Submission of Supplemental Projects for Inclusion in the Local Plan
**Need Number:** DOM-2018-0001

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Previously Presented:**
Need – 9/13/2018
Solution – 10/11/2018

**Project Driver:**
Customer Service

**Specific Assumption Reference:**
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

**Problem Statement:**
DEV Distribution has submitted a request to serve a new datacenter campus in Loudoun County with total load in excess of 100 MW. 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.
**Need Number:** DOM-2018-0001

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Selected Solution:**
With total projected load of 150 MW, we are proposing to construct a new Evergreen Mills Switching Station. It will require four transmission lines to terminate at the station in order to avoid a violation of mandatory NERC reliability criteria. Cut and extend both Line No.2183 (Brambleton-Poland Road) and Line No.2172 (Brambleton-Yardley Ridge) into and out of the proposed station. At Evergreen Mills Station, six (6) 230 kV breakers in a ring bus arrangement would be installed to meet the Transmission Planning criteria.

The customer has requested four (4) additional 230 kV breakers to be installed for additional redundancy and will be responsible for excess facilities charges.

**Estimated Cost:** $27.8 M
- Normal Service cost: $22.8 M
- Excess Facilities cost: $5.0 M

**Projected In-Service:** 9/1/2020

**Supplemental Project ID:** s1750

**Project Status:** Conceptual

**Model:** 2023 RTEP
Need Number: DOM-2018-0004
Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019
Previously Presented:
Need – 9/13/2018
Solution – 11/8/2018
Project Driver:
Customer Service
Specific Assumption Reference:
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.
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
Need Number: DOM-2018-0004

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Selected Solution:
Interconnect the new substation with a single tee-tap arrangement on Line No.2155 (Remington CT-Warrenton).

Estimated Cost: $0.75 M

Projected In-Service: 7/15/2021

Supplemental Project ID: s1832

Project Status: Engineering

Model: 2023 RTEP
Need Number: DOM-2018-0005

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Previously Presented:
Need – 9/13/2018
Solution – 11/8/2018

Project Driver:
Customer Service

Specific Assumption Reference:
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

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
**Need Number:** DOM-2018-0005  
**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019  
**Selected Solution:**  
Install 1200 Amp, 40 kAIC circuit switcher and associated equipment (bus, switches, relaying, etc.) to feed the new transformer from existing 230 kV bus No.1 at Cannon Branch.  
**Estimated Cost:** $0.75 M  
**Projected In-Service:** 11/15/2019  
**Supplemental Project ID:** s1833  
**Project Status:** Construction  
**Model:** 2023 RTEP
**Need Number:** DOM-2018-0006

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Previously Presented:**
- Need – 9/13/2018
- Solution – 12/13/2018

**Project Driver:**
Customer Service

**Specific Assumption Reference:**
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

**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: 112.0 MW
- Winter: 120.0 MW
Need Number: DOM-2018-0006

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Selected Solution:
Interconnect the new DP substation by cutting and extending Line No.206 (Brambleton-Belmont) to new Stonewater Switching Station. Terminate both ends into a four-breaker ring arrangement to create a Brambleton-Stonewater line and a Stonewater-Belmont line. Provide two 230 kV feeds from the ring bus at Stonewater to Gant DP.

Estimated Cost: $9.0 M

Projected In-Service: 11/1/2019

Supplemental Project ID: s1834

Project Status: Construction

Model: 2023 RTEP
**Need Number:** DOM-2018-0007

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Previously Presented:**
- Need – 9/13/2018
- Solution – 12/13/2018

**Project Driver:**
Customer Service

**Specific Assumption Reference:**
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

**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: 98.6 MW
- Winter: 111.4 MW
Need Number: DOM-2018-0007

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Selected Solution:
Interconnect the new DP substation by cutting and extending Line No.2148 (Cloverhill-Liberty) to new Pioneer Switching Station. Terminate both ends into a six-breaker ring arrangement (four breakers installed initially, two future) to create Line No.2148 (Cloverhill-Pioneer) and Line No.2187 (Pioneer-Liberty). Provide two 230 kV feeds from the ring bus at Pioneer to Innovation DP.

