

SRRTEP COMMITTEE: MID-ATLANTIC PSE&G SUPPLEMENTAL PROJECTS

April 19, 2022

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-2022-0002

Process Stage: Solutions Meeting 4/19/2022

Previously Presented: Need Meeting 3/17/2022

Supplemental Project Driver:

- Customer Service

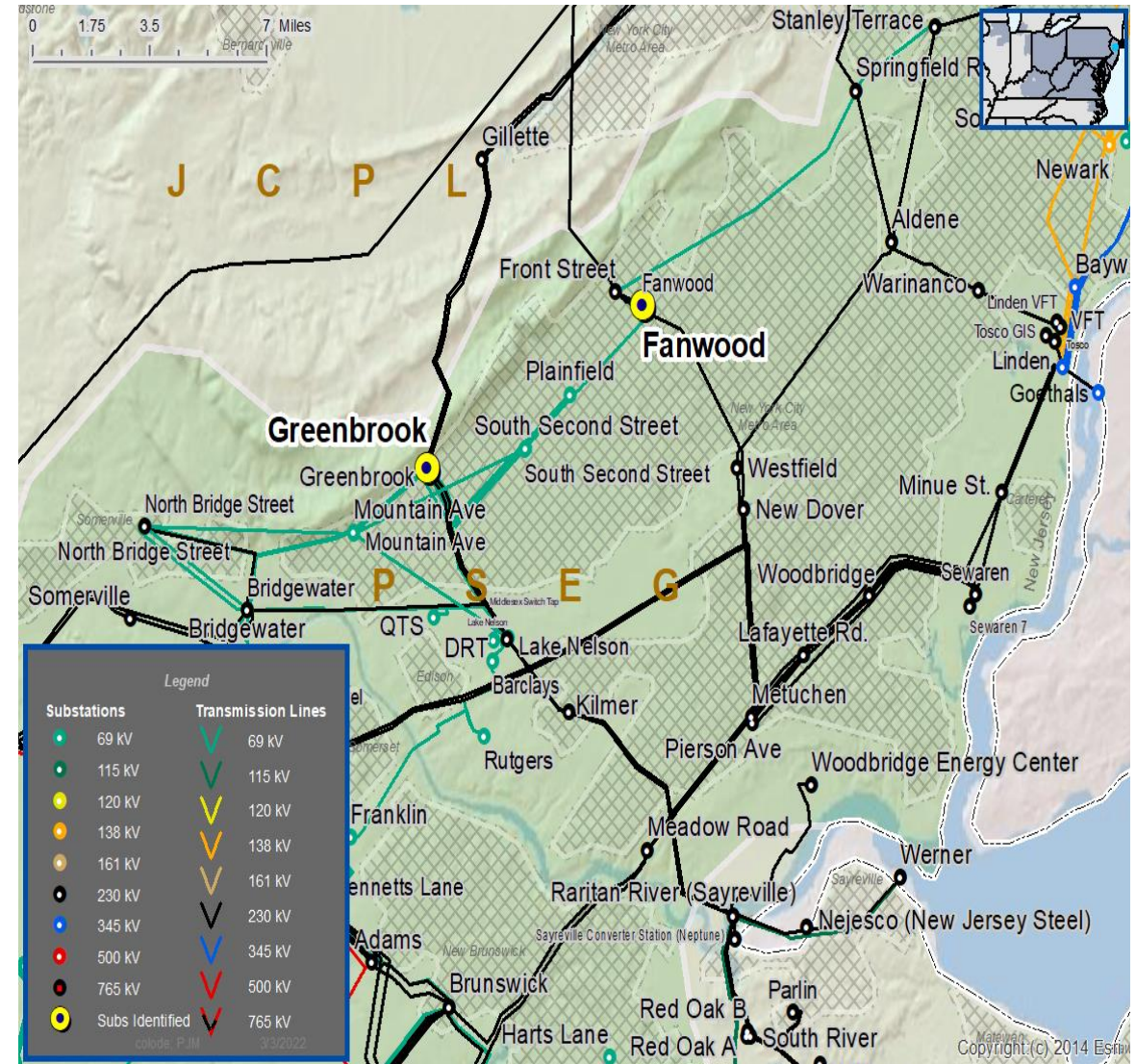
Specific Assumption Reference:

- [PSE&G 2022 Annual Assumptions](#)
- Localized Load Growth & Contingency Overloads

Problem Statement:

- Green Brook 1H and Fanwood 1H are substations in the South Plainfield area that are heavily loaded and operate at higher than their 60 MVA capacity for N-1 contingency overload criteria.
- Green Brook 1H serves roughly 19,000 customers with a peak load of 79.3 MVA in 2021.
- Fanwood 1H serves roughly 22,900 customers with a peak load of 85.2 MVA in 2021.

