

# Transmission Expansion Advisory Committee – FirstEnergy (JCPL) Supplemental Projects

July 7, 2020

# 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 Number:** JCPL-2020-004

**Process Stage:** Need Meeting – 7/7/2020

**Project Driver:**

*Customer Service*

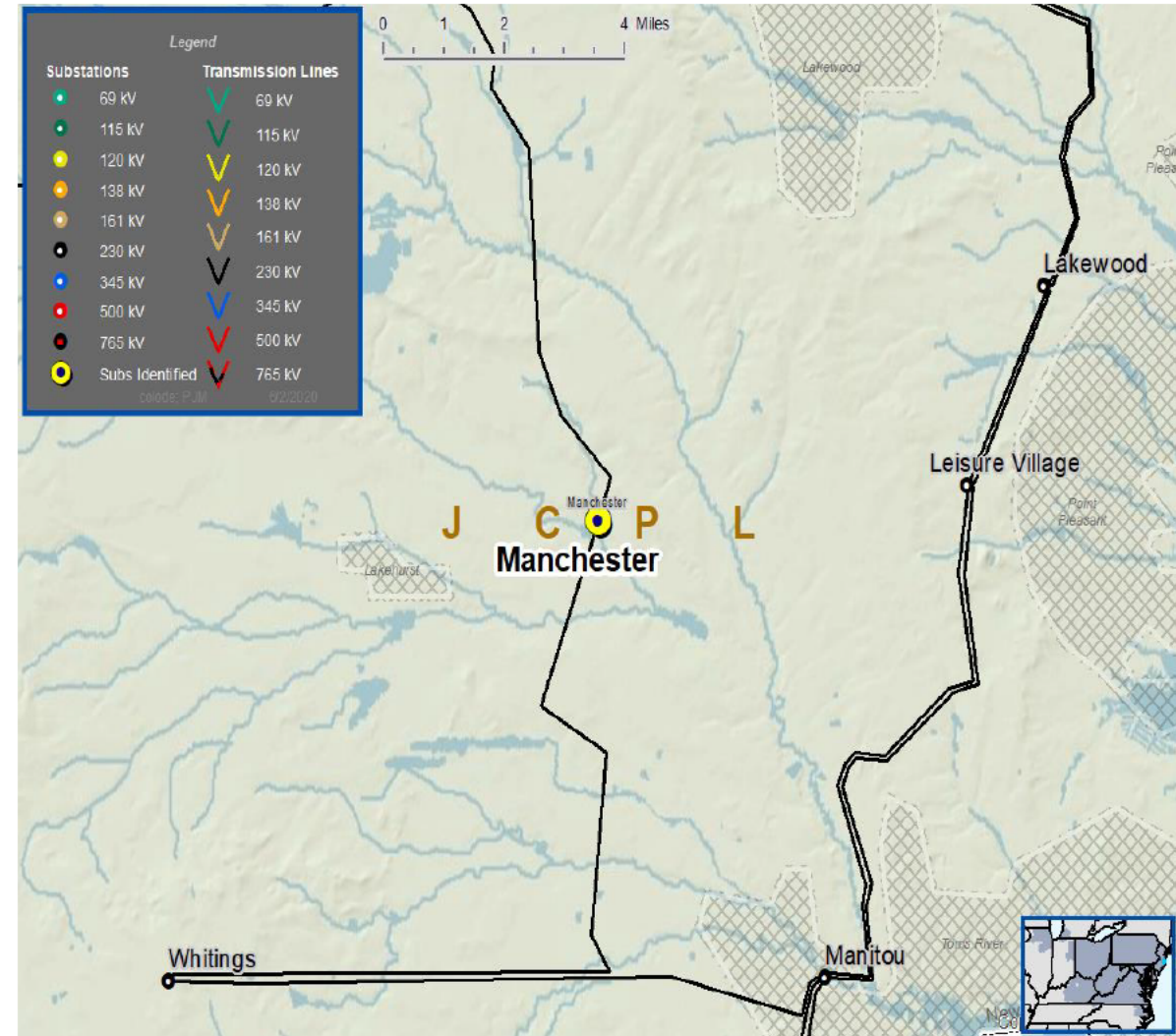
**Specific Assumption Reference:**

New customer connection request will be evaluated per FirstEnergy’s “Requirements for Transmission Connected Facilities” document and “Transmission Planning Criteria” document.

**Problem Statement:**

Customer Connection – JCP&L Distribution requested to complete a 230 kV service connection in 2016 with an initial in-service date of June 2018. The anticipated load is 9 MW, location is at the existing Manchester 230-12.5 kV substation.

Requested in-service date is June 2020.



