Generation Interconnection

System Impact Study Report

for

Queue Project AG1-152

REMINGTON CT 230 KV

40 MW Capacity / 100 MW Energy

August 2021

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1 Introduction

This System Impact Study has been prepared in accordance with the PJM Open Access Transmission Tariff, 205, as well as the System Impact Study Agreement between the Interconnection Customer (IC), and PJM Interconnection, LLC (PJM), Transmission Provider (TP). The Interconnected Transmission Owner (ITO) is Dominion.

2 Preface

The intent of the System Impact Study is to determine a plan, with approximate cost and construction time estimates, to connect the subject generation interconnection project to the PJM network at a location specified by the Interconnection Customer. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system. All facilities required for interconnection of a generation interconnection project must be designed to meet the technical specifications (on PJM web site) for the appropriate transmission owner.

In some instances an Interconnection Customer may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g. another generation interconnection or merchant transmission upgrade, may also contribute to the need for the same network reinforcement. The possibility of sharing the reinforcement costs with other projects may be identified in the Feasibility Study, but the actual allocation will be deferred until the System Impact Study is performed.

The System Impact Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities. The project developer is responsible for the right of way, real estate, and construction permit issues. For properties currently owned by Transmission Owners, the costs may be included in the study.

An Interconnection Customer with a proposed new Customer Facility that has a Maximum Facility Output equal to or greater than 100 MW shall install and maintain, at its expense, phasor measurement units (PMUs). See Section 8.5.3 of Appendix 2 to the Interconnection Service Agreement as well as section 4.3 of PJM Manual 14D for additional information.

3 General

The Interconnection Customer (IC), has proposed a Storage generating facility located in Fauquier County, Virginia. The installed facilities will have a total capability of 100 MW with 40 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is December 01, 2023. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-152
Project Name	REMINGTON CT 230 KV
State	Virginia
County	Fauquier
Transmission Owner	Dominion
MFO	100
MWE	100
MWC	40
Fuel	Storage
Basecase Study Year	2024

Any new service customers who can feasibly be commercially operable prior to June 1st of the basecase study year are required to request interim deliverability analysis.

4 Point of Interconnection

AG1-152 "Remington CT 230 kV" will interconnect with the Dominion transmission system. The primary POI is a direct connect to the Remington CT 230 kV substation.

The IC is responsible for securing right-of-way, permits, and constructing the proposed attachment line from the generating facility site to the Point of Interconnection. The IC may not install any facilities on Dominion's right-of-way without first obtaining the necessary approval from Dominion Energy.

Attachment 1 shows a one-line diagram of the proposed interconnection facilities.

5 Cost Summary

The AG1-152 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	$4,500,000
Allocation towards System Network Upgrade Costs (PJM Identified - Summer Peak)*	$12,151,941
Allocation towards System Network Upgrade Costs (PJM Identified – Light Load)*	$0
Total Costs	**$16,651,941**

*As your project progresses through the study process and other projects modify their request or withdraw, then your cost allocation could change.

This cost excludes a Federal Income Tax Gross Up charges. This tax may or may not be charged based on whether this project meets the eligibility requirements of IRS Notice 88-129. If at a future date it is determined that the Federal Income Tax Gross charge is required, the Transmission Owner shall be reimbursed by the Interconnection Customer for such taxes.

Note 1: PJM Open Access Transmission Tariff (OATT) section 217.3A outline cost allocation rules. The rules are further clarified in PJM Manual 14A Attachment B. The allocation of costs for a network upgrade will start with the first Queue project to cause the need for the upgrade. Later queue projects will receive cost allocation contingent on their contribution to the violation and are allocated to the queues that have not closed less than 5 years following the execution of the first Interconnection Service Agreement which identifies the need for this upgrade.

Note 2: For customers with System Reinforcements listed: If your present cost allocation to a System Reinforcement indicates $0, then please be aware that as changes to the interconnection process occur, such as prior queued projects withdrawing from the queue, reducing in size, etc, the cost responsibilities can change and a cost allocation may be assigned to your project. In addition, although your present cost allocation to a System Reinforcement is presently $0, your project may need this system reinforcement completed to be deliverable to the PJM system. If your project comes into service prior to completion of the system reinforcement, an interim deliverability study for your project will be required.

6 Transmission Owner Scope of Work

The required Attachment Facilities, Direct Connection and Non-Direct Connection work for the interconnection of AG1-152 to the Dominion Transmission System is detailed in the following sections. The associated one-line showing the generation project attachment facilities and primary direct and non-direct connection is shown in Attachment 1.

Note that the ITO findings were made from a conceptual review of this project. A more detailed review of the connection facilities and their cost will be identified in a future study phase. Further note that the cost estimate data contained in this document should be considered high level estimates since it was produced without a detailed engineering review. The applicant will be responsible for the actual cost of construction. ITO herein reserves the right to return to any issues in this document and, upon appropriate justification, request additional monies to complete any reinforcements to the transmission systems.

The total physical interconnection costs are given in the table below:

Description	Total Cost
Attachment Facilities	$2,100,000
New Breakers	$2,400,000
Total Physical Interconnection Costs	**$4,500,000**

AG1-152 "Remington CT 230 kV" will interconnect with the Dominion transmission system. The primary POI is a direct connect to the Remington CT 230 kV substation.

To accommodate the proposed Project, Dominion Energy will add two new 230 kV breakers to the existing Remington CT 230 kV substation to allow for the proposed interconnection. Dominion will install one span of overhead 230 kV line to the point of interconnection ("POI") including 230 kV interconnection metering.

It is estimated to take 24-30 months to complete this work upon execution of an Interconnection Construction Service Agreement (ICSA). These preliminary cost estimates are based on typical engineering costs. A more detailed engineering cost estimates are normally done when the IC provides an exact site plan location for the generation substation during the Facility Study phase.

Remote Terminal Work: During the Facilities Study, ITO's System Protection Engineering Department will review transmission line protection as well as anti-islanding required to accommodate the new generation and interconnection substation. System Protection Engineering will determine the minimal acceptable protection requirements to reliably interconnect the proposed generating facility with the transmission system. The review is based on maintaining system reliability by reviewing ITO's protection requirements with the known transmission system configuration which includes generating facilities in the area. This review may determine that transmission line protection and communication upgrades are required at remote substations.

7 Schedule

Based on the scope of work for the interconnection facilities, it is expected to take a minimum of 24-30 months after the signing of an Interconnection Construction Service Agreement (or "Interconnection Agreement" if non-FERC) and construction kickoff call to complete the installation of the physical connection work. This assumes that there will be no environmental issues with any of the new properties associated with this project, that there will be no delays in acquiring the necessary permits for implementing the defined interconnection work, and that all system outages will be allowed when requested.

The schedule for any required Network Impact Reinforcements will be more clearly identified in future study phases. The estimated time to complete each of the required reinforcements is identified in the "System Reinforcements" section of the report.

8 Transmission Owner Analysis

Dominion assessed the impact of the proposed AG1-152 for compliance with NERC Reliability Criteria on the Dominion Transmission System. The system was assessed using the summer 2024 AG1 case provided to Dominion by PJM.

When performing a generation analysis, Dominion's main analysis includes load flow study results following a single contingency event for both normal and stressed system conditions. Dominion Criteria considers a transmission facility overloaded if it exceeds 94% of its emergency rating under normal and stressed system conditions. A full listing of Dominion's Planning Criteria and interconnection requirements can be found in the Company's Facility Connection Requirements which are publicly available at: http://www.dominionenergy.com.

The results of these studies evaluate the system under a limited set of operating conditions and do not guarantee the full delivery of the capacity and associated energy of this proposed generation facility under all operating conditions. NERC Planning and Operating Reliability Criteria allow for the re-dispatch of generating units to resolve projected and actual deficiencies in real time and planning studies. Specifically, in Planning Studies, NERC Planning Event 3 and 6 Contingency Conditions (Loss of generator, transmission circuit, transformer, shunt device, or Single Pole of a DC line followed by the loss of a generator, transmission circuit, transformer, shunt device or single pole of a DC line) allow for re-dispatch of generating units to resolve potential reliability deficiencies. For Dominion Planning Criteria the re-dispatch of generating units for these contingency conditions is allowed as long as the projected loading does not exceed 100% of a facility Load Dump Rating.

8.1 Power Flow Analysis

PJM performed a power flow analysis of the transmission system using a 2024 summer peak load flow model and the results were verified by Dominion. Additionally, Dominion performed an analysis of its transmission system and no further deficiencies were identified.

9 Interconnection Customer Requirements

9.1 System Protection

The IC must design its Customer Facilities in accordance with all applicable standards, including the standards in Dominion's "Dominion Energy Electric Transmission Generator Interconnection Requirements" documented in Dominion's Facility Interconnection Requirements "Exhibit C" located at: https://www.dominionenergy.com/company/moving-energy/electric-transmission-access. Preliminary Protection requirements will be provided as part of the Facilities Study. Detailed Protection Requirements will be provided once the project enters the construction phase.

