



Dominion Supplemental Projects Needs

Transmission Expansion Advisory
Committee
September 13, 2018



Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2018-0001

Meeting Date: 9/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a request to serve a new datacenter campus in Loudoun County with total load in excess of 100MW. Customer requests service by 9/1/2020.

Projected 2023 load

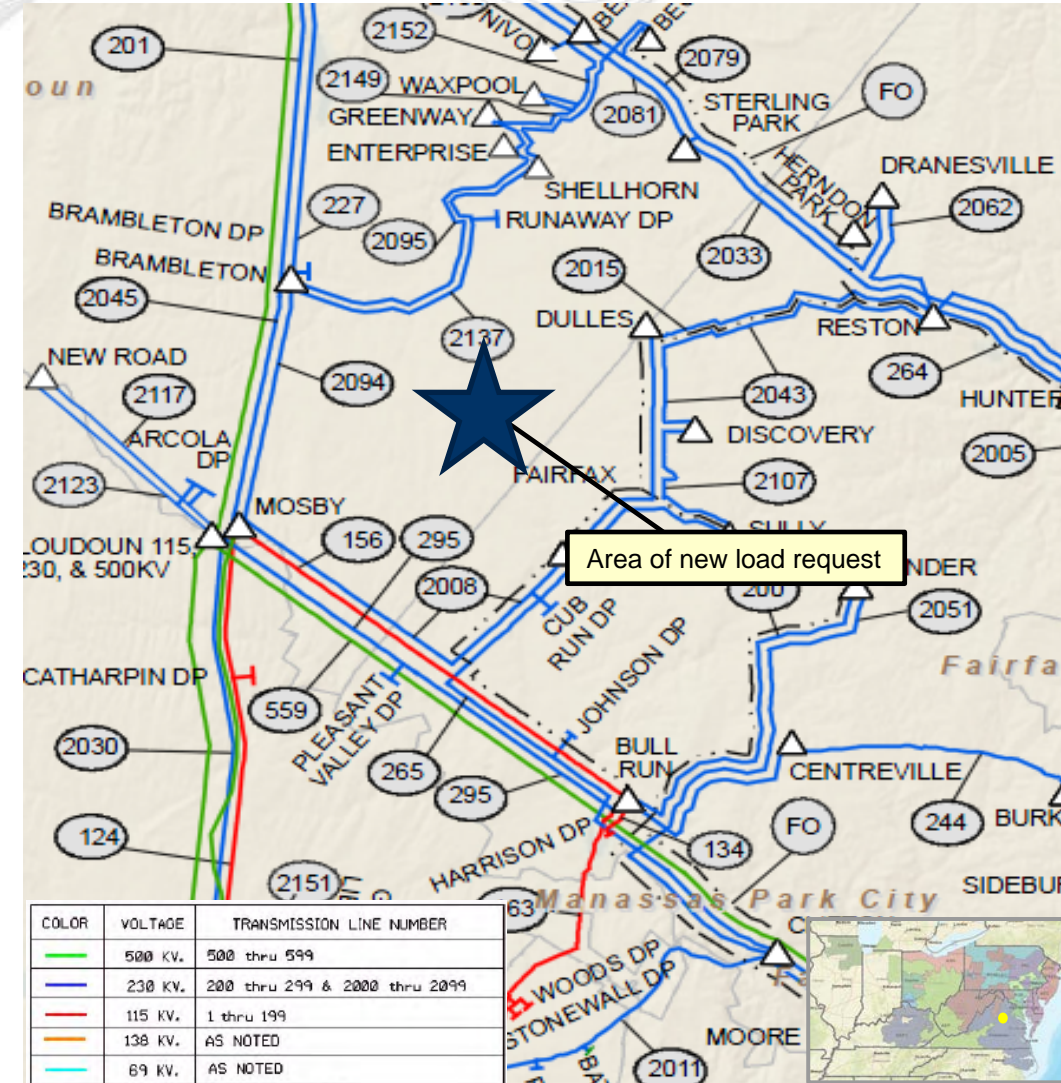
Summer: 150 MW

Winter: 150 MW

DEV Distribution does not have adequate distribution facilities to serve this customer load request.

Specific Assumption References:

Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria





Dominion Transmission Zone: Supplemental Customer Service

Need Number: DOM-2018-0002

Meeting Date: 9/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

ODEC has submitted a delivery point request south of Fredericksburg to serve 10 year projected residential, commercial and industrial growth totaling over 30 MW.

