

# Transmission Expansion Advisory Committee – PSE&G Supplemental Projects

September 5th, 2023

# Needs

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process



# PSE&G Transmission Zone M-3 Process Harlingen Area

**Need Number:** PSEG-2023-0009

**Process Stage:** Need Meeting 9/05/2023

**Supplemental Project Driver:**

- Customer Service

**Specific Assumption Reference:**

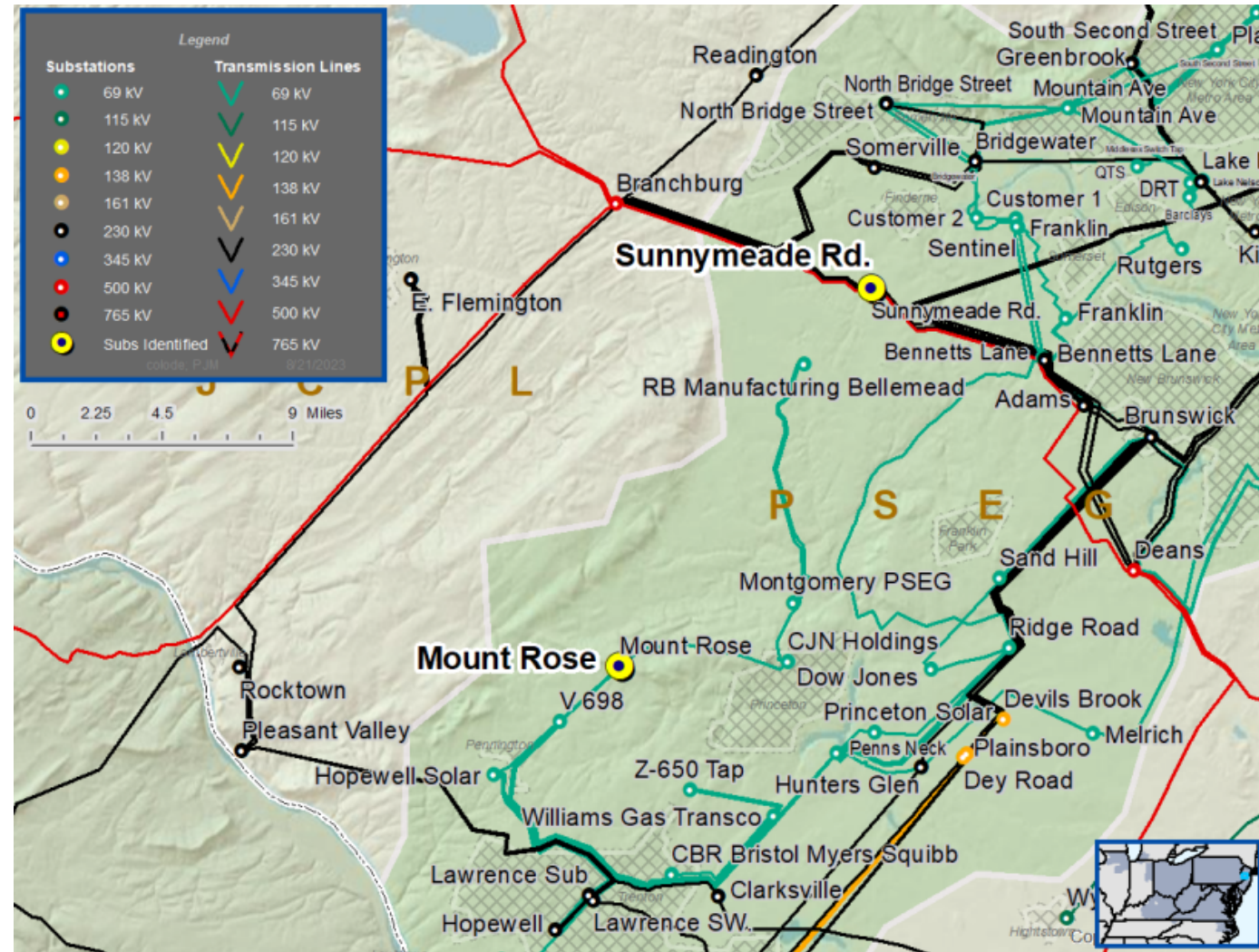
[PSE&G 2023 Annual Assumptions](#)

