

Subregional RTEP Committee – Mid-Atlantic FirstEnergy (JCP&L) Supplemental Projects

September 14, 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

Need Numbers: JCPL-2023-012 to JCPL-2023-034

Process State: Need Meeting 9/14/2023

Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

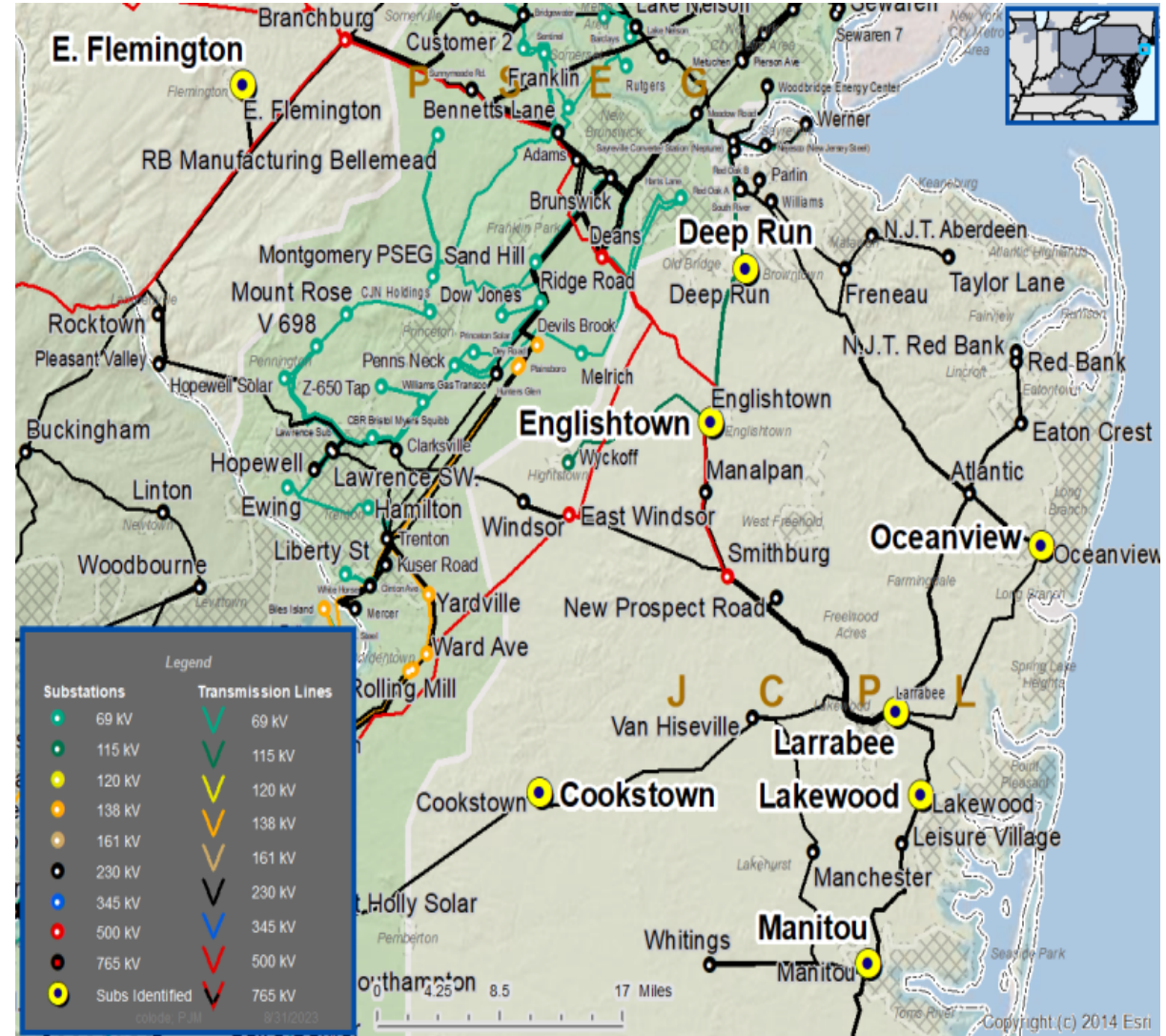
System Performance Projects Global Factors

- System reliability and performance
- 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cases, the protection equipment cannot be repaired due to a lack of replacement parts and available expertise in the outdated technology.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.

Continued on next slide...





