebuttal Statement No. 2-R Docket No. A-2016-2565296 Page 4 of 5

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

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

A.

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

Witness: Grant Marchewka Rebuttal Statement No. 2-R Docket No. A-2016-2565296 Page 5 of 5

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		
<b>4</b> 5	Q.	Does this complete your rebuttal testimony?
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.