9.2 Compliance Issues and Interconnection Customer Requirements

The proposed Customer Facilities must be designed in accordance with Dominion's "Dominion's Facility Interconnection Requirements" document located at: https://www.dominionenergy.com/company/moving-energy/electric-transmission-access. In particular, the IC is responsible for the following:

1. The purchase and installation of a fully rated protection device (circuit breaker, circuit switcher, fuse) to protect the IC's GSU transformer(s).
2. The purchase and installation of the minimum required Dominion generation interconnection relaying and control facilities as described in the System Protection section noted above. This includes over/under voltage protection, over/under frequency protection, and zero sequence voltage protection relays.
3. The purchase and installation of supervisory control and data acquisition ("SCADA") equipment to provide information in a compatible format to the Dominion Transmission System Control Center.
4. Compliance with the Dominion and PJM generator power factor and voltage control requirements.

The GSU(s) associated with the IC queue request shall meet the grounding requirements as noted in Dominion's "Dominion's Facility Interconnection Requirements" document located at: https://www.dominionenergy.com/company/moving-energy/electric-transmission-access.

The IC will also be required to meet all PJM, SERC, and NERC reliability criteria and operating procedures for standards compliance. For example, the IC will need to properly locate and report the over and under voltage and over and under frequency system protection elements for its units as well as the submission of the generator model and protection data required to satisfy the PJM and SERC audits. Failure to comply with these requirements may result in a disconnection of service if the violation is found to compromise the reliability of the Dominion system.

9.3 Power Factor Requirements

The IC shall design its non-synchronous Customer Facility with the ability to maintain a power factor of at least 0.95 leading (absorbing VARs) to 0.95 lagging (supplying VARs) measured at the high-side of the facility substation transformer(s) connected to the Dominion transmission system.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

The Interconnection Customer will be required to install equipment necessary to provide Revenue Metering (KWH, KVARH) and real time data (KW, KVAR) for IC's generating Resource. See PJM Manuals M-01 and M-14D, and PJM Tariff Section 8 of Attachment O.

10.2 Interconnected Transmission Owner Requirements

The IC will be required to comply with all Interconnected Transmission Owner's revenue metering requirements for generation interconnection customers located at the following link:

http://www.pjm.com/planning/design-engineering/to-tech-standards/

11 Summer Peak Analysis

The Queue Project AG1-152 was evaluated as a 100.0 MW (Capacity 40.00 MW) injection at the Remington CT 230 kV substation in the Dominion area. Project AG1-152 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-152 was studied with a commercial probability of 100.0 %. Potential network impacts were as follows:

11.1 Generation Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
169594531	941850	AE2-190 TAP	230.0	DVP	314037	6GAINSVL	230.0	DVP	1	DVP_P1-2: LN 545	single	984.2	99.59	100.5	AC	9.15

11.2 Multiple Facility Contingency

(Double Circuit Tower Line, Fault with a Stuck Breaker, and Bus Fault contingencies for the full energy output)

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
173813545	314085	6REMNGCT	230.0	DVP	314110	6ELK RUN	230.0	DVP	1	DVP_P4-2: H1T539	breaker	1204.0	99.67	101.14	AC	21.99
185566519	314085	6REMNGCT	230.0	DVP	314110	6ELK RUN	230.0	DVP	1	DVP_P4-2: H2T569	breaker	1204.0	98.34	100.72	AC	28.54
173813489	314099	6GI1MRUN	230.0	DVP	314085	6REMNGCT	230.0	DVP	1	DVP_P4-2: 207762	breaker	699.0	99.6	110.06	AC	74.06
173813548	314110	6ELK RUN	230.0	DVP	941850	AE2-190 TAP	230.0	DVP	1	DVP_P4-2: H1T539	breaker	1204.0	99.32	100.8	AC	21.99

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
18557933 7	31411 0	6ELK RUN	230. 0	DVP	94185 0	AE2-190 TAP	230. 0	DVP	1	DVP_P4 -2: H2T569	breake r	1204. 0	98.0	100.38	AC	28.54
17381353 7	94185 0	AE2-190 TAP	230. 0	DVP	31403 7	6GAINSVL	230. 0	DVP	1	DVP_P4 -2: H1T539	breake r	1204. 0	99.81	101.52	AC	21.99
18554132 5	94185 0	AE2-190 TAP	230. 0	DVP	31403 7	6GAINSVL	230. 0	DVP	1	DVP_P4 -2: H2T569	breake r	1204. 0	99.56	101.74	AC	28.54

11.3 Contribution to Previously Identified Overloads

(This project contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
16315759 1	31408 5	6REMNGCT	230. 0	DVP	31411 0	6ELK RUN	230. 0	DVP	1	DVP_P7 -1: LN 2039-2040	tower	1204. 0	103.31	108.39	AC	60.6
16315759 2	31408 5	6REMNGCT	230. 0	DVP	31411 0	6ELK RUN	230. 0	DVP	1	DVP_P7 -1: LN 569-2101	tower	1204. 0	102.48	104.37	AC	22.75
16315759 6	31411 0	6ELK RUN	230. 0	DVP	94185 0	AE2-190 TAP	230. 0	DVP	1	DVP_P7 -1: LN 2039-2040	tower	1204. 0	102.96	108.04	AC	60.6
16315759 7	31411 0	6ELK RUN	230. 0	DVP	94185 0	AE2-190 TAP	230. 0	DVP	1	DVP_P7 -1: LN 569-2101	tower	1204. 0	102.14	104.02	AC	22.75
16315755 6	94185 0	AE2-190 TAP	230. 0	DVP	31403 7	6GAINSVL	230. 0	DVP	1	DVP_P7 -1: LN 2039-2040	tower	1204. 0	109.69	114.1	AC	60.6
16315755 7	94185 0	AE2-190 TAP	230. 0	DVP	31403 7	6GAINSVL	230. 0	DVP	1	DVP_P7 -1: LN 569-2101	tower	1204. 0	103.08	104.73	AC	22.75

11.4 Steady-State Voltage Requirements

To be determined

11.5 Potential Congestion due to Local Energy Deliverability

PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection

Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
168372097	313859	6BELMONT	230.0	DVP	314072	6PL VIEW	230.0	DVP	1	DVP_P1-2: LN 558	operation	1223.9	81.16	82.17	AC	14.89
168371943	314085	6REMNGCT	230.0	DVP	314110	6ELK RUN	230.0	DVP	1	DVP_P1-2: LN 569	operation	984.2	114.08	115.94	AC	22.73
168372042	314099	6GI1MRUN	230.0	DVP	314085	6REMNGCT	230.0	DVP	1	DVP_P1-2: LN 2077	operation	571.5	90.08	103.03	AC	73.95
168673960	314110	6ELK RUN	230.0	DVP	941850	AE2-190 TAP	230.0	DVP	1	DVP_P1-2: LN 569	operation	984.2	113.67	115.52	AC	22.73
169354772	314749	6CHARLVL	230.0	DVP	314772	6PROFFIT	230.0	DVP	1	DVP_P1-2: LN 553	operation	550.8	104.31	105.77	AC	8.66
169594528	941850	AE2-190 TAP	230.0	DVP	314037	6GAINSVL	230.0	DVP	1	DVP_P1-2: LN 569	operation	984.2	114.49	116.65	AC	22.73

11.6 System Reinforcements

ID	Idx	Facility	Upgrade Description	Cost	Cost Allocated to AG1-152	Upgrade Number
185566519,185868405,163157592,173813545,163157591	1	**6REMNGCT 230.0 kV - 6ELK RUN 230.0 kV Ckt 1**	**DVP** **Project Id: n7006 (dom-206)** **Description:** Rebuild 3.46 miles of 230 kV Line 2114 from Remington CT to Elk Run with 2-795 ACSR. **Project Type :** FAC **Total Cost :** $5,190,000 **Time Estimate :** 30-36 Months **Ratings :** 1174.0/1302.0/1360.0 Queue | MW | Cost % | Cost $ AF2-040 | 17.51 | 18.73% | $972,153 AF2-063 | 15.37 | 16.44% | $853,341 AG1-152 | 60.6 | 64.83% | $3,364,506	$5,190,000	$3,364,506	n7006

<table>
<tr><th>ID</th><th>Idx</th><th>Facility</th><th>Upgrade Description</th><th>Cost</th><th>Cost Allocated to AG1-152</th><th>Upgrade Number</th></tr>
<tr><td>163157596,173813548,185888295,185579337,163157597</td><td>2</td><td>6ELK RUN 230.0 kV - AE2-190 TAP 230.0 kV Ckt 1</td><td><u>DVP</u>
Project Id: n7007 (dom-207)
Description: Rebuild 1.7 miles of 230 kV Line 2114 from AE2-190 Tap to Elk Run with 2-795 ACSR.
Project Type : FAC
Total Cost : $ 2,550,000
Time Estimate : 30-36 Months
Ratings : 1225.0/1225.0/1409.0

Note: Project AF2-040 is the driver for this reinforcement.

Per PJM cost allocation rules, Queue Project AG1-152 presently does not receive cost allocation for this upgrade.

Note 1: As changes to the interconnection process occur, such as prior queued projects withdrawing from the queue, reducing in size, etc, Queue Project AG1-152 could receive cost allocation.

