



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-284
BREMO-CUNNINGHAM DP 115 KV
42 MW Capacity / 70 MW Energy**

January 2021

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1 Introduction

This Feasibility Study has been prepared in accordance with the PJM Open Access Transmission Tariff, 36.2, as well as the Feasibility 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 feasibility study is to determine a plan, with ballpark cost and construction time estimates, to connect the subject generation to the PJM network at a location specified by the Interconnection Customer. The Interconnection Customer may request the interconnection of generation as a capacity resource or as an energy-only resource. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: (1) Direct Connections, which are new facilities and/or facilities upgrades needed to connect the generator to the PJM network, and (2) Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system.

In some instances a generator interconnection may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g. another generation interconnection, may also contribute to the need for the same network reinforcement. Cost allocation rules for network upgrades can be found in PJM Manual 14A, Attachment B. 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 impact study is performed.

The Interconnection Customer seeking to interconnect a wind or solar generation facility shall maintain meteorological data facilities as well as provide that meteorological data which is required per Schedule H to the Interconnection Service Agreement and Section 8 of Manual 14D.

The Feasibility 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.

3 General

The Interconnection Customer (IC), has proposed a Solar generating facility located in Fluvanna County, Virginia. The installed facilities will have a total capability of 70 MW with 42 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is September 30, 2023. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-284
Project Name	BREMO-CUNNINGHAM DP 115 KV
State	Virginia
County	Fluvanna
Transmission Owner	Dominion
MFO	70
MWE	70
MWC	42
Fuel	Solar
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

4.1 Primary Point of Interconnection

AG1-284 will interconnect with the Dominion transmission system at the Fork Union 115 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.

4.2 Secondary Point of Interconnection

The IC requested that a secondary POI be reviewed for network impacts.

The secondary POI for AG1-284 is a new tap on the Bremo-Cunningham DP 115 kV line.

This report does not provide costs for the interconnection of the secondary POI. The secondary POI was analyzed for network impacts. Network impact results are shown in the Summer Peak - Load Flow Analysis – Secondary Point of Interconnection section of this report.

5 Cost Summary

The AG1-284 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$2,700,000
Total System Network Upgrade Costs	\$196,450,000 ¹
Total Costs	\$199,150,000

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 2016-36, 2016-25 I.R.B. (6/20/2016). 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.

Cost allocations for any System Upgrades will be provided in the System Impact Study Report.

¹ This project currently causes and/or contributes to overloads of the Transmission System (see Summer Peak Load Flow Analysis section below) and therefore has potential to have cost allocation for the system reinforcements listed in the report. This will be re-evaluated in the System Impact phase. The results may vary with queue customers withdrawing from the queue and other generators deactivating over time. If a customer is the first to cause the need for a project (causes loading to exceed 100% of rating), then the customer is responsible. If a customer contributes to a facility that is already overloaded by a prior queue, then they may receive cost allocation.

6 Transmission Owner Scope of Work

The required Attachment Facilities, Direct Connection and Non-Direct Connection work for the interconnection of AG1-284 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 is given in the table below:

Description	Total Cost
Attachment Facilities	\$1,700,000
New Breaker	\$1,000,000
Total Physical Interconnection Costs	\$2,700,000

AG1-284 "Fork Union 115 kV" will interconnect with the Dominion transmission system. The primary POI is a direct connect to the Fork Union 115 kV substation.

To accommodate the proposed Project, Dominion Energy will add one new 115 kV breaker to the existing Fork Union 115 kV substation to allow for the proposed interconnection. Dominion will install one span of overhead 115 kV line to the point of interconnection ("POI") including 115 kV interconnection metering.

It is estimated to take 18-30 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

The estimated schedule for the Attachment Facilities, Direct Connection and Non-Direct Connection work is identified in the “Transmission Owner Scope of Work” section of this report.

The estimated schedule for the required Network Impact Reinforcements is identified in the “System Reinforcements” section of this report.

These schedules will be more clearly identified in future study phases.

If the customer is ultimately responsible for network upgrades, then the schedule for those upgrades will be refined in future study phases. The customer would need to wait for those upgrades to be completed prior to commercial operation unless determined deliverable by an interim deliverability study. The elapsed time to complete any network upgrades is provided in the System Reinforcements table of this report.

8 Transmission Owner Analysis

Dominion assessed the impact of the proposed AG1-284 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).
1. 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.
2. 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.
3. 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 Meteorological Data Reporting Requirements

The solar generation facility shall provide the Transmission Provider with site-specific meteorological data including:

- Back Panel temperature (Fahrenheit) - (Required for plants with Maximum Facility Output of 3 MW or higher)
- Irradiance (Watts/meter²) - (Required for plants with Maximum Facility Output of 3 MW or higher)
- Ambient air temperature (Fahrenheit) - (Accepted, not required)
- Wind speed (meters/second) - (Accepted, not required)
- Wind direction (decimal degrees from true north) - (Accepted, not required)

10.3 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 - Load Flow Analysis - Primary POI

The Queue Project AG1-284 was evaluated as a 70.0 MW (Capacity 42.0 MW) injection at the Fork Union 115 kV substation in the Dominion area. Project AG1-284 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-284 was studied with a commercial probability of 53.0 %. 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	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
169664269	941010	AE2-092 TAP	115.0	DVP	314774	3SHERWOOD	115.0	DVP	1	314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	single	169.199996948	98.3	102.45	DC	7.03
169664270	941010	AE2-092 TAP	115.0	DVP	314774	3SHERWOOD	115.0	DVP	1	DVP_P1-2: LN 2028-B	single	169.199996948	98.0	102.16	DC	7.03
169956776	961060	AF2-397 TAP	230.0	DVP	966790	AG1-550 TAP	230.0	DVP	1	Base Case	single	661.760009766	99.63	101.81	DC	14.64
169956786	966790	AG1-550 TAP	230.0	DVP	314765	6MTEAGLE	230.0	DVP	1	Base Case	single	661.760009766	99.62	101.8	DC	14.64

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	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
166941784	941010	AE2-092 TAP	115.0	DVP	314774	3SHERWOOD	115.0	DVP	1	DVP_P7-1: LN 5-2028-C	tower	208.0	98.12	103.76	DC	11.72

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	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
168439139	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	single	661.760009766	142.73	145.78	DC	20.23
168439140	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	138.92	141.98	DC	20.23

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE C T LOADIN G %	POST PROJE C T LOADIN G %	AC D C	MW IMPAC T
1632410 67	31386 8	6CARTER V	230. 0	DVP	93350 0	AC2-165 TAP	230. 0	DVP	1	DVP_P7-1: LN 5-2028-C	towe r	980.0	102.45	105.34	DC	28.34
1684393 04	31386 8	6CARTER V	230. 0	DVP	93350 0	AC2-165 TAP	230. 0	DVP	1	DVP_P1-2: LN 2028-B	singl e	800.8800048 83	106.02	108.14	DC	17.0
1684393 05	31386 8	6CARTER V	230. 0	DVP	93350 0	AC2-165 TAP	230. 0	DVP	1	314765 6MTEAGL E 230 966790 AG1-550 TAP 230 1	singl e	800.8800048 83	106.01	108.13	DC	17.0
1632410 21	31431 0	6JUDES F	230. 0	DVP	31432 2	6MDLTHA N	230. 0	DVP	1	DVP_P7-1: LN 5-2028-C	towe r	980.0	111.09	113.98	DC	28.33
1687426 44	31431 0	6JUDES F	230. 0	DVP	31432 2	6MDLTHA N	230. 0	DVP	1	DVP_P1-2: LN 2028-B	singl e	800.8800048 83	111.8	113.92	DC	17.0
1687426 45	31431 0	6JUDES F	230. 0	DVP	31432 2	6MDLTHA N	230. 0	DVP	1	314765 6MTEAGL E 230 966790 AG1-550 TAP 230 1	singl e	800.8800048 83	111.79	113.91	DC	17.0
1632410 16	31433 3	6POWHA TN	230. 0	DVP	31431 0	6JUDES F	230. 0	DVP	1	DVP_P7-1: LN 5-2028-C	towe r	980.0	111.2	114.09	DC	28.33
1687426 39	31433 3	6POWHA TN	230. 0	DVP	31431 0	6JUDES F	230. 0	DVP	1	314765 6MTEAGL E 230 966790 AG1-550 TAP 230 1	singl e	800.8800048 83	111.93	114.05	DC	17.0
1687426 40	31433 3	6POWHA TN	230. 0	DVP	31431 0	6JUDES F	230. 0	DVP	1	DVP_P1-2: LN 2028-B	singl e	800.8800048 83	111.93	114.05	DC	17.0
1632410 53	31474 7	6BREMO	230. 0	DVP	31386 8	6CARTER V	230. 0	DVP	1	DVP_P7-1: LN 5-2028-C	towe r	980.0	103.6	106.49	DC	28.34
1684392 82	31474 7	6BREMO	230. 0	DVP	31386 8	6CARTER V	230. 0	DVP	1	DVP_P1-2: LN 2028-B	singl e	800.8800048 83	107.43	109.55	DC	17.0
1684392 83	31474 7	6BREMO	230. 0	DVP	31386 8	6CARTER V	230. 0	DVP	1	314765 6MTEAGL E 230 966790 AG1-550 TAP 230 1	singl e	800.8800048 83	107.42	109.54	DC	17.0
1694029 15	31474 9	6CHARLVL	230. 0	DVP	31477 2	6PROFFIT	230. 0	DVP	1	DVP_P1-2: LN 550	singl e	550.8400268 55	103.7	104.72	DC	5.63
1694026 97	31476 5	6MTEAGL E	230. 0	DVP	31474 9	6CHARLVL	230. 0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	singl e	661.7600097 66	146.6	149.66	DC	20.22
1694026 98	31476 5	6MTEAGL E	230. 0	DVP	31474 9	6CHARLVL	230. 0	DVP	1	DVP_P1-2: LN 2027	singl e	661.7600097 66	142.81	145.87	DC	20.22
1632410 31	93350 0	AC2-165 TAP	230. 0	DVP	31433 3	6POWHA TN	230. 0	DVP	1	DVP_P7-1: LN 5-2028-C	towe r	980.0	109.4	112.3	DC	28.34
1696641 44	93350 0	AC2-165 TAP	230. 0	DVP	31433 3	6POWHA TN	230. 0	DVP	1	DVP_P1-2: LN 2028-B	singl e	800.8800048 83	110.84	112.97	DC	17.0

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
169664145	933500	AC2-165 TAP	230.0	DVP	314333	6POWHA TN	230.0	DVP	1	314765 6MTEAGL E 230 966790 AG1-550 TAP 230 1	single	800.88000483	110.83	112.95	DC	17.0
169956773	961060	AF2-397 TAP	230.0	DVP	966790	AG1-550 TAP	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	single	661.760009766	150.17	153.23	DC	20.23
169956774	961060	AF2-397 TAP	230.0	DVP	966790	AG1-550 TAP	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	146.37	149.43	DC	20.23
169956783	966790	AG1-550 TAP	230.0	DVP	314765	6MTEAGL E	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	single	661.760009766	150.14	153.2	DC	20.23
169956784	966790	AG1-550 TAP	230.0	DVP	314765	6MTEAGL E	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	146.36	149.41	DC	20.23

11.4 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	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPACT
168439137	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	operation	661.760009766	170.57	175.66	DC	33.71
168439141	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	Base Case	operation	661.760009766	115.28	118.97	DC	24.41
168439385	313708	3FORK UNION	115.0	DVP	313707	6FORK UNION	230.0	DVP	1	DVP_P1-2: LN 2193	operation	269.779998779	109.68	119.85	DC	27.34
168439302	313868	6CARTER V	230.0	DVP	933500	AC2-165 TAP	230.0	DVP	1	DVP_P1-2: LN 2028-B	operation	800.880004883	124.27	127.81	DC	28.34
168742642	314310	6JUDES F	230.0	DVP	314322	6MDLTHA N	230.0	DVP	1	DVP_P1-2: LN 2028-B	operation	800.880004883	134.85	138.38	DC	28.33

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 LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
168742637	314333	6POWHA TN	230.0	DVP	314310	6JUDES F	230.0	DVP	1	314765 6MTEAGL E 230 966790 AG1-550 TAP 230 1	operation	800.880004 883	134.97	138.51	DC	28.33
168742638	314333	6POWHA TN	230.0	DVP	314310	6JUDES F	230.0	DVP	1	DVP_P1-2: LN 2028-B	operation	800.880004 883	134.97	138.51	DC	28.33
168439280	314747	6BREMO	230.0	DVP	313868	6CARTER V	230.0	DVP	1	DVP_P1-2: LN 2028-B	operation	800.880004 883	125.68	129.22	DC	28.34
169402912	314749	6CHARLV L	230.0	DVP	314772	6PROFFIT	230.0	DVP	1	DVP_P1-2: LN 553	operation	550.840026 855	107.11	108.62	DC	8.34
169402695	314765	6MTEAGL E	230.0	DVP	314749	6CHARLV L	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	operation	661.760009 766	168.93	174.02	DC	33.71
169402699	314765	6MTEAGL E	230.0	DVP	314749	6CHARLV L	230.0	DVP	1	Base Case	operation	661.760009 766	117.09	120.78	DC	24.41
169664142	933500	AC2-165 TAP	230.0	DVP	314333	6POWHA TN	230.0	DVP	1	DVP_P1-2: LN 2028-B	operation	800.880004 883	132.79	136.33	DC	28.34
169664267	941010	AE2-092 TAP	115.0	DVP	314774	3SHERW OD	115.0	DVP	1	314765 6MTEAGL E 230 966790 AG1-550 TAP 230 1	operation	169.199996 948	118.97	125.9	DC	11.72
169956771	961060	AF2-397 TAP	230.0	DVP	966790	AG1-550 TAP	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	operation	661.760009 766	180.07	185.16	DC	33.71
169956775	961060	AF2-397 TAP	230.0	DVP	966790	AG1-550 TAP	230.0	DVP	1	Base Case	operation	661.760009 766	121.23	124.92	DC	24.41
169956781	966790	AG1-550 TAP	230.0	DVP	314765	6MTEAGL E	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	operation	661.760009 766	176.75	181.85	DC	33.71
169956785	966790	AG1-550 TAP	230.0	DVP	314765	6MTEAGL E	230.0	DVP	1	Base Case	operation	661.760009 766	120.02	123.71	DC	24.41

