Transmission Expansion Advisory Committee – PSE&G Supplemental Projects

July 9th ,2024

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

PSE&G Transmission Zone M-3 Process
Kenilworth Area

Need Number: PSEG-2024-0003

Process Stage: Solutions Meeting 07/09/2024

Previously Presented: Need Meeting 04/02/2024

Supplemental Project Driver:

- Customer Service

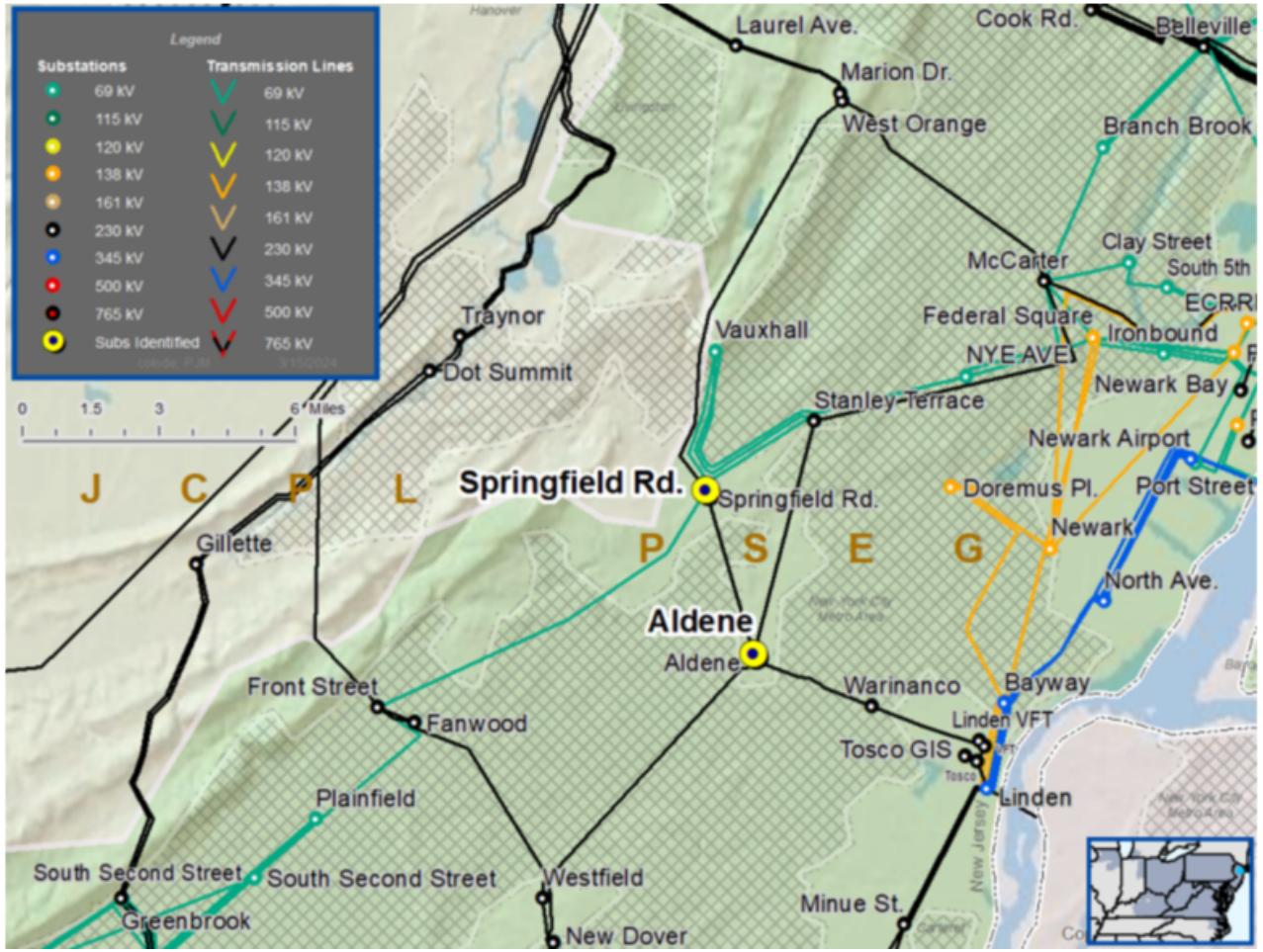
Specific Assumption Reference:

PSE&G 2024 Annual Assumptions

- Localized Load Growth & Contingency Overloads

Problem Statement:

- Springfield Road and Aldene Substations are stations in the Union Township and Cranford Township area with no additional station capacity.
  - Springfield Rd serves about 15,500 customers with a station load of 75.8MVA in 2022. The actual station capacity is 59.4MVA. Projected contingency overload is 127.5%.
  - Aldene serves about 22,700 customers with a station load of 81.3MVA in 2022. The actual station capacity is 59.6MVA. Projected contingency overload is 136.4%.



