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File #: 197389

October 7, 2024

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 0.3 Miles of the Existing Juniata-Cumberland 230 kV and Williams Grove-Cumberland 230 kV Transmission Lines To Re-Terminate Each Existing Transmission Line Into the Expanded Cumberland Substation in Silver Spring Township, Cumberland County, Pennsylvania
Docket No. A-2024-3050132

Dear Secretary Chiavetta:

Enclosed, on behalf of PPL Electric Utilities Corporation ("PPL Electric"), is information being supplied to the Pennsylvania Public Utility Commission's ("Commission") Bureau of Technical Utility Services ("TUS") in response to TUS Set II Data Requests regarding the above-captioned proceeding.

Respectfully submitted,

Garrett P. Lent

GPL/dmc
Enclosures

cc: Jordan Van Order (*via email; w/attachments*)

WITNESS: Joseph B. Lookup

PPL Electric Utilities Corporation
Response to the Set II Data Request of the
Bureau of Technical Utility Services
Dated September 30, 2024
Docket No. A-2024-3050132

Q. TUS-II-8 Reference the Letter of Notification, Paragraph 18. Please explain whether PPL Electric is required to consider P4 planning events for all of its transmission system over 100 kV. If so, please provide the corresponding reference.

A. TUS-II-8 PJM and PPL are required to study P-4 Contingency events on BES and non-BES elements, respectively, per PPL Electric's filed FERC 715 Criteria. These studies are required to meet the TPL-001 NERC Standard. Failure to comply with the TPL-001 NERC Standard could result in a NERC standard violation. This includes facilities over 100 kV per the NERC BES definitions.

PPL 715 Criteria:
https://www.pjm.com/-/media/planning/planning-criteria/ppl-planning-criteria.ashx
Pages 8-11

NERC BES Definitions:
https://www.nerc.com/PA/RAPA/BES DL/BES DEFINITION APPROVED BY FERC 3-20-14.PDF

WITNESS: Joseph B. Lookup

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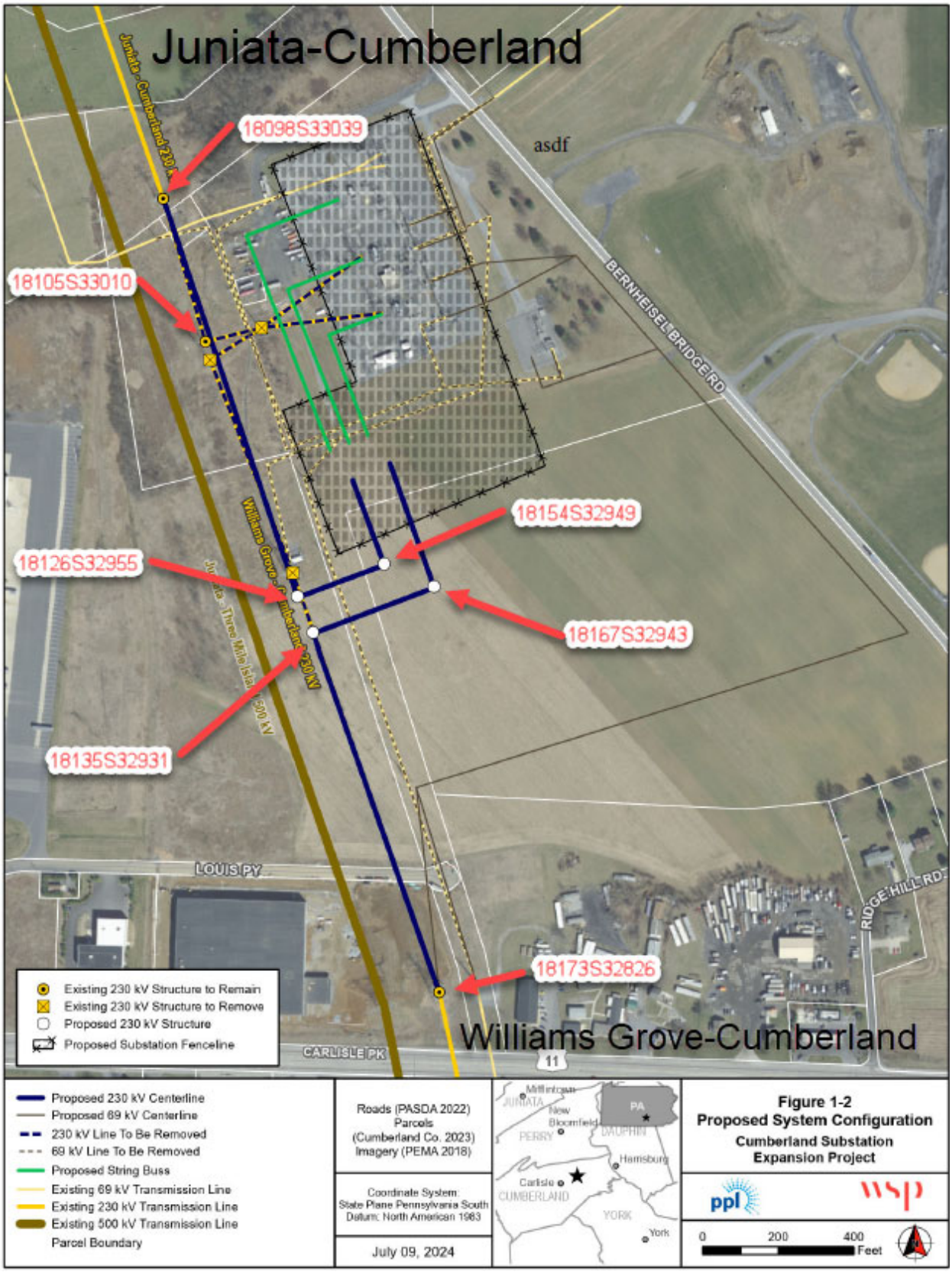
Q. TUS-II-9 Reference the Letter of Notification, Paragraph 27. Please provide a detailed description of the sections of line to be rebuilt including the start and end point with structure IDs.