Projected 2023 load

Summer: 35 MW

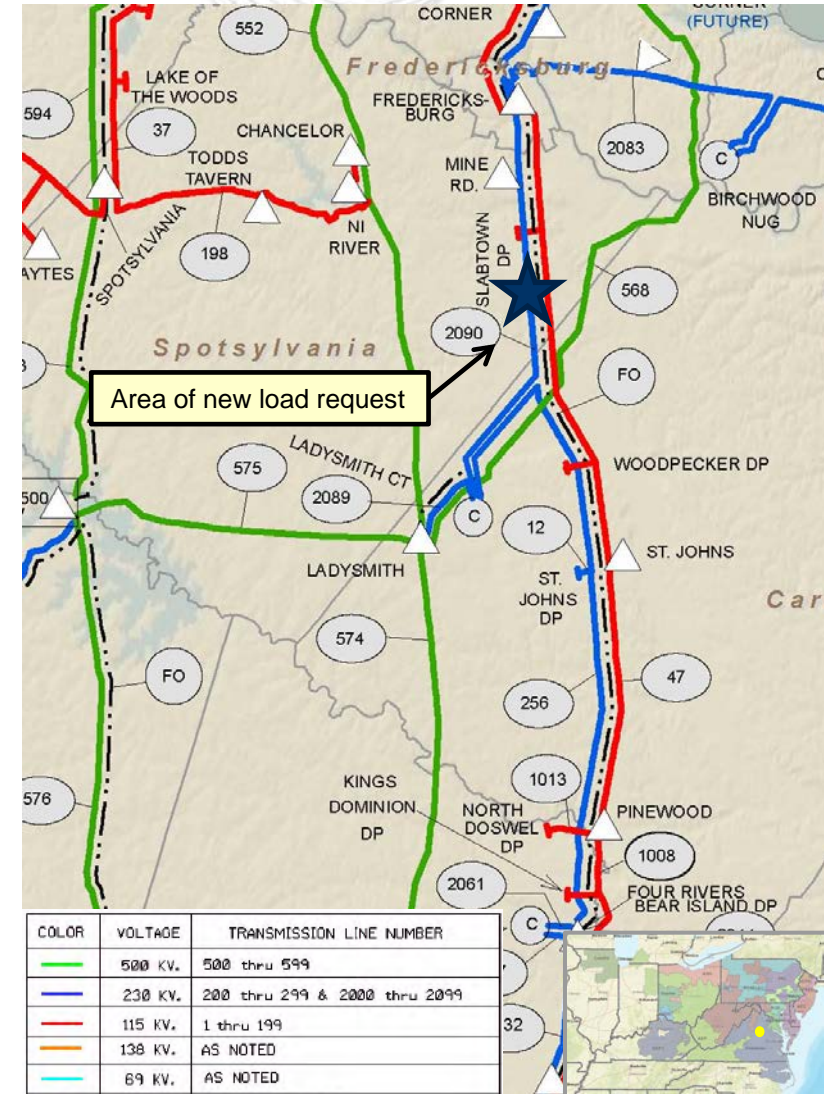
Winter: 41 MW

Customer requests service by 8/1/2019.

ODEC does not have adequate distribution facilities to serve this customer load request.

Specific Assumption References:

Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria



Need Number: DOM-2018-0004

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a DP Request for a new substation (Opal) to accommodate two proposed datacenters in the Remington area and general load growth in the Rt. 17/Rt. 29 intersection area. The new substation will have an ultimate projected load less than 100 MVA. Requested in-service date is 07/15/2021.

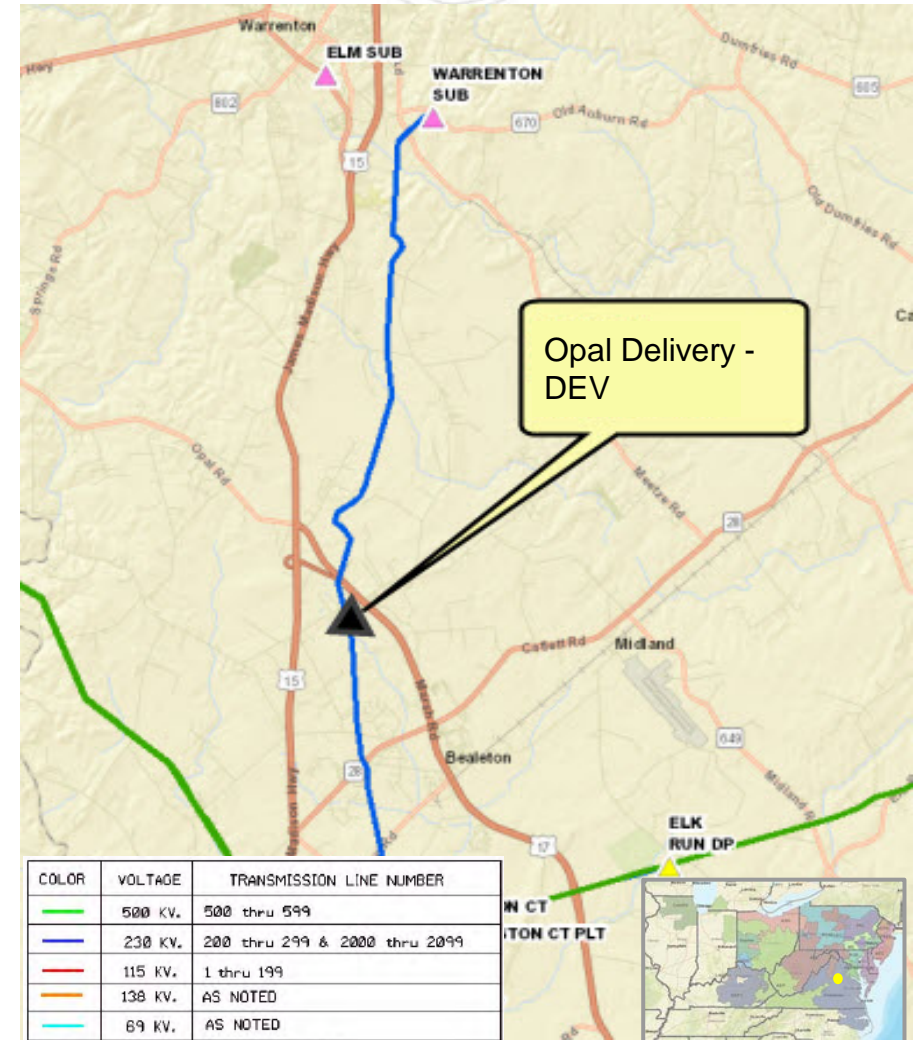
Projected 2023 Load

Summer: 48.0 MW

Winter: 49.7 MW

Specific Assumption References:

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





Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2018-0005

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a DP Request to add a 2nd distribution transformer at Cannon Branch Substation in Prince William County. This transformer will support datacenter load growth in the area. Requested in-service date is 11/15/2019.