Estimated Cost: $9.7 M

Projected In-Service: 8/15/2019

Supplemental Project ID: s1835

Project Status: Construction

Model: 2023 RTEP
Dominion Transmission Zone M-3 Process
Cumulus 230 kV Delivery - DEV

Need Number: DOM-2018-0008

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Previously Presented:
Need – 9/13/2018
Solution – 11/8/2018

Project Driver:
Customer Service

Specific Assumption Reference:
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

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
Dominion Transmission Zone M-3 Process
Cumulus 230 kV Delivery - DEV

Need Number: DOM-2018-0008

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Selected Solution:
Interconnect the new substation by cutting and extending Line #2152 (Waxpool-Beaumeade) to a backbone in the new station. Terminate both ends into a four-breaker ring to create a Waxpool-Cumulus line and a Cumulus-Beaumeade line.

Estimated Cost: $8.0 M

Projected In-Service: 10/15/2019

Supplemental Project ID: s1836

Project Status: Construction

Model: 2023 RTEP
Dominion Local Plan - 2019

**Need Number:** DOM-2018-0009

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Previously Presented:**
Need – 9/13/2018
Solution – 11/8/2018

**Project Driver:**
Customer Service

**Specific Assumption Reference:**
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

**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
**Dominion Transmission Zone M-3 Process**
**Add 2nd TX – Davis Drive 230 kV Delivery - DEV**

**Need Number:** DOM-2018-0009

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Selected Solution:**
Install three 230 kV circuit breakers and associated equipment (bus, switches, relaying, etc.) to create a four-breaker ring bus. Also install a 1200 Amp, 40 kAIC circuit switcher.

**Estimated Cost:** $2.0 M

**Projected In-Service:** 11/15/2019

**Supplemental Project ID:** s1837

**Project Status:** Construction

**Model:** 2023 RTEP
**Need Number:** DOM-2018-0010

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Previously Presented:**
Need – 9/13/2018
Solution – 11/8/2018

**Project Driver:**
Customer Service

**Specific Assumption Reference:**
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

**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
Dominion Transmission Zone M-3 Process
Add 2nd TX – Shellhorn 230 kV Delivery - DEV

**Need Number:** DOM-2018-0010

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Selected Solution:**
Install 1200 Amp, 40kAIC circuit switcher and associated equipment to feed the new transformer.

**Estimated Cost:** $0.25 M

**Projected In-Service:** 3/31/2020

**Supplemental Project ID:** s1845

**Project Status:** Engineering

**Model:** 2023 RTEP
Need Number: DOM-2018-0015  
Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019  
Previously Presented:  
Need – 9/13/2018  
Solution – 11/8/2018  
Project Driver:  
Customer Service  
Specific Assumption Reference:  
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.  
Problem Statement:  
DEV Distribution has identified the need to install a 3rd 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
Need Number: DOM-2018-0015

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Selected Solution:
Install a 230 kV circuit switcher, high side switch and perform necessary transmission work for the new transformer.

Estimated Cost: $0.6 M

Projected In-Service: 11/15/2019

Supplemental Project ID: s1839

Project Status: Engineering

Model: 2023 RTEP
Need Number: DOM-2018-0016  

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Previously Presented:  
Need – 11/29/2018  
Solution – 1/17/2019

Project Driver:  
Customer Service

Specific Assumption Reference:  
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

Problem Statement:  
DEV Distribution has submitted a DP Request to replace their existing transmission to distribution transformer at Remington Substation in Fauquier County with a higher capacity bank to meet customer load. Requested in-service date is 11/15/2019.