# Solution

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:** JCPL-2020-001

**Process Stage:** Solutions Meeting 7/7/2020

**Previously Presented:**

Need Meeting 3/20/2020

**Project Driver:**

*Operational Flexibility and Efficiency*

**Specific Assumption Reference:**

*Global Factors*

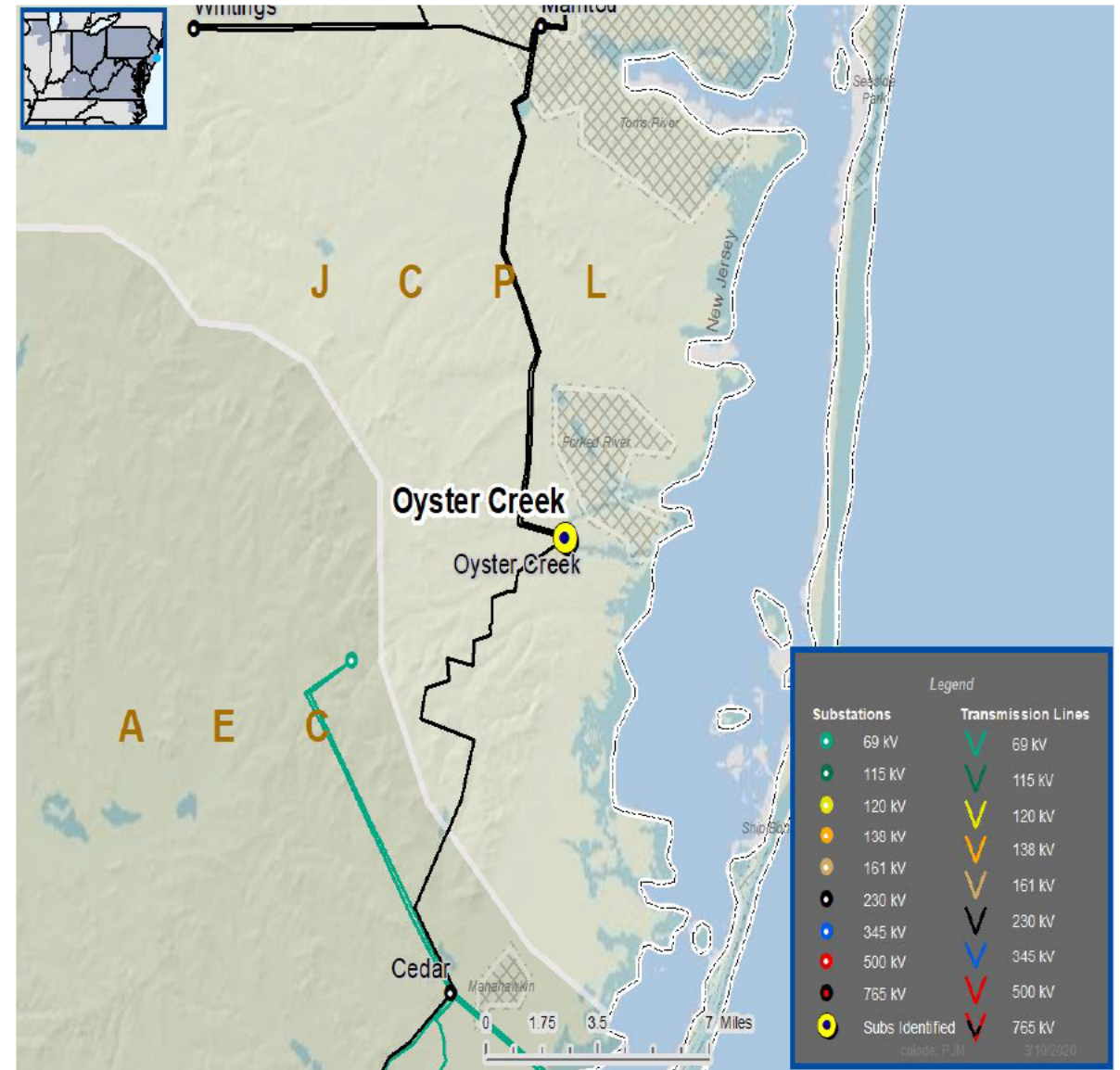
- System reliability and performance
- Reliability of Non-BES facilities
- Load at risk in planning and operational scenarios

*Add/Replace Transformers*

- System concerns related to loss of an existing transformer or other contingency scenarios at a specific voltage level(s)

**Problem Statement:**

Oyster Creek substation serves approximately 30,300 customers and 120 MW of load. Loss of the Oyster Creek #7 and #8 230-34.5 kV transformers results in a local voltage collapse with the Oyster Creek – Bamber Lake – Whittings (Q121) 34.5 kV line overloaded >125% of its 52 MVA SE rating.



**Need Number:** JCPL-2020-001

**Process Stage:** Solutions Meeting 7/7/2020

**Proposed Solution:**

*Install one 230-34.5 kV Transformer at Oyster Creek*

- Install one 230-34.5 kV 125 MVA Transformer.
- Extend the 230 kV bus and install two 230 kV breakers.
- Install two 34.5 kV breakers for connection to the 34.5 kV.

Cost: \$6.8 M

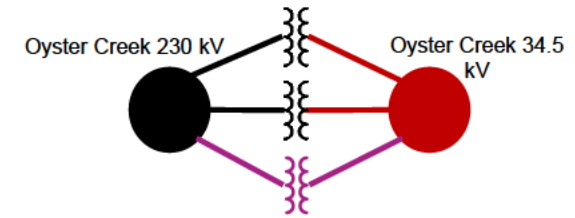
**Alternatives Considered:**

Maintain existing condition

**Projected In-Service:** 6/1/2023

**Project Status:** Conceptual

**Model:** 2019 RTEP Model for 2024



Legend	
500 kV	
345 kV	
230 kV	
138 kV	
115 kV	
69 kV	
46 kV	
34.5 kV	
23 kV	
New	

# 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

6/26/2020 – V1 – Original version posted to pjm.com

7/28/2020 – V2 – Updated problem statement on slide #3