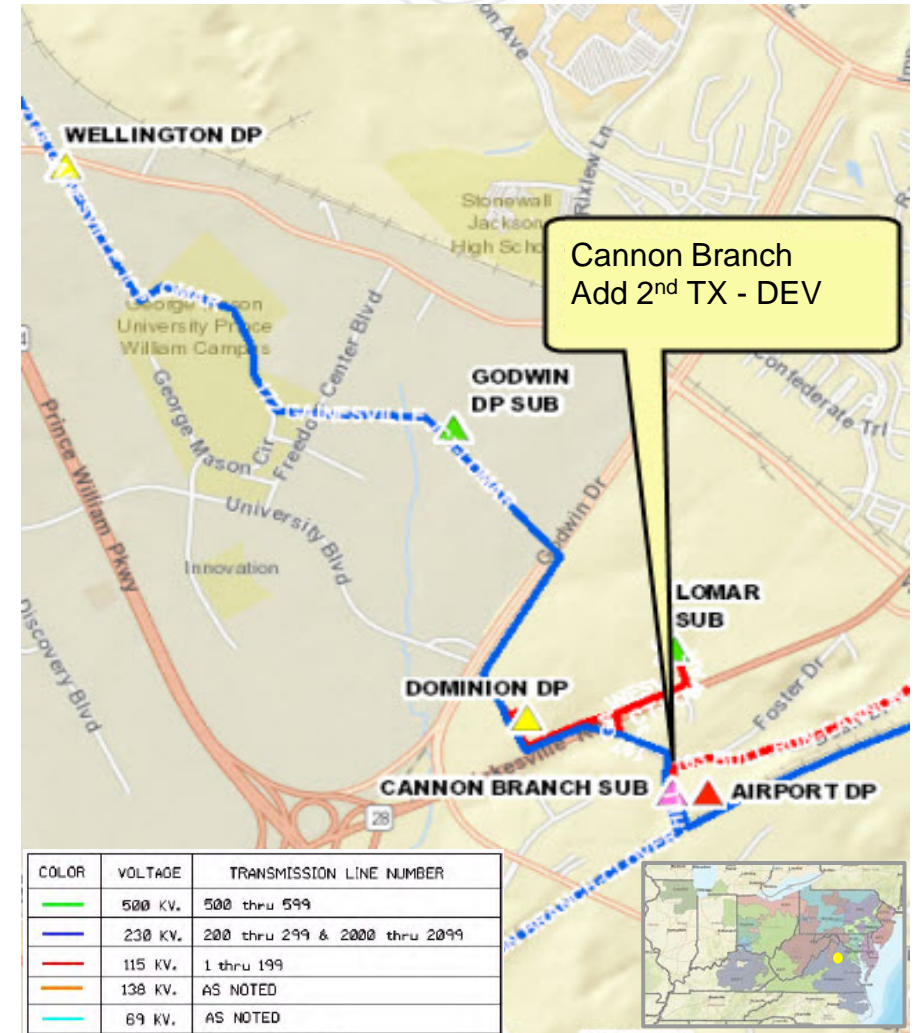
Projected 2023 Load

Summer: 66.5 MW

Winter: 61.4 MW

Specific Assumption References:

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



Need Number: DOM-2018-0006

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

NOVEC has submitted a DP Request for a new substation (Gant) to accommodate a new datacenter campus in Loudoun County with a total load in excess of 100 MW. Requested in-service date is 11/01/2019.

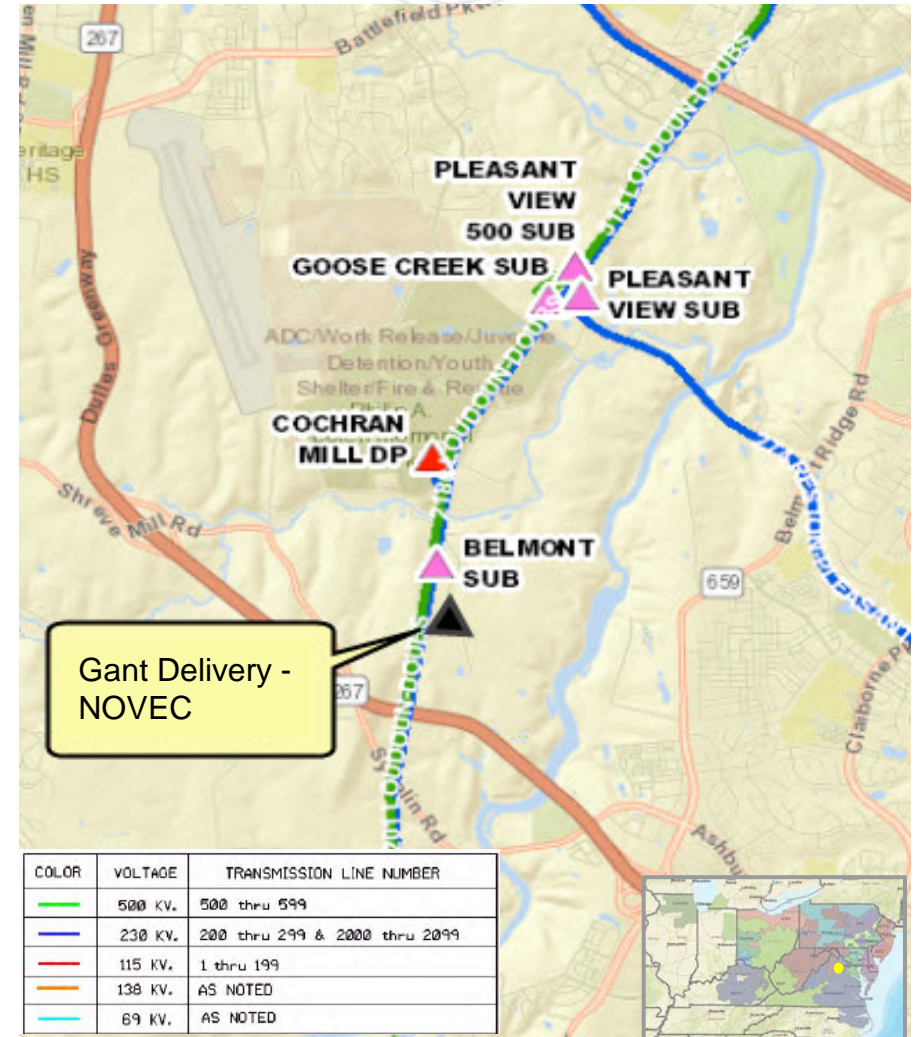
Projected 2023 Load

Summer: 71.1 MW

Winter: 71.1 MW

Specific Assumption References:

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





Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2018-0007

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

NOVEC has submitted a DP Request for a new substation (Innovation) to accommodate a new datacenter campus in Prince William County with a total load in excess of 100 MW. Requested in-service date is 08/15/2019.

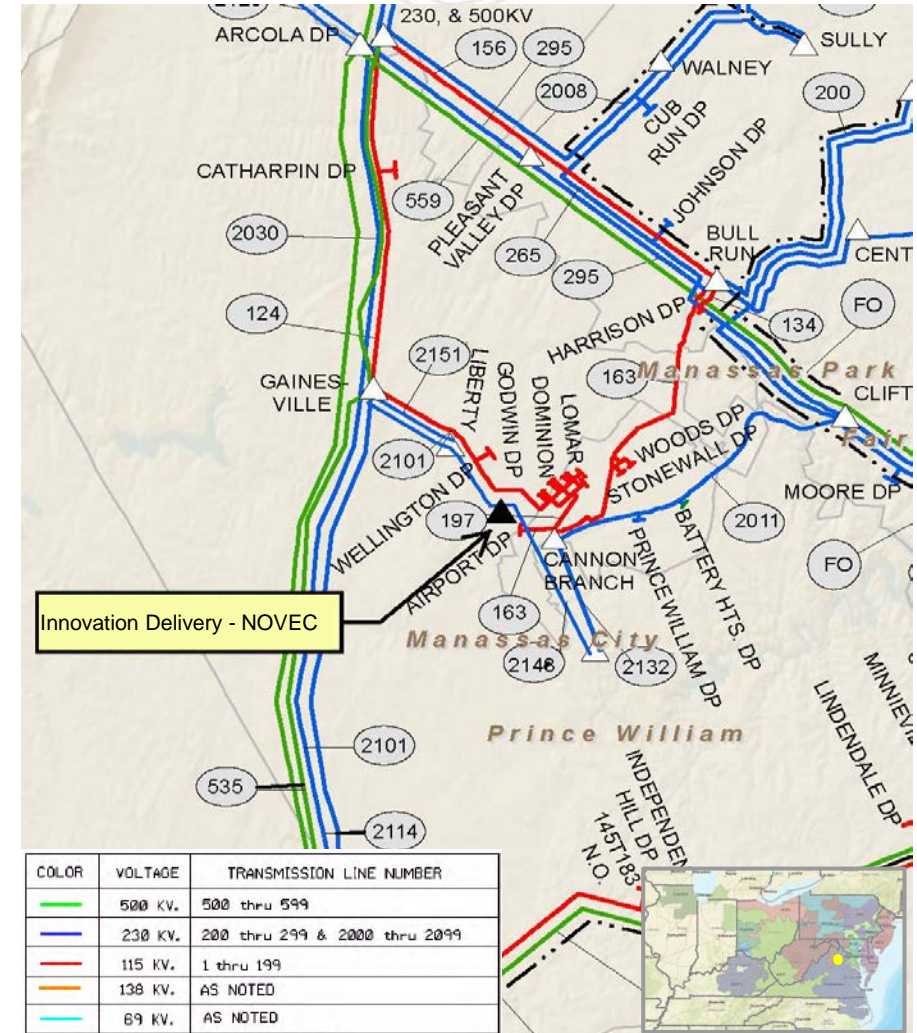
Projected 2023 Load

Summer: 75.7 MW

Winter: 71.4 MW

Specific Assumption References:

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





Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2018-0008

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a DP Request for a new substation (Cumulus) to accommodate a new datacenter campus in Loudoun County with a total load in excess of 100 MW. Requested in-service date is 10/15/2019.

