



ATSI Supplemental Projects

Transmission Expansion Advisory Committee
February 7, 2019

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



ATSI Transmission Zone

Need Number: ATSI-2019-050

Process Stage: TEAC Need Meeting

Date: 02/07/2019

Project Driver(s):

- Equipment Material, Condition, Performance and Risk*
- Operational Flexibility and Efficiency*
- Infrastructure Resilience*

Specific Assumption Reference(s)

Global Factors

- System reliability and performance
- Load at risk in planning and operational scenarios

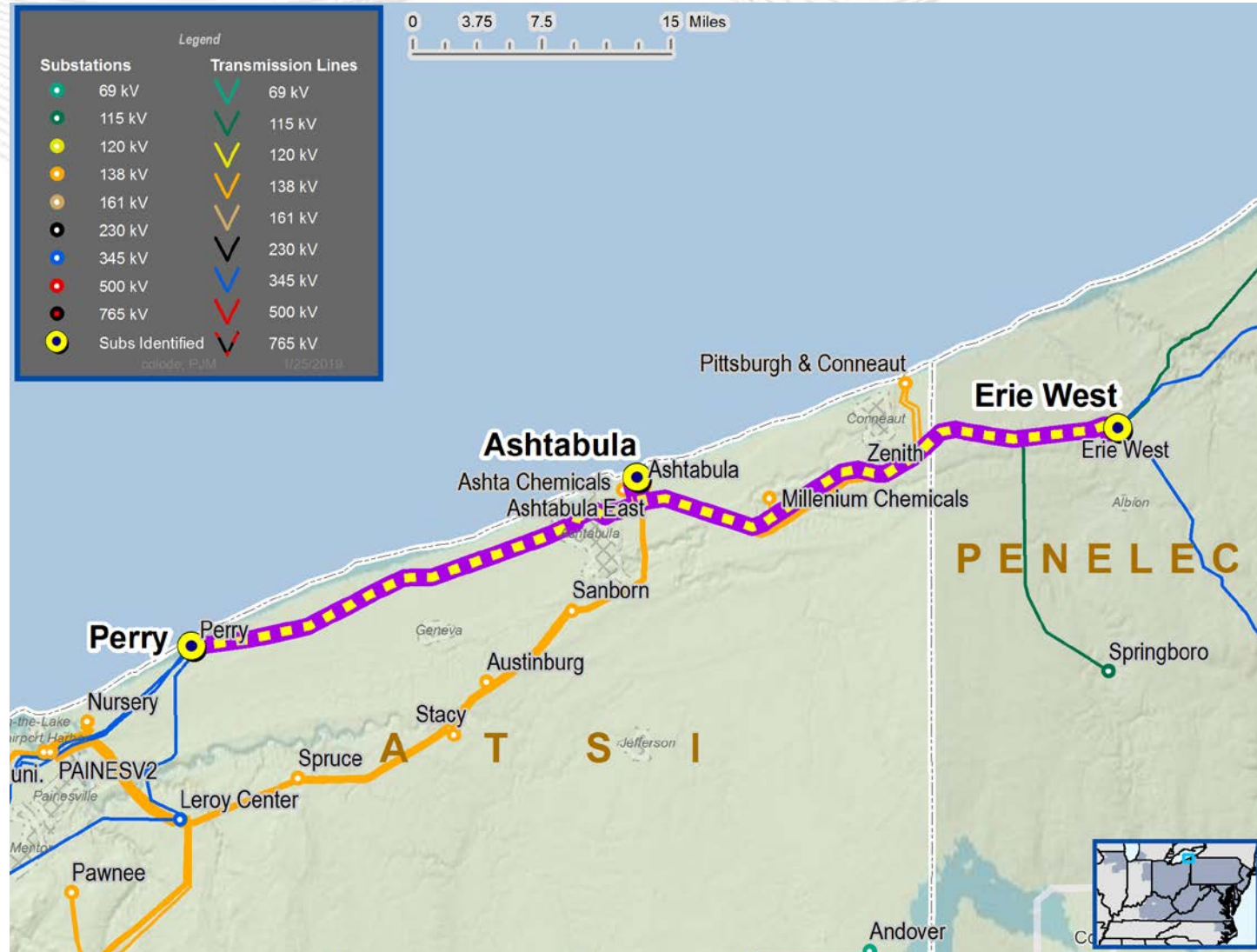
Reconductor / Rebuild Transmission Lines

- Three or more terminal transmission lines

Upgrade Relay Schemes

- Relay schemes that have a history of misoperation
- Obsolete and difficult to repair communication equipment

