

PSEG 2023
Submission of Supplemental Projects for
Inclusion in the Local Plan

Need Number: PSEG-2023-0002

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 7/14/2023

Previously Presented:

- Need Meeting 02/16/2023
- Solutions Meeting 3/16/2022

Supplemental Project Driver:

- Customer Service

Specific Assumption Reference:

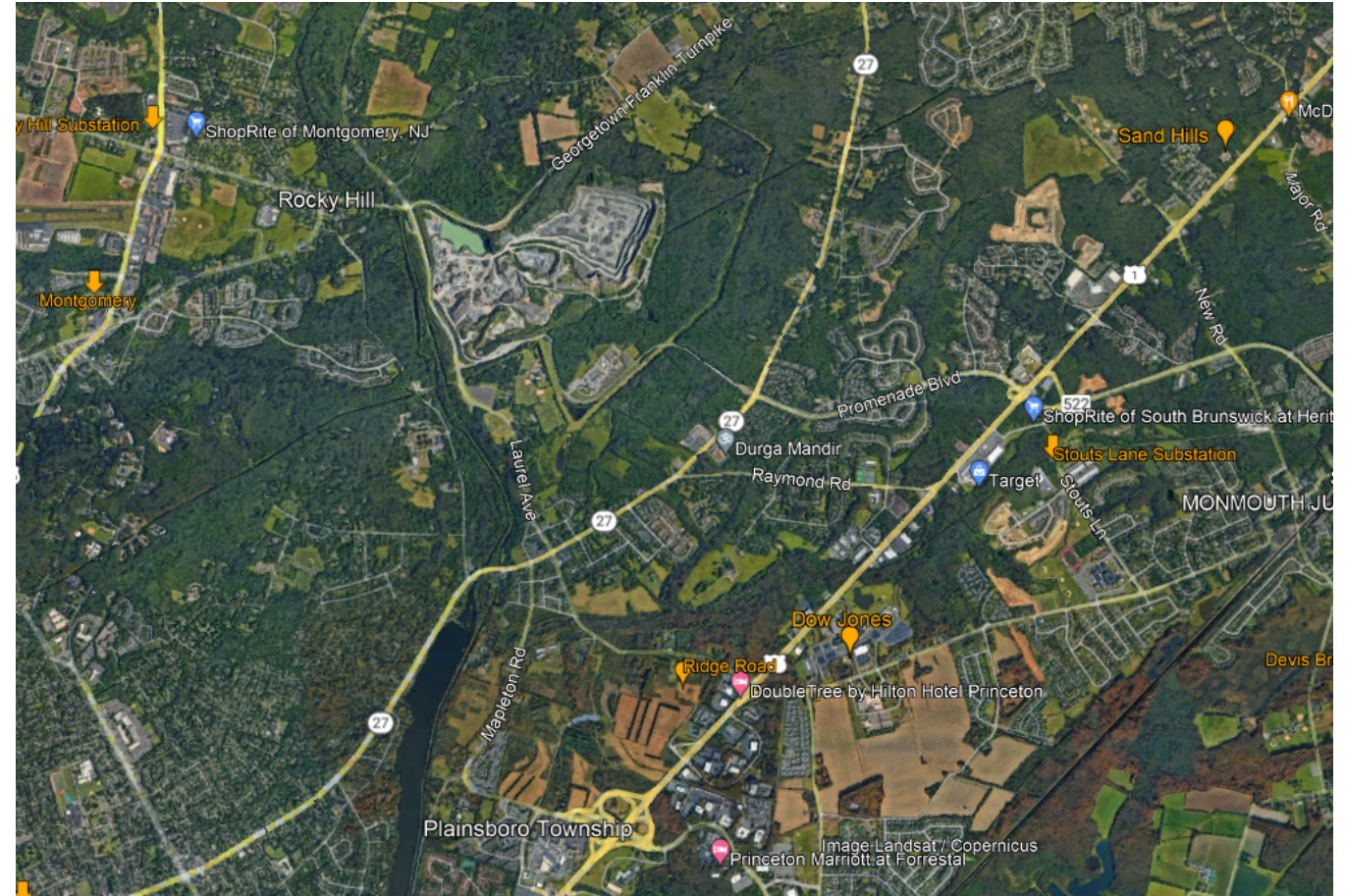
[PSE&G 2023 Annual Assumptions](#)

- Localized Load Growth & Contingency Overloads

Problem Statement:

- Sand Hills Substation is a station in the South Brunswick area with no additional station capacity.
 - Sand Hills serves over 20,200 customers with a peak load of over 78.5MVA in 2021 and 2022.
 - The actual station capacity is 61MVA. Contingency overload is 128%.

Model: 2021 Series 2026 Summer RTEP 50/50





PSEG Transmission Zone M-3 Process South Brunswick Area

Need Number: PSEG-2023-0002

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 7/28/2023

Selected Solution:

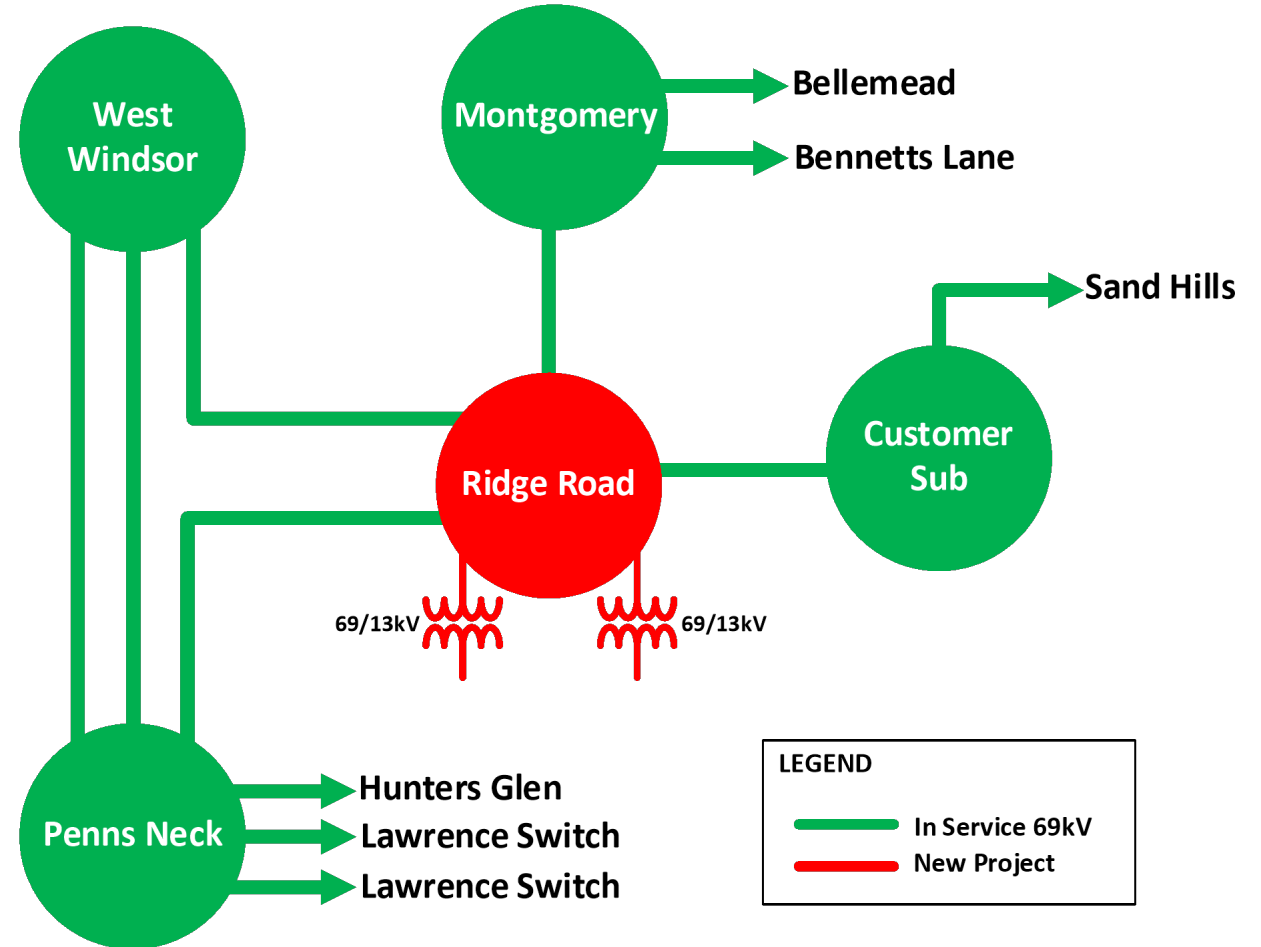
- Expand the existing Ridge Road Substation to a full Class H Substation.
 - Install three (3) 69-kV breakers at Ridge Road.
 - Convert Ridge Road to Class H station, install two (2) 69/13kV transformers and sheltered aisled switchgear.
 - Offload the Sand Hills station to the new Ridge Road Class H substation.

Estimated Cost: \$22M

Projected In-Service: 05/2027

Supplemental Project ID: s2904

Project Status: Engineering and Planning





PSE&G Transmission Zone M-3 Process Rahway Area

Need Number: PSEG-2023-0001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/27/2023

Previously Presented:

- Needs Meeting 2/07/2023
- Solutions Meeting 5/09/2029

Supplemental Project Driver:

- Customer Service
- Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

[PSE&G 2023 Annual Assumptions](#)

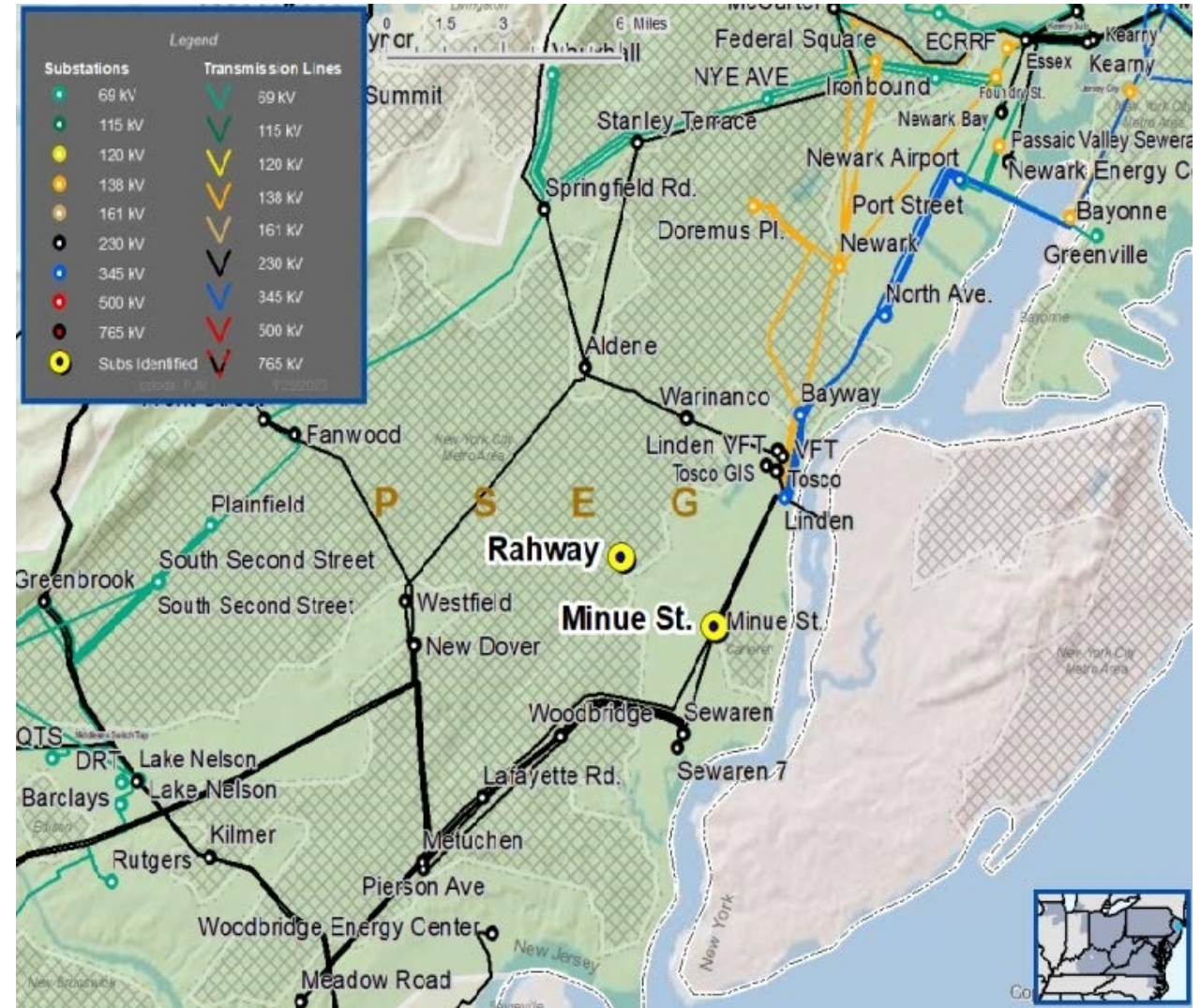
[August 2017 26kV to 69kV PSE&G Presentation](#)

