Dominion Supplemental Projects

Transmission Expansion Advisory Committee
October 17, 2019
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-2019-0024

Process Stage: Need Meeting 10/17/2019

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 5th, 84 MVA distribution transformer at Poland Road Substation in Loudoun County. The new transformer is being driven by continued load growth in the area and contingency loading for loss of one of the existing transformers. Requested in-service date is 10/15/2022.

<table>
<thead>
<tr>
<th>Initial In-Service Load</th>
<th>Projected 2024 Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer: 268.0 MW</td>
<td>Summer: 293.0 MW</td>
</tr>
</tbody>
</table>
Need Number: DOM-2019-0028

Process Stage: Need Meeting 10/17/2019

Project Driver: Contamination & Operational Flexibility

Specific Assumption References:
Dominion Energy Supplemental Project Drivers presented at the December 5, 2018 Southern Sub-Regional Meeting: II. Equipment Material Condition, Performance and Risk & III. Operational Flexibility and Efficiency

Problem Statement:
Ice and weather continue to be an issue at Mt Storm Substation that affects the operation and maintenance of the remaining outdoor equipment located in the substation. In 2014 half the existing 500 kV substation equipment was converted to GIS.
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.
Need Number: DOM-2019-0020

Process Stage: Solutions Meeting 10/17/2019

Previously Presented: Need Meeting 05/16/2019

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 3rd, 84 MVA distribution transformer at Enterprise Substation in Loudoun County. The new transformer is being driven by continued datacenter load growth and alternate feed contract reservations. Requested in-service date is 07/15/2020.

<table>
<thead>
<tr>
<th>Initial In-Service Load</th>
<th>Projected 2024 Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer: 82.4 MW</td>
<td>Summer: 96.5 MW</td>
</tr>
</tbody>
</table>

Note: Distribution's Customer is also requesting 145MVA of alternate capacity
Need Number: DOM-2019-0020

Process Stage: Solutions Meeting 10/17/2019

Proposed Solution:
Install a 1200 Amp, 50kAIC circuit switcher and associated equipment (bus, switches, relaying, etc.) to feed the new transformer at Enterprise.

Estimated Project Cost: $0.25 M

Alternatives Considered:
No feasible alternatives

Projected In-service Date: 07/15/2020

Project Status: Engineering

Model: 2023 RTEP
**Dominion Transmission Zone: Supplemental Customer Load Request**

**Need Number:** DOM-2019-0022

**Process Stage:** Solutions Meeting 10/17/2019

**Previously Presented:** Need Meeting 05/16/2019

**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 4th, 84 MVA distribution transformer at Poland Road Substation in Loudoun County. The new transformer is being driven by continued datacenter load growth and alternate feed contract reservations. Requested in-service date is 12/31/2021.

<table>
<thead>
<tr>
<th>Initial In-Service Load</th>
<th>Projected 2024 Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer: 225.0 MW</td>
<td>Summer: 293.0 MW</td>
</tr>
</tbody>
</table>
Dominion Transmission Zone: Supplemental
Poland Road 230kV Delivery- Add 4th TX - DEV

Need Number: DOM-2019-0022

Process Stage: Solutions Meeting 10/17/2019

Proposed Solution:
Install a 1200 Amp, 50kAIC circuit switcher and associated equipment (bus, switches, relaying, etc.) to feed the new transformer at Poland Road.

Estimated Project Cost: $2.0 M

Alternatives Considered:
No feasible alternatives

Projected In-service Date: 12/31/2021

Project Status: Engineering

Model: 2023 RTEP
Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2019-0023

Process Stage: Solutions Meeting 10/17/2019

Previously Presented: Need Meeting 05/16/2019

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 (Brickyard) to support a new datacenter campus in Prince William County with a total load in excess of 100 MW. Requested in-service date is 12/15/2021.

<table>
<thead>
<tr>
<th>Initial In-Service Load</th>
<th>Projected 2024 Load</th>
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<tbody>
<tr>
<td>Summer: 8.0 MW</td>
<td>Summer: 52.0 MW</td>
</tr>
</tbody>
</table>
Need Number: DOM-2019-0023

Process Stage: Solutions Meeting 10/17/2019

Proposed Solution:
Cut an existing 230kV line between Cannon Branch and Winters Branch Substations. At Brickyard, install four 230kV breakers to terminate the two lines. Install two 230kV circuit switches and any necessary high side switches and bus work for two initial transformers.

Estimated Project Cost: $2.0 M

Alternatives Considered:
No feasible alternatives

Projected In-service Date: 05/15/2023

Project Status: Engineering

Model:
<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Activity</th>
<th>Timing</th>
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<tbody>
<tr>
<td></td>
<td>Posting of TO Assumptions Meeting information</td>
<td>20 days before Assumptions Meeting</td>
</tr>
<tr>
<td></td>
<td>Stakeholder comments</td>
<td>10 days after Assumptions Meeting</td>
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</table>

<table>
<thead>
<tr>
<th>Needs</th>
<th>Activity</th>
<th>Timing</th>
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<tr>
<td></td>
<td>TOs and Stakeholders Post Needs Meeting slides</td>
<td>10 days before Needs Meeting</td>
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<table>
<thead>
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<th>Solutions</th>
<th>Activity</th>
<th>Timing</th>
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<td></td>
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<td></td>
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<table>
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<tr>
<th>Submission of Supplemental Projects &amp; Local Plan</th>
<th>Activity</th>
<th>Timing</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Do No Harm (DNH) analysis for selected solution</td>
<td>Prior to posting selected solution</td>
</tr>
<tr>
<td></td>
<td>Post selected solution(s)</td>
<td>Following completion of DNH analysis</td>
</tr>
<tr>
<td></td>
<td>Stakeholder comments</td>
<td>10 days prior to Local Plan Submission for integration into RTEP</td>
</tr>
<tr>
<td></td>
<td>Local Plan submitted to PJM for integration into RTEP</td>
<td>Following review and consideration of comments received after posting of selected solutions</td>
</tr>
</tbody>
</table>
Revision History

10/07/2019 – V1 – Original version posted to pjm.com
10/18/2019 – V2 – Updated the title to slide 4 and 11 and also updated the bubble diagram on slide 11 to reflect the correct substations.