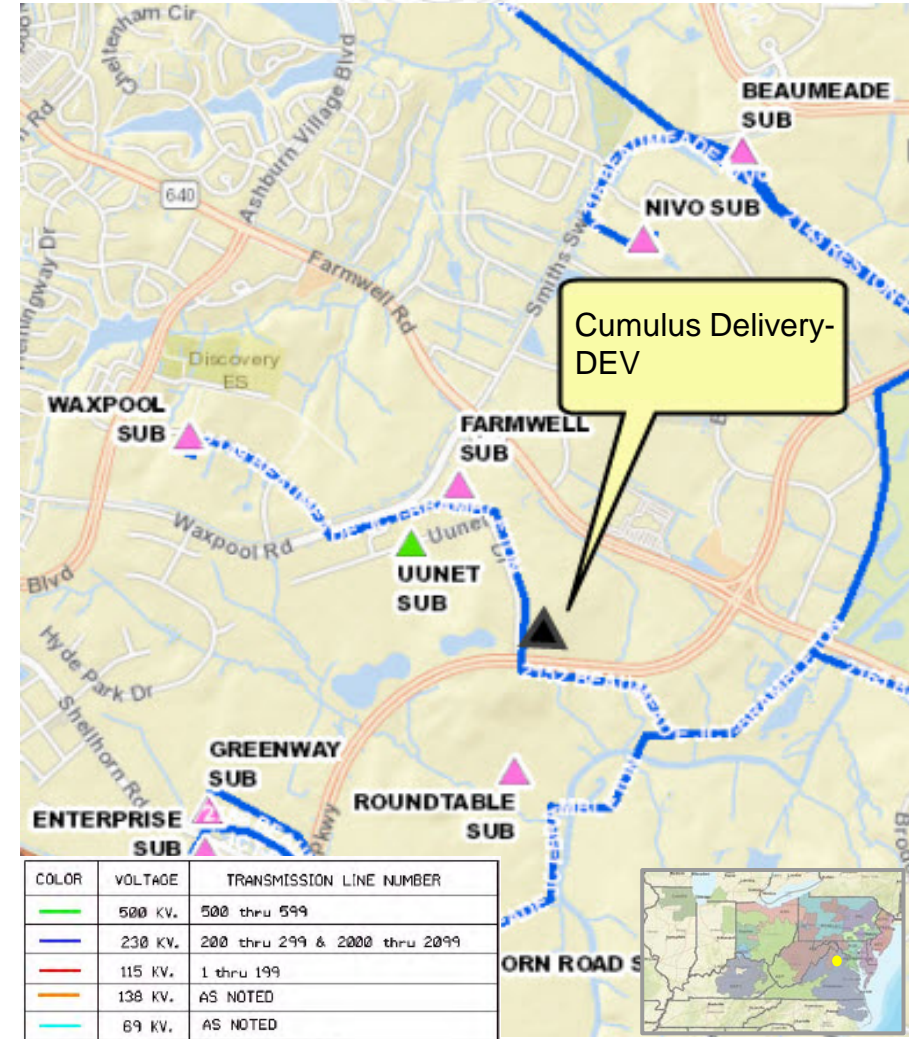
Projected 2023 Load

Summer: 120.9 MW

Winter: 108.0 MW

Specific Assumption References:

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



Need Number: DOM-2018-0009

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a DP Request to add a 2nd distribution transformer at Davis Drive Substation in Loudoun County. The station loading is projected to exceed 100 MW by 2020. Requested in-service date is 11/15/2019.

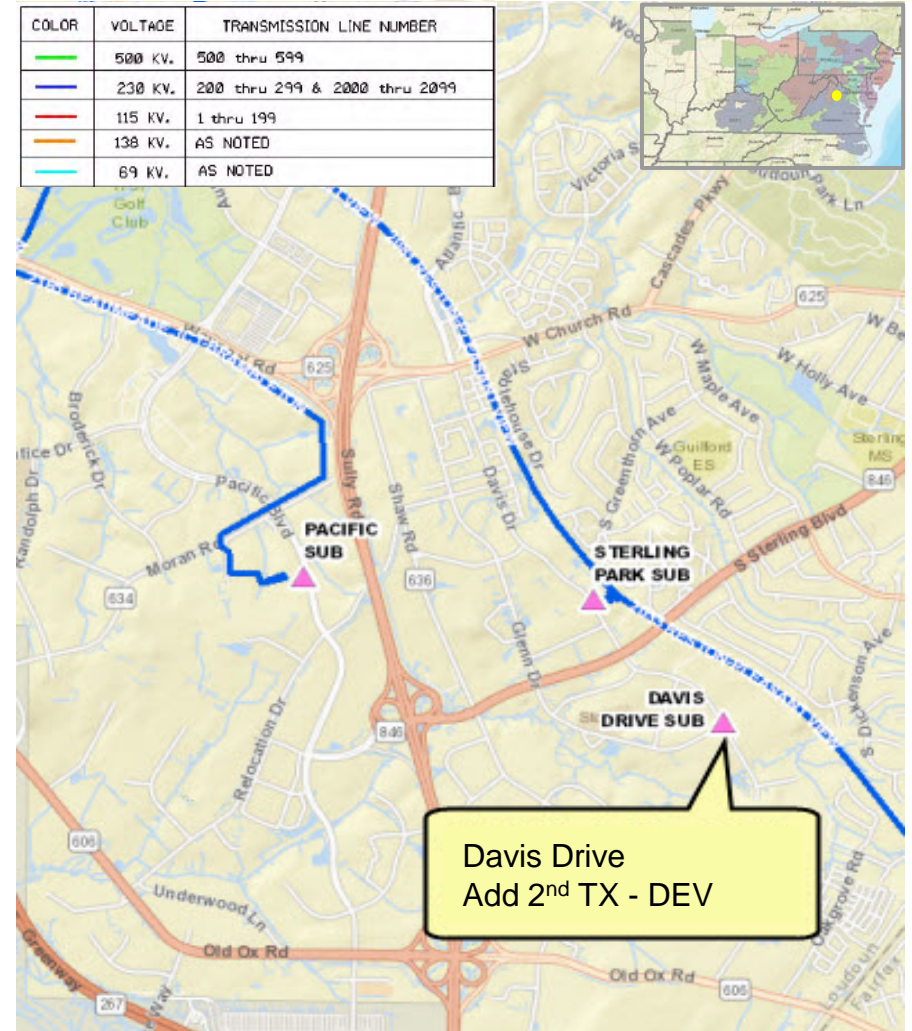
Projected 2023 Load

Summer: 182.4 MW

Winter: 159.9 MW

Specific Assumption References:

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



Need Number: DOM-2018-0010

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a DP Request to add a 2nd distribution transformer at Shellhorn Substation in Loudoun County. The new transformer is being driven by projections that normal load on the existing Shellhorn transformer will exceed 84 MVA in 2020. Requested in-service date is 03/31/2020.