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
169402697,169 402698	10	6MTEAGLE 230.0 kV - 6CHARLVL 230.0 kV Ckt 1	<u>DVP</u> n6184 (1587) : Rebuild 6.47 miles of 230 kV Line 2028 from Mt Eagle to Charlottesville with 2-636 ACSR. Project Type : FAC Cost : \$16,175,000 Time Estimate : 30-36 Months dom-369 (1767) : Rebuild 6.47 miles of 230 kV Line 2028 from Mt Eagle to Charlottesville with 2-768.2 ACSS 250 C. Replace Wave Trap at Charlottesville terminal Project Type : FAC Cost : \$16,375,000 Time Estimate : 36-40 Months	\$32,550,000
163241016,168 742640,168742 639	7	6POWHATN 230.0 kV - 6JUDES F 230.0 kV Ckt 1	<u>DVP</u> dom-303 (1701) : Rebuild 7.09 miles of 230 kV Line 2027 from Judes to Powhatan with 2-795 ACSR 150 C Project Type : FAC Cost : \$17,725,000 Time Estimate : 36-40 Months	\$17,725,000
163241053,168 439282,168439 283	8	6BREMO 230.0 kV - 6CARTERV 230.0 kV Ckt 1	<u>DVP</u> dom-364 (1762) : Rebuild 9.46 miles of 230 kV Line 2027 from Brema to Cartersville with 2-795 ACSR 150 C. Replace breaker lead at Brema terminal. Project Type : FAC Cost : \$23,650,000 Time Estimate : 36-40 Months	\$23,650,000
169956783,169 956784,169956 786	3	AG1-550 TAP 230.0 kV - 6MTEAGLE 230.0 kV Ckt 1	<u>DVP</u> dom-421 (1819) : Rebuild 6.5 miles of 230 kV Line 2028 from AG1-550 Tap to Mt Eagle with 2-768.2 ACSS 250 C Project Type : FAC Cost : \$16,250,000 Time Estimate : 30-36 Months	\$16,250,000
169664270,169 664269,166941 784	1	AE2-092 TAP 115.0 kV - 3SHERWOD 115.0 kV Ckt 1	<u>DVP</u> n6378 (1457) : Rebuild 6.42 miles of 115 kV Line 91 from AE2-092 Tap to Sherwood with 2-636 ACSR. Project Type : FAC Cost : \$16,050,000 Time Estimate : 30-36 Months	\$16,050,000
168439140,168 439139	4	6FORK UNION 230.0 kV - AF2- 397 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-198 (1596) : Rebuild 5 miles of 230 kV Line 2028 from Fork Union to AF2-397 Tap with 2-636 ACSR. Project Type : FAC Cost : \$7,500,000 Time Estimate : 30-36 Months	\$7,500,000

ID	Idx	Facility	Upgrade Description	Cost
168742645,163 241021,168742 644	6	6JUDES F 230.0 kV - 6MDLTHAN 230.0 kV Ckt 1	<u>DVP</u> dom-302 (1700) : Rebuild 7.09 miles of 230 kV Line 2027 from Judes to Midlothian with 2-795 ACSR 150 C. Project Type : FAC Cost : \$17,725,000 Time Estimate : 36-40 Months	\$17,725,000
169402915	9	6CHARLVL 230.0 kV - 6PROFFIT 230.0 kV Ckt 1	<u>DVP</u> dom-365 (1763) : Rebuild 8.72 miles of 230 kV Line 2054 from Charlottesville to Profit D.P. with 2-636 ACSR 150 C Project Type : FAC Cost : \$21,800,000 Time Estimate : 36-40 Months	\$21,800,000
163241067,168 439305,168439 304	5	6CARTERV 230.0 kV - AC2- 165 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-277 (1675) : Rebuild 7.67 miles of 230 kV Line 2027 from Carterville to AC2-165 Tap with 2-636 ACSR (24/7) 150 C Project Type : FAC Cost : \$19,175,000 Time Estimate : 36-40 Months	\$19,175,000
169956774,169 956776,169956 773	2	AF2-397 TAP 230.0 kV - AG1- 550 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-409 (1807) : Rebuild 5.6 miles of 230 kV Line 2028 from AG1-550 Tap to AF2-397 Tap with 2-636 ACSR 150 C. Project Type : FAC Cost : \$14,000,000 Time Estimate : 36-40 Months	\$14,000,000
163241031,169 664144,169664 145	11	AC2-165 TAP 230.0 kV - 6POWHATN 230.0 kV Ckt 1	<u>DVP</u> dom-389 (1787) : Rebuild 4.01 miles of 230 kV Line 2027 from Powhatan to AC2-165 Tap with 2-795 ACSR (26/7) 150 C Project Type : FAC Cost : \$10,025,000 Time Estimate : 30-36 Months	\$10,025,000
			TOTAL COST	\$196,450,000

11.6 Flow Gate Details - Primary POI

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".

11.6.1 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
166941784	941010	AE2-092 TAP	DVP	314774	3SHERWOD	DVP	1	DVP_P7-1: LN 5-2028-C	tower	208.0	98.12	103.76	DC	11.72

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923862	AB2-026 E	0.2706	Adder	0.32
924032	AB2-045 E	0.4315	Adder	0.51
932512	AC2-071 E (Withdrawn : 01/22/2021)	0.4589	Adder	0.54
932854	AC2-112 C	-5.8435	Adder	-6.87
933501	AC2-165 C	2.8847	Adder	3.39
933502	AC2-165 E	2.1711	Adder	2.55
938562	AE1-075 E	0.2575	Adder	0.3
938821	AE1-108 C O1	10.9435	50/50	10.9435
938822	AE1-108 E O1	4.9115	50/50	4.9115
941011	AE2-092 C	30.5466	50/50	30.5466
941012	AE2-092 E	20.3644	50/50	20.3644
942461	AE2-259 C O1	2.8835	Adder	3.39
942462	AE2-259 E O1	1.9224	Adder	2.26
946291	AF1-293 C O1	26.9341	50/50	26.9341
946292	AF1-293 E O1	4.8452	50/50	4.8452
946591	AF1-323 C	3.4901	50/50	3.4901
946592	AF1-323 E	2.3267	50/50	2.3267
958501	AF2-144 C	0.4451	Adder	0.52
958502	AF2-144 E	0.2967	Adder	0.35
959531	AF2-244 C (Withdrawn : 01/06/2021)	0.4102	Adder	0.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959532	AF2-244 E (Withdrawn : 01/06/2021)	0.2444	Adder	0.29
960111	AF2-302 C	1.2691	50/50	1.2691
960112	AF2-302 E	0.8461	50/50	0.8461
961061	AF2-397 C	7.9412	50/50	7.9412
961062	AF2-397 E	5.2941	50/50	5.2941
961801	AG1-022 C	1.2691	50/50	1.2691
961802	AG1-022 E	0.8461	50/50	0.8461
964231	AG1-284 C O1	7.0333	50/50	7.0333
964232	AG1-284 E O1	4.6889	50/50	4.6889
964623	AG1-325 BAT	1.7670	Merchant Transmission	1.7670
965581	AG1-426	2.3842	50/50	2.3842
965641	AG1-432 C O1	3.0566	Adder	6.78
965642	AG1-432 E O1	2.0377	Adder	4.52
965831	AG1-451	0.5094	Adder	1.13
966673	AG1-537 BAT	2.6505	Merchant Transmission	2.6505
966791	AG1-550 O1	3.5634	50/50	3.5634
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	0.3057	Adder	0.68
966862	AG1-557 E O1 (Withdrawn : 12/14/2020)	0.2038	Adder	0.45
WEC	WEC	0.0019	Confirmed LTF	0.0019
LGEE	LGEE	0.0057	Confirmed LTF	0.0057
CPL	CPL	0.5678	Confirmed LTF	0.5678
CBM-W2	CBM-W2	1.0304	Confirmed LTF	1.0304
NY	NY	0.0758	Confirmed LTF	0.0758
TVA	TVA	0.2506	Confirmed LTF	0.2506
O-066	O-066	0.8749	Confirmed LTF	0.8749
SIGE	SIGE	0.0162	Confirmed LTF	0.0162
CBM-S2	CBM-S2	6.1387	Confirmed LTF	6.1387
CBM-S1	CBM-S1	0.0562	Confirmed LTF	0.0562
G-007	G-007	0.1355	Confirmed LTF	0.1355
MEC	MEC	0.0699	Confirmed LTF	0.0699
LAGN	LAGN	0.3133	Confirmed LTF	0.3133

11.6.2 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
169956773	961060	AF2-397 TAP	DVP	966790	AG1-550 TAP	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	150.17	153.23	DC	20.23

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1287	80/20	0.1287
315153	1CLOVER1	6.8569	80/20	6.8569
315154	1CLOVER2	6.7885	80/20	6.7885
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6058	80/20	0.6058
315160	1KERR 3	0.6058	80/20	0.6058
315161	1KERR 4	0.6058	80/20	0.6058
315162	1KERR 5	0.6058	80/20	0.6058
315163	1KERR 6	0.6058	80/20	0.6058
315164	1KERR 7	0.6058	80/20	0.6058
315191	1BEARGRDN G1	16.8024	80/20	16.8024
315192	1BEARGRDN G2	16.8024	80/20	16.8024
315193	1BEARGRDN S1	21.7287	80/20	21.7287
315266	1PLYWOOD A	0.6338	80/20	0.6338
316118	AC1-105 C	3.2102	80/20	3.2102
316123	AC1-075 C	0.3997	80/20	0.3997
316129	AC1-054 C	3.1902	80/20	3.1902
316131	AB2-060 C	1.1581	80/20	1.1581
924301	AB2-077 C O1 (Suspended)	1.5320	80/20	1.5320
924311	AB2-078 C O1 (Suspended)	1.5320	80/20	1.5320
924321	AB2-079 C O1 (Suspended)	1.5320	80/20	1.5320
925611	AC1-036 C	0.2580	80/20	0.2580
926023	AC1-080 C	0.1336	80/20	0.1336
927251	AC1-221 C	0.7557	80/20	0.7557
927261	AC1-222 C	1.8205	80/20	1.8205
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.9463	80/20	0.9463
932761	AC2-100 C	1.7391	80/20	1.7391
933501	AC2-165 C	31.7815	80/20	31.7815
934311	AD1-055 C	1.2640	80/20	1.2640
934341	AD1-058 C	1.8944	80/20	1.8944
934615	AD1-087 C	4.2935	80/20	4.2935
934625	AD1-088 C	14.0108	80/20	14.0108
934991	AD1-131 C	0.6211	80/20	0.6211
935171	AD1-152 C O1	4.7160	80/20	4.7160
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.3677	80/20	0.3677
936265	AD2-033 C	13.9386	80/20	13.9386
936361	AD2-046 C O1	5.3677	80/20	5.3677
936485	AD2-063 C	13.8276	80/20	13.8276
937481	AD2-202 C O1	1.2576	80/20	1.2576
938371	AE1-056 C	10.0480	80/20	10.0480
938821	AE1-108 C O1	34.7050	80/20	34.7050
939181	AE1-148 C	5.3606	80/20	5.3606
940661	AE2-053 O1	1.9854	80/20	1.9854
941011	AE2-092 C	28.7117	80/20	28.7117
941791	AE2-182 C	2.2763	80/20	2.2763

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942451	AE2-258	1.8439	80/20	1.8439
942461	AE2-259 C O1	18.4836	80/20	18.4836
942751	AE2-291 C	3.6928	80/20	3.6928
942761	AE2-292 C O1	4.5979	80/20	4.5979
943901	AF1-058 C	0.9989	80/20	0.9989
943911	AF1-059	9.4131	80/20	9.4131
945811	AF1-246 C O1	3.3289	80/20	3.3289
946281	AF1-292 C	0.4503	80/20	0.4503
946291	AF1-293 C O1	46.3247	80/20	46.3247
946301	AF1-294 C	6.1432	80/20	6.1432
946591	AF1-323 C	11.1052	80/20	11.1052
957481	AF2-042 C	23.7780	80/20	23.7780
958131	AF2-107 C	5.0071	80/20	5.0071
958211	AF2-115 C	3.6137	80/20	3.6137
958801	AF2-171 C	21.5919	80/20	21.5919
959311	AF2-222 C	19.7380	80/20	19.7380
959751	AF2-266	4.9220	80/20	4.9220
960061	AF2-297 C	3.9955	80/20	3.9955
960081	AF2-299 C	0.7590	80/20	0.7590
960111	AF2-302 C	4.0382	80/20	4.0382
961061	AF2-397 C	49.3810	80/20	49.3810
961791	AG1-021 C	2.8909	80/20	2.8909
961801	AG1-022 C	4.0382	80/20	4.0382
961891	AG1-030 C	20.0871	80/20	20.0871
962041	AG1-048 C	18.0682	80/20	18.0682
962441	AG1-093 C O1	8.5606	80/20	8.5606
962491	AG1-098 C O1	11.2875	80/20	11.2875
962561	AG1-105 C O1	5.6502	80/20	5.6502
962741	AG1-123 C O1	3.4622	80/20	3.4622
962751	AG1-124 C O1	3.7973	80/20	3.7973
963171	AG1-166 C	2.8909	80/20	2.8909
963181	AG1-167 C	2.8909	80/20	2.8909
963191	AG1-168 C	2.8909	80/20	2.8909
963201	AG1-169 C	2.8909	80/20	2.8909
963211	AG1-170 C	2.8909	80/20	2.8909
963271	AG1-176 C O1	18.8540	80/20	18.8540
963301	AG1-179 C	2.7241	80/20	2.7241
963311	AG1-180	1.3273	80/20	1.3273
963321	AG1-181 C O1	18.3458	80/20	18.3458
963361	AG1-185 O1	8.8762	80/20	8.8762
963641	AG1-215 C	1.3491	80/20	1.3491
964111	AG1-272 C	2.9318	80/20	2.9318
964121	AG1-273 C	2.9318	80/20	2.9318
964131	AG1-274 C	2.9318	80/20	2.9318
964231	AG1-284 C O1	20.2255	80/20	20.2255
964241	AG1-285 C O1	11.0250	80/20	11.0250
964261	AG1-287 C	0.7492	80/20	0.7492
964471	AG1-310 C	1.0449	80/20	1.0449
964791	AG1-342 C	2.5948	80/20	2.5948
964821	AG1-345 C	1.1534	80/20	1.1534
964841	AG1-347 C	11.8194	80/20	11.8194
964931	AG1-357 C	7.8348	80/20	7.8348

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965191	AG1-384 C	2.9318	80/20	2.9318
965281	AG1-393 C	2.8909	80/20	2.8909
965451	AG1-413 C O1	3.9569	80/20	3.9569
965581	AG1-426	7.5610	80/20	7.5610
965591	AG1-427 C	10.5299	80/20	10.5299
965601	AG1-428 C O1	2.2741	80/20	2.2741
965641	AG1-432 C O1	36.9672	80/20	36.9672
965721	AG1-440 C	3.7895	80/20	3.7895
965731	AG1-441 C	3.7895	80/20	3.7895
965771	AG1-445	2.1895	80/20	2.1895
965781	AG1-446	2.1895	80/20	2.1895
965831	AG1-451	6.1612	80/20	6.1612
966251	AG1-494 C	1.8194	80/20	1.8194
966621	AG1-532 C	0.4099	80/20	0.4099
966691	AG1-539 C	1.9309	80/20	1.9309
966751	AG1-546 C	6.7436	80/20	6.7436
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.6967	80/20	3.6967
WEC	WEC	0.1342	Confirmed LTF	0.1342
LGEE	LGEE	0.2878	Confirmed LTF	0.2878
CPLE	CPLE	2.2686	Confirmed LTF	2.2686
CBM-W2	CBM-W2	7.5264	Confirmed LTF	7.5264
NY	NY	0.4396	Confirmed LTF	0.4396
TVA	TVA	1.5232	Confirmed LTF	1.5232
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.2148	Confirmed LTF	26.2148
CBM-S1	CBM-S1	0.3701	Confirmed LTF	0.3701
MEC	MEC	0.9057	Confirmed LTF	0.9057
LAGN	LAGN	1.8795	Confirmed LTF	1.8795
AA2-074	AA2-074	1.4972	LTF	1.4972
CBM-W1	CBM-W1	5.2996	Confirmed LTF	5.2996