- Localized Load Growth & Contingency Overloads
- Equipment Reliability and Condition Assessment
- Asset Risk Model

Problem Statement:

- Minue Street Substation is a station in the Rahway area with no additional station capacity.
 - Minue Street serves over 13,600 customers with a peak load of 69.36MVA in 2021.
- Rahway substation is a station in the Rahway Area with equipment and building condition issues.
 - Station equipment at Rahway is in poor condition and will need to be addressed.
 - Rahway Substation building is nearly 100 years old, is in poor condition, and is not in compliance with today's NJ UCC requirements.
 - Rahway serves over 7,300 customers.
- Thermal and voltage issues are anticipated and likely will need to be addressed.

Model: 2021 Series 2026 Summer RTEP 50/50





PSEG Transmission Zone M-3 Process Rahway Area

Need Number: PSEG-2023-0001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/27/2023

Selected Solution:

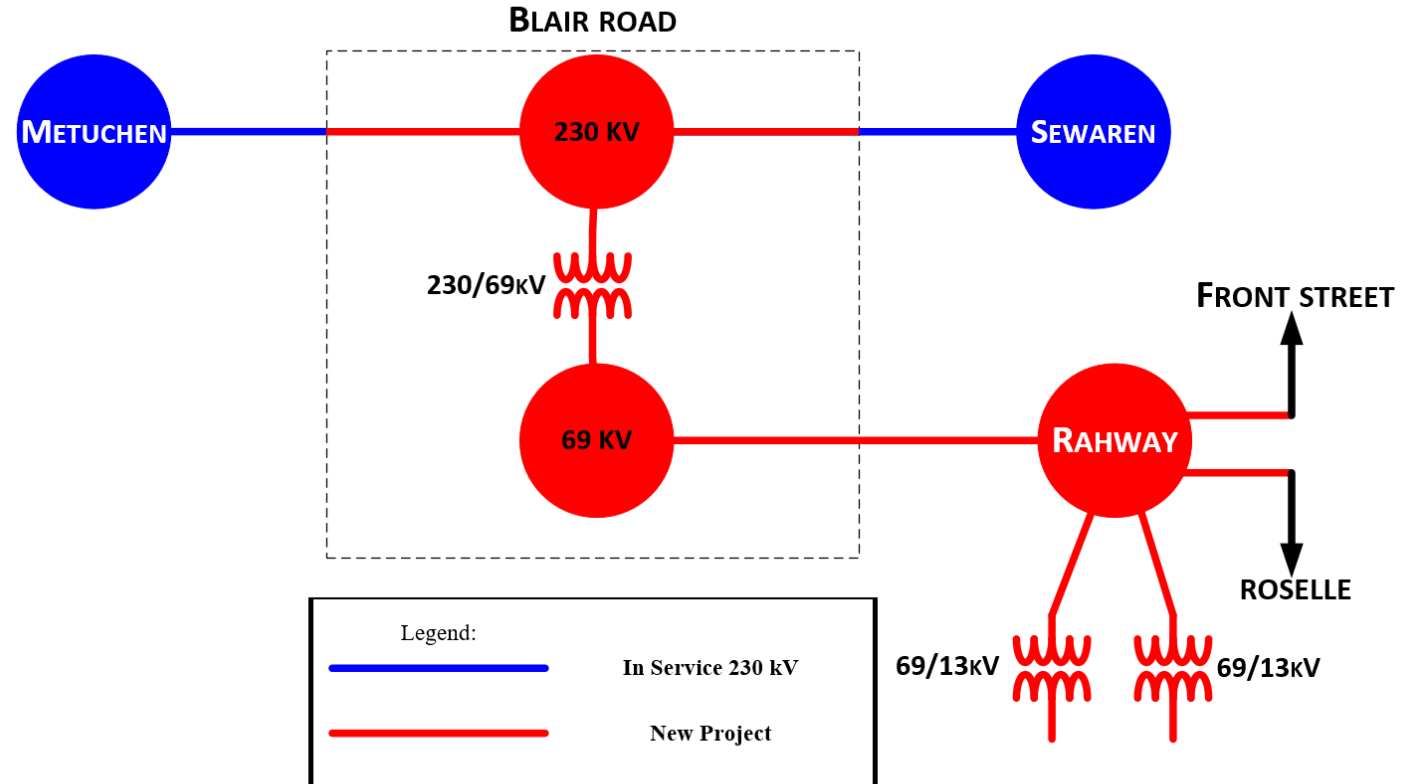
- Construct a new 230-69kV Station along the existing ROW in Port Reading
 - Install a 230kV switching station with one (1) 230/69kV transformer.
 - Cut and loop the Metuchen - Sewaren 230kV line into the 230kV bus.
 - Build a new 69kV line to Rahway.
- Construct a new 69-13kV Class H substation at Rahway
 - Construct new 69-13kV station.
 - Install two (2) 69-13kV transformers.
 - Cut and loop the Front Street/Roselle line into the new substation.