- Localized Load Growth & Contingency Overloads

**Problem Statement:**

- Sunnymeade Substation is a station in the Hillsborough area with no additional station capacity.
  - Sunnymeade serves over 21,400 customers with a peak load of over 63.4 MVA in 2021.
  - The actual station capacity is 61.43MVA. Contingency overload is 103.2%.
- Mount Rose Substation is a station in the Mount Rose area with no additional station capacity.
  - Mount Rose serves over 11,800 customers with a peak load of over 65.0 MVA in 2021.
  - The actual station capacity is 61.47MVA. Contingency overload is 105.7%.

**Model:** 2022 Series 2027 Summer RTEP 50/50



# Solutions

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

**Need Number:** PSEG-2023-0006

**Process Stage:** Solutions Meeting 9/05/2023

**Previously Presented:** Need Meeting 7/11/2023

**Supplemental Project Driver:**

- Customer Service

**Specific Assumption Reference:**

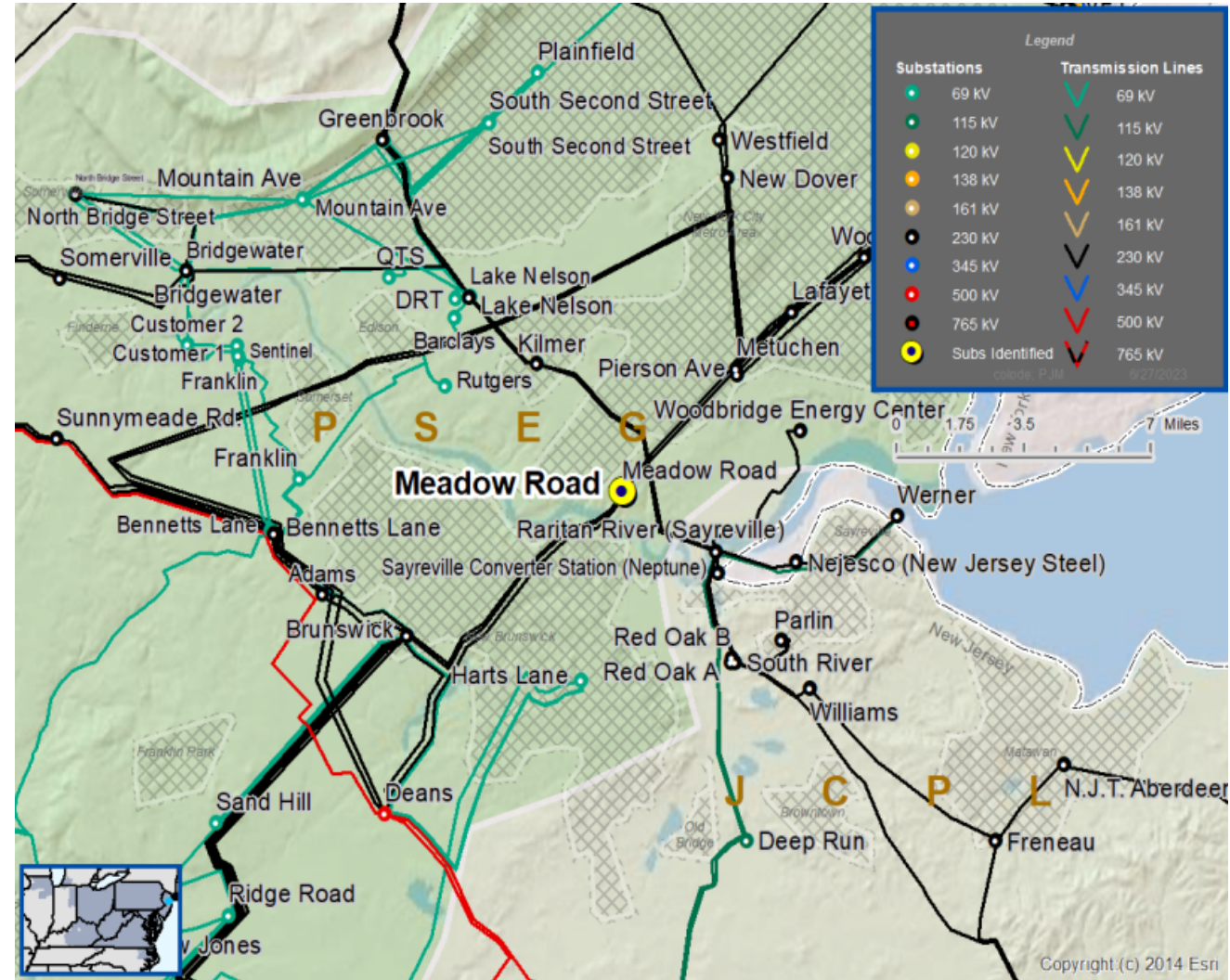
[PSE&G 2023 Annual Assumptions](#)