11.6.3 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
169956783	966790	AG1-550 TAP	DVP	314765	6MTEAGLE	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	150.14	153.2	DC	20.23

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1287	80/20	0.1287

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315153	1CLOVER1	6.8569	80/20	6.8569
315154	1CLOVER2	6.7885	80/20	6.7885
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6058	80/20	0.6058
315160	1KERR 3	0.6058	80/20	0.6058
315161	1KERR 4	0.6058	80/20	0.6058
315162	1KERR 5	0.6058	80/20	0.6058
315163	1KERR 6	0.6058	80/20	0.6058
315164	1KERR 7	0.6058	80/20	0.6058
315191	1BEARGRDN G1	16.8024	80/20	16.8024
315192	1BEARGRDN G2	16.8024	80/20	16.8024
315193	1BEARGRDN S1	21.7287	80/20	21.7287
315266	1PLYWOOD A	0.6338	80/20	0.6338
316118	AC1-105 C	3.2102	80/20	3.2102
316123	AC1-075 C	0.3997	80/20	0.3997
316129	AC1-054 C	3.1902	80/20	3.1902
316131	AB2-060 C	1.1581	80/20	1.1581
924301	AB2-077 C O1 (Suspended)	1.5320	80/20	1.5320
924311	AB2-078 C O1 (Suspended)	1.5320	80/20	1.5320
924321	AB2-079 C O1 (Suspended)	1.5320	80/20	1.5320
925611	AC1-036 C	0.2580	80/20	0.2580
926023	AC1-080 C	0.1336	80/20	0.1336
927251	AC1-221 C	0.7557	80/20	0.7557
927261	AC1-222 C	1.8205	80/20	1.8205
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.9463	80/20	0.9463
932761	AC2-100 C	1.7391	80/20	1.7391
933501	AC2-165 C	31.7815	80/20	31.7815
934311	AD1-055 C	1.2640	80/20	1.2640
934341	AD1-058 C	1.8944	80/20	1.8944
934615	AD1-087 C	4.2935	80/20	4.2935
934625	AD1-088 C	14.0108	80/20	14.0108
934991	AD1-131 C	0.6211	80/20	0.6211
935171	AD1-152 C O1	4.7160	80/20	4.7160
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.3677	80/20	0.3677
936265	AD2-033 C	13.9386	80/20	13.9386
936361	AD2-046 C O1	5.3677	80/20	5.3677
936485	AD2-063 C	13.8276	80/20	13.8276
937481	AD2-202 C O1	1.2576	80/20	1.2576
938371	AE1-056 C	10.0480	80/20	10.0480
938821	AE1-108 C O1	34.7050	80/20	34.7050
939181	AE1-148 C	5.3606	80/20	5.3606
940661	AE2-053 O1	1.9854	80/20	1.9854
941011	AE2-092 C	28.7117	80/20	28.7117
941791	AE2-182 C	2.2763	80/20	2.2763
942451	AE2-258	1.8439	80/20	1.8439
942461	AE2-259 C O1	18.4836	80/20	18.4836
942751	AE2-291 C	3.6928	80/20	3.6928
942761	AE2-292 C O1	4.5979	80/20	4.5979

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943901	AF1-058 C	0.9989	80/20	0.9989
943911	AF1-059	9.4131	80/20	9.4131
945811	AF1-246 C O1	3.3289	80/20	3.3289
946281	AF1-292 C	0.4503	80/20	0.4503
946291	AF1-293 C O1	46.3247	80/20	46.3247
946301	AF1-294 C	6.1432	80/20	6.1432
946591	AF1-323 C	11.1052	80/20	11.1052
957481	AF2-042 C	23.7780	80/20	23.7780
958131	AF2-107 C	5.0071	80/20	5.0071
958211	AF2-115 C	3.6137	80/20	3.6137
958801	AF2-171 C	21.5919	80/20	21.5919
959311	AF2-222 C	19.7380	80/20	19.7380
959751	AF2-266	4.9220	80/20	4.9220
960061	AF2-297 C	3.9955	80/20	3.9955
960081	AF2-299 C	0.7590	80/20	0.7590
960111	AF2-302 C	4.0382	80/20	4.0382
961061	AF2-397 C	49.3810	80/20	49.3810
961791	AG1-021 C	2.8909	80/20	2.8909
961801	AG1-022 C	4.0382	80/20	4.0382
961891	AG1-030 C	20.0871	80/20	20.0871
962041	AG1-048 C	18.0682	80/20	18.0682
962441	AG1-093 C O1	8.5606	80/20	8.5606
962491	AG1-098 C O1	11.2875	80/20	11.2875
962561	AG1-105 C O1	5.6502	80/20	5.6502
962741	AG1-123 C O1	3.4622	80/20	3.4622
962751	AG1-124 C O1	3.7973	80/20	3.7973
963171	AG1-166 C	2.8909	80/20	2.8909
963181	AG1-167 C	2.8909	80/20	2.8909
963191	AG1-168 C	2.8909	80/20	2.8909
963201	AG1-169 C	2.8909	80/20	2.8909
963211	AG1-170 C	2.8909	80/20	2.8909
963271	AG1-176 C O1	18.8540	80/20	18.8540
963301	AG1-179 C	2.7241	80/20	2.7241
963311	AG1-180	1.3273	80/20	1.3273
963321	AG1-181 C O1	18.3458	80/20	18.3458
963361	AG1-185 O1	8.8762	80/20	8.8762
963641	AG1-215 C	1.3491	80/20	1.3491
964111	AG1-272 C	2.9318	80/20	2.9318
964121	AG1-273 C	2.9318	80/20	2.9318
964131	AG1-274 C	2.9318	80/20	2.9318
964231	AG1-284 C O1	20.2255	80/20	20.2255
964241	AG1-285 C O1	11.0250	80/20	11.0250
964261	AG1-287 C	0.7492	80/20	0.7492
964471	AG1-310 C	1.0449	80/20	1.0449
964791	AG1-342 C	2.5948	80/20	2.5948
964821	AG1-345 C	1.1534	80/20	1.1534
964841	AG1-347 C	11.8194	80/20	11.8194
964931	AG1-357 C	7.8348	80/20	7.8348
965191	AG1-384 C	2.9318	80/20	2.9318
965281	AG1-393 C	2.8909	80/20	2.8909
965451	AG1-413 C O1	3.9569	80/20	3.9569
965581	AG1-426	7.5610	80/20	7.5610

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965591	AG1-427 C	10.5299	80/20	10.5299
965601	AG1-428 C O1	2.2741	80/20	2.2741
965641	AG1-432 C O1	36.9672	80/20	36.9672
965721	AG1-440 C	3.7895	80/20	3.7895
965731	AG1-441 C	3.7895	80/20	3.7895
965771	AG1-445	2.1895	80/20	2.1895
965781	AG1-446	2.1895	80/20	2.1895
965831	AG1-451	6.1612	80/20	6.1612
966251	AG1-494 C	1.8194	80/20	1.8194
966621	AG1-532 C	0.4099	80/20	0.4099
966691	AG1-539 C	1.9309	80/20	1.9309
966751	AG1-546 C	6.7436	80/20	6.7436
966791	AG1-550 O1	24.3694	80/20	24.3694
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.6967	80/20	3.6967
WEC	WEC	0.1342	Confirmed LTF	0.1342
LGEE	LGEE	0.2878	Confirmed LTF	0.2878
CPLE	CPLE	2.2686	Confirmed LTF	2.2686
CBM-W2	CBM-W2	7.5264	Confirmed LTF	7.5264
NY	NY	0.4396	Confirmed LTF	0.4396
TVA	TVA	1.5232	Confirmed LTF	1.5232
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.2148	Confirmed LTF	26.2148
CBM-S1	CBM-S1	0.3701	Confirmed LTF	0.3701
MEC	MEC	0.9057	Confirmed LTF	0.9057
LAGN	LAGN	1.8795	Confirmed LTF	1.8795
AA2-074	AA2-074	1.4972	LTF	1.4972
CBM-W1	CBM-W1	5.2996	Confirmed LTF	5.2996

11.6.4 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
168439139	313707	6FORK UNION	DVP	961060	AF2-397 TAP	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	142.73	145.78	DC	20.23

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1287	80/20	0.1287
315153	1CLOVER1	6.8569	80/20	6.8569
315154	1CLOVER2	6.7885	80/20	6.7885
315158	1KERR 1	0.2163	80/20	0.2163

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315159	1KERR 2	0.6058	80/20	0.6058
315160	1KERR 3	0.6058	80/20	0.6058
315161	1KERR 4	0.6058	80/20	0.6058
315162	1KERR 5	0.6058	80/20	0.6058
315163	1KERR 6	0.6058	80/20	0.6058
315164	1KERR 7	0.6058	80/20	0.6058
315191	1BEARGRDN G1	16.8024	80/20	16.8024
315192	1BEARGRDN G2	16.8024	80/20	16.8024
315193	1BEARGRDN S1	21.7287	80/20	21.7287
315266	1PLYWOOD A	0.6338	80/20	0.6338
316118	AC1-105 C	3.2102	80/20	3.2102
316123	AC1-075 C	0.3997	80/20	0.3997
316129	AC1-054 C	3.1902	80/20	3.1902
316131	AB2-060 C	1.1581	80/20	1.1581
924301	AB2-077 C O1 (Suspended)	1.5320	80/20	1.5320
924311	AB2-078 C O1 (Suspended)	1.5320	80/20	1.5320
924321	AB2-079 C O1 (Suspended)	1.5320	80/20	1.5320
925611	AC1-036 C	0.2580	80/20	0.2580
926023	AC1-080 C	0.1336	80/20	0.1336
927251	AC1-221 C	0.7557	80/20	0.7557
927261	AC1-222 C	1.8205	80/20	1.8205
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.9463	80/20	0.9463
932761	AC2-100 C	1.7391	80/20	1.7391
933501	AC2-165 C	31.7815	80/20	31.7815
934311	AD1-055 C	1.2640	80/20	1.2640
934341	AD1-058 C	1.8944	80/20	1.8944
934615	AD1-087 C	4.2935	80/20	4.2935
934625	AD1-088 C	14.0108	80/20	14.0108
934991	AD1-131 C	0.6211	80/20	0.6211
935171	AD1-152 C O1	4.7160	80/20	4.7160
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.3677	80/20	0.3677
936265	AD2-033 C	13.9386	80/20	13.9386
936361	AD2-046 C O1	5.3677	80/20	5.3677
936485	AD2-063 C	13.8276	80/20	13.8276
937481	AD2-202 C O1	1.2576	80/20	1.2576
938371	AE1-056 C	10.0480	80/20	10.0480
938821	AE1-108 C O1	34.7050	80/20	34.7050
939181	AE1-148 C	5.3606	80/20	5.3606
940661	AE2-053 O1	1.9854	80/20	1.9854
941011	AE2-092 C	28.7117	80/20	28.7117
941791	AE2-182 C	2.2763	80/20	2.2763
942451	AE2-258	1.8439	80/20	1.8439
942461	AE2-259 C O1	18.4836	80/20	18.4836
942751	AE2-291 C	3.6928	80/20	3.6928
942761	AE2-292 C O1	4.5979	80/20	4.5979
943901	AF1-058 C	0.9989	80/20	0.9989
943911	AF1-059	9.4131	80/20	9.4131
945811	AF1-246 C O1	3.3289	80/20	3.3289

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
946281	AF1-292 C	0.4503	80/20	0.4503
946291	AF1-293 C O1	46.3247	80/20	46.3247
946301	AF1-294 C	6.1432	80/20	6.1432
946591	AF1-323 C	11.1052	80/20	11.1052
957481	AF2-042 C	23.7780	80/20	23.7780
958131	AF2-107 C	5.0071	80/20	5.0071
958211	AF2-115 C	3.6137	80/20	3.6137
958801	AF2-171 C	21.5919	80/20	21.5919
959311	AF2-222 C	19.7380	80/20	19.7380
959751	AF2-266	4.9220	80/20	4.9220
960061	AF2-297 C	3.9955	80/20	3.9955
960081	AF2-299 C	0.7590	80/20	0.7590
960111	AF2-302 C	4.0382	80/20	4.0382
961791	AG1-021 C	2.8909	80/20	2.8909
961801	AG1-022 C	4.0382	80/20	4.0382
961891	AG1-030 C	20.0871	80/20	20.0871
962041	AG1-048 C	18.0682	80/20	18.0682
962441	AG1-093 C O1	8.5606	80/20	8.5606
962491	AG1-098 C O1	11.2875	80/20	11.2875
962561	AG1-105 C O1	5.6502	80/20	5.6502
962741	AG1-123 C O1	3.4622	80/20	3.4622
962751	AG1-124 C O1	3.7973	80/20	3.7973
963171	AG1-166 C	2.8909	80/20	2.8909
963181	AG1-167 C	2.8909	80/20	2.8909
963191	AG1-168 C	2.8909	80/20	2.8909
963201	AG1-169 C	2.8909	80/20	2.8909
963211	AG1-170 C	2.8909	80/20	2.8909
963271	AG1-176 C O1	18.8540	80/20	18.8540
963301	AG1-179 C	2.7241	80/20	2.7241
963311	AG1-180	1.3273	80/20	1.3273
963321	AG1-181 C O1	18.3458	80/20	18.3458
963361	AG1-185 O1	8.8762	80/20	8.8762
963641	AG1-215 C	1.3491	80/20	1.3491
964111	AG1-272 C	2.9318	80/20	2.9318
964121	AG1-273 C	2.9318	80/20	2.9318
964131	AG1-274 C	2.9318	80/20	2.9318
964231	AG1-284 C O1	20.2255	80/20	20.2255
964241	AG1-285 C O1	11.0250	80/20	11.0250
964261	AG1-287 C	0.7492	80/20	0.7492
964471	AG1-310 C	1.0449	80/20	1.0449
964791	AG1-342 C	2.5948	80/20	2.5948
964821	AG1-345 C	1.1534	80/20	1.1534
964841	AG1-347 C	11.8194	80/20	11.8194
964931	AG1-357 C	7.8348	80/20	7.8348
965191	AG1-384 C	2.9318	80/20	2.9318
965281	AG1-393 C	2.8909	80/20	2.8909
965451	AG1-413 C O1	3.9569	80/20	3.9569
965581	AG1-426	7.5610	80/20	7.5610
965591	AG1-427 C	10.5299	80/20	10.5299
965601	AG1-428 C O1	2.2741	80/20	2.2741
965641	AG1-432 C O1	36.9672	80/20	36.9672
965721	AG1-440 C	3.7895	80/20	3.7895