Note 2: Although Queue Project AG1-152 may not have cost responsibility for this upgrade, Queue Project AG1-152 may need this upgrade in-service to be deliverable to the PJM system. If Queue Project AG1-152 comes into service prior to completion of the upgrade, Queue Project AG1-152 will need an interim study.</td><td>$2,550,000</td><td>$0</td><td>n7007</td></tr>
<tr><td>185605415,185688069,185541325,163157556,163157557,173813537,185687185,169594531,185726081</td><td>3</td><td>AE2-190 TAP 230.0 kV - 6GAINSVL 230.0 kV Ckt 1</td><td><u>DVP</u>
Project Id: n6322 (dom-192)
Description: Reconductor 20.4 miles of 230 kV Line 2114 from AE2-190 Tap to Gainesville with 795 ACSR.
Project Type : FAC
Total Cost : $ 16,320,000
Time Estimate : 36-42 Months
Ratings : 1225.0/1225.0/1409.0

<table><tr><th>Queue</th><th>MW</th><th>Cost %</th><th>Cost $</th></tr><tr><td>AE2-190</td><td>19.04</td><td>11.77%</td><td>$1,920,475</td></tr><tr><td>AE2-301</td><td>17.45</td><td>10.78%</td><td>$1,760,099</td></tr><tr><td>AF2-040</td><td>49.34</td><td>30.49%</td><td>$4,976,692</td></tr><tr><td>AF2-063</td><td>15.32</td><td>9.5%</td><td>$1,550,299</td></tr><tr><td>AG1-152</td><td>60.6</td><td>37.46%</td><td>$6,112,435</td></tr></table></td><td>$16,320,000</td><td>$6,112,435</td><td>n6322</td></tr>
<tr><td>173813489</td><td>4</td><td>6GI1MRUN 230.0 kV - 6REMNGCT 230.0 kV Ckt 1</td><td><u>DVP</u>
Project Id: n7513 (dom-474)
Description: Rebuild 1.07 miles of 230 kV Line 299 from Marsh Run to Remington CT with 2-636 ACSR 150 C
Project Type : FAC
Total Cost : $ 2,675,000
Time Estimate : 36-42 Month
Ratings : 1046.0/1046.0/1204.0

Note: Project AG1-152 is the driver for this reinforcement.</td><td>$2,675,000</td><td>$2,675,000</td><td>n7513</td></tr>
<tr><td></td><td></td><td></td><td>TOTAL COST</td><td>$26,735,000</td><td>$12,151,941</td><td></td></tr>
</table>

Note : For customers with System Reinforcements listed: If your present cost allocation to a System Reinforcement indicates $0, then please be aware that as changes to the interconnection process occur, such as prior queued projects withdrawing from the queue, reducing in size, etc, the cost responsibilities can

change and a cost allocation may be assigned to your project. In addition, although your present cost allocation to a System Reinforcement is presently $0, your project may need this system reinforcement completed to be deliverable to the PJM system. If your project comes into service prior to completion of the system reinforcement, an interim deliverability study for your project will be required.

11.7 Flow Gate Details

The following indices contain additional information about each facility presented in the body of the report. For each index, a description of the flowgate and its contingency was included for convenience. The intent of the indices is to provide more details on which projects/generators have contributions to the flowgate in question. All New Service Queue Requests, through the end of the Queue under study, that are contributors to a flowgate will be listed in the indices. Please note that there may be contributors that are subsequently queued after the queue under study that are not listed in the indices. Although this information is not used "as is" for cost allocation purposes, it can be used to gage the impact of other projects/generators. It should be noted the project/generator MW contributions presented in the body of the report are Full MW Impact contributions which are also noted in the indices column named "Full MW Impact", whereas the loading percentages reported in the body of the report, take into consideration the PJM Generator Deliverability Test rules such as commercial probability of each project as well as the ramping impact of "Adder" contributions. The MW Impact found and used in the analysis is shown in the indices column named "Gendeliv MW Impact".

11.7.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
163157591	314085	6REMNGCT	DVP	314110	6ELK RUN	DVP	1	DVP_P7-1: LN 2039-2040	tower	1204.0	103.31	108.39	AC	60.6

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315021	1REMNGT1	14.89	80|50	14.89
315022	1REMNGT2	15.09	80|50	15.09
315023	1REMNGT3	15.14	80|50	15.14
315024	1REMNGT4	15.09	80|50	15.09
315028	1M RUN A	16.02	80|50	16.02
315030	1M RUN C	16.02	80|50	16.02
923892	AB2-029 E	5.69	Adder	6.69
925022	AB2-158 E	3.26	Adder	3.84
925671	**AC1-043 C (Suspended)**	**10.68**	**Adder**	**12.56**
925672	**AC1-043 E (Suspended)**	**17.43**	**Adder**	**20.51**
926001	AC1-076 C	3.25	Adder	3.82
926002	AC1-076 E	5.28	Adder	6.21
926481	**AC1-120 C O1 (Suspended)**	**8.18**	**Adder**	**9.62**
926482	**AC1-120 E O1 (Suspended)**	**4.22**	**Adder**	**4.96**
926501	**AC1-121 C O1 (Suspended)**	**2.81**	**Adder**	**3.31**
926502	**AC1-121 E O1 (Suspended)**	**1.32**	**Adder**	**1.55**
926611	AC1-143 C O1	17.65	Adder	20.76

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926612	AC1-143 E O1	8.05	Adder	9.47
934861	AD1-115 C	5.34	Adder	6.28
934862	AD1-115 E	8.71	Adder	10.25
939225	AE1-153 C	34.66	Adder	40.78
939226	AE1-153 E	23.37	Adder	27.49
939231	AE1-154 C	1.2	Adder	1.41
939232	AE1-154 E	0.84	Adder	0.99
941361	AE2-132	1.76	80|50	1.76
941381	AE2-134	2.24	Adder	2.64
944111	AF1-079 C	2.28	Adder	2.68
944112	AF1-079 E	3.1	Adder	3.65
946371	AF1-301 C	8.88	Adder	10.45
946372	AF1-301 E	5.96	Adder	7.01
957431	AF2-037 C	4.9	Adder	5.76
957432	AF2-037 E	3.26	Adder	3.84
957462	AF2-040 BAT	25.67	Adder	30.2
957691	AF2-063 C	7.81	Adder	9.19
957692	AF2-063 E	5.21	Adder	6.13
961101	AF2-401 C	1.15	Adder	1.35
961102	AF2-401 E	1.91	Adder	2.25
963031	AG1-152 C	24.24	80|50	24.24
963032	AG1-152 E	36.36	80|50	36.36
964421	AG1-305 C O2	5.99	Adder	7.05
964422	AG1-305 E O2	4.0	Adder	4.71
964811	**AG1-344 C (Withdrawn : 06/10/2021)**	**3.95**	**Adder**	**4.65**
964812	**AG1-344 E (Withdrawn : 06/10/2021)**	**2.63**	**Adder**	**3.09**
965971	AG1-466 C	1.64	Adder	1.93
965972	AG1-466 E	1.1	Adder	1.29
965981	AG1-467 C	1.81	Adder	2.13
965982	AG1-467 E	1.21	Adder	1.42
966001	AG1-469 C	1.81	Adder	2.13
966002	AG1-469 E	1.2	Adder	1.41
966331	AG1-502 C	9.61	Adder	11.31
966332	AG1-502 E	6.41	Adder	7.54
966341	AG1-503 C	2.4	Adder	2.82
966342	AG1-503 E	1.6	Adder	1.88
966501	AG1-519 C	2.17	Adder	2.55
966502	AG1-519 E	1.45	Adder	1.71
966681	AG1-538 C	12.46	Adder	14.66
966682	AG1-538 E	16.75	Adder	19.71
LTFEXP_AA2-074	LTFEXP_AA2-074->LTFIMP_AA2-074	0.4816	Confirmed LTF	0.4816
LTFEXP_CBM-S1	LTFEXP_CBM-S1->LTFIMP_CBM-S1	0.1859	LTF/CBM	0.1859
LTFEXP_CBM-S2	LTFEXP_CBM-S2->LTFIMP_CBM-S2	9.6083	LTF/CBM	9.6083
LTFEXP_CBM-W1	LTFEXP_CBM-W1->LTFIMP_CBM-W1	2.9136	LTF/CBM	2.9136
LTFEXP_CBM-W2	LTFEXP_CBM-W2->LTFIMP_CBM-W2	3.7691	LTF/CBM	3.7691

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
LTFEXP_CPLE	LTFEXP_CPLE->LTFIMP_CPLE	0.7292	Confirmed LTF	0.7292
LTFEXP_G-007	LTFEXP_G-007->LTFIMP_G-007	1.6016	LTF/CMTX NF	1.6016
LTFEXP_LAGN	LTFEXP_LAGN->LTFIMP_LAGN	0.8924	Confirmed LTF	0.8924
LTFEXP_LGE-0012019	LTFEXP_LGE-0012019->LTFIMP_LGE-0012019	0.0673	Confirmed LTF	0.0673
LTFEXP_LGEE	LTFEXP_LGEE->LTFIMP_LGEE	0.1824	Confirmed LTF	0.1824
LTFEXP_MEC	LTFEXP_MEC->LTFIMP_MEC	0.4883	Confirmed LTF	0.4883
LTFEXP_NY	LTFEXP_NY->LTFIMP_NY	0.7468	Confirmed LTF	0.7468
LTFEXP_O-066	LTFEXP_O-066->LTFIMP_O-066	10.198	LTF/CMTX NF	10.198
LTFEXP_SIGE	LTFEXP_SIGE->LTFIMP_SIGE	0.0316	Confirmed LTF	0.0316
LTFEXP_TVA	LTFEXP_TVA->LTFIMP_TVA	0.7466	Confirmed LTF	0.7466
LTFEXP_WEC	LTFEXP_WEC->LTFIMP_WEC	0.0771	Confirmed LTF	0.0771

