Submission of PPL Supplemental Projects for Inclusion in the 2022 Local Plan

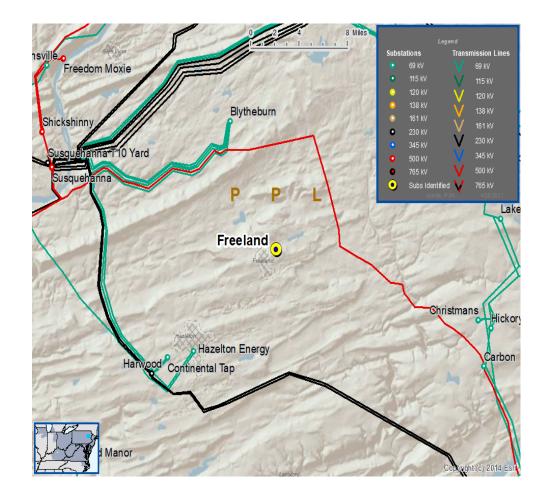
Need Number: PPL-2021-0001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/23/2022
Need Slide Presented: 05/20/2021
Solution Slide Presented: 8/13/2021
Supplemental Project Driver: Customer Service

Problem Statement:

PPL Distribution has submitted a request for a second 69kV source to the Freeland 69/12kV substation due to load growth in the area.

Specific Assumption References:

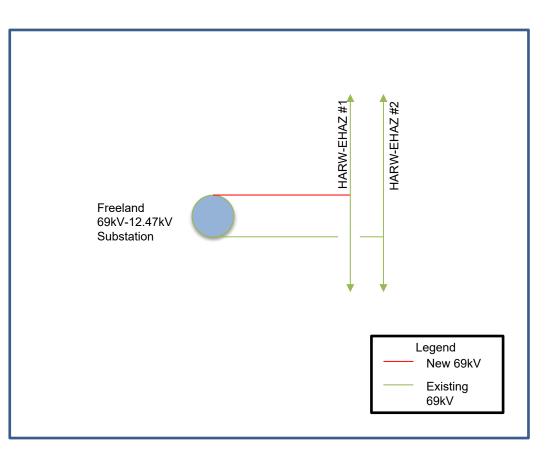


Proposed Solution:

Extend a second circuit to Freeland substation from the HARW-EHAZ #1 69kV line (0.75 Miles)

Alternatives Considered:

No feasible alternatives
 Estimated Project Cost: \$0.6M
 Projected In-Service: 10/30/2024
 Supplemental Project ID: s2591
 Project Status: Conceptual
 Model: 2024



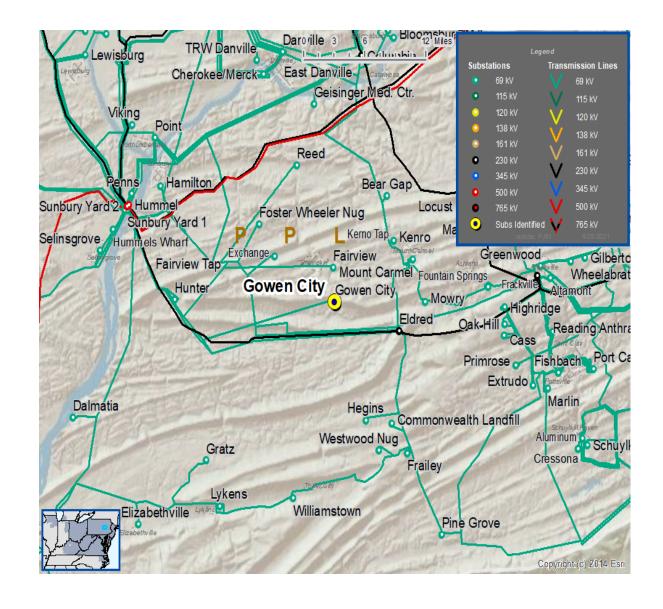
Need Number: PPL-2021-0002

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/23/2022
Need Slide Presented: 05/20/2021
Solution Slide Presented: 8/13/2021
Supplemental Project Driver: Customer Service

Problem Statement:

PPL Distribution has submitted a request for a second 69kV source to the Gowen City 69/12kV substation due to load growth in the area.

Specific Assumption References:



Proposed Solution:

Extend a second circuit to Gowen City substation from the SUNB-ELDR #2 69kV line (0.05 Miles)

Alternatives Considered:

1. No feasible alternatives

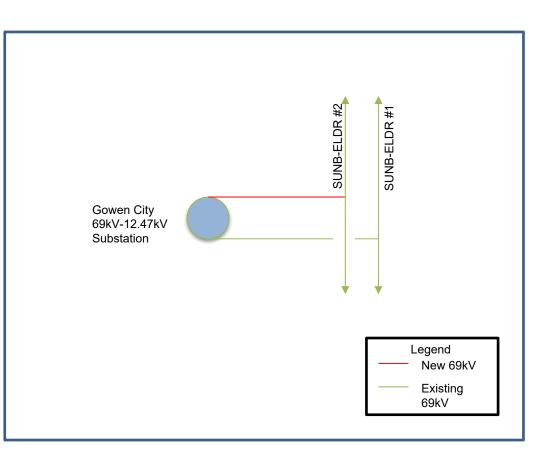
Estimated Project Cost: \$0.5M

Projected In-Service: 10/30/2024

Supplemental Project ID: s2592

Project Status: Conceptual

Model: 2024



Need Number: PPL-2021-0004

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/23/2022

Need Slide Presented: 6/15/2021

Solution Slide Presented: 8/13/2021

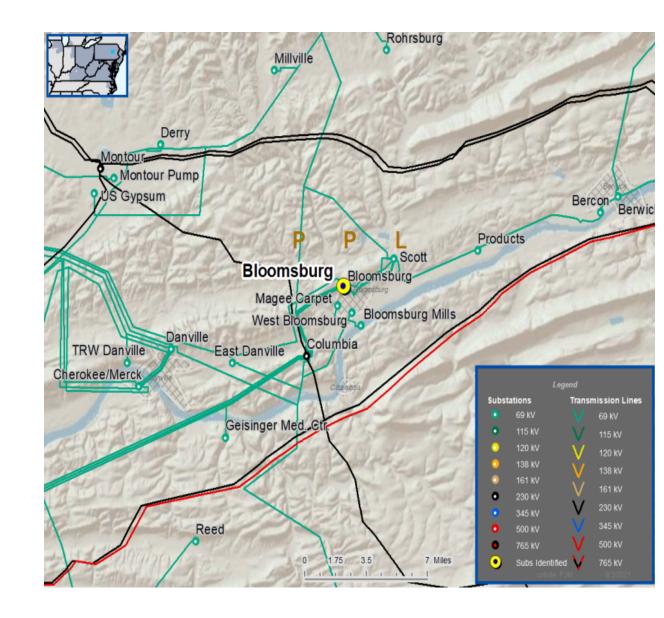
Need Slide Presented: Supplemental Project Driver:

Equipment Material Condition, Performance and Risk

Problem Statement:

PPL EU plans to retire the Bloomsburg 69/12kV Substation since the substation is prone to flooding. The Columbia-Scott 69kV CAP Bank is located at the Bloomsburg 69/12kV substation.

Specific Assumption References:



Proposed Solution:

Install one (1) 19.8 MVAR switched cap bank on the Columbia-Scott 69 kV line near the Scott 69/12kV substation

Alternatives Considered:

1. Retire existing cap bank and do not replace. The cap bank is required for voltage support in restoration for a double circuit failure of the COLU-BERW and COLU-SCOT 69kV lines. Voltages of less than 0.893 per unit may result.

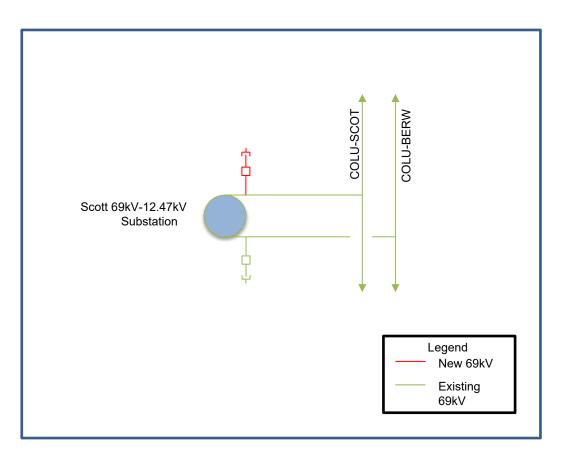
Estimated Project Cost: \$1.3M

Projected In-Service: 11/30/2022

Supplemental Project ID: s2593

Project Status: Conceptual

Model: 2023



Need Number: PPL-2021-0005

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/23/2022

Need Slide Presented: 7/12/2021

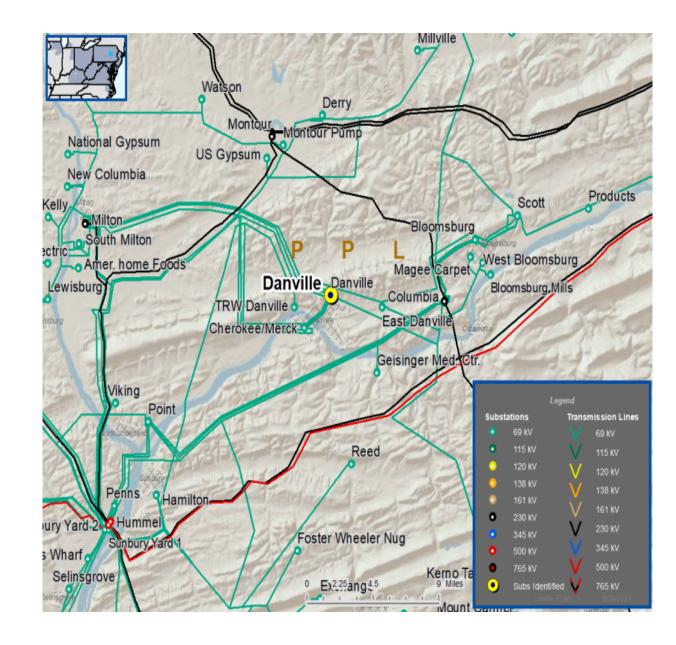
Solution Slide Presented: 8/13/2021

Need Slide Presented: Supplemental Project Driver: Customer Service

Problem Statement:

• A new customer has submitted a request to have their facility served from a 69kV transmission line in Danville, PA. The load is approximately 9 MVA.