Estimated Cost: \$271M

Projected In-Service: 12/2027

Supplemental Project ID: s2955

Project Status: Engineering and Planning





PSE&G Transmission Zone M-3 Process Prospect Park Area

Need Number: PSEG-2023-0003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/27/2023

Previously Presented:

- Needs Meeting 3/16/2023
- Solutions Meeting 4/20/2023

Supplemental Project Driver:

- Customer Service

Specific Assumption Reference:

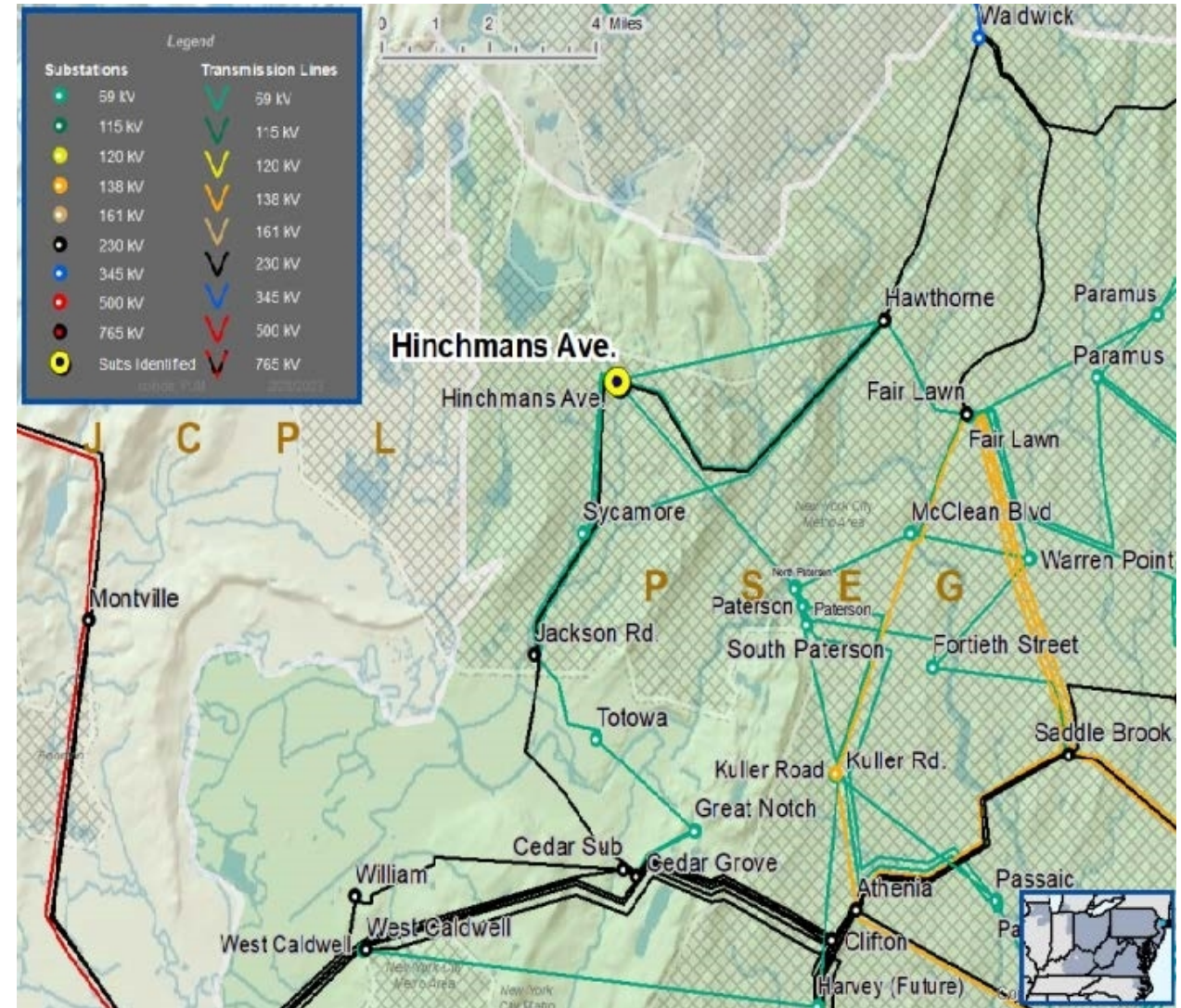
[PSE&G 2023 Annual Assumptions](#)

- Localized Load Growth & Contingency Overloads

Problem Statement:

- Hinchmans Substation is a station feeding the Prospect Park area with no additional station capacity.
 - Hinchmans serves over 14,000 customers with a peak load of over 75.6 MVA in 2021 and 2022.
 - The actual station capacity is 59.6 MVA. Contingency overload is 127%.