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965731	AG1-441 C	3.7895	80/20	3.7895
965771	AG1-445	2.1895	80/20	2.1895
965781	AG1-446	2.1895	80/20	2.1895
965831	AG1-451	6.1612	80/20	6.1612
966251	AG1-494 C	1.8194	80/20	1.8194
966621	AG1-532 C	0.4099	80/20	0.4099
966691	AG1-539 C	1.9309	80/20	1.9309
966751	AG1-546 C	6.7436	80/20	6.7436
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.6967	80/20	3.6967
WEC	WEC	0.1342	Confirmed LTF	0.1342
LGEE	LGEE	0.2878	Confirmed LTF	0.2878
CPLE	CPLE	2.2686	Confirmed LTF	2.2686
CBM-W2	CBM-W2	7.5264	Confirmed LTF	7.5264
NY	NY	0.4396	Confirmed LTF	0.4396
TVA	TVA	1.5232	Confirmed LTF	1.5232
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.2148	Confirmed LTF	26.2148
CBM-S1	CBM-S1	0.3701	Confirmed LTF	0.3701
MEC	MEC	0.9057	Confirmed LTF	0.9057
LAGN	LAGN	1.8795	Confirmed LTF	1.8795
AA2-074	AA2-074	1.4972	LTF	1.4972
CBM-W1	CBM-W1	5.2996	Confirmed LTF	5.2996

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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
168439305	313868	6CARTERV	DVP	933500	AC2-165 TAP	DVP	1	314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	single	800.88	106.01	108.13	DC	17.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2811	80/20	0.2811
314429	3JTRSVLE	0.4835	80/20	0.4835
314677	6BUCKING	0.8051	80/20	0.8051
315153	1CLOVER1	4.3284	80/20	4.3284
315154	1CLOVER2	4.2852	80/20	4.2852
315158	1KERR 1	0.1411	80/20	0.1411
315159	1KERR 2	0.3952	80/20	0.3952
315160	1KERR 3	0.3952	80/20	0.3952
315161	1KERR 4	0.3952	80/20	0.3952
315162	1KERR 5	0.3952	80/20	0.3952
315163	1KERR 6	0.3952	80/20	0.3952
315164	1KERR 7	0.3952	80/20	0.3952

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315191	1BEARGRDN G1	14.2615	80/20	14.2615
315192	1BEARGRDN G2	14.2615	80/20	14.2615
315193	1BEARGRDN S1	18.4429	80/20	18.4429
315266	1PLYWOOD A	0.4253	80/20	0.4253
316118	AC1-105 C	2.1876	80/20	2.1876
316131	AB2-060 C	0.8407	80/20	0.8407
924301	AB2-077 C O1 (Suspended)	1.0994	80/20	1.0994
924311	AB2-078 C O1 (Suspended)	1.0994	80/20	1.0994
924321	AB2-079 C O1 (Suspended)	1.0994	80/20	1.0994
925611	AC1-036 C	0.1990	80/20	0.1990
927261	AC1-222 C	1.2313	80/20	1.2313
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7932	80/20	0.7932
934311	AD1-055 C	0.8549	80/20	0.8549
934615	AD1-087 C	2.7103	80/20	2.7103
934625	AD1-088 C	10.6986	80/20	10.6986
935171	AD1-152 C O1	2.9770	80/20	2.9770
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2946	80/20	0.2946
936265	AD2-033 C	10.6548	80/20	10.6548
936361	AD2-046 C O1	3.5828	80/20	3.5828
936485	AD2-063 C	10.3014	80/20	10.3014
937481	AD2-202 C O1	0.7939	80/20	0.7939
938371	AE1-056 C	8.0514	80/20	8.0514
938821	AE1-108 C O1	29.3769	80/20	29.3769
939181	AE1-148 C	3.5932	80/20	3.5932
940661	AE2-053 O1	1.3308	80/20	1.3308
941011	AE2-092 C	25.2830	80/20	25.2830
941791	AE2-182 C	1.7381	80/20	1.7381
942451	AE2-258	1.3292	80/20	1.3292
942461	AE2-259 C O1	15.0522	80/20	15.0522
943901	AF1-058 C	0.6646	80/20	0.6646
943911	AF1-059	5.9093	80/20	5.9093
946291	AF1-293 C O1	39.5443	80/20	39.5443
946301	AF1-294 C	4.8845	80/20	4.8845
946591	AF1-323 C	9.4261	80/20	9.4261
958131	AF2-107 C	4.3750	80/20	4.3750
958211	AF2-115 C	2.8733	80/20	2.8733
958801	AF2-171 C	17.1603	80/20	17.1603
959311	AF2-222 C	15.3100	80/20	15.3100
959751	AF2-266	3.1070	80/20	3.1070
960061	AF2-297 C	2.6582	80/20	2.6582
960111	AF2-302 C	3.4277	80/20	3.4277
961061	AF2-397 C	36.6545	80/20	36.6545
961791	AG1-021 C	2.2986	80/20	2.2986
961801	AG1-022 C	3.4277	80/20	3.4277
961891	AG1-030 C	15.8319	80/20	15.8319
962041	AG1-048 C	14.3663	80/20	14.3663
962441	AG1-093 C O1	5.8337	80/20	5.8337
962491	AG1-098 C O1	8.1622	80/20	8.1622

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962561	AG1-105 C O1	3.5664	80/20	3.5664
962741	AG1-123 C O1	3.1842	80/20	3.1842
962751	AG1-124 C O1	3.5741	80/20	3.5741
963171	AG1-166 C	2.2986	80/20	2.2986
963181	AG1-167 C	2.2986	80/20	2.2986
963191	AG1-168 C	2.2986	80/20	2.2986
963201	AG1-169 C	2.2986	80/20	2.2986
963211	AG1-170 C	2.2986	80/20	2.2986
963271	AG1-176 C O1	14.5637	80/20	14.5637
963321	AG1-181 C O1	14.0576	80/20	14.0576
963361	AG1-185 O1	6.8014	80/20	6.8014
963641	AG1-215 C	1.0727	80/20	1.0727
964111	AG1-272 C	2.2621	80/20	2.2621
964121	AG1-273 C	2.2621	80/20	2.2621
964131	AG1-274 C	2.2621	80/20	2.2621
964231	AG1-284 C O1	17.0012	80/20	17.0012
964241	AG1-285 C O1	8.1450	80/20	8.1450
964261	AG1-287 C	0.4984	80/20	0.4984
964471	AG1-310 C	0.7118	80/20	0.7118
964791	AG1-342 C	1.8023	80/20	1.8023
964821	AG1-345 C	0.9169	80/20	0.9169
964841	AG1-347 C	9.1358	80/20	9.1358
965191	AG1-384 C	2.2621	80/20	2.2621
965281	AG1-393 C	2.2986	80/20	2.2986
965451	AG1-413 C O1	2.4841	80/20	2.4841
965581	AG1-426	6.4002	80/20	6.4002
965591	AG1-427 C	7.7911	80/20	7.7911
965641	AG1-432 C O1	30.1044	80/20	30.1044
965721	AG1-440 C	2.3620	80/20	2.3620
965731	AG1-441 C	2.3620	80/20	2.3620
965771	AG1-445	1.3647	80/20	1.3647
965781	AG1-446	1.3647	80/20	1.3647
965831	AG1-451	5.0174	80/20	5.0174
966251	AG1-494 C	1.6494	80/20	1.6494
966791	AG1-550 O1	16.4475	80/20	16.4475
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.0104	80/20	3.0104
WEC	WEC	0.1988	Confirmed LTF	0.1988
LGEE	LGEE	0.4247	Confirmed LTF	0.4247
CPL	CPL	1.0859	Confirmed LTF	1.0859
CBM-W2	CBM-W2	7.3114	Confirmed LTF	7.3114
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	1.3104	Confirmed LTF	1.3104
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.4907	Confirmed LTF	14.4907
CBM-S1	CBM-S1	0.3374	Confirmed LTF	0.3374
MEC	MEC	1.1075	Confirmed LTF	1.1075
LAGN	LAGN	1.5942	Confirmed LTF	1.5942
CBM-W1	CBM-W1	8.3419	Confirmed LTF	8.3419

11.6.6 Index 6

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
168742645	314310	6JUDES F	DVP	314322	6MDLTHAN	DVP	1	314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	single	800.88	111.79	113.91	DC	17.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2807	80/20	0.2807
314333	6POWHATN	1.5975	80/20	1.5975
314429	3JTRSVLE	0.4832	80/20	0.4832
314677	6BUCKING	0.8048	80/20	0.8048
315153	1CLOVER1	4.3193	80/20	4.3193
315154	1CLOVER2	4.2763	80/20	4.2763
315158	1KERR 1	0.1408	80/20	0.1408
315159	1KERR 2	0.3943	80/20	0.3943
315160	1KERR 3	0.3943	80/20	0.3943
315161	1KERR 4	0.3943	80/20	0.3943
315162	1KERR 5	0.3943	80/20	0.3943
315163	1KERR 6	0.3943	80/20	0.3943
315164	1KERR 7	0.3943	80/20	0.3943
315191	1BEARGRDN G1	14.2573	80/20	14.2573
315192	1BEARGRDN G2	14.2573	80/20	14.2573
315193	1BEARGRDN S1	18.4374	80/20	18.4374
315266	1PLYWOOD A	0.4243	80/20	0.4243
316118	AC1-105 C	2.1828	80/20	2.1828
316131	AB2-060 C	0.8395	80/20	0.8395
924301	AB2-077 C O1 (Suspended)	1.0978	80/20	1.0978
924311	AB2-078 C O1 (Suspended)	1.0978	80/20	1.0978
924321	AB2-079 C O1 (Suspended)	1.0978	80/20	1.0978
925611	AC1-036 C	0.1989	80/20	0.1989
927261	AC1-222 C	1.2284	80/20	1.2284
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7929	80/20	0.7929
933501	AC2-165 C	39.2365	80/20	39.2365
934311	AD1-055 C	0.8529	80/20	0.8529
934615	AD1-087 C	2.7046	80/20	2.7046
934625	AD1-088 C	10.6886	80/20	10.6886
935171	AD1-152 C O1	2.9707	80/20	2.9707
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2944	80/20	0.2944
936265	AD2-033 C	10.6447	80/20	10.6447
936361	AD2-046 C O1	3.5752	80/20	3.5752
936485	AD2-063 C	10.2897	80/20	10.2897
937481	AD2-202 C O1	0.7922	80/20	0.7922

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938371	AE1-056 C	8.0460	80/20	8.0460
938561	AE1-075 C	1.3891	80/20	1.3891
938821	AE1-108 C O1	29.3641	80/20	29.3641
939181	AE1-148 C	3.5861	80/20	3.5861
940661	AE2-053 O1	1.3282	80/20	1.3282
941011	AE2-092 C	25.2714	80/20	25.2714
941791	AE2-182 C	1.7365	80/20	1.7365
942451	AE2-258	1.3272	80/20	1.3272
942461	AE2-259 C O1	15.0438	80/20	15.0438
943901	AF1-058 C	0.6629	80/20	0.6629
943911	AF1-059	5.8955	80/20	5.8955
946291	AF1-293 C O1	39.5291	80/20	39.5291
946301	AF1-294 C	4.8812	80/20	4.8812
946591	AF1-323 C	9.4218	80/20	9.4218
958131	AF2-107 C	4.3708	80/20	4.3708
958211	AF2-115 C	2.8713	80/20	2.8713
958501	AF2-144 C	7.4840	80/20	7.4840
958801	AF2-171 C	17.1486	80/20	17.1486
959311	AF2-222 C	15.2960	80/20	15.2960
959531	AF2-244 C (Withdrawn : 01/06/2021)	6.8971	80/20	6.8971
959751	AF2-266	3.1005	80/20	3.1005
960061	AF2-297 C	2.6515	80/20	2.6515
960111	AF2-302 C	3.4261	80/20	3.4261
961061	AF2-397 C	36.6436	80/20	36.6436
961791	AG1-021 C	2.2970	80/20	2.2970
961801	AG1-022 C	3.4261	80/20	3.4261
961891	AG1-030 C	15.8193	80/20	15.8193
962041	AG1-048 C	14.3565	80/20	14.3565
962441	AG1-093 C O1	5.8208	80/20	5.8208
962491	AG1-098 C O1	8.1525	80/20	8.1525
962561	AG1-105 C O1	3.5580	80/20	3.5580
962741	AG1-123 C O1	3.1784	80/20	3.1784
962751	AG1-124 C O1	3.5658	80/20	3.5658
963171	AG1-166 C	2.2970	80/20	2.2970
963181	AG1-167 C	2.2970	80/20	2.2970
963191	AG1-168 C	2.2970	80/20	2.2970
963201	AG1-169 C	2.2970	80/20	2.2970
963211	AG1-170 C	2.2970	80/20	2.2970
963271	AG1-176 C O1	14.5511	80/20	14.5511
963321	AG1-181 C O1	14.0444	80/20	14.0444
963361	AG1-185 O1	6.7951	80/20	6.7951
963641	AG1-215 C	1.0720	80/20	1.0720
964111	AG1-272 C	2.2600	80/20	2.2600
964121	AG1-273 C	2.2600	80/20	2.2600
964131	AG1-274 C	2.2600	80/20	2.2600
964231	AG1-284 C O1	16.9953	80/20	16.9953
964241	AG1-285 C O1	8.1345	80/20	8.1345
964261	AG1-287 C	0.4972	80/20	0.4972
964471	AG1-310 C	0.7101	80/20	0.7101
964791	AG1-342 C	1.7990	80/20	1.7990
964821	AG1-345 C	0.9162	80/20	0.9162
964841	AG1-347 C	9.1280	80/20	9.1280

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965191	AG1-384 C	2.2600	80/20	2.2600
965281	AG1-393 C	2.2970	80/20	2.2970
965451	AG1-413 C O1	2.4782	80/20	2.4782
965581	AG1-426	6.3974	80/20	6.3974
965591	AG1-427 C	7.7812	80/20	7.7812
965641	AG1-432 C O1	30.0876	80/20	30.0876
965721	AG1-440 C	2.3562	80/20	2.3562
965731	AG1-441 C	2.3562	80/20	2.3562
965771	AG1-445	1.3614	80/20	1.3614
965781	AG1-446	1.3614	80/20	1.3614
965831	AG1-451	5.0146	80/20	5.0146
966251	AG1-494 C	1.6466	80/20	1.6466
966791	AG1-550 O1	16.4427	80/20	16.4427
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.0088	80/20	3.0088
WEC	WEC	0.1947	Confirmed LTF	0.1947
LGEE	LGEE	0.4166	Confirmed LTF	0.4166
CPLE	CPLE	1.0770	Confirmed LTF	1.0770
CBM-W2	CBM-W2	7.1949	Confirmed LTF	7.1949
NY	NY	0.3583	Confirmed LTF	0.3583
TVA	TVA	1.2922	Confirmed LTF	1.2922
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.3550	Confirmed LTF	14.3550
CBM-S1	CBM-S1	0.3325	Confirmed LTF	0.3325
MEC	MEC	1.0869	Confirmed LTF	1.0869
LAGN	LAGN	1.5715	Confirmed LTF	1.5715
CBM-W1	CBM-W1	8.1596	Confirmed LTF	8.1596