Projected 2023 load  
Summer: 60 MW  
Winter: 78 MW
Dominion Transmission Zone M-3 Process
Distribution Transformer Replacement at Remington

**Need Number:** DOM-2018-0016

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Selected Solution:**
Relocate existing circuit switcher, install a MOAB switch and related conductors to connect DEV Distribution’s uprated transmission to distribution transformer at Remington Substation.

**Estimated Cost:** $0.1 M

**Projected In-Service:** 11/15/2019

**Supplemental Project ID:** s1840

**Project Status:** Construction

**Model:** 2023 RTEP
Dominion Local Plan - 2019

Need Number: DOM-2018-0018

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Previously Presented:
Need – 10/10/2018
Solution – 1/10/2019

Project Driver:
Customer Service

Specific Assumption Reference:
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

Problem Statement:
DEV Distribution has submitted a request for a new substation (Lucky Hill) to accommodate a new datacenter campus in Fauquier County with a total load in excess of 100 MW. Requested in-service date is Sept 15, 2020.

Projected 2023 load
Summer: 100 MW
Winter: 100 MW
Dominion Transmission Zone M-3 Process
Lucky Hill 230kV - DEV

Need Number: DOM-2018-0018

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Selected Solution:
Interconnect the new DP substation by cutting and extending Line #2199 (Remington-Gordonsville) to new Lucky Hill Substation. Terminate both ends into a four-breaker ring arrangement to create new 230kV Gordonsville-Lucky Hill and Lucky Hill-Remington lines.

Estimated Cost: $7.5 M

Projected In-Service: 9/15/2020

Supplemental Project ID: s1841

Project Status: Conceptual

Model: 2023 RTEP
Need Number: DOM-2018-0019

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

Previously Presented:
Need – 10/11/2018
Solution – 12/13/2018

Project Driver:
Customer Service

Specific Assumption Reference:
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

Problem Statement:
DEV Distribution has submitted a DP Request for a new substation (Sandlot) to accommodate the expansion of a manufacturing plant in the City of Manassas with a total load in excess of 100 MW. Requested in-service date is 10/15/2019.

Projected 2023 Load
Summer: 41.9 MW
Winter: 41.9 MW
**Dominion Transmission Zone M-3 Process**

**Sandlot 230 kV Delivery - DEV**

**Need Number:** DOM-2018-0019

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Selected Solution:**
Interconnect the new substation by cutting and extending Line #2148 (Cloverhill-Liberty) to a backbone in the new station. Terminate both ends into a four-breaker ring to create a Cloverhill-Sandlot line and a Sandlot-Liberty line.

The existing manufacturing load of approx. 60 MW will be moved to the Sandlot 230kV Delivery when its 115kV source is converted to 230kV (projected to be needed within the next 3-5 years to accommodate continued growth in the area). The total manufacturing load (existing + expansion) is projected to exceed 100 MW by 2023.

**Estimated Cost:** $5.5 M

**Projected In-Service:** 10/15/2019

**Supplemental Project ID:** s1842

**Project Status:** Construction

**Model:** 2023 RTEP
**Need Number:** DOM-2018-0023

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Previously Presented:**
Need – 12/13/2018
Solution – 2/7/2019

**Project Driver:**
Customer Service

**Specific Assumption Reference:**
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

**Problem Statement:**
DEV Distribution has identified the need to install a second distribution transformer at Greenwich substation. The station load growth has caused a transformer contingency to exceed the capacity of field switching plus a mobile transformer. Requested in-service date is 10/15/2019.

Projected 2023 Load
Summer: 77 MVA
Winter: 77 MVA
**Need Number:** DOM-2018-0023

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Selected Solution:**
Install a 230kV circuit switcher, high side switch and perform necessary transmission work for the new transformer.

**Estimated Cost:** $1.4 M

**Projected In-Service:** 10/15/2019

**Supplemental Project ID:** s1843

**Project Status:** Engineering

**Model:** 2023 RTEP
**Dominion Local Plan - 2019**

**Dominion Transmission Zone M-3 Process**

**Copeland DP 115kV - ODEC**

**Need Number:** DOM-2019-0001

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Previously Presented:**
- Need – 1/17/2019
- Solution – 2/20/2019

**Project Driver:**
Customer Service

**Specific Assumption Reference:**
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

**Problem Statement:**
ODEC has submitted a request on behalf of Community EC (COMM) for a new Delivery Point (Copeland) at Suffolk, VA, to support future load growth in the area. The customer requests service by May 1, 2019.

