

# Dominion Supplemental Projects

Transmission Expansion Advisory  
Committee  
July 9, 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

# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0018

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

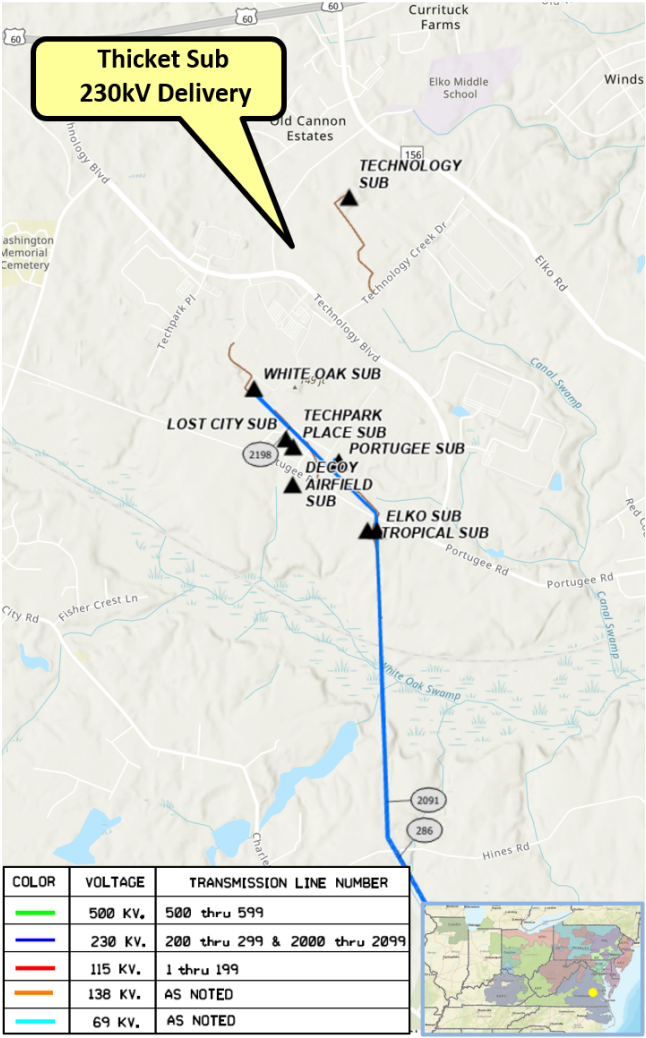
**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP Request for a new substation (Thicket) to serve a data center in Henrico County with a total load in excess of 100 MW. The requested in-service date is 12/01/2028.

Initial In-Service Load	Projected 2029 Load
Summer: 123 MW Winter: 0 MW	Summer: 255 MW Winter: 255 MW



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0019

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

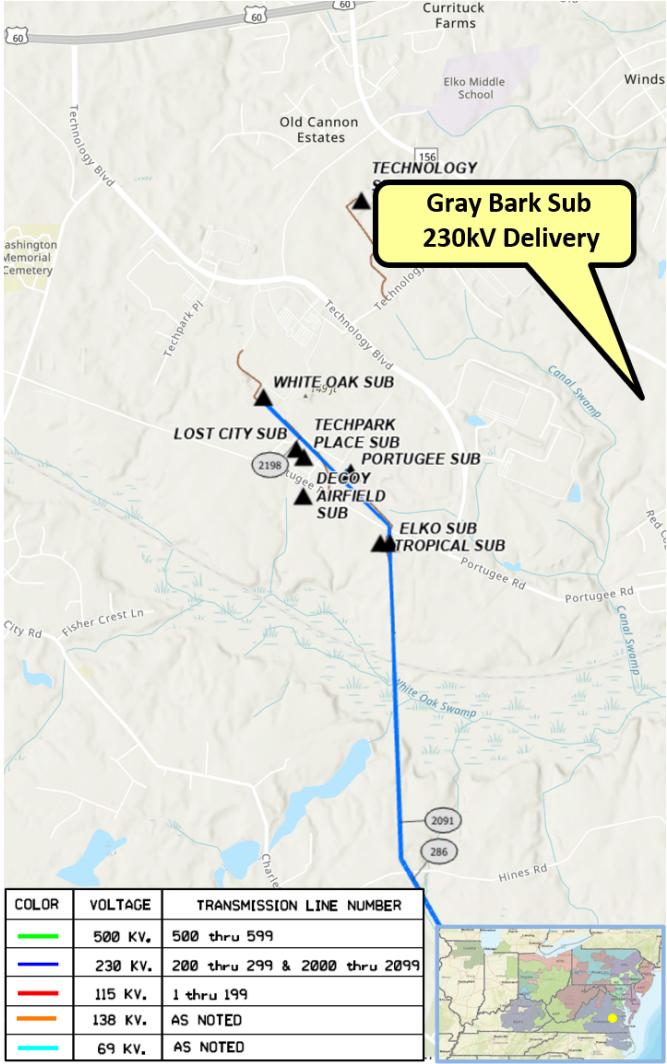
**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP Request for a new substation (Gray Bark) to serve a data center in Henrico County with a total load in excess of 100 MW. The requested in-service date is 12/01/2028.