11.6.7 Index 7

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
168742640	314333	6POWHATN	DVP	314310	6JUDES F	DVP	1	DVP_P1-2: LN 2028-B	single	800.88	111.93	114.05	DC	17.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2807	80/20	0.2807
314333	6POWHATN	1.5975	80/20	1.5975
314429	3JTRSVLE	0.4832	80/20	0.4832
314677	6BUCKING	0.8048	80/20	0.8048
315153	1CLOVER1	4.3193	80/20	4.3193
315154	1CLOVER2	4.2763	80/20	4.2763
315158	1KERR 1	0.1408	80/20	0.1408
315159	1KERR 2	0.3943	80/20	0.3943
315160	1KERR 3	0.3943	80/20	0.3943
315161	1KERR 4	0.3943	80/20	0.3943

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315162	1KERR 5	0.3943	80/20	0.3943
315163	1KERR 6	0.3943	80/20	0.3943
315164	1KERR 7	0.3943	80/20	0.3943
315191	1BEARGRDN G1	14.2573	80/20	14.2573
315192	1BEARGRDN G2	14.2573	80/20	14.2573
315193	1BEARGRDN S1	18.4374	80/20	18.4374
315266	1PLYWOOD A	0.4243	80/20	0.4243
316118	AC1-105 C	2.1828	80/20	2.1828
316131	AB2-060 C	0.8395	80/20	0.8395
924301	AB2-077 C O1 (Suspended)	1.0978	80/20	1.0978
924311	AB2-078 C O1 (Suspended)	1.0978	80/20	1.0978
924321	AB2-079 C O1 (Suspended)	1.0978	80/20	1.0978
925611	AC1-036 C	0.1989	80/20	0.1989
927261	AC1-222 C	1.2284	80/20	1.2284
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7929	80/20	0.7929
933501	AC2-165 C	39.2365	80/20	39.2365
934311	AD1-055 C	0.8529	80/20	0.8529
934615	AD1-087 C	2.7046	80/20	2.7046
934625	AD1-088 C	10.6886	80/20	10.6886
935171	AD1-152 C O1	2.9707	80/20	2.9707
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2944	80/20	0.2944
936265	AD2-033 C	10.6447	80/20	10.6447
936361	AD2-046 C O1	3.5752	80/20	3.5752
936485	AD2-063 C	10.2897	80/20	10.2897
937481	AD2-202 C O1	0.7922	80/20	0.7922
938371	AE1-056 C	8.0460	80/20	8.0460
938561	AE1-075 C	1.3891	80/20	1.3891
938821	AE1-108 C O1	29.3641	80/20	29.3641
939181	AE1-148 C	3.5861	80/20	3.5861
940661	AE2-053 O1	1.3282	80/20	1.3282
941011	AE2-092 C	25.2714	80/20	25.2714
941791	AE2-182 C	1.7365	80/20	1.7365
942451	AE2-258	1.3272	80/20	1.3272
942461	AE2-259 C O1	15.0438	80/20	15.0438
943901	AF1-058 C	0.6629	80/20	0.6629
943911	AF1-059	5.8955	80/20	5.8955
946291	AF1-293 C O1	39.5291	80/20	39.5291
946301	AF1-294 C	4.8812	80/20	4.8812
946591	AF1-323 C	9.4218	80/20	9.4218
958131	AF2-107 C	4.3708	80/20	4.3708
958211	AF2-115 C	2.8713	80/20	2.8713
958501	AF2-144 C	7.4840	80/20	7.4840
958801	AF2-171 C	17.1486	80/20	17.1486
959311	AF2-222 C	15.2960	80/20	15.2960
959531	AF2-244 C (Withdrawn : 01/06/2021)	6.8971	80/20	6.8971
959751	AF2-266	3.1005	80/20	3.1005
960061	AF2-297 C	2.6515	80/20	2.6515

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960111	AF2-302 C	3.4261	80/20	3.4261
961061	AF2-397 C	36.6436	80/20	36.6436
961791	AG1-021 C	2.2970	80/20	2.2970
961801	AG1-022 C	3.4261	80/20	3.4261
961891	AG1-030 C	15.8193	80/20	15.8193
962041	AG1-048 C	14.3565	80/20	14.3565
962441	AG1-093 C O1	5.8208	80/20	5.8208
962491	AG1-098 C O1	8.1525	80/20	8.1525
962561	AG1-105 C O1	3.5580	80/20	3.5580
962741	AG1-123 C O1	3.1784	80/20	3.1784
962751	AG1-124 C O1	3.5658	80/20	3.5658
963171	AG1-166 C	2.2970	80/20	2.2970
963181	AG1-167 C	2.2970	80/20	2.2970
963191	AG1-168 C	2.2970	80/20	2.2970
963201	AG1-169 C	2.2970	80/20	2.2970
963211	AG1-170 C	2.2970	80/20	2.2970
963271	AG1-176 C O1	14.5511	80/20	14.5511
963321	AG1-181 C O1	14.0444	80/20	14.0444
963361	AG1-185 O1	6.7951	80/20	6.7951
963641	AG1-215 C	1.0720	80/20	1.0720
964111	AG1-272 C	2.2600	80/20	2.2600
964121	AG1-273 C	2.2600	80/20	2.2600
964131	AG1-274 C	2.2600	80/20	2.2600
964231	AG1-284 C O1	16.9953	80/20	16.9953
964241	AG1-285 C O1	8.1345	80/20	8.1345
964261	AG1-287 C	0.4972	80/20	0.4972
964471	AG1-310 C	0.7101	80/20	0.7101
964791	AG1-342 C	1.7990	80/20	1.7990
964821	AG1-345 C	0.9162	80/20	0.9162
964841	AG1-347 C	9.1280	80/20	9.1280
965191	AG1-384 C	2.2600	80/20	2.2600
965281	AG1-393 C	2.2970	80/20	2.2970
965451	AG1-413 C O1	2.4782	80/20	2.4782
965581	AG1-426	6.3974	80/20	6.3974
965591	AG1-427 C	7.7812	80/20	7.7812
965641	AG1-432 C O1	30.0876	80/20	30.0876
965721	AG1-440 C	2.3562	80/20	2.3562
965731	AG1-441 C	2.3562	80/20	2.3562
965771	AG1-445	1.3614	80/20	1.3614
965781	AG1-446	1.3614	80/20	1.3614
965831	AG1-451	5.0146	80/20	5.0146
966251	AG1-494 C	1.6466	80/20	1.6466
966791	AG1-550 O1	16.4427	80/20	16.4427
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.0088	80/20	3.0088
WEC	WEC	0.1947	Confirmed LTF	0.1947
LGEE	LGEE	0.4166	Confirmed LTF	0.4166
CPL	CPL	1.0770	Confirmed LTF	1.0770
CBM-W2	CBM-W2	7.1949	Confirmed LTF	7.1949
NY	NY	0.3583	Confirmed LTF	0.3583
TVA	TVA	1.2922	Confirmed LTF	1.2922
SIGE	SIGE	0.1503	Confirmed LTF	0.1503

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	14.3550	Confirmed LTF	14.3550
CBM-S1	CBM-S1	0.3325	Confirmed LTF	0.3325
MEC	MEC	1.0869	Confirmed LTF	1.0869
LAGN	LAGN	1.5715	Confirmed LTF	1.5715
CBM-W1	CBM-W1	8.1596	Confirmed LTF	8.1596

11.6.8 Index 8

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
168439283	314747	6BREMO	DVP	313868	6CARTERV	DVP	1	314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	single	800.88	107.42	109.54	DC	17.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2811	80/20	0.2811
314429	3JTRSVLE	0.4835	80/20	0.4835
314677	6BUCKING	0.8051	80/20	0.8051
315153	1CLOVER1	4.3284	80/20	4.3284
315154	1CLOVER2	4.2852	80/20	4.2852
315158	1KERR 1	0.1411	80/20	0.1411
315159	1KERR 2	0.3952	80/20	0.3952
315160	1KERR 3	0.3952	80/20	0.3952
315161	1KERR 4	0.3952	80/20	0.3952
315162	1KERR 5	0.3952	80/20	0.3952
315163	1KERR 6	0.3952	80/20	0.3952
315164	1KERR 7	0.3952	80/20	0.3952
315191	1BEARGRDN G1	14.2615	80/20	14.2615
315192	1BEARGRDN G2	14.2615	80/20	14.2615
315193	1BEARGRDN S1	18.4429	80/20	18.4429
315266	1PLYWOOD A	0.4253	80/20	0.4253
316118	AC1-105 C	2.1876	80/20	2.1876
316131	AB2-060 C	0.8407	80/20	0.8407
924301	AB2-077 C O1 (Suspended)	1.0994	80/20	1.0994
924311	AB2-078 C O1 (Suspended)	1.0994	80/20	1.0994
924321	AB2-079 C O1 (Suspended)	1.0994	80/20	1.0994
925611	AC1-036 C	0.1990	80/20	0.1990
927261	AC1-222 C	1.2313	80/20	1.2313
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7932	80/20	0.7932
934311	AD1-055 C	0.8549	80/20	0.8549
934615	AD1-087 C	2.7103	80/20	2.7103
934625	AD1-088 C	10.6986	80/20	10.6986

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
935171	AD1-152 C O1	2.9770	80/20	2.9770
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2946	80/20	0.2946
936265	AD2-033 C	10.6548	80/20	10.6548
936361	AD2-046 C O1	3.5828	80/20	3.5828
936485	AD2-063 C	10.3014	80/20	10.3014
937481	AD2-202 C O1	0.7939	80/20	0.7939
938371	AE1-056 C	8.0514	80/20	8.0514
938821	AE1-108 C O1	29.3769	80/20	29.3769
939181	AE1-148 C	3.5932	80/20	3.5932
940661	AE2-053 O1	1.3308	80/20	1.3308
941011	AE2-092 C	25.2830	80/20	25.2830
941791	AE2-182 C	1.7381	80/20	1.7381
942451	AE2-258	1.3292	80/20	1.3292
942461	AE2-259 C O1	15.0522	80/20	15.0522
943901	AF1-058 C	0.6646	80/20	0.6646
943911	AF1-059	5.9093	80/20	5.9093
946291	AF1-293 C O1	39.5443	80/20	39.5443
946301	AF1-294 C	4.8845	80/20	4.8845
946591	AF1-323 C	9.4261	80/20	9.4261
958131	AF2-107 C	4.3750	80/20	4.3750
958211	AF2-115 C	2.8733	80/20	2.8733
958801	AF2-171 C	17.1603	80/20	17.1603
959311	AF2-222 C	15.3100	80/20	15.3100
959751	AF2-266	3.1070	80/20	3.1070
960061	AF2-297 C	2.6582	80/20	2.6582
960111	AF2-302 C	3.4277	80/20	3.4277
961061	AF2-397 C	36.6545	80/20	36.6545
961791	AG1-021 C	2.2986	80/20	2.2986
961801	AG1-022 C	3.4277	80/20	3.4277
961891	AG1-030 C	15.8319	80/20	15.8319
962041	AG1-048 C	14.3663	80/20	14.3663
962441	AG1-093 C O1	5.8337	80/20	5.8337
962491	AG1-098 C O1	8.1622	80/20	8.1622
962561	AG1-105 C O1	3.5664	80/20	3.5664
962741	AG1-123 C O1	3.1842	80/20	3.1842
962751	AG1-124 C O1	3.5741	80/20	3.5741
963171	AG1-166 C	2.2986	80/20	2.2986
963181	AG1-167 C	2.2986	80/20	2.2986
963191	AG1-168 C	2.2986	80/20	2.2986
963201	AG1-169 C	2.2986	80/20	2.2986
963211	AG1-170 C	2.2986	80/20	2.2986
963271	AG1-176 C O1	14.5637	80/20	14.5637
963321	AG1-181 C O1	14.0576	80/20	14.0576
963361	AG1-185 O1	6.8014	80/20	6.8014
963641	AG1-215 C	1.0727	80/20	1.0727
964111	AG1-272 C	2.2621	80/20	2.2621
964121	AG1-273 C	2.2621	80/20	2.2621
964131	AG1-274 C	2.2621	80/20	2.2621
964231	AG1-284 C O1	17.0012	80/20	17.0012
964241	AG1-285 C O1	8.1450	80/20	8.1450
964261	AG1-287 C	0.4984	80/20	0.4984
964471	AG1-310 C	0.7118	80/20	0.7118

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964791	AG1-342 C	1.8023	80/20	1.8023
964821	AG1-345 C	0.9169	80/20	0.9169
964841	AG1-347 C	9.1358	80/20	9.1358
965191	AG1-384 C	2.2621	80/20	2.2621
965281	AG1-393 C	2.2986	80/20	2.2986
965451	AG1-413 C O1	2.4841	80/20	2.4841
965581	AG1-426	6.4002	80/20	6.4002
965591	AG1-427 C	7.7911	80/20	7.7911
965641	AG1-432 C O1	30.1044	80/20	30.1044
965721	AG1-440 C	2.3620	80/20	2.3620
965731	AG1-441 C	2.3620	80/20	2.3620
965771	AG1-445	1.3647	80/20	1.3647
965781	AG1-446	1.3647	80/20	1.3647
965831	AG1-451	5.0174	80/20	5.0174
966251	AG1-494 C	1.6494	80/20	1.6494
966791	AG1-550 O1	16.4475	80/20	16.4475
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.0104	80/20	3.0104
WEC	WEC	0.1988	Confirmed LTF	0.1988
LGEE	LGEE	0.4247	Confirmed LTF	0.4247
CPLE	CPLE	1.0859	Confirmed LTF	1.0859
CBM-W2	CBM-W2	7.3114	Confirmed LTF	7.3114
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	1.3104	Confirmed LTF	1.3104
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.4907	Confirmed LTF	14.4907
CBM-S1	CBM-S1	0.3374	Confirmed LTF	0.3374
MEC	MEC	1.1075	Confirmed LTF	1.1075
LAGN	LAGN	1.5942	Confirmed LTF	1.5942
CBM-W1	CBM-W1	8.3419	Confirmed LTF	8.3419

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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
169402915	314749	6CHARLVL	DVP	314772	6PROFFIT	DVP	1	DVP_P1-2: LN 550	single	550.84	103.7	104.72	DC	5.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
235034	01SHY_Z2-039	0.0097	80/20	0.0097
235035	01NHY_Z2-039	0.0158	80/20	0.0158
237092	AD1-085_C	0.1492	80/20	0.1492
242889	05REUSENS	0.0326	80/20	0.0326
313738	3CUSHAW	0.0896	80/20	0.0896
314333	6POWHATN	0.1395	80/20	0.1395
314429	3JTRSVLE	0.1640	80/20	0.1640