Model: 2021 Series 2026 Summer RTEP 50/50





PSEG Transmission Zone M-3 Process Prospect Park Area

Need Number: PSEG-2023-0003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/27/2023

Selected Solution:

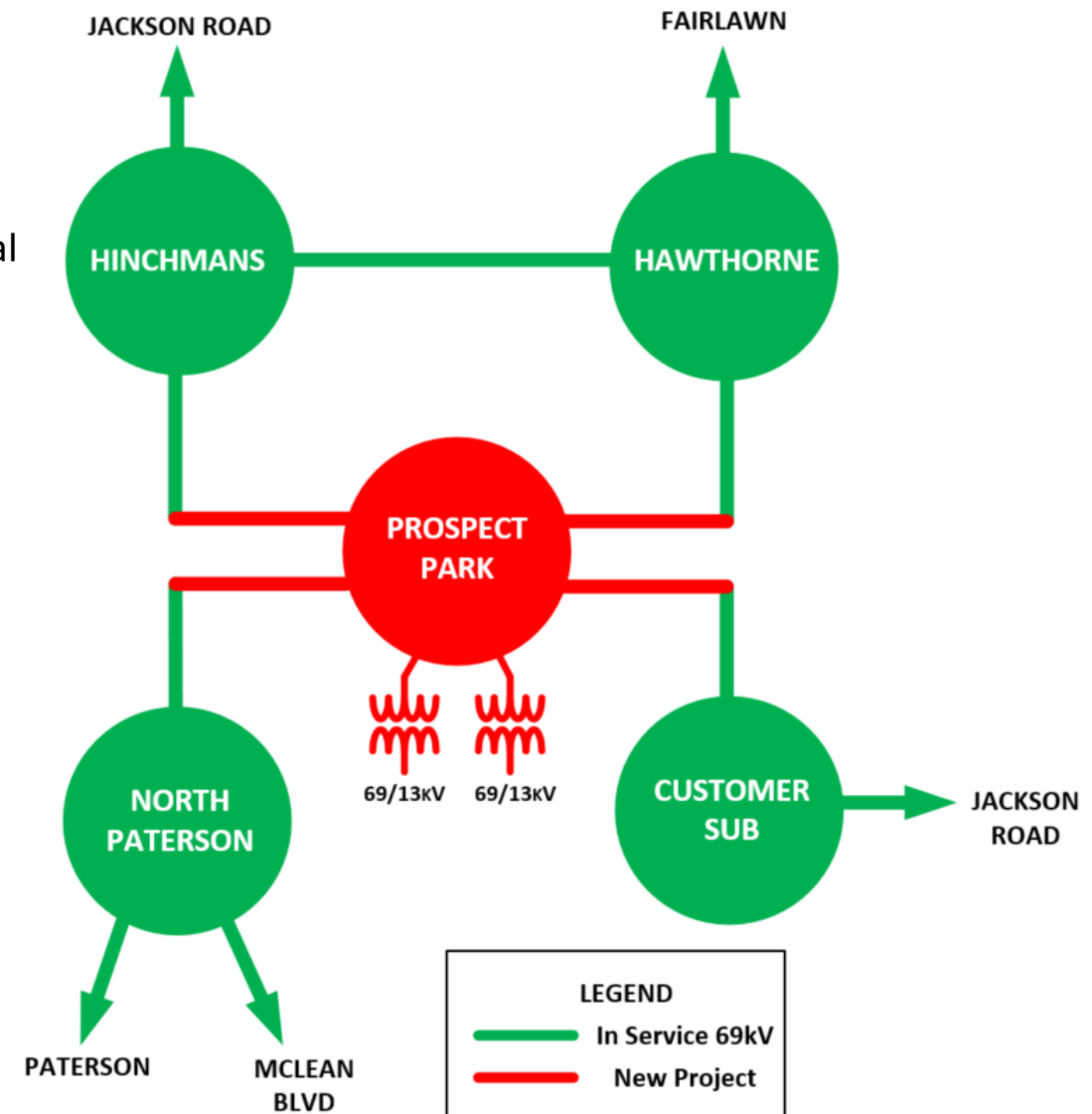
- Construct new 69-13kV substation with two transformers in acquired property in Prospect Park.
- Cut and loop Hinchmans – North Paterson and Hawthorne – Customer Sub 69kV lines into the new 69kV bus.
- Offload Hinchmans and transfer to new station.

Estimated Cost: \$63M

Projected In-Service: 12/2027

Supplemental Project ID: s2951

Project Status: Engineering and Planning





PSEG Transmission Zone M-3 Process Fords Area of Woodbridge

Need Number: PSEG-2023-0004

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/27/2023

Previously Presented:

- Needs Meeting 4/11/2023
- Solutions Meeting 5/09/2023

Supplemental Project Driver:

- Customer Service

Specific Assumption Reference:

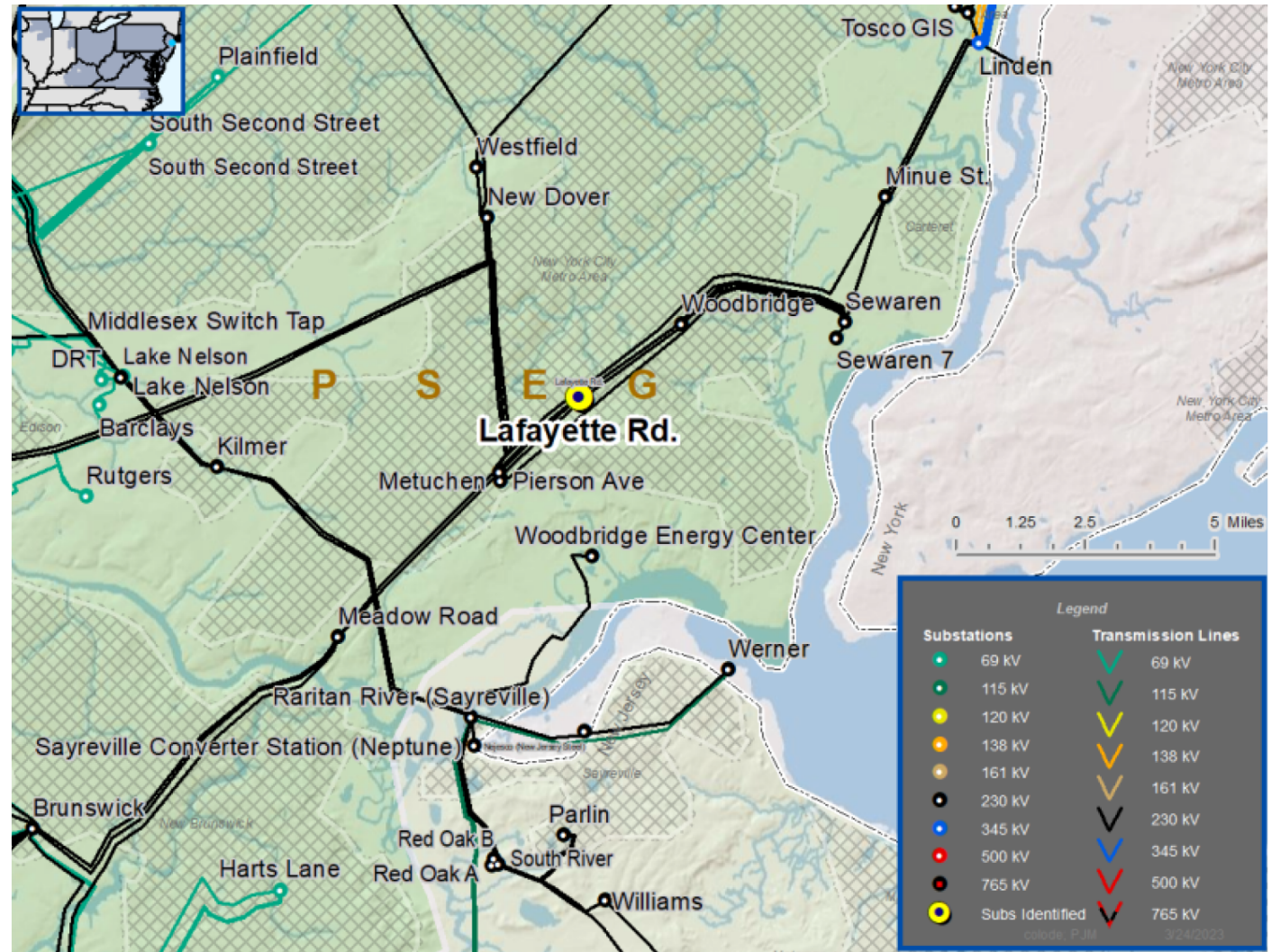
[PSEG 2023 Annual Assumptions](#)

- Localized Load Growth & Contingency Overloads

Problem Statement:

- Lafayette Road Substation is a station in the Fords area with no additional station capacity.
 - Lafayette Road serves over 14,000 customers with a peak load of over 77.2 MVA in 2022.
 - The actual station capacity is 59.4 MVA. Contingency overload is 130%.

Model: 2022 Series 2027 Summer RTEP 50/50



Need Number: PSEG-2023-0004

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 9/27/2023

Selected Solution:

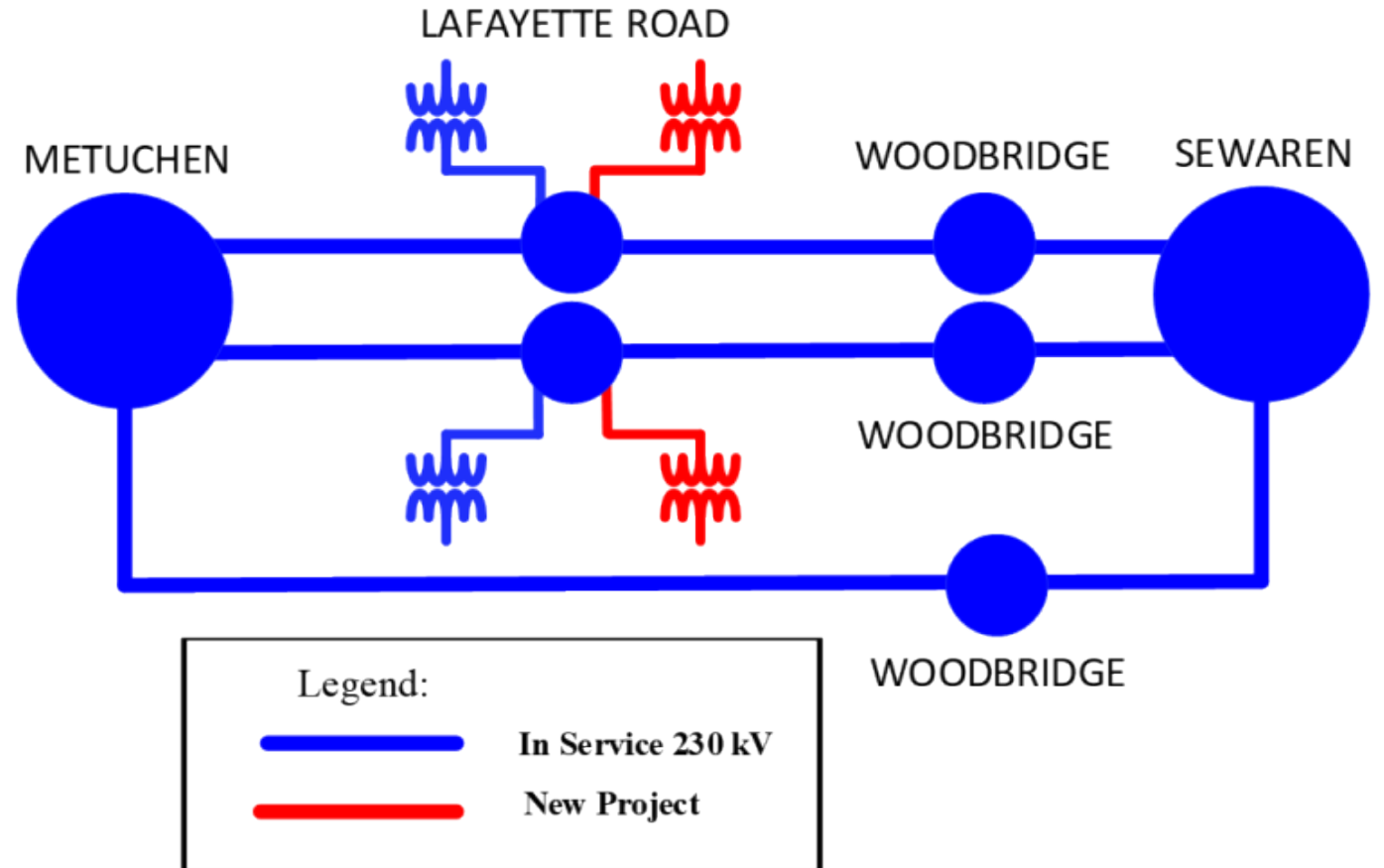
- Construct 2nd half (230/13kV) of Lafayette Road Substation.
- Tap the 230kV lines and bring them into the new substation.
- Install two (2) new 230-13kV transformers and associated equipment.
- Expand control house.