- Localized Load Growth & Contingency Overloads

**Problem Statement:**

- Meadow Road Substation is a station in the Edison area with no additional station capacity.
  - Meadow Road serves over 14,000 customers with a peak load of over 73.9 MVA in 2022.
  - The actual station capacity is 59.4 MVA. Contingency overload is 124%.

**Model:** 2022 Series 2027 Summer RTEP 50/50







# PSEG Transmission Zone M-3 Process South Edison Area

**Need Number:** PSEG-2023-0006

**Process Stage:** Solutions Meeting 9/05/2023

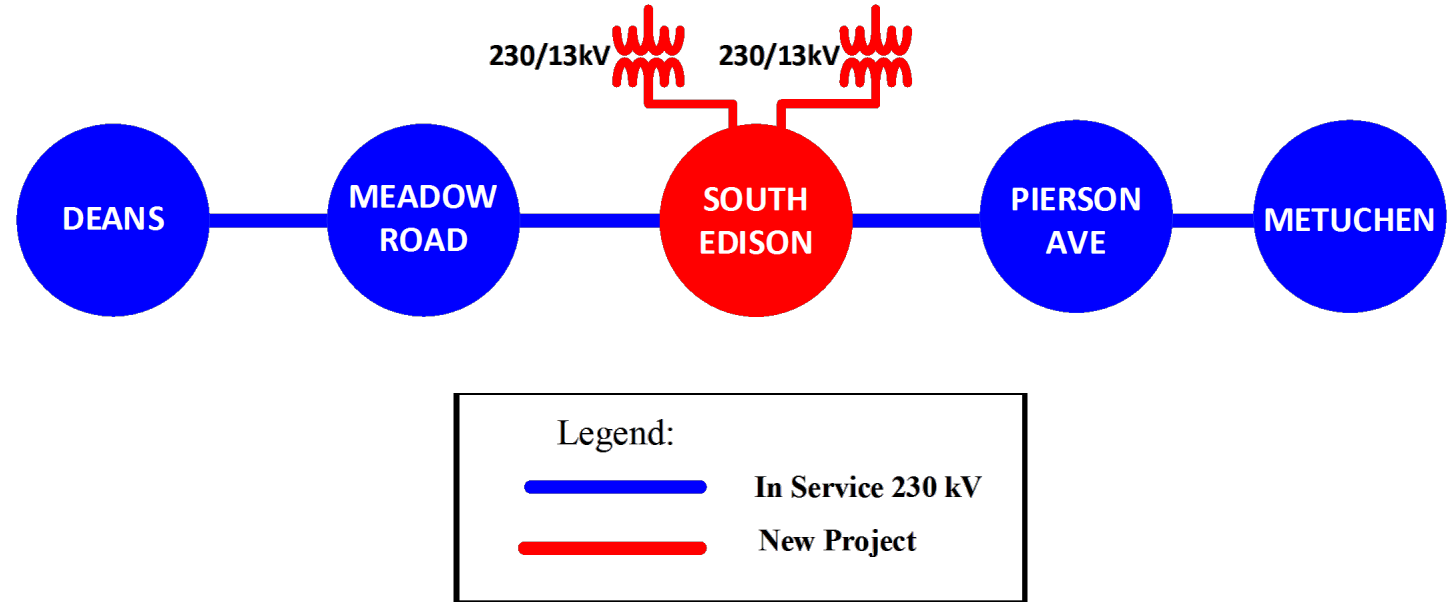
**Proposed Solution:**

- Construct a 230-13kV Substation at PSEG property adjacent to Meadow Road substation.
  - Construct a 230kV substation.
  - Install two (2) 230-13kV transformers.
  - Resolves contingency overload at Meadow Road substation.
  - **Estimated Cost: \$56.1M**

**Alternative Considered:**

- Construct a 230kV substation within the Right-of-Way.
  - No suitable Right-of-Way location found that would meet criteria requirements and in the vicinity of Meadow Road customers
- Construct a 69kV substation east of Meadow Road substation.
  - Suitable property was not found within search area.
- **Projected In-Service: 05/2028**