Specific Assumption References:

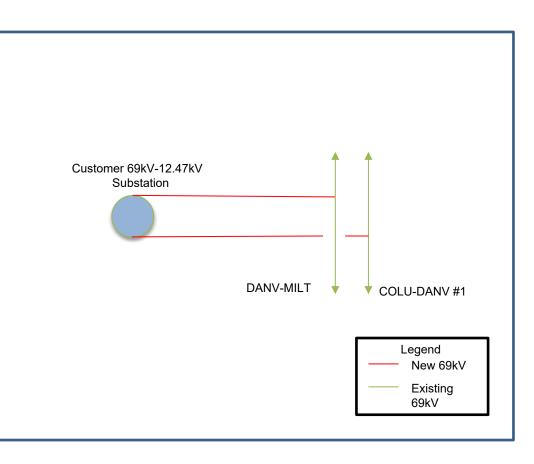


Proposed Solution:

Extend a new double circuit 69kV tap from the existing Danville – Milton and Columbia – Danville #1 69kV lines to interconnect a new customer 69-12.47kV substation. Build 0.2 miles of new 69kV double circuit line using 556 ACSR conductor.

Alternatives Considered:

No feasible alternatives
 Estimated Project Cost: \$1.3M
 Projected In-Service: 9/1/2021
 Supplemental Project ID: s2594
 Project Status: Conceptual
 Model: 2021



Need Number: PPL-2022-0003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/30/2022

Need Slide Presented: 03/17/2022

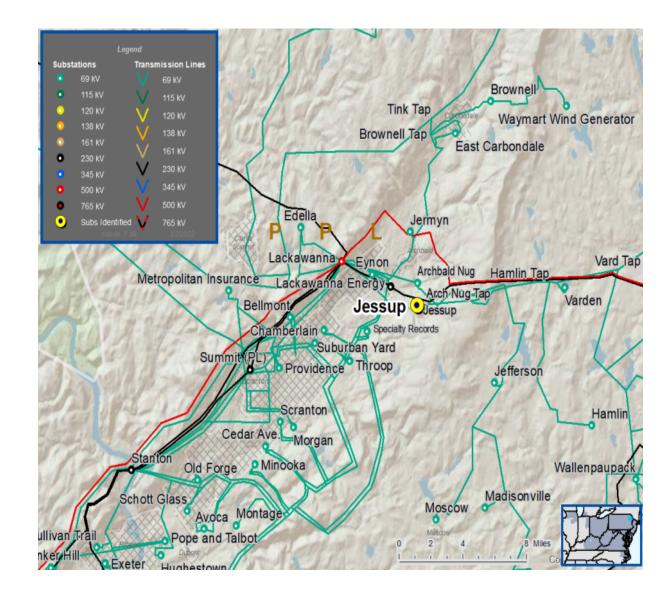
Solution Slide Presented: 05/16/2022

Supplemental Project Driver: Customer Service

Problem Statement:

PPL Distribution has submitted a request for a 69kV tap at Jessup Substation to feed a second 69-12kV transformer. There are several customers adding a combined load of 6 MW to Jessup substation.

Specific Assumption References: PPL 2022 Annual Assumptions

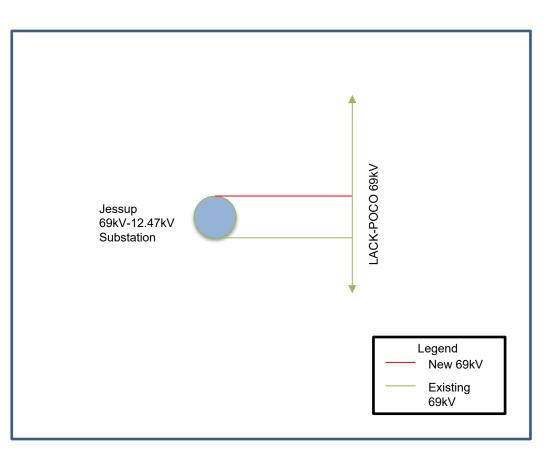


Proposed Solution:

Extend a second circuit to Jessup substation from the LACK-POCO 69kV line (0.05 Miles)

Alternatives Considered:

No feasible alternatives
 Estimated Project Cost: \$0.25M
 Projected In-Service: 10/30/2023
 Supplemental Project ID: \$2762
 Project Status: Conceptual
 Model: 2025



Revision History

9/23/2022 – V1 – Local Plan for S2591, S2592, S2593 and S2594 posted to pjm.com 9/30/2022 V2 – Local plan for S2762 added