Estimated Cost: \$27M

Projected In-Service: 05/2027

Supplemental Project ID: s2956

Project Status: Engineering and Planning



Need Number: PSEG-2020-0010

Process Stage: Updated Submission of Supplemental Project for inclusion in the Local Plan 9/27/2023

Previously Presented:

- Needs Meeting 11/18/2020
- Solutions Meeting 2/16/2021
- Local Plan Submission 9/27/2023
- Project Update Presented 2/16/2023

Supplemental Project Driver:

- Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

[PSE&G 2019 Annual Assumptions](#)

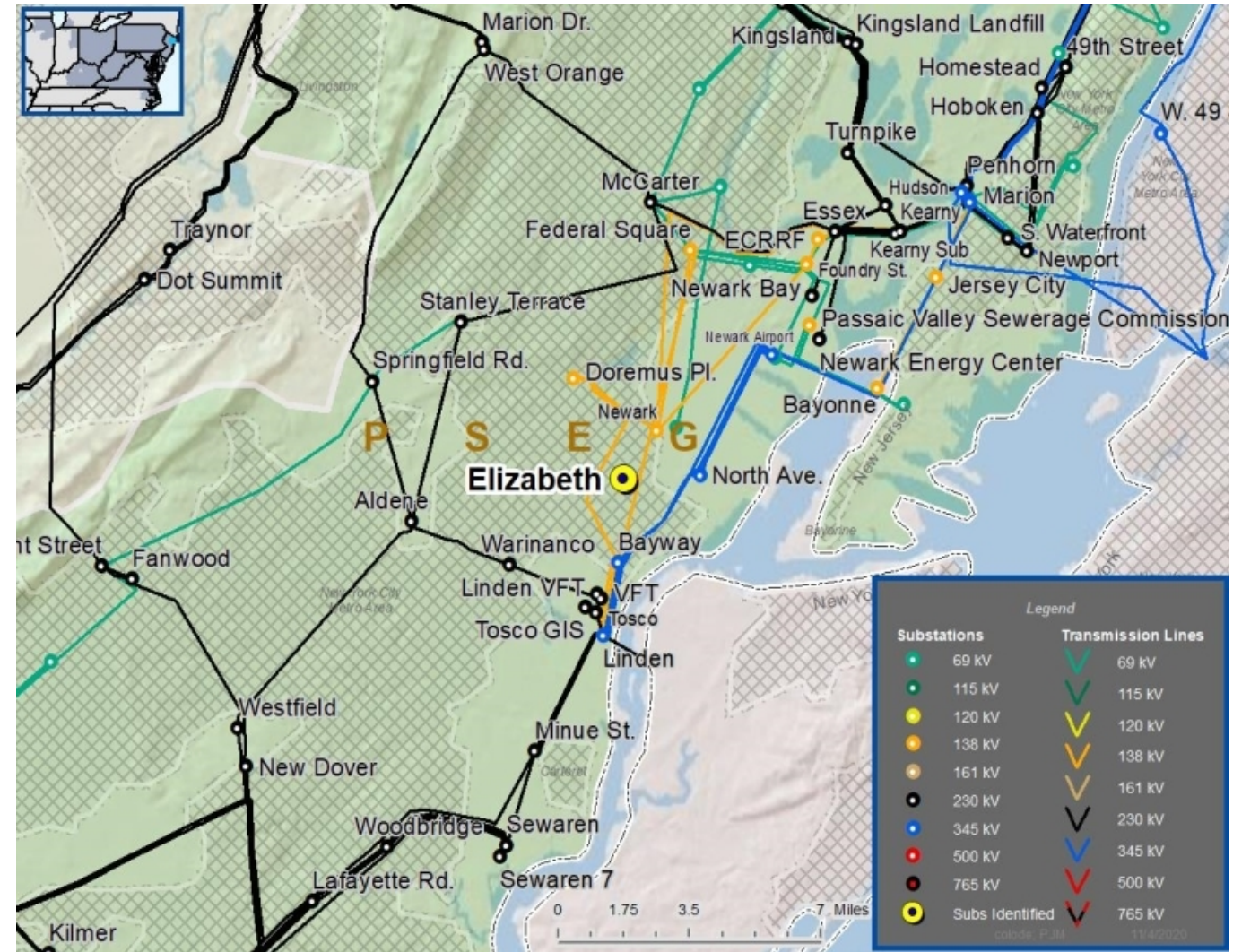
[August 2017 26kV to 69kV PSE&G Presentation](#)