**Projected 2023 Load**

- **Summer:** 8.0 MW
- **Winter:** 12.0 MW
**Need Number:** DOM-2019-0001

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 7/25/2019

**Selected Solution:**
Cut into line #68 and install 3 line switches and other associated transmission equipment to connect to COMM's new DP station Copeland.

**Estimated Cost:** $1 M

**Projected In-Service:** 5/1/2019

**Supplemental Project ID:** s1844

**Project Status:** Complete

**Model:** 2023 RTEP
Dominion Local Plan - 2019

Need Number: DOM-2018-0012
Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 8/21/2019
Previously Presented:
    Need – 9/13/2018
Project Driver:
    Customer Service
Specific Assumption Reference:
    Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.
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: 271.1 MW
    Winter: 262.1 MW
Need Number: DOM-2018-0012

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 8/21/2019

Selected Solution:
Install 1200 Amp, 50 kAIC circuit switcher and associated equipment (bus, switches, relaying, etc.) to feed the new transformer from existing 230 kV bus No.5 at Beaumeade.

Estimated Cost: $0.75 M

Projected In-Service: 3/31/2020

Supplemental Project ID: s1838.1

Project Status: Conceptual

Model: 2023 RTEP
**Need Number:** DOM-2018-0012  
**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 8/21/2019  
**Project Driver:** Customer Service (Do No Harm Analysis)  
**Problem Statement:**  
PJM has identified a generator deliverability violation with an overload of 100.18% on the Cochran Mill – Ashburn 230 kV line segment for the loss of Line 274. This overload is caused by the previously submitted Supplemental Projects in Dominion Zone and is being assigned to DOM-2018-0012.
Dominion Transmission Zone: Supplemental Do No Harm (DNH) Analysis

**Need Number:** DOM-2018-0012

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 8/21/2019

**Selected Solution:**
Re-conductor Cochran Mill – Ashburn 230 kV and Ashburn – Beaumeade 230 kV line segments using a higher capacity conductor as well as upgrade the terminal equipment to achieve a rating of 1572 MVA.

**Estimated cost:** $15.0 M

**Projected In-service Date:** 06/01/2023

**Supplemental Project ID:** s1838.2

**Project Status:** Conceptual

**Model:** 2023 RTEP
**Need Number:** DOM-2018-0002

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 10/08/2019

**Previously Presented:**
Need – 9/13/2018
Solution – 10/11/2018

**Project Driver:**
Customer Service

**Specific Assumption Reference:**
Customer load request will be evaluated per Dominion’s Facility Interconnections Requirements Document & Dominion’s Transmission Planning Criteria.

**Problem Statement:**
ODEC has submitted a delivery point request south of Fredericksburg to serve projected residential, commercial and industrial loads. Customer requests service by 8/1/2019.

Projected 2023 load
Summer: 35 MW  
Winter: 41 MW

ODEC does not have adequate distribution facilities to serve this customer load request.
Need Number: DOM-2018-0002

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 10/08/2019

Selected Solution:
Install necessary 230kV facilities including three 230kV switches on Line #2090 and associated metering to connect the proposed new Summit Delivery Point.

Estimated Cost: $1.4 M

In-Service: 6/26/2019

Supplemental Project ID: s1751

Project Status: Complete

Model: 2023 RTEP
Revision History

07/25/2019 – V1 – Local Plan posted to pjmc.com for s1750, s1832-s1837, s1839-s1845.
08/21/2019 – V2 – Local Plan posted to pjmc.com for s1838.
10/08/2019 – V3 – Local Plan posted to pjmc.com for s1751.