Subregional RTEP Committee – Mid-Atlantic FirstEnergy (JCPL) Supplemental Projects

June 15, 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



JCPL Transmission Zone M-3 Process
New Customer Connection

Need Number: JCPL-2023-003

Process State: Need Meeting 06/15/2023

Project Driver:

Customer Service

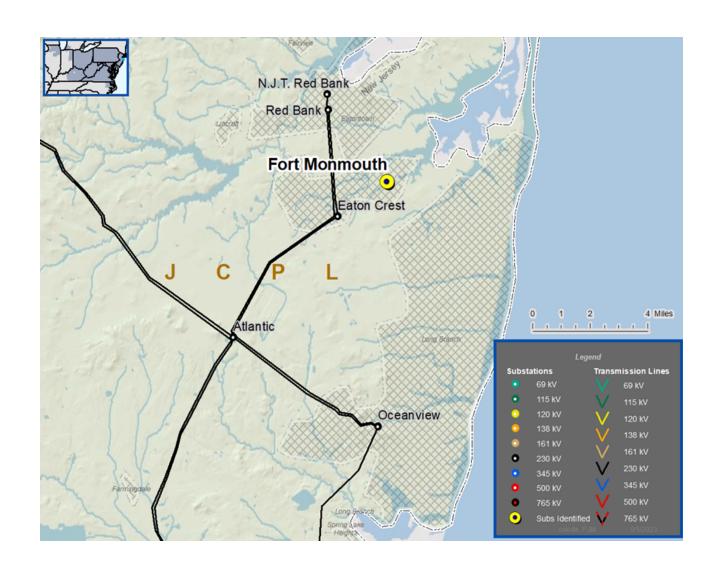
Specific Assumption Reference:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A customer requested 34.5 kV service for load of approximately 17 MVA of capacity; location is near the Fort Monmouth Substation.

Requested in-service date is 12/31/2023





JCPL Transmission Zone M-3 Process
New Customer Connection

Need Number: JCPL-2023-004

Process State: Need Meeting 06/15/2023

Project Driver:

Customer Service

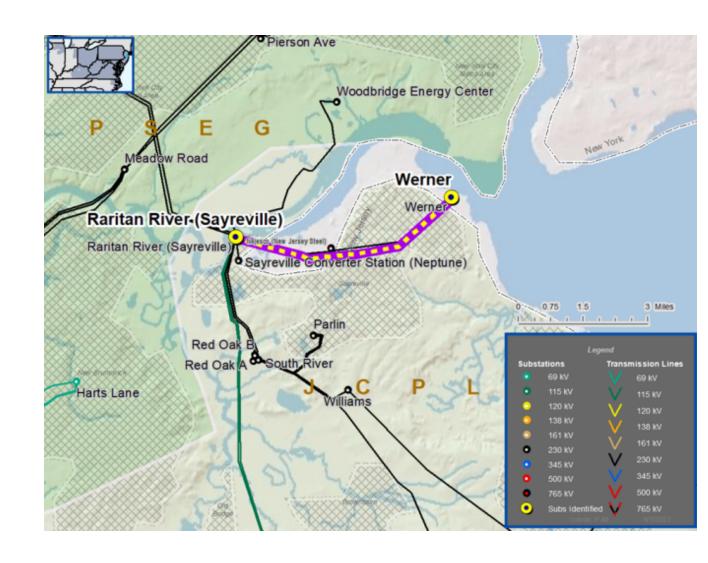
Specific Assumption Reference:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A customer requested 34.5 kV service for load of approximately 22 MVA of capacity; location is near the Raritan River – Werner D130 115 kV line.

Requested in-service date is 12/31/2024





JCPL Transmission Zone M-3 Process New Customer Connection

Need Number: JCPL-2023-007

Process State: Need Meeting 06/15/2023

Project Driver:

Customer Service

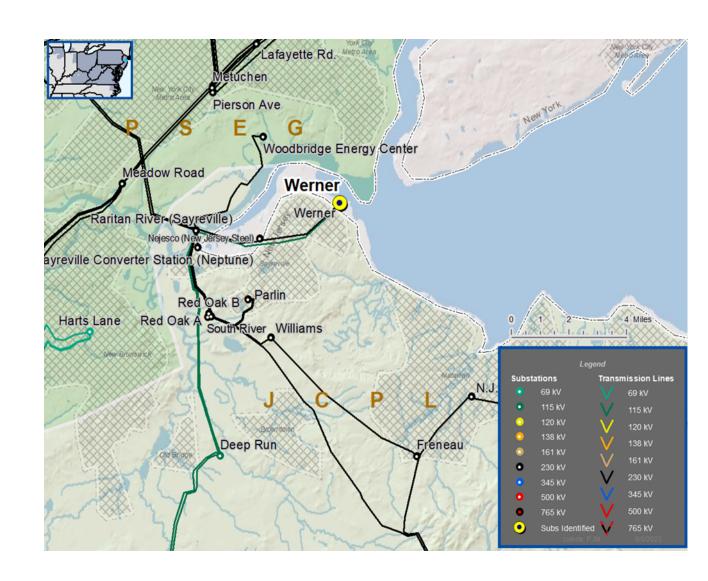
Specific Assumption Reference:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A customer requested 34.5 kV service for load of approximately 7 MVA of capacity; location is near the Werner 115 kV substation.

Requested in-service date is 12/31/2024





JCPL Transmission Zone M-3 Process

Need Numbers: JCPL-2023-008, JCPL-2023-009

Process State: Need Meeting 6/15/2023

Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

System Performance Projects Global Factors

- System reliability and performance
- Substation/line equipment limits

System Condition Projects

Substation Condition Rebuild/Replacement

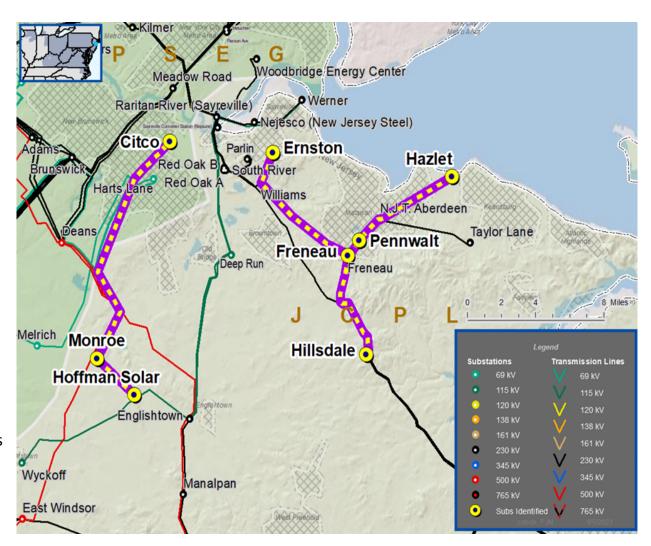
Upgrade Relay Schemes

- Obsolete and difficult to repair communication equipment (DTT, Blocking, etc.)
- Communication technology upgrades

Problem Statement:

- FirstEnergy has identified protection schemes using a certain vintage of relays and communication equipment that have a history of misoperation.
- Proper operation of the protection scheme requires all the separate components perform adequately during a fault.
- In many cases the protection equipment cannot be repaired due to a lack of replacement parts and available expertise in the outdated technology.
- Transmission line ratings are limited by terminal equipment.

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JCPL Transmission Zone M-3 Process

Need #	Transmission Line / Substation Locations	Existing Line Rating (SN / SE)	Existing Conductor Rating (SN / SE)	Limiting Terminal Equipment
JCPL-2023-008	Citgo D Tap – Monroe 34.5 kV	70/84	70/85	Relaying
	Hoffman Solar Tap – Monroe 34.5 kV	44/57	70/85	SS Conductor, Relaying
JCPL-2023-009	Freneau – Hillsdale Tap 34.5 kV	44/48	44/53	Relaying
	Freneau – Pennwalt Tap 34.5 kV	44/48	44/53	Relaying
	Freneau – Hazlet 34.5 kV	55/67	55/67	Relaying
	Freneau – Ernston Tap 34.5 kV	40/48	40/48	Relaying

Questions?



Appendix

High level M-3 Meeting Schedule

Assumptions	Activity	Timing		
, σ μ σ σ	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	Activity	Timing		
Supplemental	Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution		
Projects & Local	Post selected solution(s)	Following completion of DNH analysis		
Plan	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

6/5/2023 – V1 – Original version posted to pjm.com