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314677	6BUCKING	0.2361	80/20	0.2361
314859	4WSTVACO	4.1812	80/20	4.1812
315186	1LOWMORA	0.4088	80/20	0.4088
315188	1LOWMORC	0.4105	80/20	0.4105
315191	1BEARGRDN G1	4.0639	80/20	4.0639
315192	1BEARGRDN G2	4.0639	80/20	4.0639
315193	1BEARGRDN S1	5.2554	80/20	5.2554
315201	1BATH 1A	7.3173	80/20	7.3173
315202	1BATH 2B	7.3173	80/20	7.3173
315203	1BATH 3C	7.3217	80/20	7.3217
315204	1BATH 4D	7.3202	80/20	7.3202
315205	1BATH 5E	7.3290	80/20	7.3290
315206	1BATH 6F	7.3435	80/20	7.3435
315216	1CUNINGA	1.7533	80/20	1.7533
315217	1CUNINGB	1.7533	80/20	1.7533
315218	1CUNINGC	1.7533	80/20	1.7533
315219	1CUNINGD	3.9216	80/20	3.9216
315616	AA1-038 C	7.9074	80/20	7.9074
316152	AE1-098 C	0.1484	80/20	0.1484
316154	AE1-099 C	0.1484	80/20	0.1484
925611	AC1-036 C	0.0734	80/20	0.0734
926001	AC1-076 C	-2.1626	Adder	-2.54
926451	AC1-116 C	0.1642	80/20	0.1642
926481	AC1-120 C O1	-4.6912	Adder	-5.52
926501	AC1-121 C O1	-1.6111	Adder	-1.9
926611	AC1-143 C O1	-3.3136	Adder	-3.9
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.2326	80/20	0.2326
932541	AC2-074 C (Withdrawn : 01/22/2021)	0.1137	80/20	0.1137
932854	AC2-112 C	14.3443	80/20	14.3443
933501	AC2-165 C	4.3554	80/20	4.3554
934625	AD1-088 C	3.7828	80/20	3.7828
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.0977	80/20	0.0977
935241	AD1-161 C	1.5396	80/20	1.5396
936265	AD2-033 C	4.0287	80/20	4.0287
938371	AE1-056 C	2.6702	80/20	2.6702
938561	AE1-075 C	0.1213	80/20	0.1213
938625	AE1-084 C	6.9565	80/20	6.9565
938821	AE1-108 C O1	10.3789	80/20	10.3789
939231	AE1-154 C	-1.6680	Adder	-1.96
940451	AE2-029 C	3.2856	80/20	3.2856
941011	AE2-092 C	11.2095	80/20	11.2095
941791	AE2-182 C	0.6146	80/20	0.6146
942461	AE2-259 C O1	4.7598	80/20	4.7598
943571	AF1-028 O1	18.0880	80/20	18.0880
944071	AF1-075 C O1	4.9240	80/20	4.9240
946291	AF1-293 C O1	14.5885	80/20	14.5885
946301	AF1-294 C	1.6565	80/20	1.6565
946591	AF1-323 C	3.4802	80/20	3.4802
958131	AF2-107 C	2.3343	80/20	2.3343
958211	AF2-115 C	0.9744	80/20	0.9744

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958501	AF2-144 C	0.6537	80/20	0.6537
958801	AF2-171 C	5.8275	80/20	5.8275
959311	AF2-222 C	5.5650	80/20	5.5650
959531	AF2-244 C (Withdrawn : 01/06/2021)	0.6024	80/20	0.6024
960111	AF2-302 C	1.2655	80/20	1.2655
961061	AF2-397 C	12.9886	80/20	12.9886
961101	AF2-401 C	-0.3410	Adder	-0.4
961791	AG1-021 C	0.7795	80/20	0.7795
961801	AG1-022 C	1.2655	80/20	1.2655
961891	AG1-030 C	5.5053	80/20	5.5053
962041	AG1-048 C	4.8720	80/20	4.8720
962741	AG1-123 C O1	2.5773	80/20	2.5773
962751	AG1-124 C O1	3.2931	80/20	3.2931
962881	AG1-137 C	4.4140	80/20	4.4140
963021	AG1-151 O1	9.0440	80/20	9.0440
963171	AG1-166 C	0.7795	80/20	0.7795
963181	AG1-167 C	0.7795	80/20	0.7795
963191	AG1-168 C	0.7795	80/20	0.7795
963201	AG1-169 C	0.7795	80/20	0.7795
963211	AG1-170 C	0.7795	80/20	0.7795
963271	AG1-176 C O1	5.0384	80/20	5.0384
963321	AG1-181 C O1	5.2820	80/20	5.2820
963361	AG1-185 O1	2.5555	80/20	2.5555
963461	AG1-195	16.2225	80/20	16.2225
963471	AG1-196 O1	19.3395	80/20	19.3395
963631	AG1-214 C	0.8796	80/20	0.8796
963641	AG1-215 C	0.3638	80/20	0.3638
964111	AG1-272 C	0.8341	80/20	0.8341
964121	AG1-273 C	0.8341	80/20	0.8341
964131	AG1-274 C	0.8341	80/20	0.8341
964231	AG1-284 C O1	5.6297	80/20	5.6297
964621	AG1-325 C O1	3.6174	80/20	3.6174
964821	AG1-345 C	0.3112	80/20	0.3112
964831	AG1-346 C	0.8315	80/20	0.8315
964841	AG1-347 C	3.1567	80/20	3.1567
965191	AG1-384 C	0.8341	80/20	0.8341
965281	AG1-393 C	0.7795	80/20	0.7795
965531	AG1-421 C	13.8936	80/20	13.8936
965541	AG1-422	5.7890	80/20	5.7890
965581	AG1-426	2.2612	80/20	2.2612
965641	AG1-432 C O1	9.5196	80/20	9.5196
965831	AG1-451	1.5866	80/20	1.5866
966251	AG1-494 C	1.2116	80/20	1.2116
966671	AG1-537 C	4.4522	80/20	4.4522
966791	AG1-550 O1	6.7130	80/20	6.7130
966851	AG1-556	10.3250	80/20	10.3250
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	0.9520	80/20	0.9520
WEC	WEC	0.5226	Confirmed LTF	0.5226
LGEE	LGEE	1.1316	Confirmed LTF	1.1316
CPL	CPL	1.6557	Confirmed LTF	1.6557

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-W2	CBM-W2	17.7408	Confirmed LTF	17.7408
NY	NY	0.7770	Confirmed LTF	0.7770
TVA	TVA	3.0856	Confirmed LTF	3.0856
SIGE	SIGE	0.3628	Confirmed LTF	0.3628
CBM-S2	CBM-S2	26.2253	Confirmed LTF	26.2253
CBM-S1	CBM-S1	0.8098	Confirmed LTF	0.8098
MEC	MEC	2.8221	Confirmed LTF	2.8221
LAGN	LAGN	3.7188	Confirmed LTF	3.7188
CBM-W1	CBM-W1	22.0114	Confirmed LTF	22.0114

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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
169402697	314765	6MTEAGLE	DVP	314749	6CHARLV	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	146.6	149.66	DC	20.22

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1286	80/20	0.1286
315153	1CLOVER1	6.8555	80/20	6.8555
315154	1CLOVER2	6.7871	80/20	6.7871
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6056	80/20	0.6056
315160	1KERR 3	0.6056	80/20	0.6056
315161	1KERR 4	0.6056	80/20	0.6056
315162	1KERR 5	0.6056	80/20	0.6056
315163	1KERR 6	0.6056	80/20	0.6056
315164	1KERR 7	0.6056	80/20	0.6056
315191	1BEARGRDN G1	16.8015	80/20	16.8015
315192	1BEARGRDN G2	16.8015	80/20	16.8015
315193	1BEARGRDN S1	21.7276	80/20	21.7276
315266	1PLYWOOD A	0.6337	80/20	0.6337
316118	AC1-105 C	3.2095	80/20	3.2095
316123	AC1-075 C	0.3995	80/20	0.3995
316129	AC1-054 C	3.1893	80/20	3.1893
316131	AB2-060 C	1.1579	80/20	1.1579
924301	AB2-077 C O1 (Suspended)	1.5318	80/20	1.5318
924311	AB2-078 C O1 (Suspended)	1.5318	80/20	1.5318
924321	AB2-079 C O1 (Suspended)	1.5318	80/20	1.5318

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925611	AC1-036 C	0.2579	80/20	0.2579
926023	AC1-080 C	0.1335	80/20	0.1335
926451	AC1-116 C	0.5713	80/20	0.5713
927251	AC1-221 C	0.7553	80/20	0.7553
927261	AC1-222 C	1.8201	80/20	1.8201
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.9462	80/20	0.9462
932761	AC2-100 C	1.7381	80/20	1.7381
933501	AC2-165 C	31.7798	80/20	31.7798
934311	AD1-055 C	1.2637	80/20	1.2637
934341	AD1-058 C	1.8933	80/20	1.8933
934615	AD1-087 C	4.2927	80/20	4.2927
934625	AD1-088 C	14.0087	80/20	14.0087
934991	AD1-131 C	0.6208	80/20	0.6208
935171	AD1-152 C O1	4.7150	80/20	4.7150
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.3677	80/20	0.3677
936265	AD2-033 C	13.9363	80/20	13.9363
936361	AD2-046 C O1	5.3660	80/20	5.3660
936485	AD2-063 C	13.8249	80/20	13.8249
937481	AD2-202 C O1	1.2573	80/20	1.2573
938371	AE1-056 C	10.0469	80/20	10.0469
938821	AE1-108 C O1	34.7022	80/20	34.7022
939181	AE1-148 C	5.3595	80/20	5.3595
940661	AE2-053 O1	1.9850	80/20	1.9850
941011	AE2-092 C	28.7092	80/20	28.7092
941791	AE2-182 C	2.2759	80/20	2.2759
942451	AE2-258	1.8436	80/20	1.8436
942461	AE2-259 C O1	18.4818	80/20	18.4818
942751	AE2-291 C	3.6916	80/20	3.6916
942761	AE2-292 C O1	4.5964	80/20	4.5964
943901	AF1-058 C	0.9986	80/20	0.9986
943911	AF1-059	9.4111	80/20	9.4111
945811	AF1-246 C O1	3.3281	80/20	3.3281
946281	AF1-292 C	0.4501	80/20	0.4501
946291	AF1-293 C O1	46.3226	80/20	46.3226
946301	AF1-294 C	6.1424	80/20	6.1424
946591	AF1-323 C	11.1045	80/20	11.1045
957481	AF2-042 C	23.7720	80/20	23.7720
958131	AF2-107 C	5.0062	80/20	5.0062
958211	AF2-115 C	3.6132	80/20	3.6132
958801	AF2-171 C	21.5901	80/20	21.5901
959311	AF2-222 C	19.7350	80/20	19.7350
959751	AF2-266	4.9210	80/20	4.9210
960061	AF2-297 C	3.9946	80/20	3.9946
960081	AF2-299 C	0.7586	80/20	0.7586
960111	AF2-302 C	4.0380	80/20	4.0380
961061	AF2-397 C	49.3795	80/20	49.3795
961791	AG1-021 C	2.8906	80/20	2.8906
961801	AG1-022 C	4.0380	80/20	4.0380
961891	AG1-030 C	20.0853	80/20	20.0853
962041	AG1-048 C	18.0660	80/20	18.0660
962441	AG1-093 C O1	8.5588	80/20	8.5588

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962491	AG1-098 C O1	11.2860	80/20	11.2860
962561	AG1-105 C O1	5.6484	80/20	5.6484
962741	AG1-123 C O1	3.4609	80/20	3.4609
962751	AG1-124 C O1	3.7955	80/20	3.7955
963171	AG1-166 C	2.8906	80/20	2.8906
963181	AG1-167 C	2.8906	80/20	2.8906
963191	AG1-168 C	2.8906	80/20	2.8906
963201	AG1-169 C	2.8906	80/20	2.8906
963211	AG1-170 C	2.8906	80/20	2.8906
963271	AG1-176 C O1	18.8522	80/20	18.8522
963301	AG1-179 C	2.7231	80/20	2.7231
963311	AG1-180	1.3268	80/20	1.3268
963321	AG1-181 C O1	18.3438	80/20	18.3438
963361	AG1-185 O1	8.8752	80/20	8.8752
963641	AG1-215 C	1.3489	80/20	1.3489
964111	AG1-272 C	2.9313	80/20	2.9313
964121	AG1-273 C	2.9313	80/20	2.9313
964131	AG1-274 C	2.9313	80/20	2.9313
964231	AG1-284 C O1	20.2247	80/20	20.2247
964241	AG1-285 C O1	11.0228	80/20	11.0228
964261	AG1-287 C	0.7490	80/20	0.7490
964471	AG1-310 C	1.0445	80/20	1.0445
964791	AG1-342 C	2.5943	80/20	2.5943
964821	AG1-345 C	1.1533	80/20	1.1533
964841	AG1-347 C	11.8182	80/20	11.8182
964931	AG1-357 C	7.8312	80/20	7.8312
965191	AG1-384 C	2.9313	80/20	2.9313
965281	AG1-393 C	2.8906	80/20	2.8906
965451	AG1-413 C O1	3.9561	80/20	3.9561
965581	AG1-426	7.5604	80/20	7.5604
965591	AG1-427 C	10.5285	80/20	10.5285
965601	AG1-428 C O1	2.2733	80/20	2.2733
965641	AG1-432 C O1	36.9636	80/20	36.9636
965721	AG1-440 C	3.7881	80/20	3.7881
965731	AG1-441 C	3.7881	80/20	3.7881
965771	AG1-445	2.1887	80/20	2.1887
965781	AG1-446	2.1887	80/20	2.1887
965831	AG1-451	6.1606	80/20	6.1606
966251	AG1-494 C	1.8190	80/20	1.8190
966621	AG1-532 C	0.4096	80/20	0.4096
966691	AG1-539 C	1.9302	80/20	1.9302
966751	AG1-546 C	6.7407	80/20	6.7407
966791	AG1-550 O1	24.3684	80/20	24.3684
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.6964	80/20	3.6964
WEC	WEC	0.1332	Confirmed LTF	0.1332
LGEE	LGEE	0.2859	Confirmed LTF	0.2859
CPLE	CPLE	2.2666	Confirmed LTF	2.2666
CBM-W2	CBM-W2	7.4995	Confirmed LTF	7.4995
NY	NY	0.4413	Confirmed LTF	0.4413
TVA	TVA	1.5190	Confirmed LTF	1.5190
SIGE	SIGE	0.1431	Confirmed LTF	0.1431

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	26.1835	Confirmed LTF	26.1835
CBM-S1	CBM-S1	0.3690	Confirmed LTF	0.3690
MEC	MEC	0.9010	Confirmed LTF	0.9010
LAGN	LAGN	1.8743	Confirmed LTF	1.8743
AA2-074	AA2-074	1.4958	LTF	1.4958
CBM-W1	CBM-W1	5.2575	Confirmed LTF	5.2575

11.6.11 Index 11

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
169664145	933500	AC2-165 TAP	DVP	314333	6POWHATN	DVP	1	314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	single	800.88	110.83	112.95	DC	17.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2811	80/20	0.2811
314429	3JTRSVLE	0.4835	80/20	0.4835
314677	6BUCKING	0.8051	80/20	0.8051
315153	1CLOVER1	4.3284	80/20	4.3284
315154	1CLOVER2	4.2852	80/20	4.2852
315158	1KERR 1	0.1411	80/20	0.1411
315159	1KERR 2	0.3952	80/20	0.3952
315160	1KERR 3	0.3952	80/20	0.3952
315161	1KERR 4	0.3952	80/20	0.3952
315162	1KERR 5	0.3952	80/20	0.3952
315163	1KERR 6	0.3952	80/20	0.3952
315164	1KERR 7	0.3952	80/20	0.3952
315191	1BEARGRDN G1	14.2615	80/20	14.2615
315192	1BEARGRDN G2	14.2615	80/20	14.2615
315193	1BEARGRDN S1	18.4429	80/20	18.4429
315266	1PLYWOOD A	0.4253	80/20	0.4253
316118	AC1-105 C	2.1876	80/20	2.1876
316131	AB2-060 C	0.8407	80/20	0.8407
924301	AB2-077 C O1 (Suspended)	1.0994	80/20	1.0994
924311	AB2-078 C O1 (Suspended)	1.0994	80/20	1.0994
924321	AB2-079 C O1 (Suspended)	1.0994	80/20	1.0994
925611	AC1-036 C	0.1990	80/20	0.1990
927261	AC1-222 C	1.2313	80/20	1.2313
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7932	80/20	0.7932
933501	AC2-165 C	39.2445	80/20	39.2445
934311	AD1-055 C	0.8549	80/20	0.8549