11.7.2 Index 2

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
163157596	314110	6ELK RUN	DVP	941850	AE2-190 TAP	DVP	1	DVP_P7-1: LN 2039-2040	tower	1204.0	102.96	108.04	AC	60.6

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315021	1REMNGT1	14.89	80|50	14.89
315022	1REMNGT2	15.09	80|50	15.09
315023	1REMNGT3	15.14	80|50	15.14
315024	1REMNGT4	15.09	80|50	15.09
315028	1M RUN A	16.02	80|50	16.02
315030	1M RUN C	16.02	80|50	16.02
923892	AB2-029 E	5.69	Adder	6.69
925022	AB2-158 E	3.26	Adder	3.84
925671	**AC1-043 C (Suspended)**	**10.68**	**Adder**	**12.56**
925672	**AC1-043 E (Suspended)**	**17.43**	**Adder**	**20.51**
926001	AC1-076 C	3.25	Adder	3.82
926002	AC1-076 E	5.28	Adder	6.21
926481	**AC1-120 C O1 (Suspended)**	**8.18**	**Adder**	**9.62**
926482	**AC1-120 E O1 (Suspended)**	**4.22**	**Adder**	**4.96**
926501	**AC1-121 C O1 (Suspended)**	**2.81**	**Adder**	**3.31**
926502	**AC1-121 E O1 (Suspended)**	**1.32**	**Adder**	**1.55**
926611	AC1-143 C O1	17.65	Adder	20.76
926612	AC1-143 E O1	8.05	Adder	9.47
934861	AD1-115 C	5.34	Adder	6.28
934862	AD1-115 E	8.71	Adder	10.25
939225	AE1-153 C	34.66	Adder	40.78
939226	AE1-153 E	23.37	Adder	27.49
939231	AE1-154 C	1.2	Adder	1.41
939232	AE1-154 E	0.84	Adder	0.99
941361	AE2-132	1.76	80|50	1.76
941381	AE2-134	2.24	Adder	2.64
944111	AF1-079 C	2.28	Adder	2.68
944112	AF1-079 E	3.1	Adder	3.65
946371	AF1-301 C	8.88	Adder	10.45
946372	AF1-301 E	5.96	Adder	7.01
957431	AF2-037 C	4.9	Adder	5.76
957432	AF2-037 E	3.26	Adder	3.84
957462	AF2-040 BAT	25.67	Adder	30.2
957691	AF2-063 C	7.81	Adder	9.19
957692	AF2-063 E	5.21	Adder	6.13
961101	AF2-401 C	1.15	Adder	1.35
961102	AF2-401 E	1.91	Adder	2.25

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963031	AG1-152 C	24.24	80|50	24.24
963032	AG1-152 E	36.36	80|50	36.36
964421	AG1-305 C O2	5.99	Adder	7.05
964422	AG1-305 E O2	4.0	Adder	4.71
964811	**AG1-344 C (Withdrawn : 06/10/2021)**	**3.95**	**Adder**	**4.65**
964812	**AG1-344 E (Withdrawn : 06/10/2021)**	**2.63**	**Adder**	**3.09**
965971	AG1-466 C	1.64	Adder	1.93
965972	AG1-466 E	1.1	Adder	1.29
965981	AG1-467 C	1.81	Adder	2.13
965982	AG1-467 E	1.21	Adder	1.42
966001	AG1-469 C	1.81	Adder	2.13
966002	AG1-469 E	1.2	Adder	1.41
966331	AG1-502 C	9.61	Adder	11.31
966332	AG1-502 E	6.41	Adder	7.54
966341	AG1-503 C	2.4	Adder	2.82
966342	AG1-503 E	1.6	Adder	1.88
966501	AG1-519 C	2.17	Adder	2.55
966502	AG1-519 E	1.45	Adder	1.71
966681	AG1-538 C	12.46	Adder	14.66
966682	AG1-538 E	16.75	Adder	19.71
LTFEXP_AA2-074	LTFEXP_AA2-074->LTFIMP_AA2-074	0.4816	Confirmed LTF	0.4816
LTFEXP_CBM-S1	LTFEXP_CBM-S1->LTFIMP_CBM-S1	0.1859	LTF/CBM	0.1859
LTFEXP_CBM-S2	LTFEXP_CBM-S2->LTFIMP_CBM-S2	9.6083	LTF/CBM	9.6083
LTFEXP_CBM-W1	LTFEXP_CBM-W1->LTFIMP_CBM-W1	2.9136	LTF/CBM	2.9136
LTFEXP_CBM-W2	LTFEXP_CBM-W2->LTFIMP_CBM-W2	3.7691	LTF/CBM	3.7691
LTFEXP_CPLE	LTFEXP_CPLE->LTFIMP_CPLE	0.7292	Confirmed LTF	0.7292
LTFEXP_G-007	LTFEXP_G-007->LTFIMP_G-007	1.6016	LTF/CMTX NF	1.6016
LTFEXP_LAGN	LTFEXP_LAGN->LTFIMP_LAGN	0.8924	Confirmed LTF	0.8924
LTFEXP_LGE-0012019	LTFEXP_LGE-0012019->LTFIMP_LGE-0012019	0.0673	Confirmed LTF	0.0673
LTFEXP_LGEE	LTFEXP_LGEE->LTFIMP_LGEE	0.1824	Confirmed LTF	0.1824
LTFEXP_MEC	LTFEXP_MEC->LTFIMP_MEC	0.4883	Confirmed LTF	0.4883
LTFEXP_NY	LTFEXP_NY->LTFIMP_NY	0.7468	Confirmed LTF	0.7468
LTFEXP_O-066	LTFEXP_O-066->LTFIMP_O-066	10.198	LTF/CMTX NF	10.198
LTFEXP_SIGE	LTFEXP_SIGE->LTFIMP_SIGE	0.0316	Confirmed LTF	0.0316
LTFEXP_TVA	LTFEXP_TVA->LTFIMP_TVA	0.7466	Confirmed LTF	0.7466
LTFEXP_WEC	LTFEXP_WEC->LTFIMP_WEC	0.0771	Confirmed LTF	0.0771

11.7.3 Index 3

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
163157556	941850	AE2-190 TAP	DVP	314037	6GAINSVL	DVP	1	DVP_P7-1: LN 2039-2040	tower	1204.0	109.69	114.1	AC	60.6