A. TUS-II-9 The Juniata-Cumberland transmission line will be modified starting at existing structure 18098S33039 (to remain) through existing structure 18105S33010 (to remain) leading southward and connect to the proposed new angle structures 18126S32955 and 18154S32949 and connect to a new 230kV substation bay southwest of the existing substation.

The Williams Grove-Cumberland transmission will be modified starting at existing structure 18173S32826 (to remain) and head northward and connect to the proposed new angle structures 18135S32931 and 18167S32943 and connect to a new 230kV substation bay southwest of the existing substation.

See amended Figure 1-2 below.


Juniata-Cumberland
18098S33039
18105S33010
18154S32949
18126S32955
18167S32943
18135S32931
18173S32826
Williams Grove-Cumberland
asdf
BERNHEISEL BRIDGE RD
LOUIS PY
RIDGE HILL RD
CARLISLE PK
11
Existing 230 kV Structure to Remain
Existing 230 kV Structure to Remove
Proposed 230 kV Structure
Proposed Substation Fenceline
Proposed 230 kV Centerline
Proposed 69 kV Centerline
230 kV Line To Be Removed
69 kV Line To Be Removed
Proposed String Buss
Existing 69 kV Transmission Line
Existing 230 kV Transmission Line
Existing 500 kV Transmission Line
Parcel Boundary
Roads (PASDA 2022)
Parcels
(Cumberland Co. 2023)
Imagery (PEMA 2018)
Coordinate System:
State Plane Pennsylvania South
Datum: North American 1983
July 09, 2024
Figure 1-2
Proposed System Configuration
Cumberland Substation
Expansion Project
ppl
wsp
0
200
400
Feet

WITNESS: Joseph B. Lookup

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Q. TUS-II-10 Reference the Letter of Notification, Attachment 1, Section 4.1. Please provide a detailed explanation as to why a ring-bus was rejected as a possible solution.

A. TUS-II-10 The breaker-and-a-half arrangement was selected over the ring bus solution as it is a better overall solution since it is a more reliable solution and its capability for future expansion. The ring bus arrangement, with two lines and three transformers, would result in transformers adjacent of a shared breaker. This would produce the same TPL-001 P4 contingency that results in the loss of two transformers, resulting in the overload of the remaining in-service transformer.

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Q. TUS-II-11 Reference TUS Data Requests, Response to A-2. Please explain any cost allocation differences resulting from construction of the subject project as a baseline project as opposed to a supplemental project.

A. TUS-II-11 PJM preforms a Solutions-Based DFAX ("SBDFAX") analysis to determine the cost allocation of baseline projects. Typically, cost will generally be allocated to the local zone (host utility) if no new transmission line or transformer is added into the SBDFAX analysis. Since the project does not add a new line or transformer, it can be assumed that the cost would be applied to PPL Electric customers regardless of if the project is supplemental or baseline.

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Q. TUS-II-12 Reference TUS Data Requests, Response to A-5. The response does not fully address the question. Please state the approximate service life of the steel poles and lattice structure to be removed.

A. TUS-II-12 The expected service life of a steel transmission structure is 60 years or greater. The expected service life of an asset is a useful tool for planning purposes and actual asset life will depend on a unique set of variables including but not limited to geographical location, weather conditions, and installation and maintenance practices.

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Q. TUS-II-13 Reference TUS Data Requests, Response to A-7. Please state the approximate length of each transmission line to be removed and the approximate length to be rebuilt following removal.

A. TUS-II-13 The approximate length of transmission line to be removed and rebuilt stated within the LON was based on the engineering status at the time of the filing. PPL Electric has since progressed through detailed engineering and the current approximate length of each transmission line to be removed and rebuilt are listed below:

Juniata-Cumberland Circuit
Approximate length of transmission line proposed to be removed: 475 feet (0.09 miles).
Approximate length of transmission line proposed to be rebuilt: 1,110 feet (0.21 miles)

Williams Grove-Cumberland Circuit
Approximate length of transmission line proposed to be removed: 2,240 feet (0.42 miles)
Approximate length of transmission line proposed to be rebuilt: 1,650 feet (0.31 miles)

VERIFICATION

I, JOSEPH B. LOOKUP, being the Vice President – Transmission & Distribution Planning and Asset Management at PPL Services 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: 10/07/2024

Joseph Lookup (Oct 7, 2024 15:28 EDT)

Joseph B. Lookup