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Problem Statement

Perry-Ashtabula-Erie West 345 kV Line and Surrounding Areas

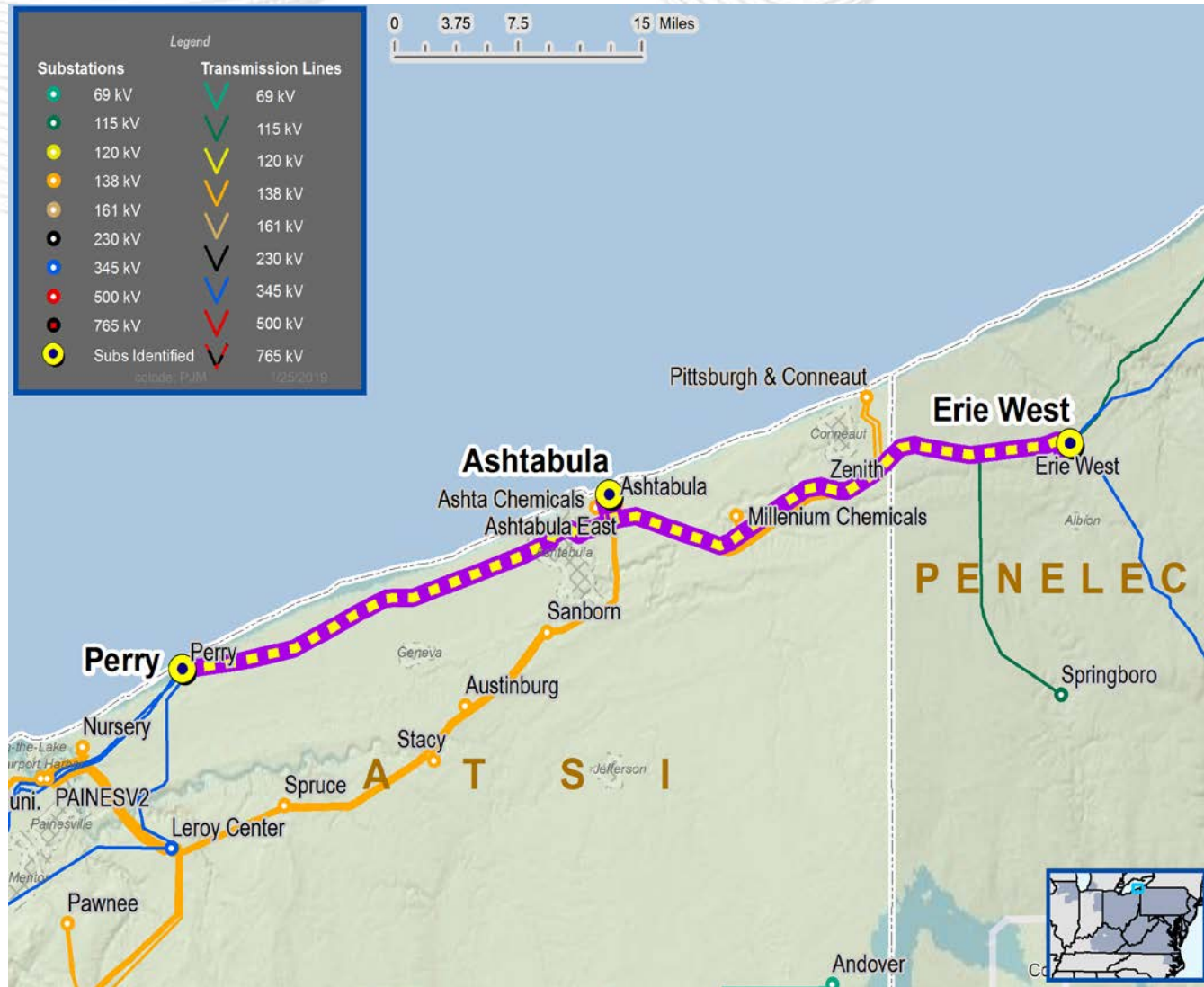
- Perry-Ashtabula-Erie West 345 kV Line is a three terminal line.
- Three terminal lines are prone to mis-operations, lengthy fault locating analysis and longer restoration efforts.
- Existing transmission relay communication equipment is approaching end of life, is obsolete, and is difficult to maintain and repair.
- Non-planning criteria violation voltage concerns on the > 100 kV system under contingency conditions.

– Loss of the Perry-Ashtabula-Erie West 345 kV (or the Ashtabula 345/138kV TR) followed by the loss of Leroy Center-Stacy Q3 138 kV line.

OR

– Loss of Leroy Center-Ashtabula Q4 138 kV line followed by the loss of the Leroy Center-Stacy Q3 138 kV line.

Results in low voltage and potential local voltage collapse at Stacy substation; load shed of approximately 75 MWs is necessary to maintain system voltages.



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

V1 – 1/28/2019 – Original Slides Posted

V2 – 2/5/2019 – Added note to Need slide. Added appendix.