Initial In-Service Load	Projected 2029 Load
Summer: 123 MW Winter: 0 MW	Summer: 300 MW Winter: 300 MW





# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0020

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

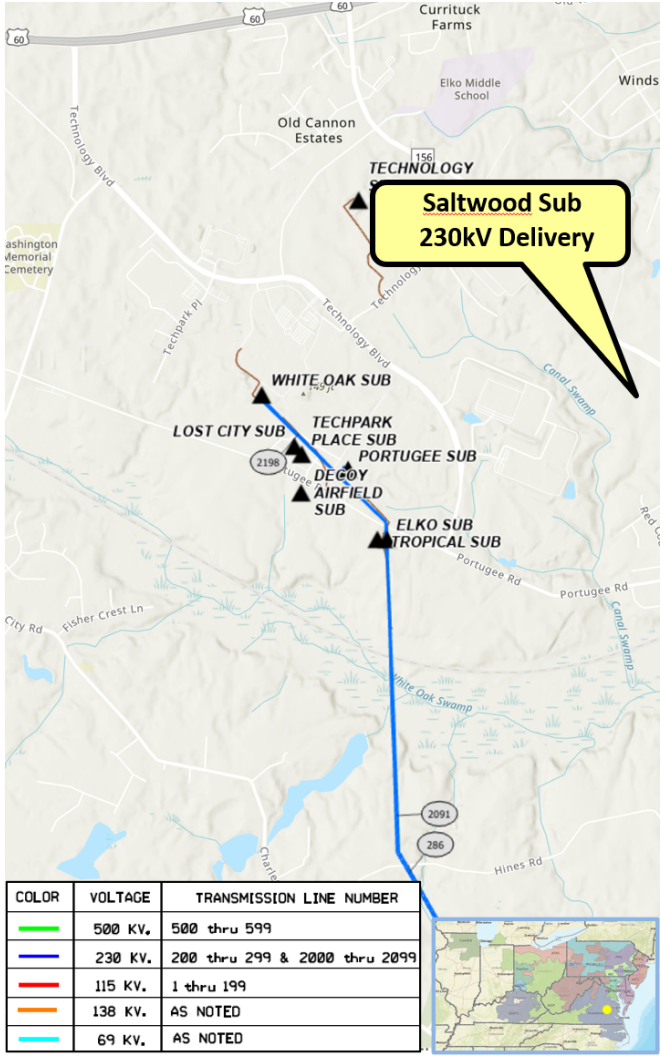
**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP Request for a new substation (Saltwood) to serve a data center in Henrico County with a total load in excess of 100 MW. The requested in-service date is 12/01/2028.

Initial In-Service Load	Projected 2029 Load
Summer: 150 MW Winter: 0 MW	Summer: 300 MW Winter: 300 MW



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0038

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

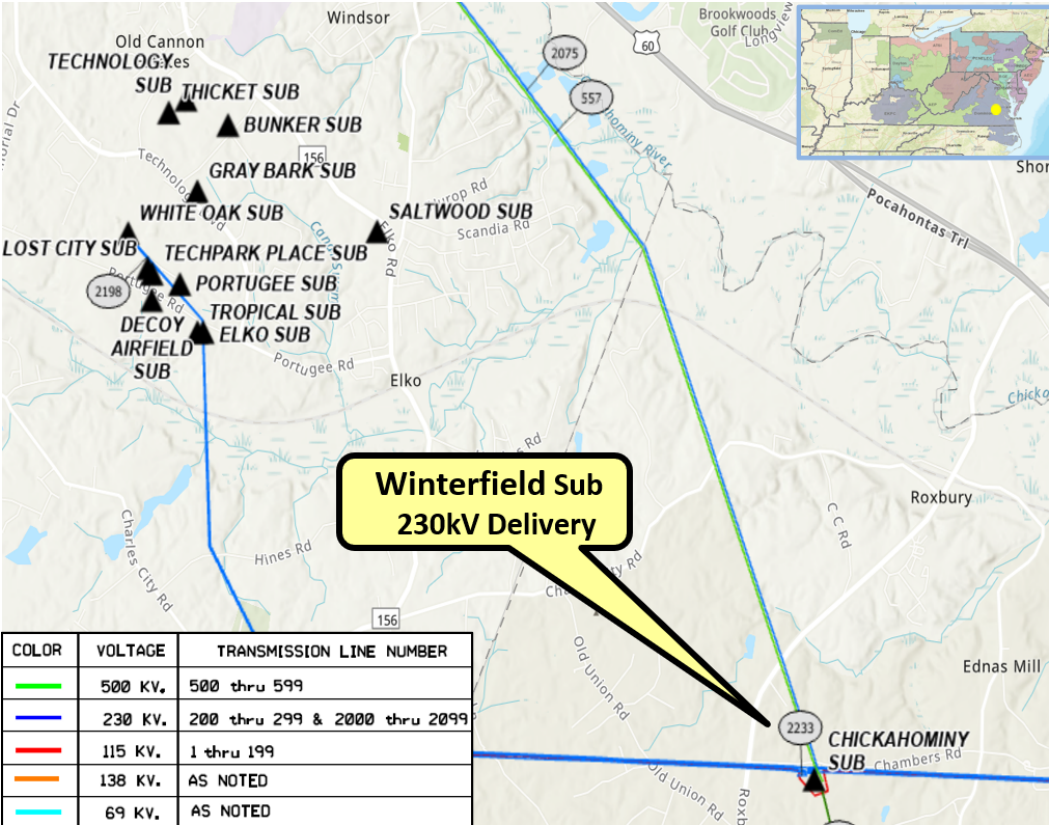
**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP Request for a new substation (Winterfield) to serve a data center in Charles City County with a total load in excess of 100 MW. The requested in-service date is 12/31/2028.