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934615	AD1-087 C	2.7103	80/20	2.7103
934625	AD1-088 C	10.6986	80/20	10.6986
935171	AD1-152 C O1	2.9770	80/20	2.9770
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2946	80/20	0.2946
936265	AD2-033 C	10.6548	80/20	10.6548
936361	AD2-046 C O1	3.5828	80/20	3.5828
936485	AD2-063 C	10.3014	80/20	10.3014
937481	AD2-202 C O1	0.7939	80/20	0.7939
938371	AE1-056 C	8.0514	80/20	8.0514
938821	AE1-108 C O1	29.3769	80/20	29.3769
939181	AE1-148 C	3.5932	80/20	3.5932
940661	AE2-053 O1	1.3308	80/20	1.3308
941011	AE2-092 C	25.2830	80/20	25.2830
941791	AE2-182 C	1.7381	80/20	1.7381
942451	AE2-258	1.3292	80/20	1.3292
942461	AE2-259 C O1	15.0522	80/20	15.0522
943901	AF1-058 C	0.6646	80/20	0.6646
943911	AF1-059	5.9093	80/20	5.9093
946291	AF1-293 C O1	39.5443	80/20	39.5443
946301	AF1-294 C	4.8845	80/20	4.8845
946591	AF1-323 C	9.4261	80/20	9.4261
958131	AF2-107 C	4.3750	80/20	4.3750
958211	AF2-115 C	2.8733	80/20	2.8733
958801	AF2-171 C	17.1603	80/20	17.1603
959311	AF2-222 C	15.3100	80/20	15.3100
959751	AF2-266	3.1070	80/20	3.1070
960061	AF2-297 C	2.6582	80/20	2.6582
960111	AF2-302 C	3.4277	80/20	3.4277
961061	AF2-397 C	36.6545	80/20	36.6545
961791	AG1-021 C	2.2986	80/20	2.2986
961801	AG1-022 C	3.4277	80/20	3.4277
961891	AG1-030 C	15.8319	80/20	15.8319
962041	AG1-048 C	14.3663	80/20	14.3663
962441	AG1-093 C O1	5.8337	80/20	5.8337
962491	AG1-098 C O1	8.1622	80/20	8.1622
962561	AG1-105 C O1	3.5664	80/20	3.5664
962741	AG1-123 C O1	3.1842	80/20	3.1842
962751	AG1-124 C O1	3.5741	80/20	3.5741
963171	AG1-166 C	2.2986	80/20	2.2986
963181	AG1-167 C	2.2986	80/20	2.2986
963191	AG1-168 C	2.2986	80/20	2.2986
963201	AG1-169 C	2.2986	80/20	2.2986
963211	AG1-170 C	2.2986	80/20	2.2986
963271	AG1-176 C O1	14.5637	80/20	14.5637
963321	AG1-181 C O1	14.0576	80/20	14.0576
963361	AG1-185 O1	6.8014	80/20	6.8014
963641	AG1-215 C	1.0727	80/20	1.0727
964111	AG1-272 C	2.2621	80/20	2.2621
964121	AG1-273 C	2.2621	80/20	2.2621
964131	AG1-274 C	2.2621	80/20	2.2621
964231	AG1-284 C O1	17.0012	80/20	17.0012
964241	AG1-285 C O1	8.1450	80/20	8.1450

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964261	AG1-287 C	0.4984	80/20	0.4984
964471	AG1-310 C	0.7118	80/20	0.7118
964791	AG1-342 C	1.8023	80/20	1.8023
964821	AG1-345 C	0.9169	80/20	0.9169
964841	AG1-347 C	9.1358	80/20	9.1358
965191	AG1-384 C	2.2621	80/20	2.2621
965281	AG1-393 C	2.2986	80/20	2.2986
965451	AG1-413 C O1	2.4841	80/20	2.4841
965581	AG1-426	6.4002	80/20	6.4002
965591	AG1-427 C	7.7911	80/20	7.7911
965641	AG1-432 C O1	30.1044	80/20	30.1044
965721	AG1-440 C	2.3620	80/20	2.3620
965731	AG1-441 C	2.3620	80/20	2.3620
965771	AG1-445	1.3647	80/20	1.3647
965781	AG1-446	1.3647	80/20	1.3647
965831	AG1-451	5.0174	80/20	5.0174
966251	AG1-494 C	1.6494	80/20	1.6494
966791	AG1-550 O1	16.4475	80/20	16.4475
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.0104	80/20	3.0104
WEC	WEC	0.1988	Confirmed LTF	0.1988
LGEE	LGEE	0.4247	Confirmed LTF	0.4247
CPLE	CPLE	1.0859	Confirmed LTF	1.0859
CBM-W2	CBM-W2	7.3114	Confirmed LTF	7.3114
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	1.3104	Confirmed LTF	1.3104
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.4907	Confirmed LTF	14.4907
CBM-S1	CBM-S1	0.3374	Confirmed LTF	0.3374
MEC	MEC	1.1075	Confirmed LTF	1.1075
LAGN	LAGN	1.5942	Confirmed LTF	1.5942
CBM-W1	CBM-W1	8.3419	Confirmed LTF	8.3419

11.7 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
AA2-074	CPLE-PJM	Confirmed
AB2-026	Powhatan 34.5kV	In Service

Queue Number	Project Name	Status
AB2-043	Chase City 115kV	Under Construction
AB2-045	Buckingham 34.5kV	In Service
AB2-060	Chase City-Lunenburg 115kV	In Service
AB2-077	Buggs Island-Chase City 115kV	Suspended
AB2-078	Buggs Island-Chase City 115kV	Suspended
AB2-079	Buggs Island-Chase City 115kV	Suspended
AC1-036	Twittys Creek 34.5kV	Partially in Service - Under Construction
AC1-054	Kerr Dam–Eatons Ferry 115 kV	Engineering and Procurement
AC1-075	Perth-Hickory Grove 115kV	Engineering and Procurement
AC1-076	Locust Grove-Paytes 115kV	Engineering and Procurement
AC1-080	Perth-Hickory Grove 115kV	Engineering and Procurement
AC1-105	Halifax-Mt. Laurel 115kV	Engineering and Procurement
AC1-116	Mount Eagle 34.5kV	Engineering and Procurement
AC1-120	Mitchell-Mountain Run 115kV	Engineering and Procurement
AC1-121	Mitchell-Mountain Run 115kV	Engineering and Procurement
AC1-143	Brandy-Remington 115kV	Engineering and Procurement
AC1-221	Halifax-Person 230kV	Engineering and Procurement
AC1-222	Crystal Hill-Halifax 115kV	Engineering and Procurement
AC2-071	Buckingham 35kV	Withdrawn
AC2-074	Mt. Jackson 35kV	Withdrawn
AC2-100	Halifax-Person 230kV	Engineering and Procurement
AC2-112	Stuarts Draft-Waynesboro 115kV	Engineering and Procurement
AC2-165	Bremo-Powhatan 230kV	Engineering and Procurement
AD1-055	Crystal Hill-Halifax 115 kV	Engineering and Procurement
AD1-058	Halifax-Person 230 kV	Engineering and Procurement
AD1-085	North Shenandoah-Stanley 34.5 kV	Engineering and Procurement
AD1-087	Clover-Sedge Hill 230 kV	Active
AD1-088	Briery-Clover 230 kV	Active
AD1-131	Sedge Hill-Person 230 kV	Engineering and Procurement
AD1-152	Clover-Sedge Hill 230 kV	Active
AD1-157	South Creek 34.5 kV	Withdrawn
AD1-161	Stonewall-Long Mountain 69 kV	Active
AD2-033	Chase City-Lunenburg 115 kV	Active
AD2-046	Boydton DP-Kerr Dam 115 kV	Active
AD2-063	Central-Chase City 115kV	Active
AD2-202	Clover-Sedge Hill 230kV	Active
AE1-056	Red House-South Creek 115 kV	Active
AE1-075	Powhatan 34.5 kV	Engineering and Procurement
AE1-084	Barterbrook-Stuarts Draft 115 kV	Active
AE1-098	Endless Caverns 34.5 kV	Engineering and Procurement
AE1-099	Endless Caverns 34.kV	Engineering and Procurement
AE1-108	Bremo-Scottsville 138 kV	Active
AE1-148	Kerr Dam-Ridge Rd 115 kV	Active
AE1-154	Louisa-South Anna 230 kV	Engineering and Procurement
AE2-029	Grottoes-Merck 115kV	Active
AE2-053	Kerr Dam-Ridge Road 115 kV	Active
AE2-092	Kidds Store-Sherwood 115 kV	Active
AE2-182	Briery-Clover 230 kV	Active
AE2-258	Chase City 115 kV	Active
AE2-259	Curdsville-Willis Mtn 115 kV	Active
AE2-291	Grit DP-Perth 115 kV	Active
AE2-292	Grit DP-Perth 115 kV	Active

Queue Number	Project Name	Status
AF1-028	Endless Caverns 115 kV	Active
AF1-058	Welco 34.5 kV	Engineering and Procurement
AF1-059	Brodnax-South Hill 115 kV	Active
AF1-075	Harrisburg-Endless Caverns 230 kV	Active
AF1-246	Clover-Rawlings 500 kV	Active
AF1-292	Fields 34.5kV	Active
AF1-293	Kidds Store-Fort Union 115 kV	Active
AF1-294	Jetersville-Ponton 115 kV	Active
AF1-323	Scottsville-Colleen 138 kV	Active
AF2-042	Clover-Rawlings 500 kV	Active
AF2-107	Clifford 138 kV	Active
AF2-115	Jetersville-Ponton 115 kV	Active
AF2-144	Powhatan 34.5 kV	Active
AF2-171	Madisonville 115 kV	Active
AF2-222	Madisonville DP-Twitty's Creek 115 kV	Active
AF2-244	Powhatan 34.5 kV	Withdrawn
AF2-266	Clover 230 kV	Active
AF2-297	Sedge Hill 115 kV	Active
AF2-299	Fields 34.5 kV	Active
AF2-302	Scottsville-Colleen 138 kV	Active
AF2-397	Fork Union-Mt. Eagle 230 kV	Active
AF2-401	Culpeper 34.5 kV	Engineering and Procurement
AG1-021	Jetersville-Ponton 115 kV	Active
AG1-022	Scottsville-Colleen 138 kV	Active
AG1-030	Victoria DP-Martin DP 115 kV	Active
AG1-048	Jetersville-Ponton 115 kV	Active
AG1-093	Halifax-Chase City 115 kV	Active
AG1-098	Briery-Clover 230 kV	Active
AG1-105	Clover-Sedge Hill 230 kV	Active
AG1-123	Amherst-Riverville 138 kV	Active
AG1-124	Gladstone 138 kV	Active
AG1-137	Harrisonburg 230 kV	Active
AG1-151	Endless Caverns 115 kV	Active
AG1-166	Lone Pine 115 kV	Active
AG1-167	Lone Pine 115 kV	Active
AG1-168	Lone Pine 115 kV	Active
AG1-169	Lone Pine 115 kV	Active
AG1-170	Lone Pine 115 kV	Active
AG1-176	Briery-Clover 230 kV	Active
AG1-179	Brunswick 69 kV	Active
AG1-180	Brunswick 69 kV	Active
AG1-181	Pamplin-Chase City 115 kV	Active
AG1-185	Pamplin-Chase City 115 kV	Active
AG1-195	Valley 230 kV	Active
AG1-196	Grottoes-Dooms 230 kV	Active
AG1-214	Grottoes 12.5 kV	Active
AG1-215	Fort Pickett 13.2 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
AG1-284	Bremo-Cunningham DP 115 kV	Active
AG1-285	Chase City-Central 115 kV	Active

Queue Number	Project Name	Status
AG1-287	South Boston 12.5 kV	Active
AG1-310	Crystal Hill-Perth 115 kV	Active
AG1-325	Barterbrook-Stuarts Draft 115 kV	Active
AG1-342	Dryburg 115 kV	Active
AG1-345	Crewe 12.5 kV	Active
AG1-346	Mount Jackson DP 115 kV	Active
AG1-347	Briery DP-Clover 230 kV	Active
AG1-357	Clover-Rawlings 500 kV	Active
AG1-384	Twitty's Creek 115 kV	Active
AG1-393	Fort Pickett DP 34.5 kV	Active
AG1-413	South Hill-Bordnax 115 kV	Active
AG1-421	Lexington-Dooms 230 kV	Active
AG1-422	Lexington-Dooms 230 kV	Active
AG1-426	Bremo-Scottsville 138 kV	Active
AG1-427	Chase City-Drakes Branch 115 kV	Active
AG1-428	Danieltown 69 kV	Active
AG1-432	Curdsville DP-Willis Mt. 115 kV	Active
AG1-440	Palmer Springs 115 kV	Active
AG1-441	Palmer Springs 115 kV	Active
AG1-445	Palmer Spring 115 kV	Active
AG1-446	Palmer Springs 115 kV	Active
AG1-451	Curdsville DP-Willis Mt. 115 kV	Active
AG1-494	Boxwood-Riverville 138 kV	Active
AG1-532	Fields 34.5 kV	Active
AG1-537	Barterbrook-Stuarts Draft 115 kV	Active
AG1-539	Grit DP-Perth 115 kV	Active
AG1-546	Ebony-Elams Road 115 kV	Active
AG1-550	Mount Eagle-Fork Union 230 kV	Active
AG1-556	Lexington 115 kV	Active
AG1-557	Curdsville DP 115 kV	Withdrawn
Z2-039	PF Hydro	In Service

