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File #: 140066

May 22, 2018

VIA ELECTRONIC FILING

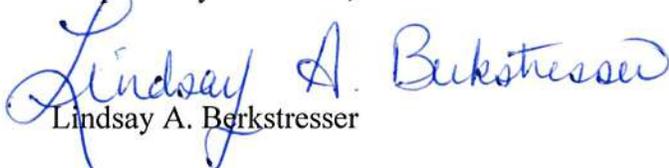
Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Letter of Notification of PPL Electric Utilities Corporation, Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter G, for Approval to Rebuild Approximately 6.4 Miles of Existing Double-Circuit 138 kV Transmission Line between the Gilbert 138-12 kV Substation and the Little Gap 69 kV Transmission Tap Located in Polk Township and Eldred Township, Monroe County, Pennsylvania
Docket No. A-2018-3001324**

Dear Secretary Chiavetta:

Enclosed please find the Responses of PPL Electric Utilities Corporation to the Data Requests of the Bureau of Technical Utility Services Set II, for filing in the above-referenced proceeding.

Respectfully submitted,


Lindsay A. Berkstresser

LAB/jl
Enclosures

cc: Jordan Van Order (*Via E-mail*)

**PPL Electric Utilities Corporation
Response to Data Requests of
Bureau of Technical Utility Services, Set II
Dated May 16, 2018
Docket No. A-2018-3001324**

Q.5 Reference Discovery, Response to A-1. The response appears to conflict with the information provided in the letter of notification, paragraph 11. Please reconcile.

A.5 The Letter of Notification states the steel poles have reached the end of their reliable service life. This is an assessment based on the engineering evaluation of the poles ability to provide reliable service not on the material condition of the assets, rather, the historic poor lightning performance of the line and ability to support the loadings associated with the installation of new dual shield wire lightning protection

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Q.6 Reference Discovery, Response to A-1 and A-2. Please state the structural loading capacity of the existing 8 steel structures and 9 wood poles to be replaced and the approximate structural loading capacity required to accommodate the dual optical ground wire.

A.6 Structural loading capacity of individual structures on a transmission line varies based on a multitude of different parameters, including structure framing, material and span lengths. The engineering of a transmission line involves modelling the structures and the attached conductors/shield wires against an established list of structural loading cases, which subject the structures to different loading conditions based on different types of weather scenarios. For a structure to “pass” it must be below 100% loading capacity and as such it is considered a “fail” if above 100%. Each of the existing structures in question, whether wood or Light Duty (LD) steel poles , are presently loaded to <90% of their design capacity and with the addition of dual optical ground wire (OPGW) attached to newly installed arms they exceeded 100-115% of the loading capacity or “failed”. The majority of the failing structures could not pass the NESC Rule 250B weather case where the structure and each conductor on the ahead and back spans are subjected to weather conditions of 0.5” Radial Ice, 4 PSF Wind, and 0°F Temperature.