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315021	1REMNGT1	14.89	80|50	14.89
315022	1REMNGT2	15.09	80|50	15.09
315023	1REMNGT3	15.14	80|50	15.14
315024	1REMNGT4	15.09	80|50	15.09
315030	1M RUN C	16.02	80|50	16.02
923892	AB2-029 E	5.69	Adder	6.69
925022	AB2-158 E	3.26	Adder	3.84
925671	**AC1-043 C (Suspended)**	**10.68**	**Adder**	**12.56**
925672	**AC1-043 E (Suspended)**	**17.43**	**Adder**	**20.51**
926001	AC1-076 C	3.25	Adder	3.82
926002	AC1-076 E	5.28	Adder	6.21
926481	**AC1-120 C O1 (Suspended)**	**8.18**	**Adder**	**9.62**
926482	**AC1-120 E O1 (Suspended)**	**4.22**	**Adder**	**4.96**
926501	**AC1-121 C O1 (Suspended)**	**2.81**	**Adder**	**3.31**
926502	**AC1-121 E O1 (Suspended)**	**1.32**	**Adder**	**1.55**
926611	AC1-143 C O1	17.65	Adder	20.76
926612	AC1-143 E O1	8.05	Adder	9.47
934861	AD1-115 C	5.34	Adder	6.28
934862	AD1-115 E	8.71	Adder	10.25
939225	AE1-153 C	34.66	Adder	40.78
939226	AE1-153 E	23.37	Adder	27.49
939231	AE1-154 C	1.2	Adder	1.41
939232	AE1-154 E	0.84	Adder	0.99
941361	AE2-132	1.76	80|50	1.76
941381	AE2-134	2.24	Adder	2.64
941851	AE2-190 C	17.77	80|50	17.77
941852	AE2-190 E	28.27	80|50	28.27
944111	AF1-079 C	2.28	Adder	2.68
944112	AF1-079 E	3.1	Adder	3.65
946371	AF1-301 C	8.88	Adder	10.45
946372	AF1-301 E	5.96	Adder	7.01
957431	AF2-037 C	4.9	Adder	5.76
957432	AF2-037 E	3.26	Adder	3.84
957461	AF2-040	49.33	80|50	49.33
957691	AF2-063 C	7.81	Adder	9.19
957692	AF2-063 E	5.21	Adder	6.13
961101	AF2-401 C	1.15	Adder	1.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961102	AF2-401 E	1.91	Adder	2.25
961901	AG1-031 C	5.53	80|50	5.53
961902	AG1-031 E	7.63	80|50	7.63
963031	AG1-152 C	24.24	80|50	24.24
963032	AG1-152 E	36.36	80|50	36.36
964811	**AG1-344 C (Withdrawn : 06/10/2021)**	**3.95**	**Adder**	**4.65**
964812	**AG1-344 E (Withdrawn : 06/10/2021)**	**2.63**	**Adder**	**3.09**
965971	AG1-466 C	1.64	Adder	1.93
965972	AG1-466 E	1.1	Adder	1.29
965981	AG1-467 C	1.81	Adder	2.13
965982	AG1-467 E	1.21	Adder	1.42
966001	AG1-469 C	1.81	Adder	2.13
966002	AG1-469 E	1.2	Adder	1.41
966331	AG1-502 C	9.61	Adder	11.31
966332	AG1-502 E	6.41	Adder	7.54
966341	AG1-503 C	2.4	Adder	2.82
966342	AG1-503 E	1.6	Adder	1.88
966501	AG1-519 C	2.17	Adder	2.55
966502	AG1-519 E	1.45	Adder	1.71
966681	AG1-538 C	12.46	Adder	14.66
966682	AG1-538 E	16.75	Adder	19.71
LTFEXP_AA2-074	LTFEXP_AA2-074->LTFIMP_AA2-074	0.4816	Confirmed LTF	0.4816
LTFEXP_CBM-S1	LTFEXP_CBM-S1->LTFIMP_CBM-S1	0.1859	LTF/CBM	0.1859
LTFEXP_CBM-S2	LTFEXP_CBM-S2->LTFIMP_CBM-S2	9.6083	LTF/CBM	9.6083
LTFEXP_CBM-W1	LTFEXP_CBM-W1->LTFIMP_CBM-W1	2.9136	LTF/CBM	2.9136
LTFEXP_CBM-W2	LTFEXP_CBM-W2->LTFIMP_CBM-W2	3.7691	LTF/CBM	3.7691
LTFEXP_CPLE	LTFEXP_CPLE->LTFIMP_CPLE	0.7292	Confirmed LTF	0.7292
LTFEXP_G-007	LTFEXP_G-007->LTFIMP_G-007	1.6016	LTF/CMTX NF	1.6016
LTFEXP_LAGN	LTFEXP_LAGN->LTFIMP_LAGN	0.8924	Confirmed LTF	0.8924
LTFEXP_LGE-0012019	LTFEXP_LGE-0012019->LTFIMP_LGE-0012019	0.0673	Confirmed LTF	0.0673
LTFEXP_LGEE	LTFEXP_LGEE->LTFIMP_LGEE	0.1824	Confirmed LTF	0.1824
LTFEXP_MEC	LTFEXP_MEC->LTFIMP_MEC	0.4883	Confirmed LTF	0.4883
LTFEXP_NY	LTFEXP_NY->LTFIMP_NY	0.7468	Confirmed LTF	0.7468
LTFEXP_O-066	LTFEXP_O-066->LTFIMP_O-066	10.198	LTF/CMTX NF	10.198
LTFEXP_SIGE	LTFEXP_SIGE->LTFIMP_SIGE	0.0316	Confirmed LTF	0.0316
LTFEXP_TVA	LTFEXP_TVA->LTFIMP_TVA	0.7466	Confirmed LTF	0.7466
LTFEXP_WEC	LTFEXP_WEC->LTFIMP_WEC	0.0771	Confirmed LTF	0.0771

11.7.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC|DC	MW IMPACT
173813489	314099	6GI1MRUN	DVP	314085	6REMNGCT	DVP	1	DVP_P4-2: 207762	breaker	699.0	99.6	110.06	AC	74.06

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315028	1M RUN A	5.61	80|50	5.61
315029	1M RUN B	5.57	80|50	5.57
315030	1M RUN C	5.61	80|50	5.61
926001	AC1-076 C	-1.69	Adder	-1.99
926481	**AC1-120 C O1 (Suspended)**	**-4.87**	**Adder**	**-5.73**
926501	**AC1-121 C O1 (Suspended)**	**-1.67**	**Adder**	**-1.96**
926611	AC1-143 C O1	-17.7	Adder	-20.82
938291	AE1-044 C O1	18.2	80|50	18.2
938292	AE1-044 E O1	14.36	80|50	14.36
938295	AE1-044 C	18.23	80|50	18.23
938296	AE1-044 E	14.33	80|50	14.33
939225	AE1-153 C	13.44	80|50	13.44
939226	AE1-153 E	9.06	80|50	9.06
941381	AE2-134	-1.16	Adder	-1.36
957462	AF2-040 BAT	47.9	80|50	47.9
961101	AF2-401 C	-1.02	Adder	-1.2
962943	AG1-143 BAT	6.78	Adder	7.98
963033	AG1-152 BAT	74.06	80|50	74.06
966681	AG1-538 C	4.83	80|50	4.83
966682	AG1-538 E	6.49	80|50	6.49
LTFEXP_AA2-074	LTFEXP_AA2-074->LTFIMP_AA2-074	0.5206	Confirmed LTF	0.5206
LTFEXP_CBM-S1	LTFEXP_CBM-S1->LTFIMP_CBM-S1	0.266	LTF/CBM	0.266
LTFEXP_CBM-S2	LTFEXP_CBM-S2->LTFIMP_CBM-S2	10.6436	LTF/CBM	10.6436
LTFEXP_CBM-W1	LTFEXP_CBM-W1->LTFIMP_CBM-W1	7.3088	LTF/CBM	7.3088
LTFEXP_CBM-W2	LTFEXP_CBM-W2->LTFIMP_CBM-W2	5.8971	LTF/CBM	5.8971
LTFEXP_CPLE	LTFEXP_CPLE->LTFIMP_CPLE	0.7858	Confirmed LTF	0.7858
LTFEXP_G-007	LTFEXP_G-007->LTFIMP_G-007	0.8631	LTF/CMTX NF	0.8631
LTFEXP_LAGN	LTFEXP_LAGN->LTFIMP_LAGN	1.2562	Confirmed LTF	1.2562
LTFEXP_LGE-0012019	LTFEXP_LGE-0012019->LTFIMP_LGE-0012019	0.0413	Confirmed LTF	0.0413
LTFEXP_LGEE	LTFEXP_LGEE->LTFIMP_LGEE	0.357	Confirmed LTF	0.357

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
LTFEXP_MEC	LTFEXP_MEC->LTFIMP_MEC	0.9286	Confirmed LTF	0.9286
LTFEXP_NY	LTFEXP_NY->LTFIMP_NY	0.3694	Confirmed LTF	0.3694
LTFEXP_O-066	LTFEXP_O-066->LTFIMP_O-066	5.4719	LTF/CMTX NF	5.4719
LTFEXP_SIGE	LTFEXP_SIGE->LTFIMP_SIGE	0.0606	Confirmed LTF	0.0606
LTFEXP_TVA	LTFEXP_TVA->LTFIMP_TVA	1.0208	Confirmed LTF	1.0208
LTFEXP_WEC	LTFEXP_WEC->LTFIMP_WEC	0.1714	Confirmed LTF	0.1714

12 Queue Dependencies

The Queue Projects below are listed in one or more indices for the overloads identified in your report. These projects contribute to the loading of the overloaded facilities identified in your report. The percent overload of a facility and cost allocation you may have towards a particular reinforcement could vary depending on the action of these earlier projects. The status of each project at the time of the analysis is presented in the table. This list may change as earlier projects withdraw or modify their requests.

Queue Number	Project Name	Status
AA2-074	CPLE-PJM	Confirmed
AB2-029	Remington 34.5kV	In Service
AB2-158	Louisa-South Anna 230kV	Partially in Service - Under Construction
AC1-043	Mountain Run-Mitchell 115 kV	Suspended
AC1-076	Locust Grove-Paytes 115kV	Engineering and Procurement
AC1-120	Mitchell-Mountain Run 115kV	Suspended
AC1-121	Mitchell-Mountain Run 115kV	Suspended
AC1-143	Brandy-Remington 115kV	Engineering and Procurement
AD1-115	Mountain Run-Mitchell 115 kV	Active
AE1-044	Morrisville 230 kV	Active
AE1-153	Remington-Gordonsville 230 kV	Active
AE1-154	Louisa-South Anna 230 kV	Engineering and Procurement
AE2-132	Remington CT 230 kV	In Service
AE2-134	Locust Grove-Paytes 115 kV	Engineering and Procurement
AE2-190	Elk Run D.P.-Gainesville 230 kV	Active
AF1-079	Louisa-South Anna 230 kV	Active
AF1-301	Louisa-South Anna 230 kV	Active
AF2-037	Louisa-North Anna 230 kV	Active
AF2-040	Elk Run-Gainesville 230 kV	Active
AF2-063	Louisa-North Anna 230 kV	Active
AF2-401	Culpeper 34.5 kV	Engineering and Procurement
AG1-031	Elk Run D.P.-Gainesville 230 kV	Active
AG1-143	Gainesville-Loudoun 230 kV	Active
AG1-152	Remington CT 230 kV	Active

Queue Number	Project Name	Status
AG1-305	Louisa-North Anna 230 kV	Active
AG1-344	Culpeper 34.5 kV	Withdrawn
AG1-466	Orange 34.5 kV	Active
AG1-467	Somerset 34.5 kV	Active
AG1-469	Gordonsville 34.5 kV	Active
AG1-502	Oak Green 115 kV	Active
AG1-503	Oak Green 115 kV	Active
AG1-519	Cash's Corner 230 kV	Active
AG1-538	Remington-Gordonsville 230 kV	Active