**Project Status:** Conceptual



**Need Number:** PSEG-2023-0007

**Process Stage:** Solutions Meeting 9/05/2023

**Previously Presented:** Need Meeting 7/11/2023

**Supplemental Project Driver:**

- Customer Service
- Equipment Material Condition, Performance and Risk

**Specific Assumption Reference:**

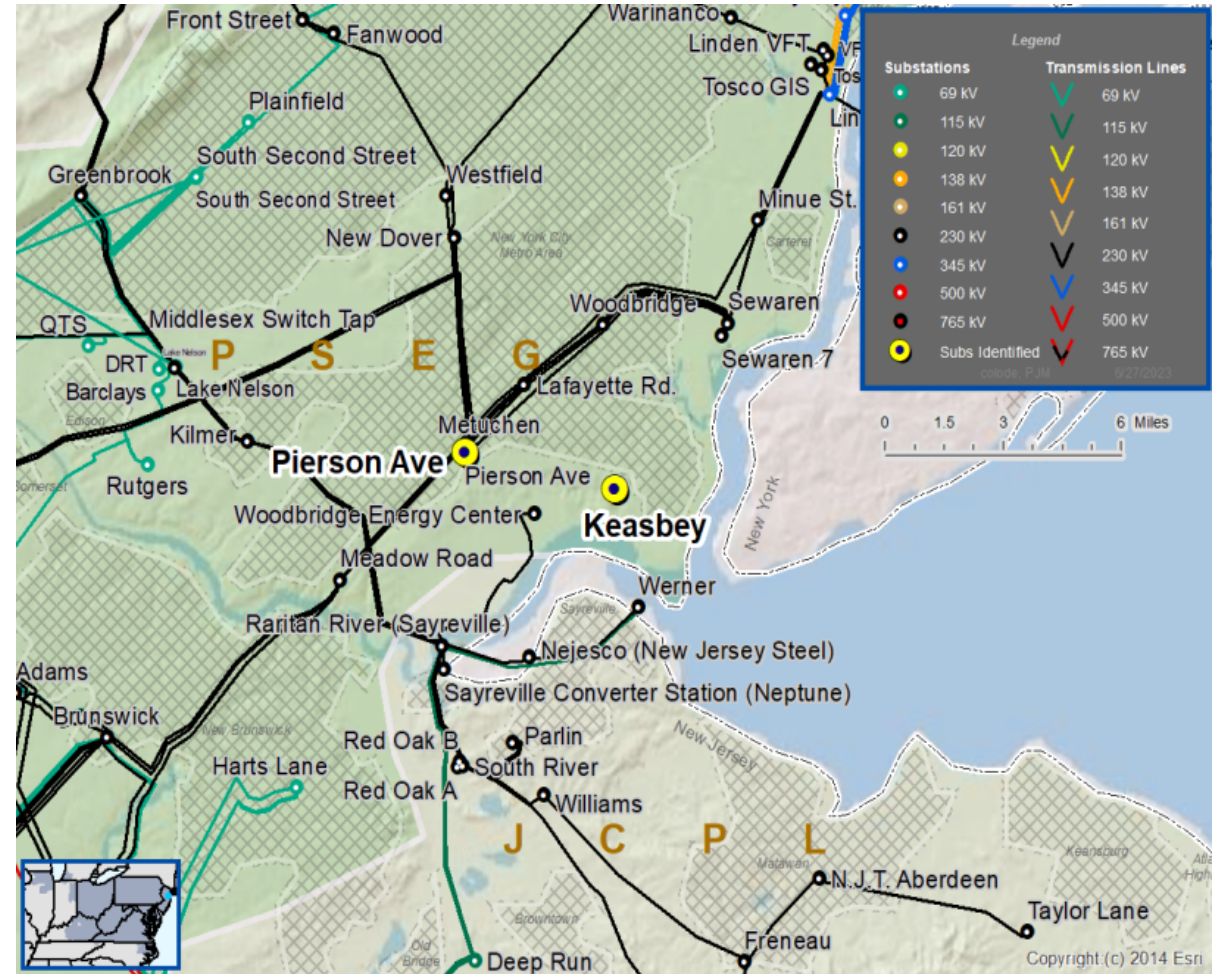
[PSE&G 2023 Annual Assumptions](#)

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

**Problem Statement:**

- Pierson Ave. Substation is a station in the Perth Amboy area with no additional station capacity.
  - Pierson Ave. serves over 14,600 customers with a peak load of over 75.42 MVA in 2021.
  - The actual station capacity is 61.17MVA. Contingency overload is 123.3%.
- Keasbey substation is a station in the Perth Amboy Area with equipment and building condition issues.
  - Station equipment at Keasbey is in poor condition and will need to be addressed.
  - Keasbey Substation building is nearly 100 years old, is in poor condition, and is not in compliance with today's NJ UCC requirements.
  - Keasbey serves over 5,600 customers