Initial In-Service Load	Projected 2029 Load
Summer: 50 MW Winter: 0 MW	Summer: 140 MW Winter: 199 MW



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0039

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

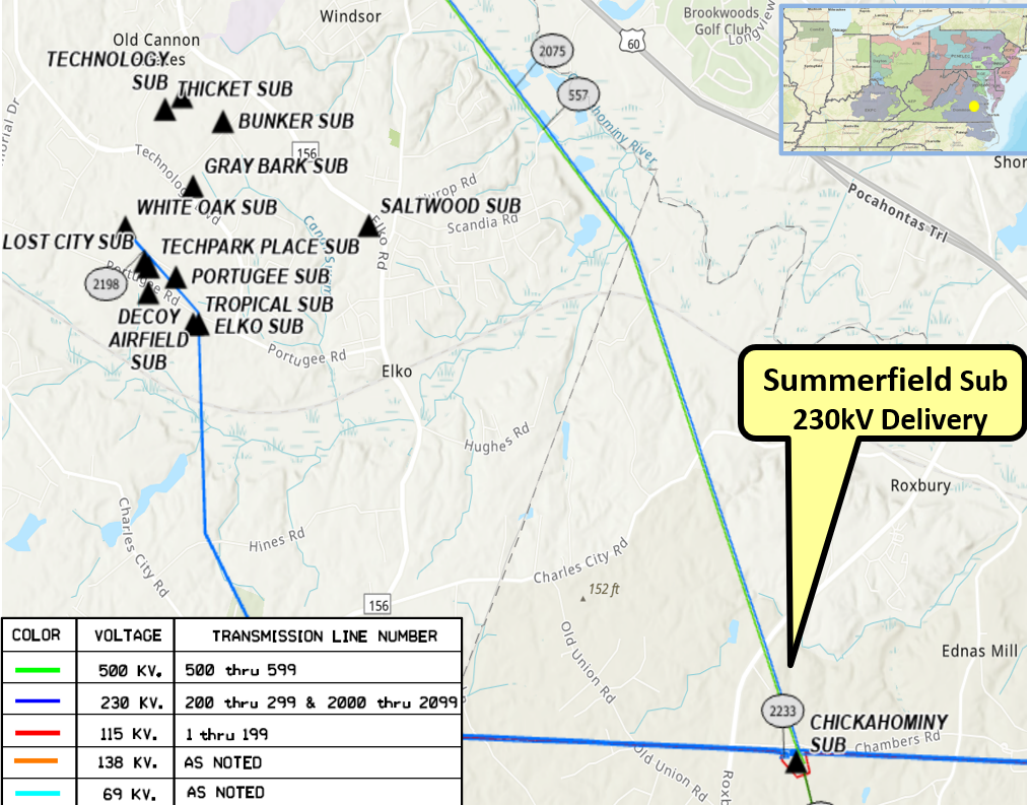
**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP Request for a new substation (Summerfield) to serve a data center in Charles City County with a total load in excess of 100 MW. The requested in-service date is 12/31/2028.

Initial In-Service Load	Projected 2029 Load
Summer: 50 MW Winter: 104 MW	Summer: 164 MW Winter: 277 MW





# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0049

**Process Stage:** Need Meeting 07/09/2024

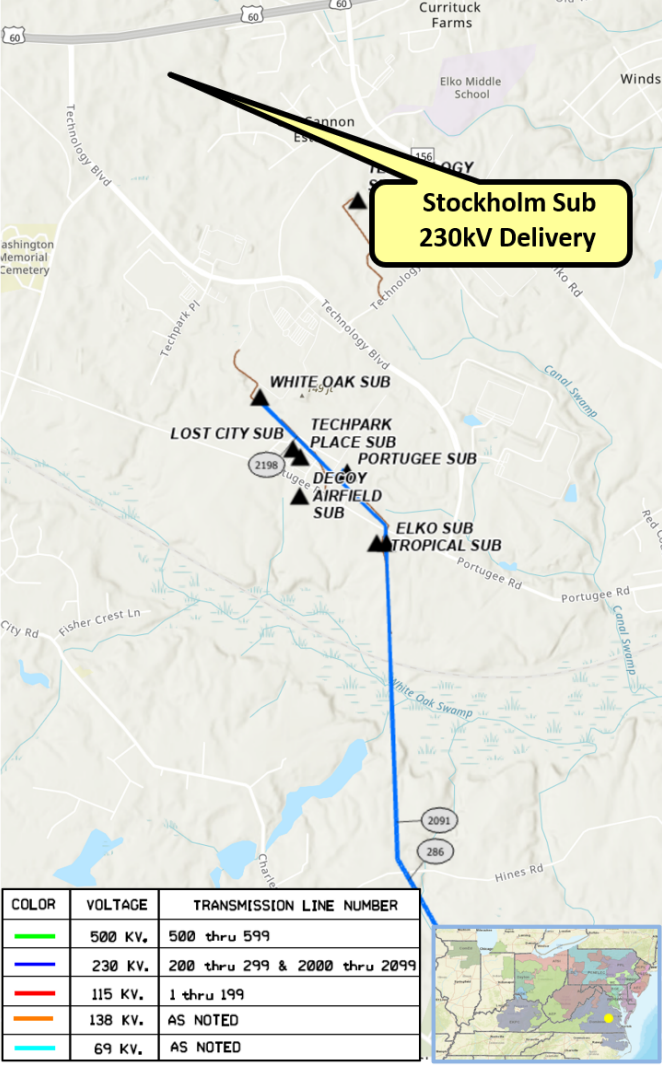
**Project Driver:** Customer Service

**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP Request for a new substation (Stockholm) to serve a data center in Henrico County with a total load in excess of 100 MW. The requested in-service date is 12/31/2026.



Initial In-Service Load	Projected 2029 Load
Summer: 150 MW Winter: 0 MW	Summer: 300 MW Winter: 300 MW

# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0050

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

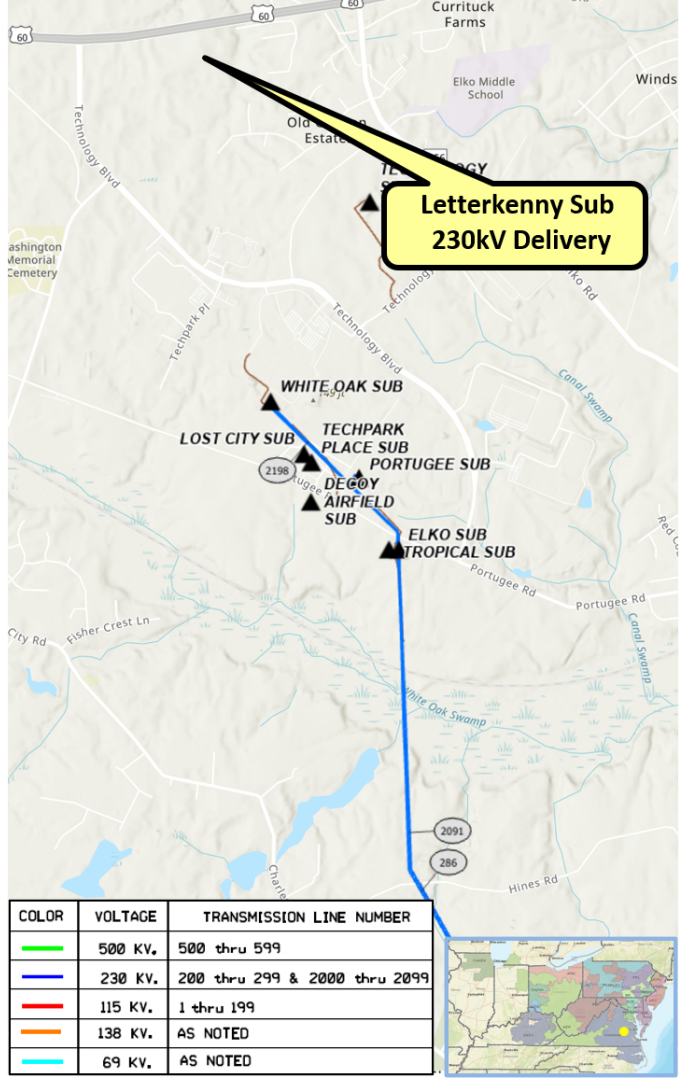
**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP Request for a new substation (Letterkenny) to serve a data center in Henrico County with a total load in excess of 100 MW. The requested in-service date is 12/31/2026.

Initial In-Service Load	Projected 2029 Load
Summer: 75 MW Winter: 0 MW	Summer: 300 MW Winter: 300 MW



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0052

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

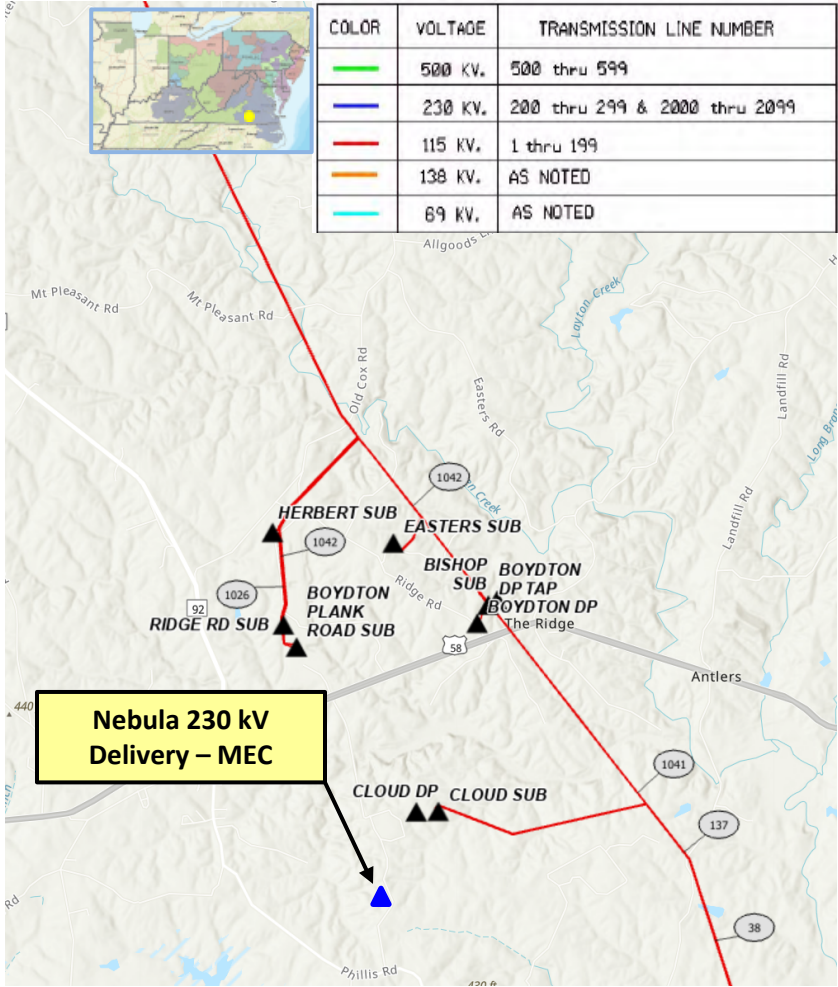
**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

ODEC on behalf of Mecklenburg Electric Coop (MEC) has submitted a DP request for a new 230 kV delivery point (Nebula Sub) to serve a data center customer in Mecklenburg County with a total load in excess of 100 MW. Requested in-service date is 12/01/2028.

Initial In-Service Load	Projected 2029 Load
Summer: 0 MW Winter: 12 MW	Summer: 12 MW Winter: 26 MW





# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0047

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

**Specific Assumption References:**

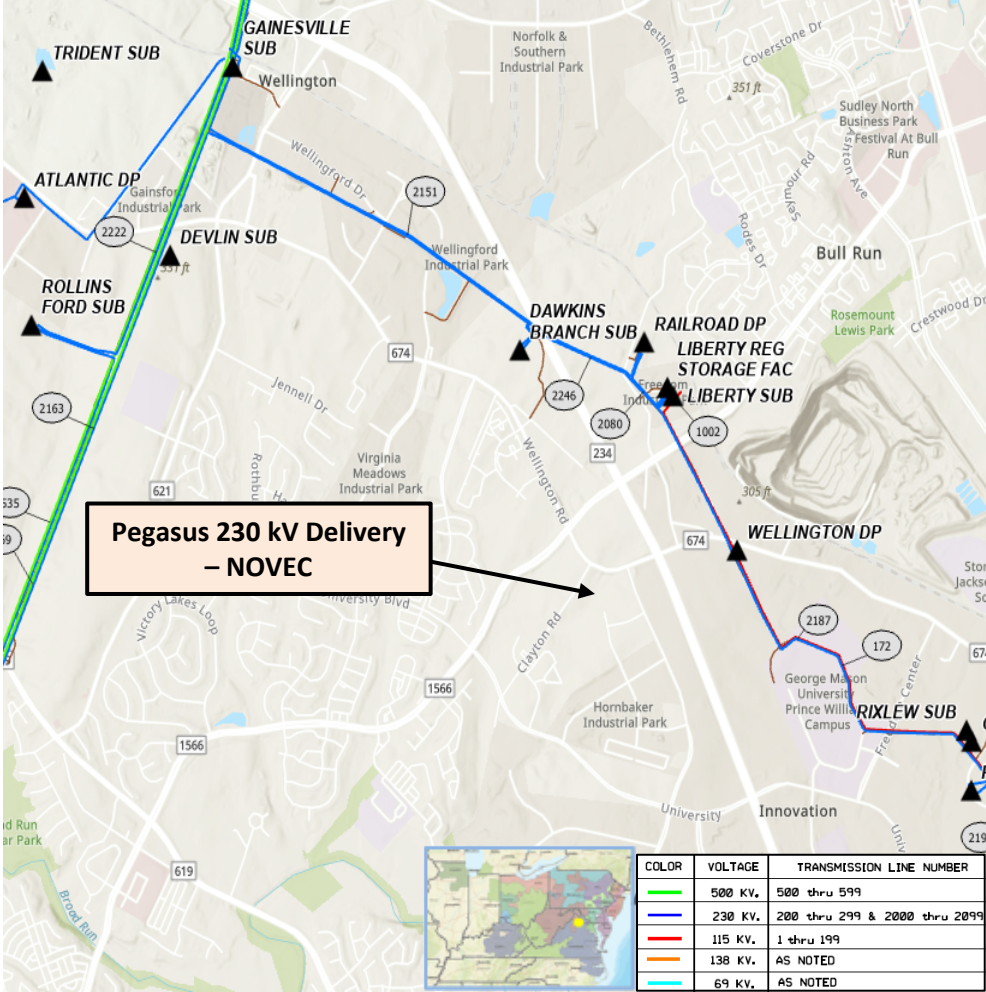
Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

NOVEC has submitted a DP Request for a new substation (Pegasus) to serve a data center complex in Prince William County with a total load in excess of 100 MW.

Requested in-service date is 04/14/2027.

Initial In-Service Load	Projected 2029 Load
Summer: 22.8 MW Winter: 22.8 MW	Summer: 87.0 MW Winter: 87.0 MW





# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0048

**Process Stage:** Need Meeting 07/09/2024

**Project Driver:** Customer Service

**Specific Assumption References:**

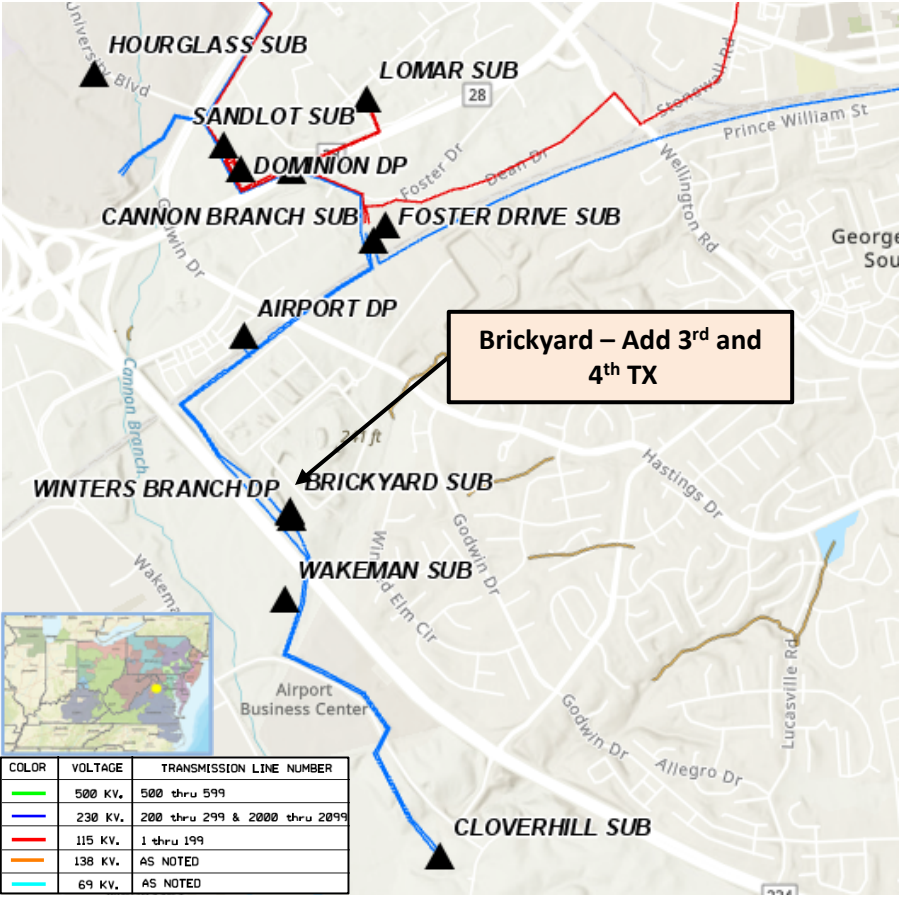
Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

DEV Distribution has submitted a DP Request to add a 3<sup>rd</sup> and 4<sup>th</sup> distribution transformer at Brickyard Substation in Manassas. The new transformers are being driven by significant area load growth.