12.1 Contingency Descriptions

Contingency Name	Contingency Definition
DVP_P1-3: 8MORRSVL-TX#2	CONTINGENCY 'DVP_P1-3: 8MORRSVL-TX#2' OPEN BRANCH FROM BUS 314063 TO BUS 314916 CKT 2 /* 6MORRSVL 230.00 - 8MORRSVL 500.00 END
DVP_P1-2: LN 553	CONTINGENCY 'DVP_P1-2: LN 553' OPEN BRANCH FROM BUS 314908 TO BUS 314910 CKT 1 /* 8ELMONT 500.00 - 8CUNINGHAM 500.00 END
DVP_P1-2: LN 545	CONTINGENCY 'DVP_P1-2: LN 545' OPEN BRANCH FROM BUS 314900 TO BUS 314916 CKT 1 /* 8BRISTER 500.00 - 8MORRSVL 500.00 /* SET PRECONTRATING 2552 BRANCH FROM BUS 314900 TO BUS 314905 CKT 1/* RATE A OF LN 552 IS DE-RATED! /* SET POSTCONTRATING 2598 BRANCH FROM BUS 314900 TO BUS 314905 CKT 1/* RATE B OF LN 552 IS DE-RATED! /* SET PRECONTRATING 2650 BRANCH FROM BUS 314916 TO BUS 314934 CKT 1/* RATE A OF LN 594 IS DE-RATED! /* SET POSTCONTRATING 2858 BRANCH FROM BUS 314916 TO BUS 314934 CKT 1/* RATE B OF LN 594 IS DE-RATED! END

Contingency Name	Contingency Definition
DVP_P7-1: LN 569-2101	CONTINGENCY 'DVP_P7-1: LN 569-2101' /* . OPEN BRANCH FROM BUS 314913 TO BUS 314916 CKT 1 /* 8LOUDOUN 500.00 - 8MORRSVL 500.00 OPEN BRANCH FROM BUS 313716 TO BUS 314119 CKT 1 /* 6VINTHIL_DP 230.00 - 6NOKESVL 230.00 OPEN BRANCH FROM BUS 313716 TO BUS 314125 CKT 1 /* 6VINTHIL_DP 230.00 - 6VINTHIL 230.00 OPEN BRANCH FROM BUS 314119 TO BUS 314130 CKT 1 /* 6NOKESVL 230.00 - 6BRISTER 230.00 OPEN BUS 313716 /* ISLAND: 6VINTHIL_DP 230.00 OPEN BUS 314119 /* ISLAND: 6NOKESVL 230.00 / OPEN BUS 932521 /* ISLAND: AC2-072 C 230.00 / OPEN BUS 932522 /* ISLAND: AC2-072 E 230.00 END
DVP_P4-2: 207762	CONTINGENCY 'DVP_P4-2: 207762' /* REMINGTON CT 230 KV OPEN BRANCH FROM BUS 314078 TO BUS 314080 CKT 1 /* 3REMNGTN 115.00 - 6REMNGTN 230.00 OPEN BRANCH FROM BUS 314080 TO BUS 314085 CKT 1 /* 6REMNGTN 230.00 - 6REMNGCT 230.00 OPEN BRANCH FROM BUS 314085 TO BUS 315021 CKT 1 /* 6REMNGCT 230.00 - 1REMNGT1 18.000 OPEN BUS 315021 /* ISLAND: 1REMNGT1 18.000 OPEN BRANCH FROM BUS 314085 TO BUS 315022 CKT 1 /* 6REMNGCT 230.00 - 1REMNGT2 18.000 OPEN BUS 315022 /* ISLAND: 1REMNGT2 18.000 END
DVP_P1-2: LN 558	CONTINGENCY 'DVP_P1-2: LN 558' OPEN BRANCH FROM BUS 314933 TO BUS 314939 CKT 1 /* 8BRAMBLETON 500.00 - 8GOOSE CREEK500.00 /* SET PRECONTRATING 3533 BRANCH FROM BUS 314930 TO BUS 314933 CKT 2/* RATE A OF LN 546 IS DE-RATED! /* SET POSTCONTRATING 3811 BRANCH FROM BUS 314930 TO BUS 314933 CKT 2/* RATE B OF LN 546 IS DE-RATED! END
DVP_P4-2: H2T545	CONTINGENCY 'DVP_P4-2: H2T545' /* MORRISVILLE 500 KV OPEN BRANCH FROM BUS 314900 TO BUS 314916 CKT 1 /* 8BRISTER 500.00 - 8MORRSVL 500.00 OPEN BRANCH FROM BUS 314063 TO BUS 314916 CKT 2 /* 6MORRSVL 230.00 - 8MORRSVL 500.00 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 2077	CONTINGENCY 'DVP_P1-2: LN 2077' OPEN BRANCH FROM BUS 314078 TO BUS 314080 CKT 1 /* 3REMNGTN 115.00 - 6REMNGTN 230.00 OPEN BRANCH FROM BUS 314080 TO BUS 314085 CKT 1 /* 6REMNGTN 230.00 - 6REMNGCT 230.00 /* SET PRECONTRATING 876 BRANCH FROM BUS 314085 TO BUS 313884 CKT 1 /* RATE A OF LN 2086 IS DE-RATED! /* SET POSTCONTRATING 956 BRANCH FROM BUS 314085 TO BUS 313884 CKT 1/* RATE B OF LN 2086 IS DE-RATED! END
DVP_P7-1: LN 2039-2040	CONTINGENCY 'DVP_P7-1: LN 2039-2040' /* . OPEN BRANCH FROM BUS 314063 TO BUS 314099 CKT 1 /* 6MORRSVL 230.00 - 6GI1MRUN 230.00 OPEN BRANCH FROM BUS 314063 TO BUS 314099 CKT 2 /* 6MORRSVL 230.00 - 6GI1MRUN 230.00 END
DVP_P4-2: H1T569	CONTINGENCY 'DVP_P4-2: H1T569' /* LOUDOUN 500 KV OPEN BRANCH FROM BUS 314913 TO BUS 314916 CKT 1 /* 8LOUDOUN 500.00 - 8MORRSVL 500.00 OPEN BRANCH FROM BUS 314061 TO BUS 314913 CKT 1 /* 6LOUDOUN 230.00 - 8LOUDOUN 500.00 OPEN BUS 314896 /* 8LOUDO_1 500.00 KV END
Base Case	
DVP_P1-2: LN 2114-B	CONTINGENCY 'DVP_P1-2: LN 2114-B' OPEN BRANCH FROM BUS 314037 TO BUS 941850 CKT 1 /* 6GAINSVL 230.00 - AE2-190 TAP 230.00 END
DVP_P4-2: H1T539	CONTINGENCY 'DVP_P4-2: H1T539' /* BRISTERS 500 KV OPEN BRANCH FROM BUS 314900 TO BUS 314919 CKT 1 /* 8BRISTER 500.00 - 8OX 500.00 OPEN BRANCH FROM BUS 314130 TO BUS 314900 CKT 1 /* 6BRISTER 230.00 - 8BRISTER 500.00 OPEN BRANCH FROM BUS 314130 TO BUS 314156 CKT 1 /* 6BRISTER 230.00 - 3BRISTER 115.00 END

Contingency Name	Contingency Definition
DVP_P4-2: 545T552	CONTINGENCY 'DVP_P4-2: 545T552' /* BRISTERS 500 KV OPEN BRANCH FROM BUS 314900 TO BUS 314916 CKT 1 /* 8BRISTER 500.00 - 8MORRSVL 500.00 OPEN BRANCH FROM BUS 314135 TO BUS 314905 CKT 1 /* 3CHANCE 115.00 - 8CHANCE 500.00 OPEN BRANCH FROM BUS 314900 TO BUS 314905 CKT 1 /* 8BRISTER 500.00 - 8CHANCE 500.00 END
DVP_P4-2: H2T569	CONTINGENCY 'DVP_P4-2: H2T569' /* MORRISVILLE 500 KV OPEN BRANCH FROM BUS 314913 TO BUS 314916 CKT 1 /* 8LOUDOUN 500.00 - 8MORRSVL 500.00 OPEN BRANCH FROM BUS 314063 TO BUS 314916 CKT 2 /* 6MORRSVL 230.00 - 8MORRSVL 500.00 END
DVP_P1-2: LN 569	CONTINGENCY 'DVP_P1-2: LN 569' OPEN BRANCH FROM BUS 314913 TO BUS 314916 CKT 1 /* 8LOUDOUN 500.00 - 8MORRSVL 500.00 /* SET PRECONTRATING 2858 BRANCH FROM BUS 314916 TO BUS 314929 CKT 1/* RATE A OF LN 541 IS DE-RATED! /* SET POSTCONTRATING 3118 BRANCH FROM BUS 314916 TO BUS 314929 CKT 1/* RATE B OF LN 541 IS DE-RATED! /* SET PRECONTRATING 2598 BRANCH FROM BUS 314913 TO BUS 314930 CKT 1/* RATE A OF LN 584 IS DE-RATED! /* SET POSTCONTRATING 2858 BRANCH FROM BUS 314913 TO BUS 314930 CKT 1/* RATE B OF LN 584 IS DE-RATED! END
DVP_P1-2: LN 255-E	CONTINGENCY 'DVP_P1-2: LN 255-E' OPEN BRANCH FROM BUS 961810 TO BUS 314232 CKT 1 /* AG1-023 TAP 230.00 - 6NO ANNA 230.00 END

13 Light Load Analysis

The Queue Project AG1-152 was evaluated as a 100.1 MW (Capacity 100.1 MW) injection at the Remington CT 230 kV substation in the Dominion area. Project AG1-152 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-152 was studied with a commercial probability of 100.0 %. Potential network impacts were as follows:

13.1 Light Load Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

None

13.2 Multiple Facility Contingency

(Double Circuit Tower Line, Fault with a Stuck Breaker, and Bus Fault contingencies for the full energy output)

None

13.3 Contribution to Previously Identified Overloads

(This project contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

None

13.4 Steady-State Voltage Requirements

To be determined

13.5 Potential Congestion due to Local Energy Deliverability

None

13.6 System Reinforcements

None.