**Model:** 2022 Series 2027 Summer RTEP 50/50





# PSE&G Transmission Zone M-3 Process Perth Amboy Area

**Need Number:** PSEG-2023-0007

**Process Stage:** Solutions Meeting 9/05/2023

**Proposed Solution:**

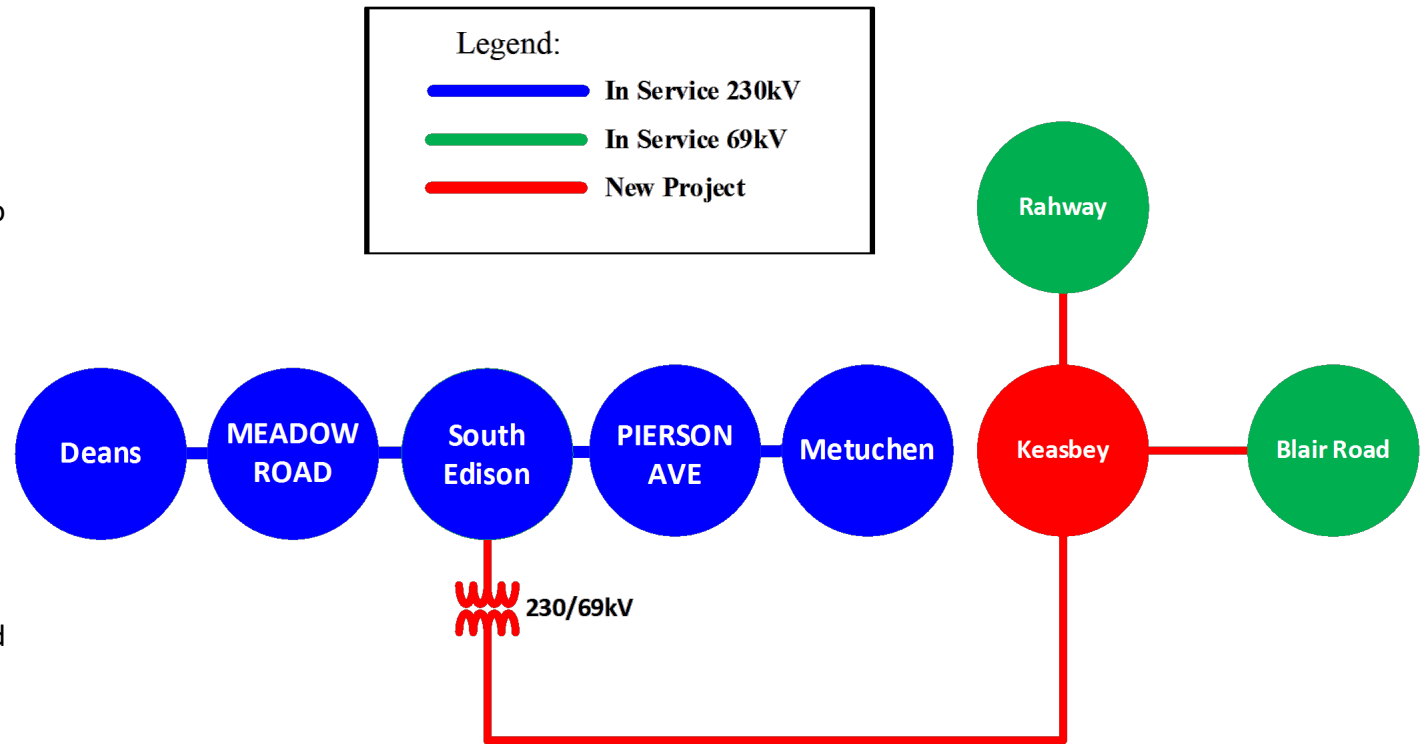
- Construct a new 69/13kV station on PSE&G owned adjacent property to Keasbey station.
- Build a new 69kV line to Rahway station.
- Build a new 69kV line to Blair Rd.
- Install one (1) 230/69kV transformer at South Edison.
- Build a new 69kV line to South Edison.
- **Estimated Cost: \$220.68M**

**Alternative Considered:**

- Construct a two (2) three-winding 69/13/13KV station on PSE&G owned adjacent property to Keasbey station.
- **Estimated Cost: \$232.22M**

**Projected In-Service:** 12/2028

**Project Status:** Conceptual





# Questions?



# Appendix

# High level M-3 Meeting Schedule

Assumptions	Activity	Timing
	Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
	Stakeholder comments	10 days after Assumptions Meeting
Needs	Activity	Timing
	TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
	Stakeholder comments	10 days after Needs Meeting
Solutions	Activity	Timing
	TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
	Stakeholder comments	10 days after Solutions Meeting
Submission of Supplemental Projects & Local Plan	Activity	Timing
	Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution
	Post selected solution(s)	Following completion of DNH analysis
	Stakeholder comments	10 days prior to Local Plan Submission for integration into RTEP
	Local Plan submitted to PJM for integration into RTEP	Following review and consideration of comments received after posting of selected solutions

# Revision History

8/25/2023 - V1 – Original version posted to pjm.com