Requested in-service date is 12/01/2026.

Initial In-Service Load	Projected 2029 Load
Summer: 49.0 MW Winter: 49.0 MW	Summer: 164.4 MW Winter: 147.6 MW



# Solutions

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

# Dominion Transmission Zone: Supplemental Customer Load Request

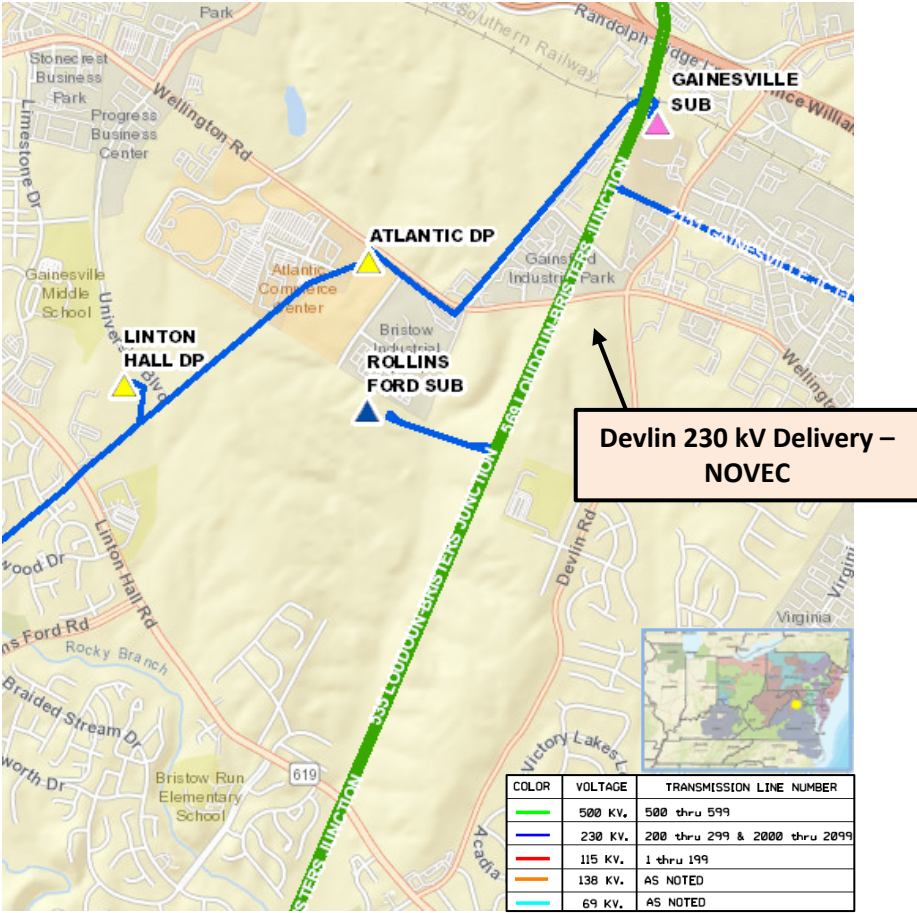
**Need Number:** DOM-2023-0013  
**Process Stage:** Solution Meeting 07/09/2024  
**Previously Presented:** Need Meeting 03/07/2023  
**Project Driver:** Customer Service

**Specific Assumption References:**  
 Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**  
 NOVEC has submitted a DP Request for a new substation (Devlin) to serve a data center complex in Bristow with a total load in excess of 100 MW.

Requested in-service date is 05/01/2026.

Initial In-Service Load	Projected 2029 Load
Summer: 0.7 MW Winter: 0.7 MW	Summer: 111.0 MW Winter: 111.0 MW



# Dominion Transmission Zone: Supplemental Devlin 230kV Delivery – NOVEC

**Need Number:** DOM-2023-0013

**Process Stage:** Solutions Meeting 05/01/2026

**Proposed Solution:**

Interconnect the new substation by cutting and extending Line #2163 (Vint Hill – Dawkins Branch) to the proposed Devlin Substation. Terminate both ends into a GIS 230 kV four-breaker arrangement expandable to an ultimate of nine 230 kV GIS breakers in a breaker-and-a-half scheme.