JCPL Transmission Zone M-3 Process Automatic Restoration Projects

Need #	Transmission Line / Substation Locations	Existing Line Rating (SN / SE)	Existing Conductor Rating (SN / SE)
JCPL-2023-012	Long Branch-Monmoth Park F110 34.5 kV	44/48	44/53
JCPL-2023-013	Manitou-Pine Beach X50 34.5 kV	55/63	55/67
JCPL-2023-014	Ridge B T – Ridge C757 34.5 kV	30/37	44/53
	Kemble Plaza N T-Lemble Plaza N C757 34.5 kV	17/21	44/53
	Bernardsville-Lyons B730 34.5 kV	44/47	44/53
JCPL-2023-015	Taylor Lane-Crawfords Corner T K37 34.5 kV	44/48	44/53
JCPL-2023-016	Allenhurst –Oceanview H216 34.5 kV	44/48	55/67
	Long Branch-Monmoth MC2 V74 34.5 kV	41/52	55/67
	Monmouth MC2-Bath Avenue V74 34.5 kV	40/52	55/67
	Bath Avenue – Monmouth MC1 V74 34.5 kV	40/52	44/53
JCPL-2023-017	Gillette – Murray Hill D108 34.5 kV	42/49	55/67
	Air Reduction-New Providence D108 34.5 kV	35/46	41/50
JCPL-2023-018	Tap Rock T-Moore N716 34.5 kV	27/34	44/53
	East Flemington- US Bronze T Y727 34.5 kV	39/46	39/48
	Alexaukent T-Rocktown Rd Y727 34.5 kV	38/38	40/48
JCPL-2023-019	Cookstown-McGuire T98 34.5kV	35/46	41/50
JCPL-2023-020	Townsqaure T I –Townsquare Mall I711 34.5k V	27/34	44/53
	Joyce Molding I T – Joyce Molding I711 34.5 kV	30/37	44/53



JCPL Transmission Zone M-3 Process Automatic Restoration Projects

Need #	Transmission Line / Substation Locations	Existing Line Rating (SN / SE)	Existing Conductor Rating (SN / SE)
JCPL-2023-021	Lanes Mill T- Lanes Mill T146 34.5 kV	44/57	55/67
	Lanes Mill T-Point Pleasant T146 34.5 kV	41/48	44/53
	Allaire T- Brielle B106 34.5 kV	40/50	41/50
JCPL-2023-022	Asbury Park T- Bradley Beach U47 34.5 kV	55/66	55/67
JCPL-2023-023	East Flemington-Visqueen H736 34.5 kV	40/50	44/53
JCPL-2023-024	Citgo D Tap-Monroe D82 34.5 kV	70/84	70/85
	Englishtown-Hoffman Solar H34 34.5 kV	70/72	70/85
	Hoffman Solar T-Monroe H34 34.5 kV	44/57	70/85
	Millhurst-Raceway Mall I87 34.5 kV	28/35	44/53
	RT9/RT18 SW PT-Deep Run A209 34.5kV	44/57	70/85
JCPL-2023-025	Howell Solar T-Howell Q225 34.5 kV	53/62	55/67
	Farmingdale-Larrabee W49 34.5 kV	44/57	55/67
JCPL-2023-026	Lakehurst-Ship Test E109 34.5 kV	25/25	44/53
JCPL-2023-027	Cookstown-McGuire T98 34.5 kV	35/46	41/50
JCPL-2023-028	Pompton Plains M T- Pompton Plains M117 34.5 kV	41/49	41/50
	Pompton Plains M T-Riverdale M117 34.5kV	41/48	41/50
JCPL-2023-029	Traynor-Elrr Summit Q TP Q17 34.5 kV	42/48	44/53
	Overlook Hospital-Fadem Road Q17 34.5 kV	32/39	41/50
	Whippany-Okner C81 34.5 kV	44/57	55/67



JCPL Transmission Zone M-3 Process Automatic Restoration Projects

Need #	Transmission Line / Substation Locations	Existing Line Rating (SN / SE)	Existing Conductor Rating (SN / SE)
JCPL-2023-030	Hyson-Larrabee K219 34.5 kV	66/76	70/85
	Metedeconk-Lakewood E213 34.5 kV	40/50	41/50
	Metedeconk T- Metedeconk E213 34.5 kV	40/50	44/53
JCPL-2023-031	Smithburg-Centrastate Hosp T X752 34.5 kV	67/85	70/85
	Frhld Jrsylvle T-Jerseyville X752 34.5 kV	41/48	41/50
JCPL-2023-032	Glen Gardner-High Bridge SW R720 34.5kV	42/50	44/53
	High Bridge SW-Lebanon R720 34.5 kV	39/47	39/48
	Lebanon-North Branch J764 34.5 kV	42/52	44/53
	Azoplate J T- Readington J764 34.5 kV	42/50	44/53
JCPL-2023-033	Halecrest U Tap-Washington U723 34.5kV	39/47	39/48
	Domin Ln Solar T-Washington Q719 34.5 kV	44/47	44/53
	Newsburg Q Tap-Newsburgh Q719 34.5kV	46/58	55/67
	Cooke Color Tap-Cooke Color Q719 34.5kV	26/33	44/53
	Pohantcong Mountain-Newburgh Q 719 34.5 kV	42/50	44/53
JCPL-2023-034	Oceanview-Whiteville F132 34.5 kV	35/46	55/66
	Oceanview-Whitesville Y103 34.5 kV	42/50	45/54

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

9/1/2023 – V1 – Original version posted to pjm.com