- Equipment Reliability and Condition Assessment
- Asset Risk Model

Problem Statement:

- Elizabeth Substation is supplied by 26kV circuits with increasing performance problems.
 - Over the past decade, the four 26kV supply circuits have seen 11 momentary and 36 extended outages, with total duration of 1147 hours.
 - Station equipment at Elizabeth has been in service since 1914 and needs to be addressed.
 - Historical flooding has compromised some station structures.
 - Elizabeth serves roughly 8,500 customers and 28.8 MVA of load.

Model: 2020 Series 2025 Summer RTEP 50/50





PSEG Transmission Zone M-3 Process Elizabeth Area

Need Number: PSEG-2020-0010

Process Stage: Updated Submission of Supplemental Project for inclusion in the Local Plan 9/27/2023

Selected Solution:

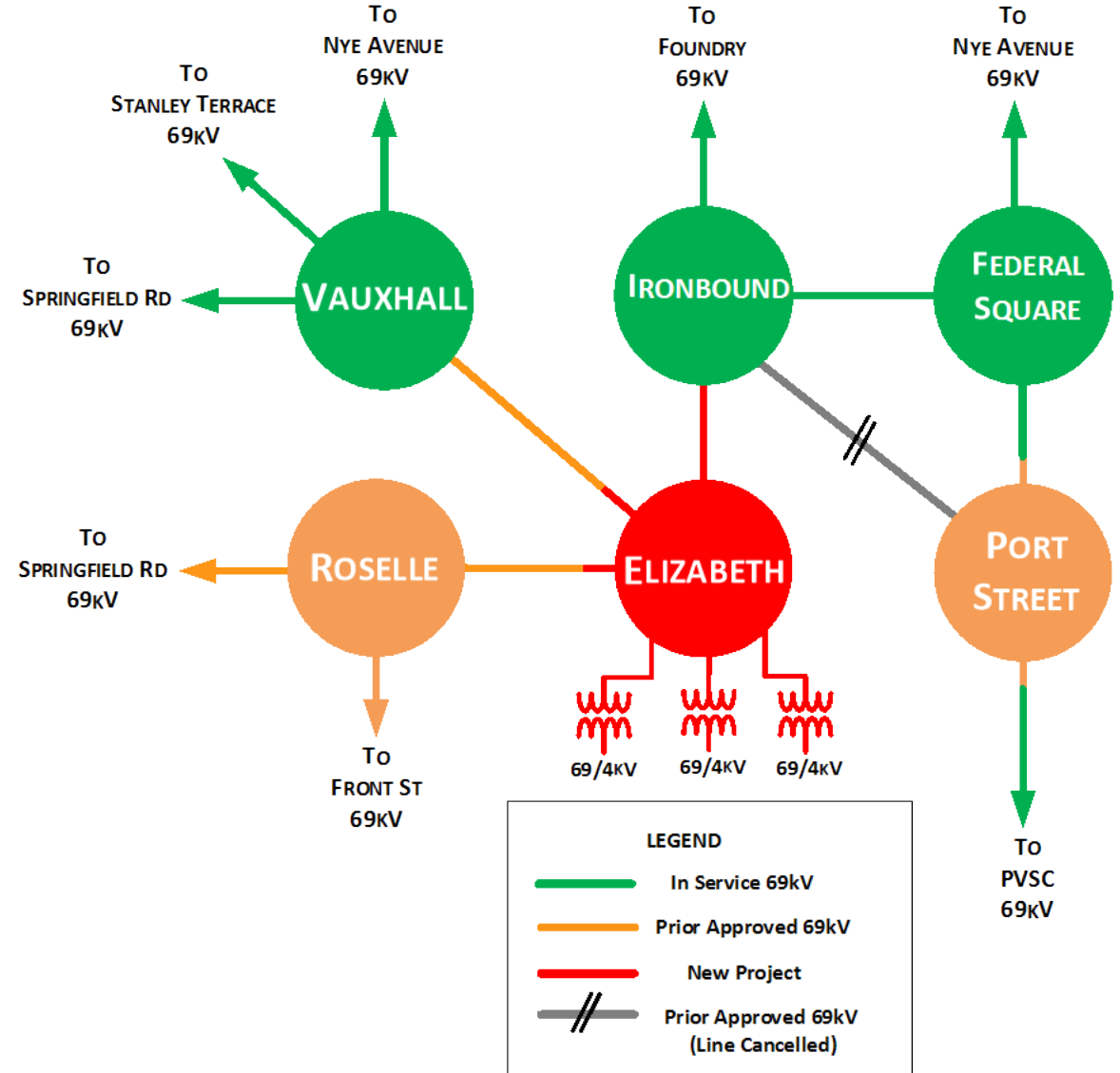
- Convert existing Elizabeth 26/4kV substation to a 69/4kV substation
 - Purchase property to accommodate new construction.
 - Install 69kV substation with three (3) 69/4kV transformers.
 - Cut and loop Roselle -Vauxhall 69kV circuit into new location.
 - Construct a circuit to Ironbound 69kV
 - Eliminate s0934.4 (69kV line between Ironbound and Port Street)

Estimated Cost: \$97.8M

Projected In-Service: 5/31/2025

Supplemental Project ID: s2491

Project Status: Under Construction



Revision History

8/4/2023 – V1 – Posted Local plan for s2904

9/27/2023 –V2 – s2951,s2955,s2956,s2491 added