**Estimated Project Cost:** \$42.0 M

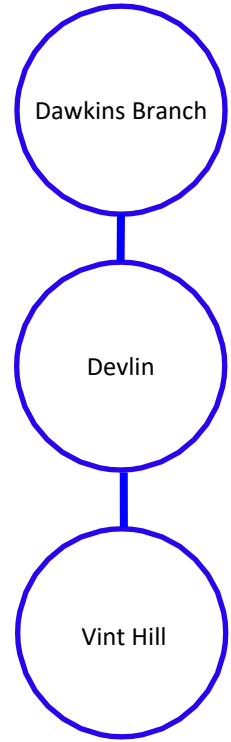
**Alternatives Considered:**

No feasible alternatives

**Projected In-service Date:** 05/01/2026

**Project Status:** Engineering

**Model:** 2028 RTEP



# Dominion Transmission Zone: Supplemental Operational Flexibility and Efficiency

**Need Number:** DOM-2024-0027

**Process Stage:** Need Meeting 04/30/2024

**Project Driver:** Operational Flexibility and Efficiency

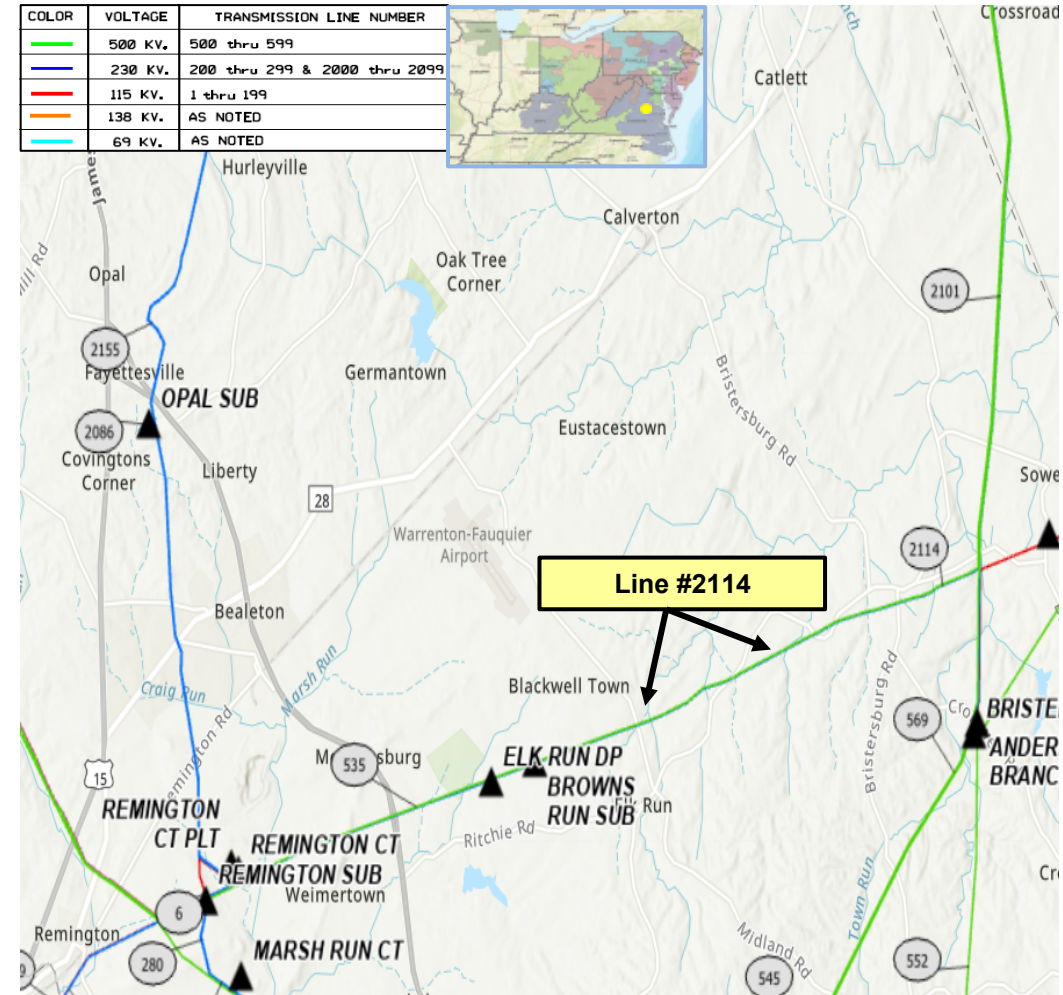
## Specific Assumption References:

Operational Flexibility and Efficiency will be evaluated per Dominion's Transmission Planning Criteria and Assumptions.

## Problem Statement:

Planning studies and Dominion Energy Operations Engineering studies have identified overloads on 230 kV Line #2114 (Remington CT – Elk Run – Rollins Ford) based on a 2021 DNH analysis in the 2026 RTEP model (L/O Line 569 (Loudoun – Morrisville)).

The Dominion Energy Operations team needs a temporary solution to meet load growth expectations while avoiding thermal overloading on Line #2114 and accordingly provide flexibility for future construction outages.





# Dominion Transmission Zone: Supplemental Operational Flexibility and Efficiency

**Need Number:** DOM-2024-0027

**Process Stage:** Solutions Meeting 07/09/2024

**Proposed Solution:**

Install an approximately 13.5  $\Omega$  series reactor at Remington CT on the terminal of Line #2114. *(Dominion is repurposing an already in-stock/readily available reactor for this purpose and is only an interim measure until permanent transmission fixes are in place by 2029.)*