13.7 Queue Dependencies

The Queue Projects below are listed in one or more indices for the overloads identified in your report. These projects contribute to the loading of the overloaded facilities identified in your report. The percent overload of a facility and cost allocation you may have towards a particular reinforcement could vary depending on the action of these earlier projects. The status of each project at the time of the analysis is presented in the table. This list may change as earlier projects withdraw or modify their requests.

Queue Number	Project Name	Status
AA1-038	Lexington-Low Moor 230kV	Engineering and Procurement
AA2-017	East Palmerton-Acahela 69kV	Suspended
AA2-048	Allenwood-Larrabee 34kV	Engineering and Procurement
AA2-060	Branchville-Sussex #1 34kV	Engineering and Procurement
AA2-061	Branchville-Sussex #2 34.5kV	Engineering and Procurement
AB1-056	Indian River 230kV I	Engineering and Procurement
AB1-182	Bear Creek	Suspended
AC1-071	Paupack-Lackawanna 230kV	Suspended
AC2-017	Calvert Cliffs 500kV	Active
AC2-053	Germantown 115kV	Suspended
AD1-143	Hauto-Siegfried 69 kV	Suspended
AD2-025	Hillsborough 13 kV	Suspended
AD2-059	Chapel Street 138 kV	Active
AD2-077	Buxmont 69 kV	Active
AE1-001	Calvert Cliffs	Active
AE1-051	East Carbondale-Lackawanna 69kV	Active
AE1-060	Kittatinny-Newton 34.5 kV	Active
AE1-061	Minotola 12 kV	Active
AE1-062	Silver Lake 69 kV	Active
AE1-087	Todd 69 kV	Engineering and Procurement
AE1-104	BL England 138 kV	Active
AE1-115	Churchtown 69 kV	Active
AE1-145	Wallops Island 69 kV	Active
AE1-147	Bellefonte 46 kV	Engineering and Procurement
AE1-161	Landis 138 kV	Active
AE1-231	Hughesville 69 kV	Active
AE1-243	Warren Glen Storage 34.5 kV	Active
AE2-000	N/A	N/A
AE2-019	New Road 230 kV	Active
AE2-020	Cardiff 230 kV I	Active
AE2-021	Cardiff 230 kV II	Active
AE2-022	Cardiff 230 kV III	Active
AE2-024	Larrabee 230 kV I	Active
AE2-025	Larrabee 230 kV II	Active

Queue Number	Project Name	Status
AE2-040	Sapony 34.5 kV	Active
AE2-041	Harmony Village 230 kV	Active
AE2-046	Harwood-East Hazelton 69 kV	Active
AE2-052	Disputanta-Poe 115 kV	Active
AE2-053	Kerr Dam-Ridge Road 115 kV	Active
AE2-150	Bakers Pond-Bell Ave 115 kV	Active
AE2-156	Yadkin 115 kV	Active
AE2-222	Higbee 69 kV	Active
AE2-237	Vernon-Sugar Loaf #2 115 kV	Active
AE2-251	Cardiff 230 kV	Active
AE2-257	Cedar Neck 69 kV	Active
AE2-270	Hopewell-Surry 230 kV	Active
AE2-295	Eldred 230 kV	Active
AF1-007	Indian River 230 kV I	Active
AF1-018	Harmony Village 230 kV	Active
AF1-019	Branchville-Holiday Lakes 34.5 kV	Active
AF1-026	Edge Road Battery Storage (CIRs)	In Service
AF1-027	Plumsted 537 Energy Storage (CIRs)	In Service
AF1-028	Endless Caverns 115 kV	Active
AF1-040	Gratz Tap 69 kV	Active
AF1-059	Brodnax-South Hill 115 kV	Active
AF1-066	New Road 230 kV	Active
AF1-082	Heartsease-Mayo Dunbar DP	Active
AF1-099	Moshannon-Milesburg 230 kV	Active
AF1-101	Oyster Creek 230 kV III	Active
AF1-105	Glen Gardner 34.5 kV	Active
AF1-106	East Sayre 34.5 kV	Active
AF1-108	East Flemington 34.5 kV	Active
AF1-109	Pleasant Valley 230 kV	Active
AF1-142	Moshannon-Milesburg 230 kV	Active
AF1-160	Silver Lake 69 kV	Active
AF1-201	Hayes-White Marsh 115 kV	Active
AF1-208	Quinton-Roadstown 69 kV	Active
AF1-222	Oceanview Wind 2 230 kV	Active
AF1-231	New Church 138 kV	Active
AF1-237	Mercer 230 kV	Active
AF1-238	Sherman Ave. 69 kV	Active
AF1-239	Sherman Ave-Vineland 69 kV	Active
AF1-244	Kingston 12 kV	Active
AF1-245	Hudson 230 kV	Active
AF1-265	Four Rivers-Hanover 230 kV	Active
AF1-266	Clubhouse-Sapony 230 kV	Active
AF1-293	Kidds Store-Fort Union 115 kV	Active
AF1-320	Merrill Creek 115 kV	Active
AF1-325	Sparta-Woodruff's Gap 34.5 kV	Active
AF1-328	Hackettstown-Pohatcong 34.5 kV	Active
AF2-013	Arnold's Corner-Dahlgren 230 kV	Active
AF2-016	Lewis 138 kV	Active
AF2-019	Middle 69 kV	Active
AF2-020	Carll's Corner 69 kV	Active
AF2-021	Cedar 69 kV	Active
AF2-023	Churchtown 69 kV	Active

Queue Number	Project Name	Status
AF2-024	Mickleton 69 kV	Active
AF2-025	Missouri Ave 69 kV	Active
AF2-030	Ontelaunee 230 kV	Active
AF2-038	Printz 230 kV	Withdrawn
AF2-040	Elk Run-Gainesville 230 kV	Active
AF2-055	Plaintation Creek 69 kV	Active
AF2-057	Grassfield 34.5 kV	Active
AF2-060	Wattsville 12 kV	Active
AF2-061	Wattsville 69kV	Active
AF2-071	Windsor 230 kV	Active
AF2-072	Larrabee 230 kV	Active
AF2-085	Midlothian 34.5 kV	Engineering and Procurement
AF2-108	Locks 34.5 kV	Active
AF2-144	Powhatan 34.5 kV	Active
AF2-193	Indian River 230 kV I	Active
AF2-194	Indian River 230 kV II	Active
AF2-196	Cedar Neck 69 kV II	Active
AF2-197	East Towanda 115 kV	Active
AF2-207	Nelson 69 kV	Active
AF2-208	Colora 230 kV	Active
AF2-213	Zions View-Smith Street 115 kV	Active
AF2-232	Bowmanns Mill Tap-Scott 69 kV	Active
AF2-233	Penns-Richfield Tie #1 69 kV	Active
AF2-234	Sunbury Yard #1-Richfield Tie #2 69 kV	Active
AF2-249	Edgewood 12 kV II	Active
AF2-251	Susquehanna unit 1 230 kV	Active
AF2-268	Orrtanna 13.2 kV	Engineering and Procurement
AF2-271	Pemberton-Sinking Valley 12.47 kV	Engineering and Procurement
AF2-272	Bernville 13.2 kV	Engineering and Procurement
AF2-275	Guilford 12.47 kV	Engineering and Procurement
AF2-276	Guilford 12.47 kV	Active
AF2-277	Richland 12.47 kV	Engineering and Procurement
AF2-278	Halifax 12.47 kV	Engineering and Procurement
AF2-279	Letort 12.47 kV	Engineering and Procurement
AF2-280	Buck 12.47 kV	Engineering and Procurement
AF2-281	Lynnville 13.2 kV	Engineering and Procurement
AF2-282	Edelle 12.47 kV	Engineering and Procurement
AF2-283	Greenfield 12.47 kV	Engineering and Procurement
AF2-284	Watson 12.47 kV	Engineering and Procurement
AF2-285	W. Damascus 12.47 kV	Engineering and Procurement
AF2-286	Shermansdale 12.47 kV	Engineering and Procurement
AF2-287	Green Park 12.47 kV	Engineering and Procurement
AF2-288	Benvenue 12.47 kV	Engineering and Procurement
AF2-289	Watson 12.47 kV	Engineering and Procurement
AF2-290	Derry 12.47 kV	Engineering and Procurement
AF2-293	Beech Creek 12.47 kV	Engineering and Procurement
AF2-315	Susquehanna Unit 2 500 kV	Active
AF2-325	Jacktown 12 kV	Active
AF2-378	Cambridge 12 kV	Engineering and Procurement
AF2-379	Princess Anne 25 kV	Engineering and Procurement
AF2-383	Tolna 115 kV	Active
AF2-397	Fork Union-Mt. Eagle 230 kV	Active