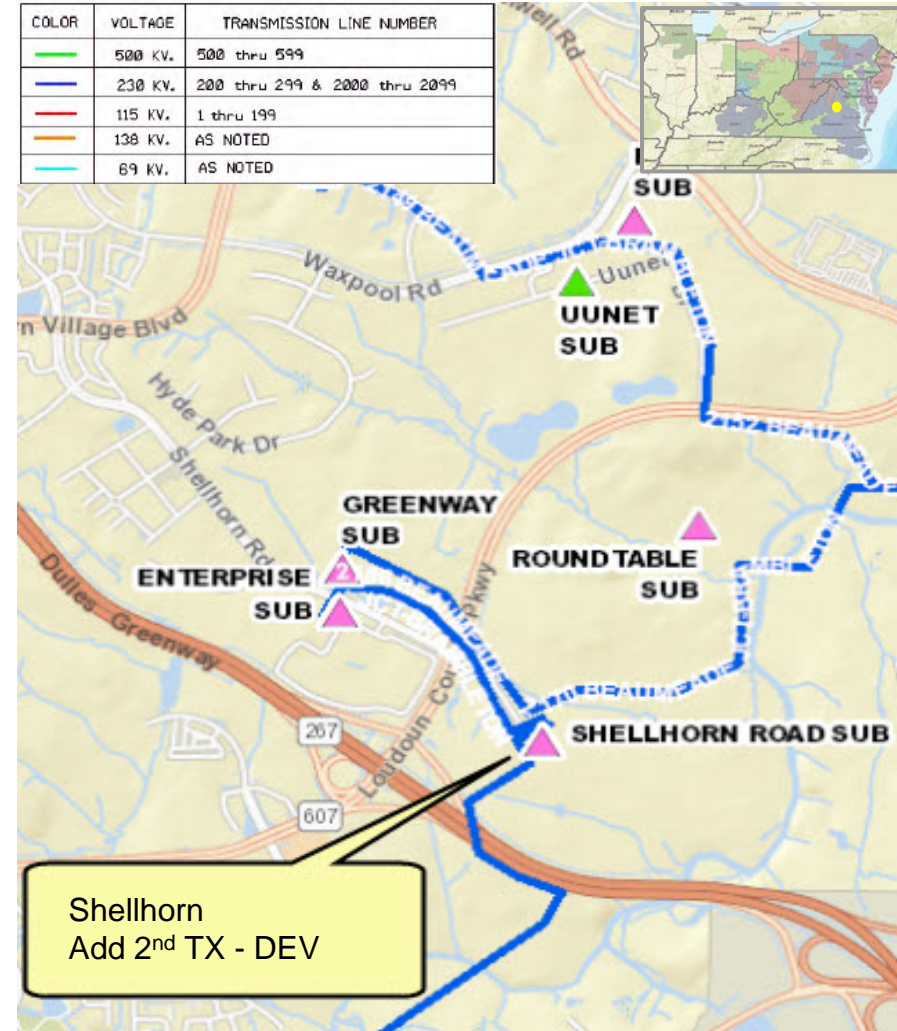
Projected 2023 Load

Summer: 133.4 MW

Winter: 133.4 MW

Specific Assumption References:

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



Need Number: DOM-2018-0011

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a DP Request for a new substation (Nimbus) to accommodate a new datacenter campus in Loudoun County with a total load in excess of 100 MW. Requested in-service date is 11/15/2022.

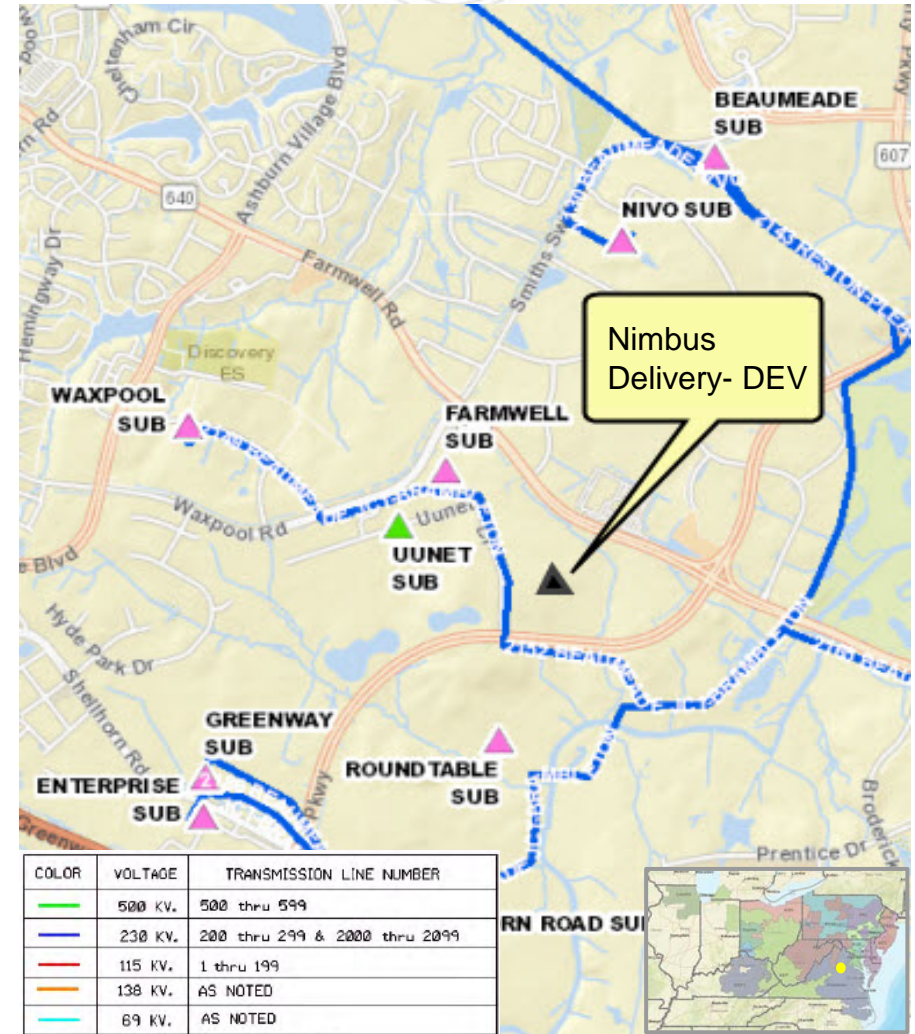
Projected 2023 Load

Summer: 60.0 MW

Winter: 80.0 MW

Specific Assumption References:

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



Need Number: DOM-2018-0012

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a DP Request to add a 5th distribution transformer at Beaumeade Substation in Loudoun County. The new transformer is being driven by projections that normal load at Beaumeade will be near 255 MW in 2020. Requested in-service date is 03/31/2020.