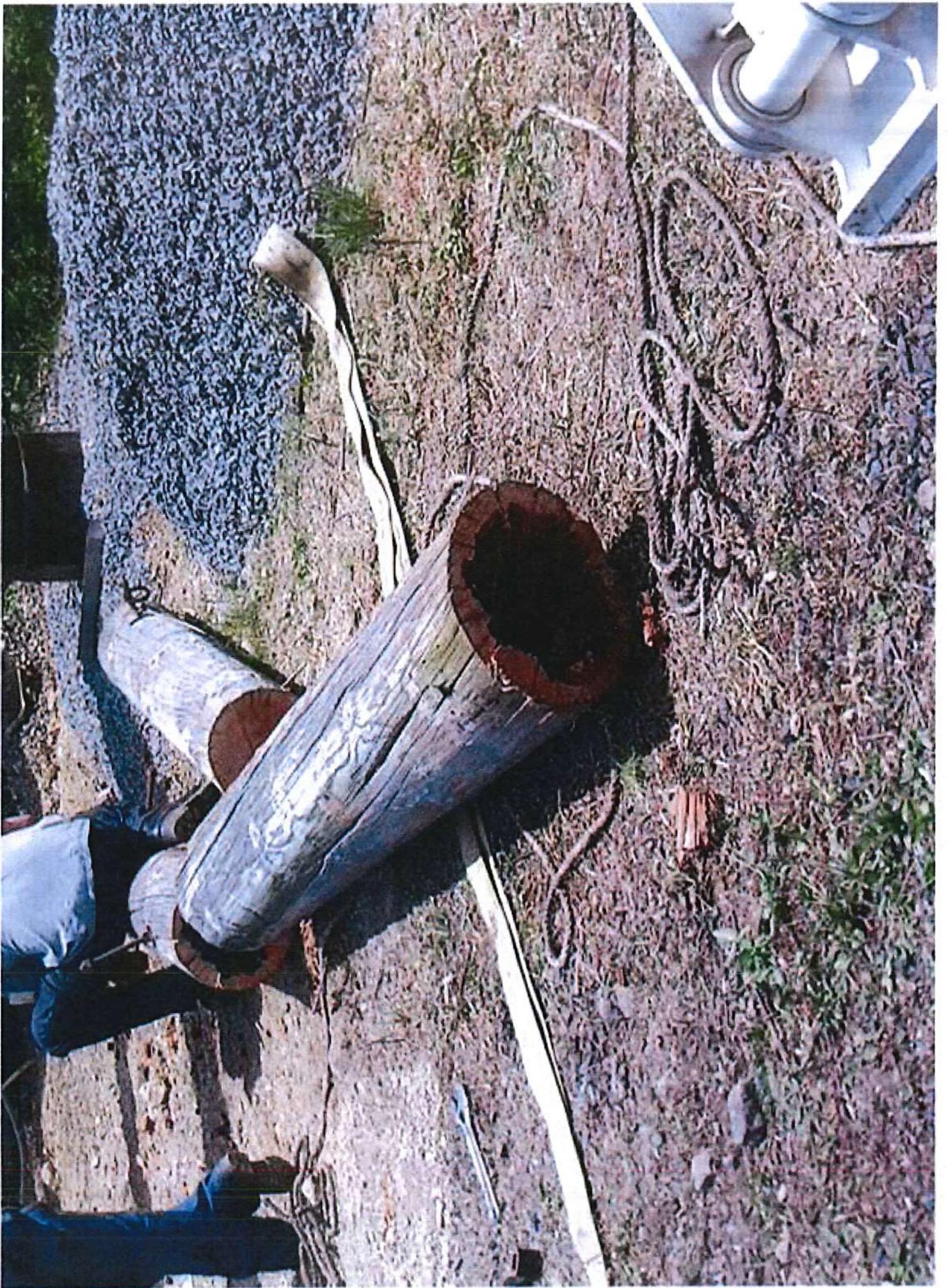
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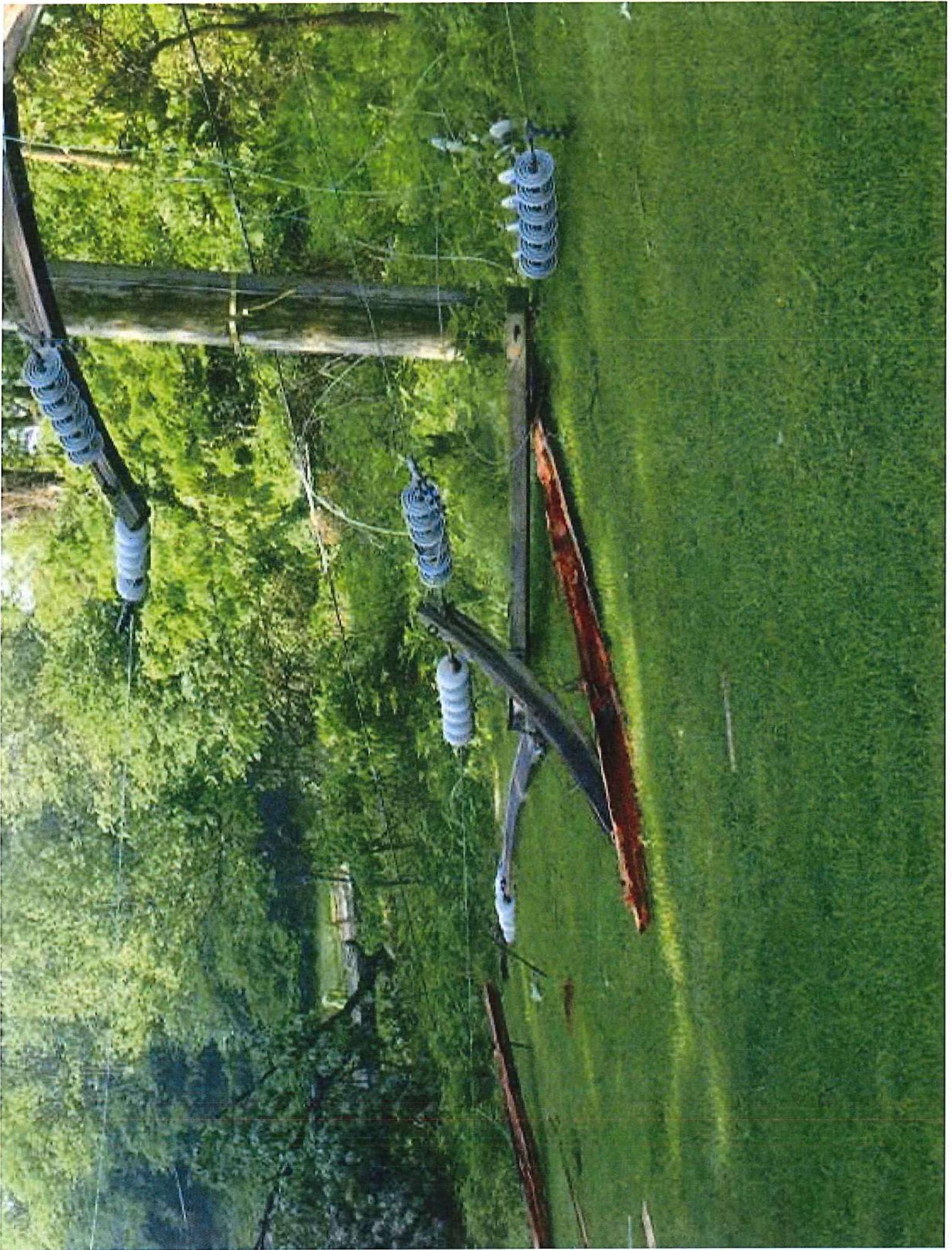
Q.7 Reference Discovery, Response to A-3. Please quantify the approximate increase in reliability anticipated from the proposed project, including the addition of the dual optical ground wire.

A.7 The rebuild of the line including the dual optical ground wire will significantly improve the reliability of the line. PPL does not expect to have any service interruptions on the line due to lightning (based on performance of similar rebuilt lines) compared to the over 50 outages this line experienced in the last ten years. PPL does not expect to have any service interruptions due to equipment failures on this line compared to two in the last ten years. PPL expects a 100% reduction in outages caused by equipment failures or lightning.

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- Q.8 Reference the Letter of Notification, Paragraph 12. Please provide a photograph or image showing the surface and cross-sectional area of a failed cellon treated wood pole and a wood pole treated with some other process.
- A.8 Please see attached pictures of failed cellon treated poles.







VERIFICATION

I, PHIL O. PENNY, being the MANAGER - TRANSMISSION PLANNING at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date:

5/24/18