Queue Number	Project Name	Status
AF2-405	East Sayre 34.5 kV III	Active
AF2-406	Sayre 115 kV	Active
AF2-409	Vienna 138 kV	Active
AF2-412	Mainesburg 115 kV	Active
AF2-413	Raritan River 230 kV	Active
AF2-414	Bergen 345 kV	Active
AF2-415	Bergen 138 kV	Active
AF2-416	Bergen 26 kV	Active
AF2-427	Watson 12.47 kV	Engineering and Procurement
AF2-428	West Boyertown 13.2 kV	Engineering and Procurement
AF2-429	South Hamburg 34.5 kV	Engineering and Procurement
AF2-430	Moselem 13.2 kV	Engineering and Procurement
AF2-431	Baldy 13.2 kV	Engineering and Procurement
AF2-432	University 12.47 kV	Engineering and Procurement
AG1-000A	N/A	N/A
AG1-000B	N/A	N/A
AG1-009	Hopewell-Surry 230kV	Active
AG1-010	Ladysmith-CT-St. Johns 230 kV	Active
AG1-011	Colonial Trial 230 kV	Active
AG1-013	Ladysmith CT-St. Johns 230 kV	Active
AG1-014	Carson-Rogers Rd 500 kV	Active
AG1-015	Carson-Rogers Rd 500 kV	Active
AG1-019	Arnold's Corner-Dahlgren 230 kV	Active
AG1-028	Suffolk-Holland 115 kV	Active
AG1-050	Milton 69 kV	Active
AG1-052	Zionsview-Middletown 115 kV II	Active
AG1-053	Jackson-Three Mile Island 230 kV III	Active
AG1-057	Harmony Village 230 kV	Active
AG1-060	Eldred 69 kV	Active
AG1-063	Fairhaven 13,8 kV	Active
AG1-064	Plaza 34.5 kV	Engineering and Procurement
AG1-065	Plaza 34.5 kV	Engineering and Procurement
AG1-072	Hillsboro-Steele 138 kV II	Active
AG1-087	Milford-Cartanza 230 kV	Active
AG1-088	Carll's Corner-Sherman Ave 69 kV	Active
AG1-102	White Marsh 34.5 kV	Active
AG1-103	Clayton-Williamstown 69 kV	Active
AG1-104	Waugh Chapel 230 kV	Active
AG1-108	Larrabee 230 kV	Active
AG1-110	Silver Lake 69 kV	Active
AG1-115	Buxmont 69 kV	Active
AG1-116	Newport-South Millville 69 kV	Active
AG1-117	Churchtown-Upper Pittsgrove 138 kV	Active
AG1-130	Burlington 26 kV	Active
AG1-137	Harrisonburg 230 kV	Active
AG1-143	Gainesville-Loudoun 230 kV	Active
AG1-148	McCarter 26.4 kV	Active
AG1-149	Kingston 12 kV II	Active
AG1-150	Wattsville 69 kV II	Active
AG1-151	Endless Caverns 115 kV	Active
AG1-152	Remington CT 230 kV	Active
AG1-153	Heritage 500 kV	Active

Queue Number	Project Name	Status
AG1-154	Ladysmith CT 230 kV	Active
AG1-160	Rogers Road 500 kV	Active
AG1-180	Brunswick-Gasburg 69 kV	Active
AG1-184	Carson-Suffolk 500 kV	Active
AG1-185	Pamplin-Chase City 115 kV	Active
AG1-187	St. Johns DP-REC 115 kV	Active
AG1-196	Grottoes 115 kV	Active
AG1-210	Northern Neck 34.5 kV	Active
AG1-213	St Johns 13.2 kV	Active
AG1-214	Grottoes 12.5 kV	Active
AG1-215	Fort Pickett 13.2 kV	Active
AG1-221	Poland Rd-Runway DP 230 kV	Active
AG1-248	York Storage 115 kV	Active
AG1-254	Salem-Woodstown 69 kV	Active
AG1-255	Churchtown-Orchard 230 kV	Active
AG1-256	Northern Neck 230 kV	Active
AG1-262	Lower Mount Bethel 230 kV	Active
AG1-263	Gloucester 230 kV	Active
AG1-267	Martins Creek 69 kV	Active
AG1-268	Essex 230 kV	Active
AG1-272	Twitty's Creek 115 kV	Active
AG1-273	Twitty's Creek 115 kV	Active
AG1-274	Twitty's Creek 115 kV	Active
AG1-277	Salem-Beacon Power 69 kV	Active
AG1-278	Salem-Beacon Power 69 kV	Active
AG1-279	Salem-Beacon Power 69 kV	Active
AG1-289	Lake of the Woods DP-Wilderness DP 115 kV	Active
AG1-290	Wagner 115 kV	Active
AG1-317	Livingston 13.8 kV	Active
AG1-318	Ocean Bay 12 kV	Active
AG1-322	Birchwood 230 kV	Active
AG1-330	Beavertown 12.47 kV	Active
AG1-332	Oxford 13.2 kV	Withdrawn
AG1-333	Lake Como-Pine Mills 12.47 kV	Withdrawn
AG1-336	Hunter 12.47 kV	Active
AG1-337	Elizabethville 12.47 kV	Active
AG1-342	Dryburg 115 kV	Active
AG1-343	Boykins-Murphy 115 kV	Active
AG1-347	Briery DP-Clover 230 kV	Active
AG1-359	Fentress 230 kV	Active
AG1-363	Black Oak-Hatfield 500 kV	Active
AG1-364	Deep Creek 115 kV	Active
AG1-383	Hickory 34.5 kV	Active
AG1-384	Twitty's Creek 115 kV	Active
AG1-397	Walston 12 kV	Active
AG1-412	Ladysmith CT-Mine Road 230 kV	Active
AG1-416	Sleepy Hollow 138 kV	Active
AG1-422	Lexington-Dooms 230 kV	Active
AG1-426	Bremo-Scottsville 138 kV	Active
AG1-431A	Mackeys 230 kV	Active
AG1-442	Cashie-Earleys 230 kV	Active
AG1-443	Cashie-Earleys 230 kV	Active

Queue Number	Project Name	Status
AG1-444	Chinquapin 230 kV	Active
AG1-445	Palmer Spring 115 kV	Active
AG1-446	Palmer Springs 115 kV	Active
AG1-449	Rawlings-Carson 500 kV	Active
AG1-450	Airey-Vienna 69 kV II	Active
AG1-451	Curdsville DP-Willis Mt. 115 kV	Active
AG1-464	Harrington 69 kV	Active
AG1-465	North Hanover-Gitts Run 115 kV	Active
AG1-470	Ringgold 138 kV	Active
AG1-473	Shingletown-Lewistown 230 kV	Active
AG1-480	Shawnee 34.5 kV	Active
AG1-484	Mountain 115 kV	Active
AG1-486	Orrtanna 115 kV	Active
AG1-487	Gilbert 230 kV	Active
AG1-497	Cartanza 230 kV	Active
AG1-510	Kittatinny-Blairstown 34.5 kV	Active
AG1-511	Kittatinny 230 kV	Active
AG1-515	Guilford 138 kV	Active
AG1-518	Suffolk 230 kV	Active
AG1-534	Evergreen Mills 230 kV	Active
AG1-536	Garner-Northern Neck 115 kV	Active
AG1-537	Barterbrook-Stuarts Draft 115 kV	Active
AG1-538	Remington-Gordonsville 230 kV	Active
AG1-539	Grit DP-Perth 115 kV	Active
AG1-541	St. Johns 115 kV	Active
AG1-544	Bakers Pond DP 115 kV	Active
AG1-545	W. Quaker Rd-Disputanta 34.5 kV	Active
AG1-556	Lexington 115 kV	Active
AG1-560	Shade Gap-Roxbury 115 kV II	Active
AG1-561	Roxbury-Greene 138 kV II	Active
V3-051	Letort	In Service

13.8 Contingency Descriptions

Contingency Name	Contingency Definition
DICK TO EDFERRY	CONTINGENCY 'DICK TO EDFERRY' /* MODIFIED BY PEPCO 1/29/17 DISCONNECT BRANCH FROM BUS 223937 TO BUS 314290 CKT 1 /* STATIONH 230 EDFERRY 230 END
DVP_P1-4: BURCHES_8POSSUM_1	CONTINGENCY 'DVP_P1-4: BURCHES_8POSSUM_1' OPEN BRANCH FROM BUS 200019 TO BUS 314922 CKT 1 /* BURCHES 500.00 - 8POSSUM 500.00 END
AP-P1-2-PE-500-407T	CONTINGENCY 'AP-P1-2-PE-500-407T' /* 01DOUBS 500 8GOOSE CREEK 500 1 DISCONNECT BRANCH FROM BUS 235105 TO BUS 314939 CKT 1 /* 01DOUBS 500 8GOOSE CREEK500 END

14 Short Circuit Analysis

None found to be overdutied.

14.1 System Reinforcements - Short Circuit

No reinforcements required.

15 Stability and Reactive Power

Stability study required. Results to be determined in the Facilities Study Phase.

16 Affected Systems

None

17 Attachment 1: One Line Diagram