Model: 2022 Series 2027 Summer RTEP 50/50

PSE&G Transmission Zone M-3 Process
Kenilworth Area

Need Number: PSEG-2024-0003

Process Stage: Solutions Meeting 07/09/2024

Proposed Solution:

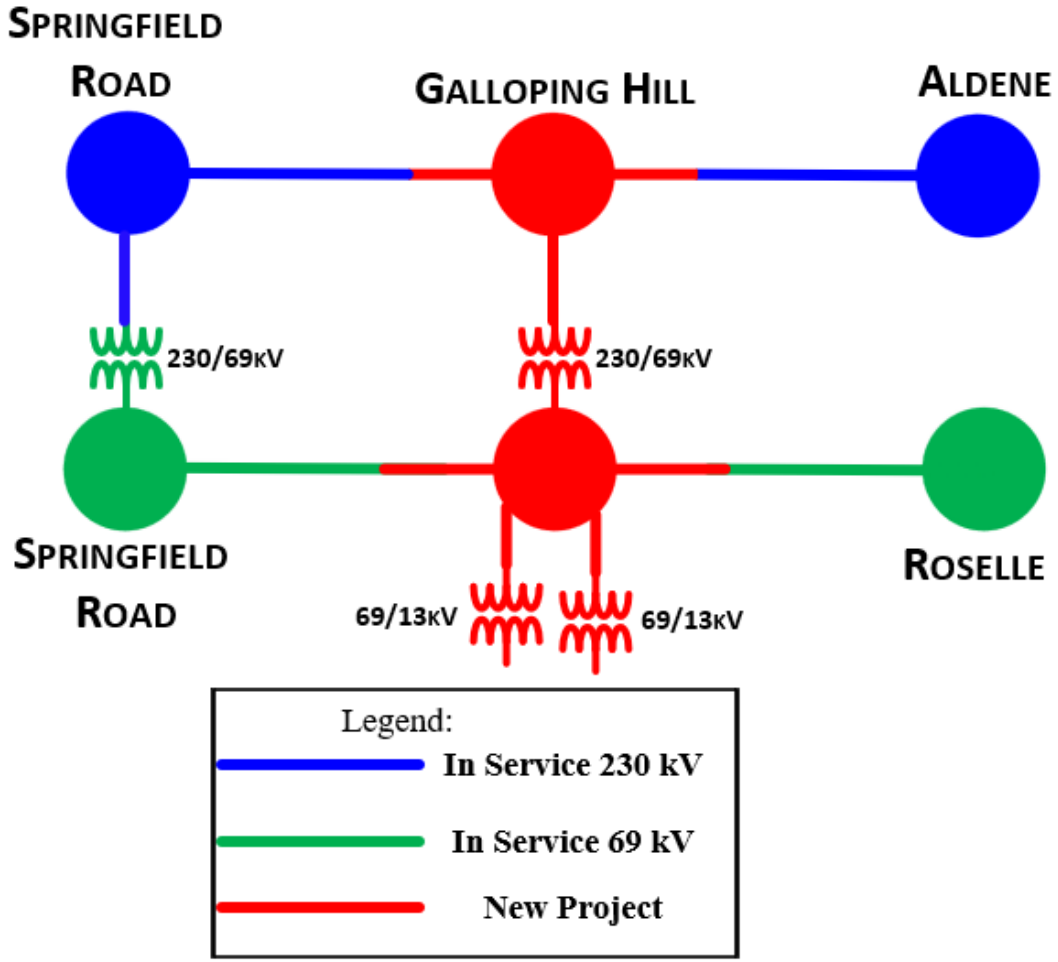
- Construct a 230/69/13kV Substation at PSEG owned property in the Kenilworth area.
  - Meets project drivers for present needs and provides sufficient capacity to meet future system needs.
  - Property is located near a 230kV line that will serve as third source for the new 69/13kV station and provides margin for the anticipated load growth.
  - Cut and loop Springfield Rd. – Aldene 230kV circuit into new 230/69kV station.
  - Install one (1) 230/69kV transformer.
  - Construct a 69/13kV substation. Cut and loop Springfield Rd. – Roselle 69kV circuit into the new substation.
  - Install two (2) 69/13kV transformers.
  - **Estimated Total Cost: $169.0M**

Alternative Considered:

- Construct a 69/13kV Substation at PSEG owned property in the Kenilworth area.
  - Meets project drivers for present needs but fails to provide sufficient capacity to meet future system needs.
  - Construct a 69/13kV substation. Cut and loop Springfield Rd. – Roselle 69kV circuit into the new substation.
  - Construct a new 69kV line from Stanley Terrace.
  - Install two (2) 69/13kV transformers.
  - **Estimated Cost: $125.6M**
  - Alternative provides no system capacity margin, a separate project to construct the 230/69kV station would be needed to meet future system needs with an estimated additional cost of $78M. The future installation of a 230/69kV station increases the complexity of the installation and negatively impacts customers at an escalated cost.
  - **Estimated Total Cost: $203.6M**

Projected In-Service: 12/2029

Project Status: Conceptual



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

6/28/2024 - V1 – Original version posted to pjm.com