**Estimated Project Cost:** \$4M

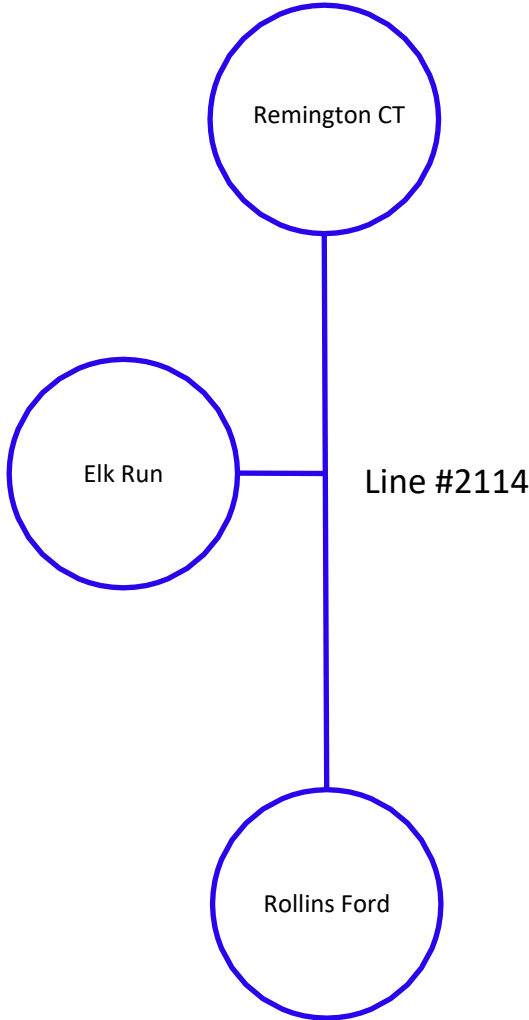
**Alternatives Considered:**

No feasible alternatives

**Projected In-service Date:** 6/01/2025

**Project Status:** Engineering

**Model:** 2026 RTEP



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2023-0052

**Process Stage:** Solution Meeting 07/09/2024

**Previously Presented:** Need Meeting 10/31/2023

**Project Driver:** Customer Service

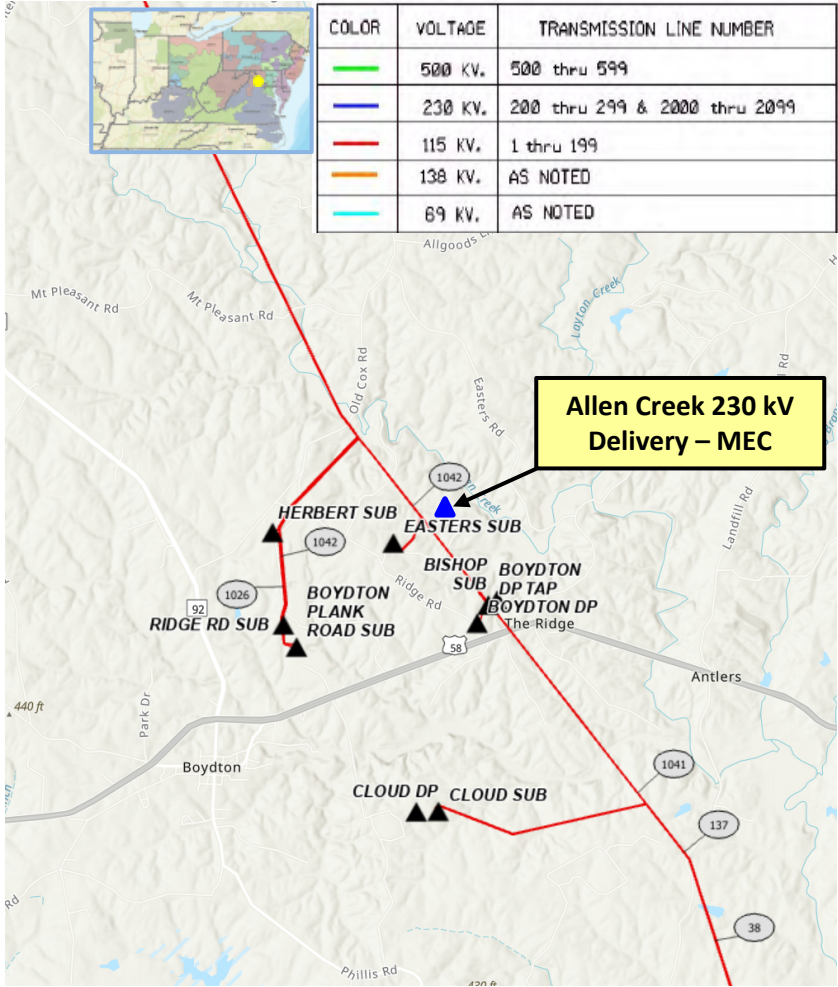
**Specific Assumption References:**

Customer load request will be evaluated per Dominion’s Facility Interconnection Requirements Document and Dominion’s Transmission Planning Criteria.

**Problem Statement:**

ODEC on behalf of Mecklenburg Electric Coop (MEC) has submitted a DP request for a new 230 kV delivery point (Allen Creek Sub) to serve a data center customer in Mecklenburg County with a total load in excess of 100 MW. Requested in-service date is ~~12/01/2025~~ **12/30/2025**.

Initial In-Service Load	Projected 2028 Load
Summer: 0 MW Winter: 12 MW	Summer: 80 MW Winter: 110 MW





# Dominion Transmission Zone: Supplemental Butler Farm 230kV Delivery - DEV

**Need Number:** DOM-2023-0052

**Process Stage:** Solutions Meeting 07/09/2024

## Proposed Solution:

- Construct Allen Creek 230 kV switching station with 4-breaker ring bus configuration. Customer will pay excess facility charges to install 6 more breakers.
- Cut Line #2258 (Finneywood – Cloud) and extend two 230kV lines to Allen Creek switching station.

**Estimated Project Cost:** \$30.0 M (Total)

Transmission Line	\$8M
230kV Substation	\$22M

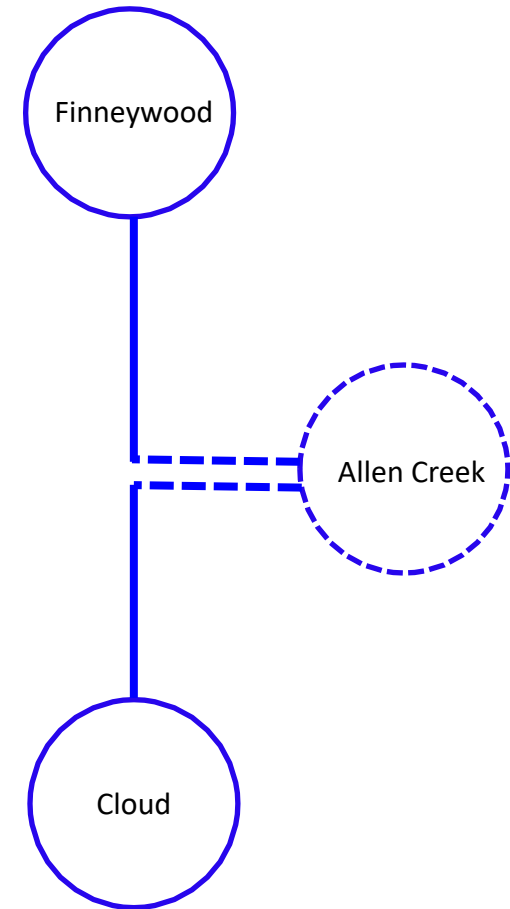
## Alternatives Considered:

No feasible alternatives, new station is adjacent to the existing transmission line.

**Projected In-service Date:** 12/30/2025

**Project Status:** Conceptual

**Model:** 2028 RTEP



# 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

06/28/2024– V1 – Original version posted to pjm.com