Model: 2021 Series 2026 Summer RTEP 50/50





Need Number: PSEG-2022-0002

Process Stage: Solutions Meeting 04/19/2022

Proposed Solution:

- Construct a 69-13kV seven (7) breaker ring bus class H substation at South Plainfield on a new property.
 - Cut and loop the Mountain Avenue to Lake Nelson 69kV line in to new South Plainfield Area substation.
 - Construct a new 69kV Circuit between new substation and South Second Street.
- Replace three (3) 69-13kV transformers with two (2) higher capacity 69-13kV transformers at Mountain Ave Substation.
- **Ancillary Benefit:** Green Brook Contingency Overload can be addressed with shorter, more reliable circuits from South Plainfield and Mountain Ave.
- **Estimated Cost:** \$96.6M

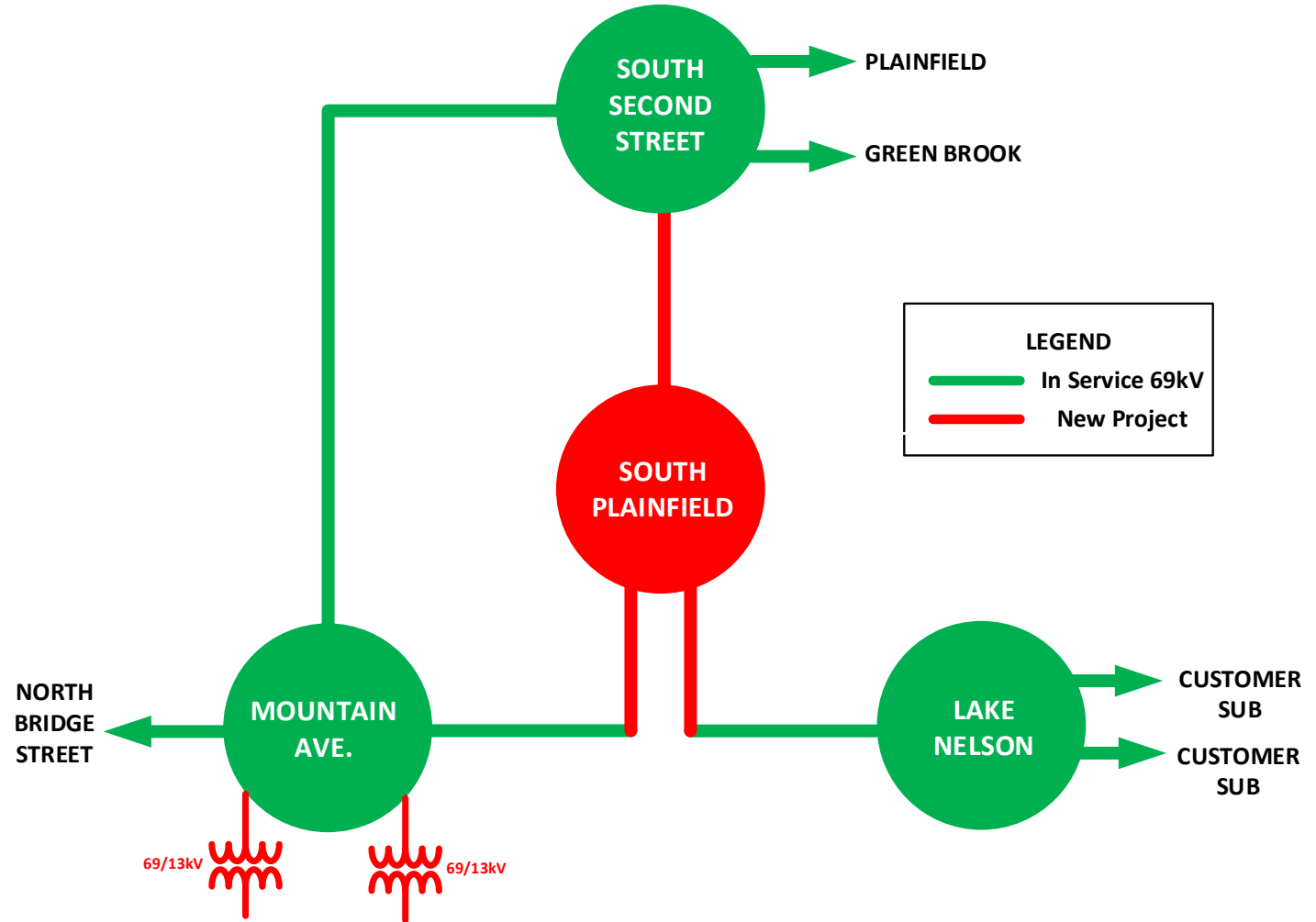
Alternative Considered:

- Construct a 69-13kV seven (7) breaker ring bus class H substation at South Plainfield and postpone conversion of Mountain Avenue to class H station for a later date.
 - No capacity for future growth.
 - No capacity for condition based retirement of assets.
 - Replacement of transformers at Mountain Ave with higher capacity transformers will be required within 5 years and increase the complexity and impact to customers at an escalated cost.
 - Estimated Cost: \$102.1M

Projected In-Service: 05/2027

Project Status: Conceptual

PSEG Transmission Zone M-3 Process South Plainfield Area



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

4/8/2022 – V1 – Original version posted to pjm.com