

Subregional RTEP Committee – Mid-Atlantic FirstEnergy Supplemental Projects

December 12, 2024

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

Need Numbers: JCPL-2024-050 and 052

Process State: Need Meeting – 12/12/2024

Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

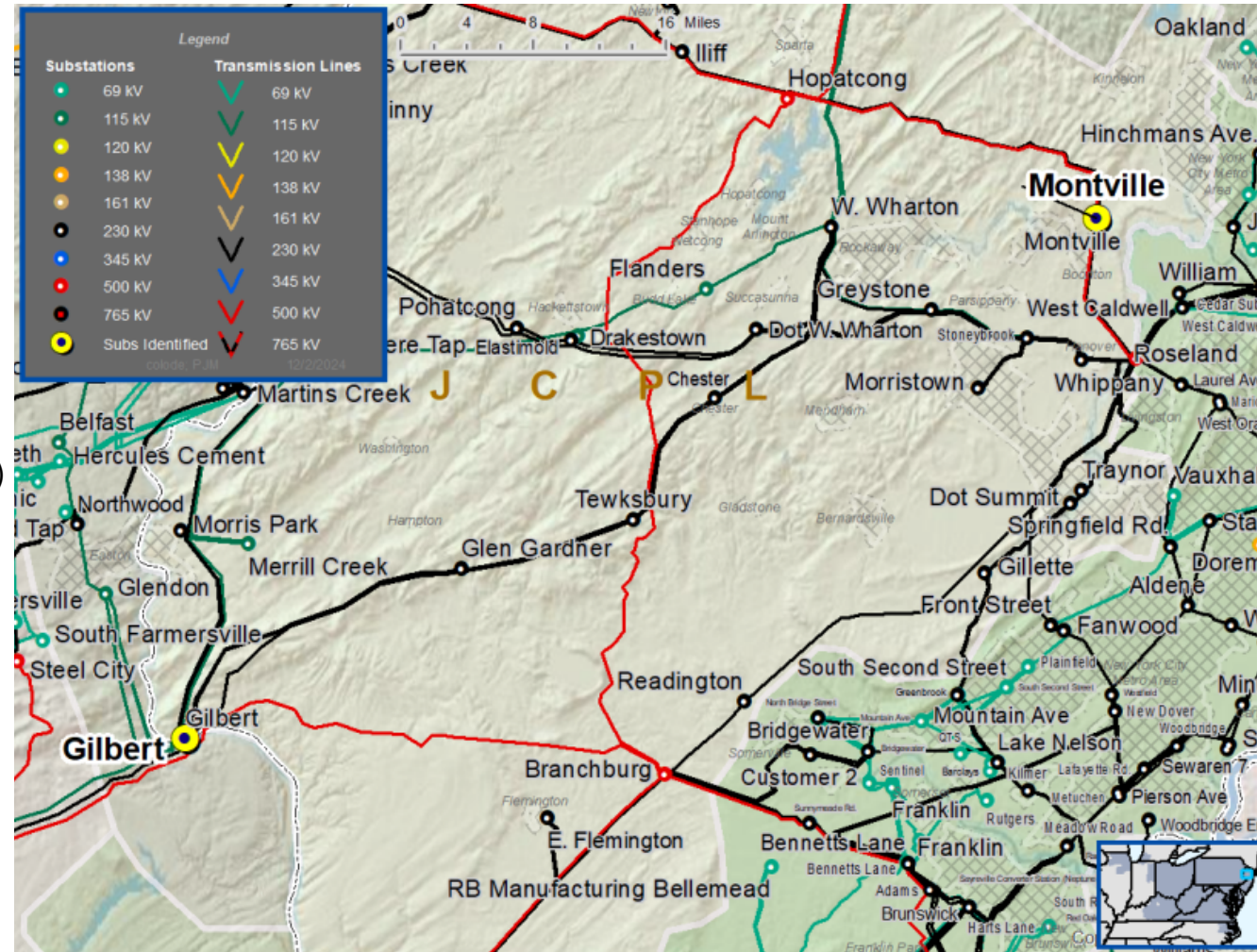
System Performance Projects Global Factors

- System reliability and performance
 - Substation/line equipment limits
- Upgrade Relay Schemes
- Obsolete and difficult to repair communication equipment (DTT, Blocking, etc.)
 - Communication technology upgrades

Problem Statement:

- There is a lack of automatic restoration of 34.5 kV lines following tripping events without the intervention of Transmission Operators.
- Manual restoration increases the risk of system constraints on adjacent facilities, especially for critical lines as identified by Transmission Operations.
- Obsolete electromechanical relay schemes. In many cases, the protection equipment cannot be repaired due to a lack of replacement parts and available expertise in the outdated technology.
- Proper operation of the protection scheme requires all the separate components perform adequately during a fault.
- Transmission line ratings are limited by terminal equipment.

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| Need Number | Transmission Line / Substation Locations | Existing Line Rating MVA (SN / SE / WN / WE) | Existing Conductor Rating MVA (SN / SE / WN / WE) |
|---------------|--|---|--|
| JCPL-2024-050 | Gilbert – Ferndale 34.5 kV B28 Line | 12 / 12 / 12 / 12 | 14 / 14 / 15 / 15 |
| JCPL-2024-052 | Montville – Jacksonville Tap 34.5 kV L116 Line | 55 / 67 / 63 / 72 | 55 / 67 / 63 / 79 |
| | Montville – Jacksonville Tap 34.5 kV M117 Line | 55 / 67 / 63 / 72 | 55 / 67 / 63 / 79 |

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

12/2/2024 – V1 – Original version posted to pjm.com