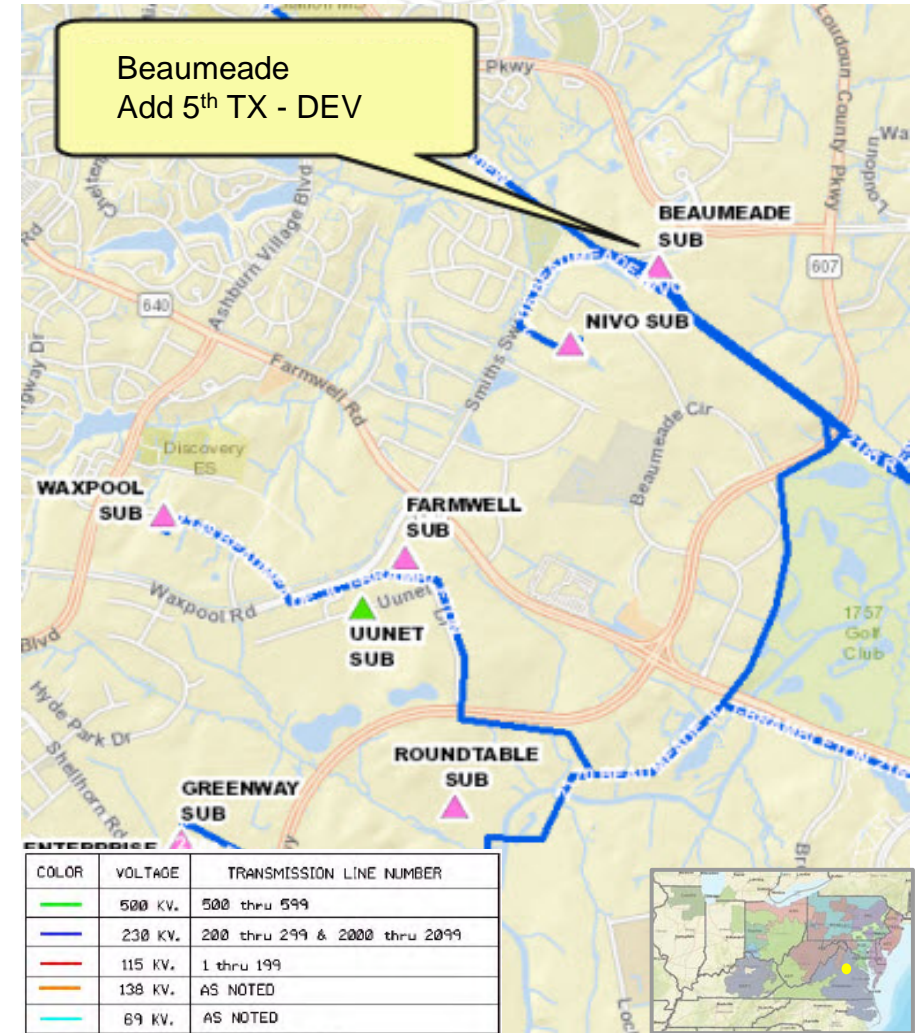
Projected 2023 Load

Summer: 277.1 MW

Winter: 262.1 MW

Specific Assumption References:

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



Need Number: DOM-2018-0013

Meeting Date: 09/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has submitted a DP Request for a new substation (DTC) to accommodate a new datacenter campus in Loudoun County with a total load in excess of 100 MW. Requested in-service date is 11/15/2021.

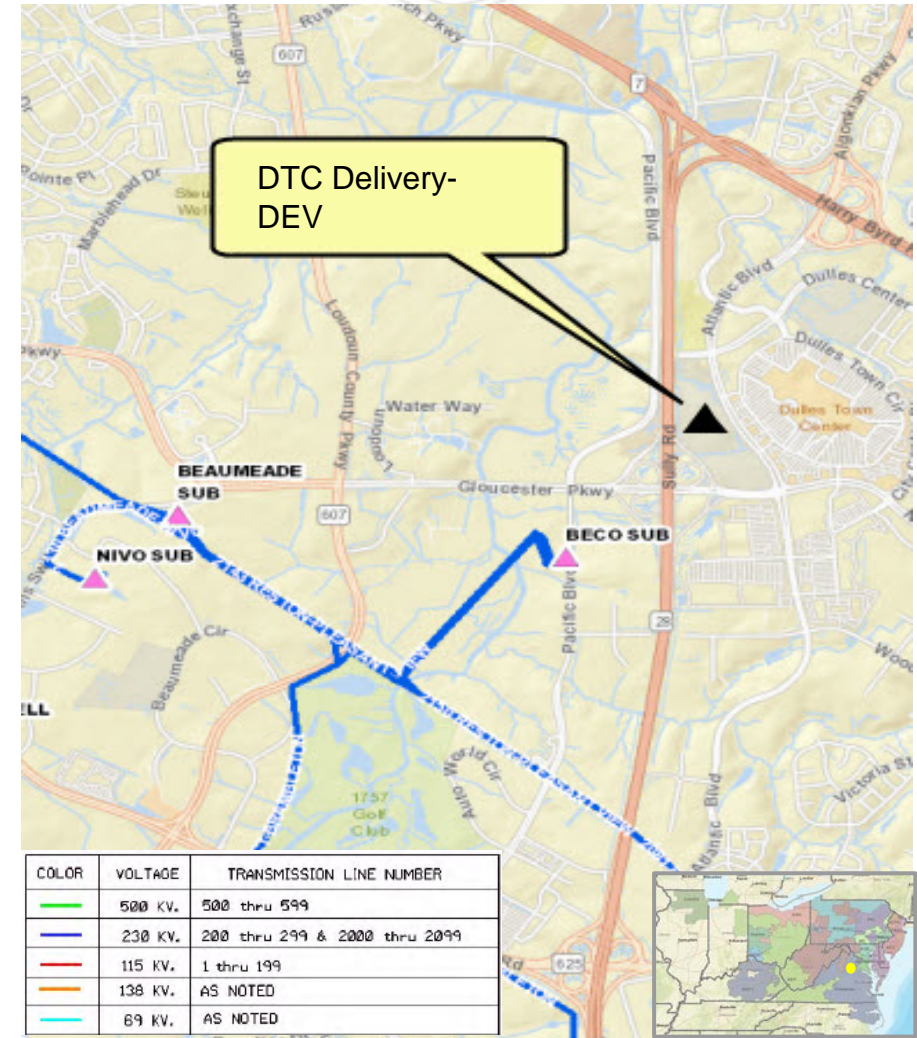
Projected 2023 Load

Summer: 75.7 MW

Winter: 57.5 MW

Specific Assumption References:

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





Need Number: DOM-2018-0015

Meeting Date: 9/13/2018

Process Stage: NEED

Supplemental Project Driver: Customer Service

Problem Statement:

DEV Distribution has identified the need to install a third distribution transformer at Midlothian substation. The station load growth will call for a mobile transformer for a transformer contingency by winter 2020. By winter 2022 the transformer contingency will result in unserved load greater than the capacity of the mobile transformer. Requested in-service date is 11/15/2019.

Projected 2023 load

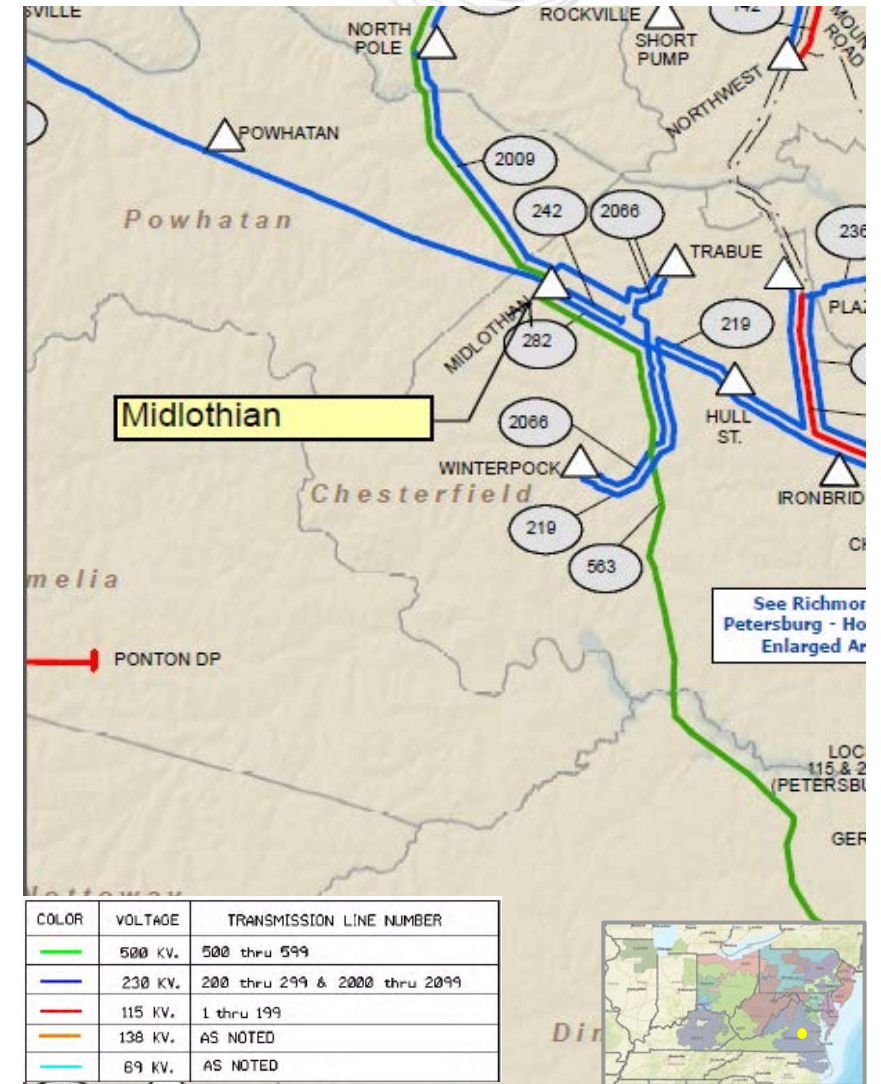
Summer: 135 MW

Winter: 169 MW

Specific Assumption References:

Customer load request will be evaluated per Dominion's Facility Interconnections Requirements Document & Dominion's Transmission Planning Criteria

Dominion Transmission Zone: Supplemental Customer Load Request



- V1 – 9/5/2018 – Original Slides Posted
- V2 – 9/6/2018 – Updated Slide 12 as map was not displaying correctly.
- V3 – 9/25/2018 – Incorporated projected peak loading information based on stakeholder feedback.