11.8 Contingency Descriptions - Primary POI

Contingency Name	Contingency Definition
DVP_P1-2: LN 553	CONTINGENCY 'DVP_P1-2: LN 553' OPEN BRANCH FROM BUS 314908 TO BUS 314910 CKT 1 /* 8ELMONT 500.00 - 8CUNNINGHAM 500.00 END
DVP_P1-2: LN 550	CONTINGENCY 'DVP_P1-2: LN 550' OPEN BRANCH FROM BUS 314917 TO BUS 314926 CKT 1 /* 8MT STM 500.00 - 8VALLEY 500.00 END
DVP_P1-2: LN 2193	CONTINGENCY 'DVP_P1-2: LN 2193' OPEN BRANCH FROM BUS 313707 TO BUS 313867 CKT 1 /* 6FORK UNION 230.00 - 6BREMODIST 230.00 OPEN BRANCH FROM BUS 313867 TO BUS 314747 CKT 1 /* 6BREMODIST 230.00 - 6BREMO 230.00 OPEN BUS 313867 /* ISLAND: 6BREMODIST 230.00 END
314333 6POWHATN 230 933500 AC2-165 TAP 230 1	CONTINGENCY '314333 6POWHATN 230 933500 AC2-165 TAP 230 1' OPEN BRANCH FROM BUS 314333 TO BUS 933500 CKT 1 END
DVP_P1-2: LN 2027	CONTINGENCY 'DVP_P1-2: LN 2027' OPEN BRANCH FROM BUS 313868 TO BUS 314747 CKT 1 /* 6CARTERV 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 313868 TO BUS 933500 CKT 1 /* 6CARTERV 230.00 - AC2- 165 TAP 230.00 OPEN BRANCH FROM BUS 314310 TO BUS 314322 CKT 1 /* 6JUDES F 230.00 - 6MDLTHAN 230.00 OPEN BRANCH FROM BUS 314310 TO BUS 314333 CKT 1 /* 6JUDES F 230.00 - 6POWHATN 230.00 OPEN BRANCH FROM BUS 314333 TO BUS 933500 CKT 1 /* 6POWHATN 230.00 - AC2-165 TAP 230.00 OPEN BUS 313868 /* ISLAND: 6CARTERV 230.00 OPEN BUS 314310 /* ISLAND: 6JUDES F 230.00 OPEN BUS 314333 /* ISLAND: 6POWHATN 230.00 OPEN BUS 923862 /* ISLAND: AB2-026 E 230.00 OPEN BUS 938561 /* ISLAND: AE1-075 C 230.00 OPEN BUS 938562 /* ISLAND: AE1-075 E 230.00 OPEN BUS 933500 /* ISLAND: AC2-165 TAP 230.00 OPEN BUS 933501 /* ISLAND: AC2-165 C 230.00 OPEN BUS 933502 /* ISLAND: AC2-165 E 230.00 END
Base Case	

Contingency Name	Contingency Definition
DVP_P7-1: LN 5-2028-C	CONTINGENCY 'DVP_P7-1: LN 5-2028-C' /*. OPEN BRANCH FROM BUS 314744 TO BUS 314754 CKT 1 /* 3BREMO 115.00 - 3CUNNING 115.00 OPEN BUS 314754 /* ISLAND: 3CUNNING 115.00 OPEN BRANCH FROM BUS 966790 TO BUS 314765 CKT 1 /* AG1-550 TAP 230.00 - 6MTEAGLE 230.00 OPEN BRANCH FROM BUS 314749 TO BUS 314765 CKT 1 /* 6CHARLVL 230.00 - 6MTEAGLE 230.00 OPEN BUS 314765 /* ISLAND: 6MTEAGLE 230.00 OPEN BUS 926451 /* ISLAND: AC1-116 C 230.00 OPEN BUS 926452 /* ISLAND: AC1-116 E 230.00 END
314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	CONTINGENCY '314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1' OPEN BRANCH FROM BUS 314765 TO BUS 966790 CKT 1 END
DVP_P1-2: LN 2028-B	CONTINGENCY 'DVP_P1-2: LN 2028-B' OPEN BRANCH FROM BUS 966790 TO BUS 314765 CKT 1 /* AF2-397 TAP 230.00 - 6MTEAGLE 230.00 OPEN BRANCH FROM BUS 314749 TO BUS 314765 CKT 1 /* 6CHARLVL 230.00 - 6MTEAGLE 230.00 OPEN BUS 314765 /* ISLAND: 6MTEAGLE 230.00 OPEN BUS 926451 /* ISLAND: AC1-116 C 230.00 OPEN BUS 926452 /* ISLAND: AC1-116 E 230.00 END

12 Short Circuit Analysis - Primary POI

The following Breakers are overdutied

None

12.1 System Reinforcements - Short Circuit

None

13 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AG1-284 was evaluated as a 70.0 MW (Capacity 42.0 MW) injection tapping the Bremono to Cunningham 115 kV line in the Dominion area. Project AG1-284 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-284 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

13.1 Generation 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)

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/D C	MW IMPACT
161660997	242563	05BOXWD	138.0	AEP	246229	05REUSENS2	138.0	AEP	1	DVP_P2-2: BREMO B4	bus	167.0	85.11	104.08	DC	31.68
174041030	242563	05BOXWD	138.0	AEP	246229	05REUSENS2	138.0	AEP	1	DVP_P4-2: 422	breaker	167.0	85.11	104.08	DC	31.68
172578684	242792	05SCOTSV	138.0	AEP	946590	AF1-323 TAP	138.0	AEP	1	DVP_P2-2: BREMO B4	bus	167.0	60.66	102.57	DC	70.0
173854315	242792	05SCOTSV	138.0	AEP	946590	AF1-323 TAP	138.0	AEP	1	DVP_P4-2: 422	breaker	167.0	60.66	102.57	DC	70.0
170682477	938820	AE1-108 TAP	138.0	DVP	242792	05SCOTSV	138.0	AEP	1	DVP_P2-2: BREMO B4	bus	167.0	66.65	108.56	DC	70.0
173485496	938820	AE1-108 TAP	138.0	DVP	242792	05SCOTSV	138.0	AEP	1	DVP_P4-2: 422	breaker	167.0	66.65	108.56	DC	70.0

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)

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC/D C	MW IMPACT
161660824	242603	05CLIFFR	138.0	AEP	242563	05BOXWD	138.0	AEP	1	DVP_P2-2: BREMO B4	bus	167.0	133.59	175.51	DC	70.0
173854212	242603	05CLIFFR	138.0	AEP	242563	05BOXWD	138.0	AEP	1	DVP_P4-2: 422	breaker	167.0	133.59	175.51	DC	70.0
161660872	242613	05COLLEEN SS	138.0	AEP	242603	05CLIFFR	138.0	AEP	1	DVP_P2-2: BREMO B4	bus	167.0	109.4	151.32	DC	70.0
173854233	242613	05COLLEEN SS	138.0	AEP	242603	05CLIFFR	138.0	AEP	1	DVP_P4-2: 422	breaker	167.0	109.4	151.32	DC	70.0

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 PROJECTIONS LOADING %	POST PROJECTIONS LOADING %	AC/D C	MW IMPACT
161660864	244423	05JAMES RIVR	138.0	AEP	242613	05COLLEEN SS	138.0	AEP	1	DVP_P2-2: BREMO B4	bus	167.0	111.62	153.53	DC	70.0
173854231	244423	05JAMES RIVR	138.0	AEP	242613	05COLLEEN SS	138.0	AEP	1	DVP_P4-2: 422	breaker	167.0	111.62	153.53	DC	70.0
161660854	244446	05SOAPSTONE	138.0	AEP	244423	05JAMES RIVR	138.0	AEP	1	DVP_P2-2: BREMO B4	bus	167.0	114.55	156.47	DC	70.0
173854227	244446	05SOAPSTONE	138.0	AEP	244423	05JAMES RIVR	138.0	AEP	1	DVP_P4-2: 422	breaker	167.0	114.55	156.47	DC	70.0
168439139	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	single	661.760009766	143.97	147.03	DC	20.24
163240965	313867	6BREMODIST	230.0	DVP	313707	6FORK UNION	230.0	DVP	1	DVP_P7-1: LN 181-2027	tower	809.0	140.81	142.13	DC	10.64
174040931	313867	6BREMODIST	230.0	DVP	313707	6FORK UNION	230.0	DVP	1	DVP_P4-2: 202712	breaker	809.0	140.76	142.08	DC	10.64
174243385	313868	6CARTERV	230.0	DVP	933500	AC2-165 TAP	230.0	DVP	1	DVP_P4-2: 2028T2054	breaker	980.0	103.24	106.14	DC	28.44
175476520	313868	6CARTERV	230.0	DVP	933500	AC2-165 TAP	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.880004883	106.94	109.07	DC	17.05
174243330	314310	6JUDES F	230.0	DVP	314322	6MDLTHAN	230.0	DVP	1	DVP_P4-2: 2028T2054	breaker	980.0	111.62	114.52	DC	28.43
175256894	314310	6JUDES F	230.0	DVP	314322	6MDLTHAN	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.880004883	112.72	114.85	DC	17.04
174041034	314333	6POWHATN	230.0	DVP	314310	6JUDES F	230.0	DVP	1	DVP_P4-2: 2028T2054	breaker	980.0	111.72	114.62	DC	28.43
175256891	314333	6POWHATN	230.0	DVP	314310	6JUDES F	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.880004883	112.86	114.99	DC	17.04
163240950	314747	6BREMO	230.0	DVP	313867	6BREMODIST	230.0	DVP	1	DVP_P7-1: LN 181-2027	tower	809.0	142.58	143.89	DC	10.64
174040927	314747	6BREMO	230.0	DVP	313867	6BREMODIST	230.0	DVP	1	DVP_P4-2: 202712	breaker	809.0	142.53	143.85	DC	10.64
174243378	314747	6BREMO	230.0	DVP	313868	6CARTERV	230.0	DVP	1	DVP_P4-2: 2028T2054	breaker	980.0	104.38	107.28	DC	28.44
175476508	314747	6BREMO	230.0	DVP	313868	6CARTERV	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.880004883	108.35	110.48	DC	17.05
169402697	314765	6MTEAGLE	230.0	DVP	314749	6CHARLV	230.0	DVP	1	314333 6POWHA TN 230 933500 AC2-165 TAP 230 1	single	661.760009766	147.84	150.9	DC	20.24

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
174243343	933500	AC2-165 TAP	230.0	DVP	314333	6POWHATN	230.0	DVP	1	DVP_P4-2: 2028T2054	breaker	980.0	110.19	113.09	DC	28.44
175256902	933500	AC2-165 TAP	230.0	DVP	314333	6POWHATN	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.880004883	111.76	113.89	DC	17.05
174862175	941010	AE2-092 TAP	115.0	DVP	314774	3SHERWOD	115.0	DVP	1	DVP_P1-2: LN 2028-B-1	single	169.199996948	100.91	104.7	DC	6.42
161660846	946590	AF1-323 TAP	138.0	AEP	244446	05SOAPSTONE	138.0	AEP	1	DVP_P2-2: BREMOB4	bus	167.0	117.54	159.46	DC	70.0
173854225	946590	AF1-323 TAP	138.0	AEP	244446	05SOAPSTONE	138.0	AEP	1	DVP_P4-2: 422	breaker	167.0	117.54	159.46	DC	70.0
175065295	961060	AF2-397 TAP	230.0	DVP	314765	6MTEAGLE	230.0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.760009766	151.37	154.43	DC	20.24
175065297	961060	AF2-397 TAP	230.0	DVP	314765	6MTEAGLE	230.0	DVP	1	Base Case	single	661.760009766	100.06	102.24	DC	14.63

13.4 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
168439137	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	operation	661.760009766	172.65	177.75	DC	33.73
168439141	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	Base Case	operation	661.760009766	115.92	119.6	DC	24.38
168439385	313708	3FORK UNION	115.0	DVP	313707	6FORK UNION	230.0	DVP	1	DVP_P1-2: LN 2193	operation	269.779998779	109.61	118.59	DC	24.16

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 PROJECTIONS LOAD %	POST PROJECTIONS LOAD %	ACDC	MW IMPACT
168439159	313867	6BREMODIST	230.0	DVP	313707	6FORK UNION	230.0	DVP	1	3143336POWHA TN 230 933500 AC2-165 TAP 230 1	operation	661.760009766	171.83	173.43	DC	10.64
175476519	313868	6CARTERV	230.0	DVP	933500	AC2-165 TAP	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	operation	800.880004883	125.7	129.25	DC	28.41
175256893	314310	6JUDES F	230.0	DVP	314322	6MDLTHA N	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	operation	800.880004883	136.28	139.82	DC	28.4
175256890	314333	6POWHAT N	230.0	DVP	314310	6JUDES F	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	operation	800.880004883	136.41	139.96	DC	28.4
169402956	314744	3BREMO	115.0	DVP	313708	3FORK UNION	115.0	DVP	1	DVP_P1-2: LN 2193	operation	414.540008545	99.28	106.98	DC	31.84
169402705	314747	6BREMO	230.0	DVP	313867	6BREMODIST	230.0	DVP	1	3143336POWHA TN 230 933500 AC2-165 TAP 230 1	operation	661.760009766	173.99	175.59	DC	10.64
175476507	314747	6BREMO	230.0	DVP	313868	6CARTERV	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	operation	800.880004883	127.12	130.66	DC	28.41
169402912	314749	6CHARLVL	230.0	DVP	314772	6PROFFIT	230.0	DVP	1	DVP_P1-2: LN 553	operation	550.840026855	106.83	108.32	DC	8.2
169402695	314765	6MTEAGLE	230.0	DVP	314749	6CHARLVL	230.0	DVP	1	3143336POWHA TN 230 933500 AC2-165 TAP 230 1	operation	661.760009766	173.87	178.97	DC	33.73
169402699	314765	6MTEAGLE	230.0	DVP	314749	6CHARLVL	230.0	DVP	1	Base Case	operation	661.760009766	118.38	122.06	DC	24.38
175256901	933500	AC2-165 TAP	230.0	DVP	314333	6POWHAT N	230.0	DVP	1	DVP_P1-2: LN 2028-B-1	operation	800.880004883	134.22	137.77	DC	28.41
174862174	941010	AE2-092 TAP	115.0	DVP	314774	3SHERWO D	115.0	DVP	1	DVP_P1-2: LN 2028-B-1	operation	169.199996948	120.86	127.18	DC	10.7
175065294	961060	AF2-397 TAP	230.0	DVP	314765	6MTEAGLE	230.0	DVP	1	3143336POWHA TN 230 933500 AC2-165 TAP 230 1	operation	661.760009766	181.48	186.58	DC	33.73
175065296	961060	AF2-397 TAP	230.0	DVP	314765	6MTEAGLE	230.0	DVP	1	Base Case	operation	661.760009766	121.82	125.51	DC	24.38

13.5 Flow Gate Details - Secondary POI

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".

13.5.1 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
174041030	242563	05BOXWD	AEP	246229	05REUSENS2	AEP	1	DVP_P4-2: 422	breaker	167.0	85.11	104.08	DC	31.68

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	41.5505	50/50	41.5505
938822	AE1-108 E O1	18.6479	50/50	18.6479
946591	AF1-323 C	14.9365	50/50	14.9365
946592	AF1-323 E	9.9576	50/50	9.9576
958131	AF2-107 C	14.6199	50/50	14.6199
958132	AF2-107 E	8.0116	50/50	8.0116
960111	AF2-302 C	5.4314	50/50	5.4314
960112	AF2-302 E	3.6210	50/50	3.6210
961801	AG1-022 C	5.4314	50/50	5.4314
961802	AG1-022 E	3.6210	50/50	3.6210
962741	AG1-123 C O2	10.5563	50/50	10.5563
962742	AG1-123 E O2	7.3560	50/50	7.3560
962751	AG1-124 C O2	17.1069	50/50	17.1069
962752	AG1-124 E O2	11.9371	50/50	11.9371
964231	AG1-284 C O2	19.0100	50/50	19.0100
964232	AG1-284 E O2	12.6734	50/50	12.6734
965581	AG1-426	9.0524	50/50	9.0524
966251	AG1-494 C	8.4900	50/50	8.4900
966252	AG1-494 E	12.7350	50/50	12.7350
966791	AG1-550 O2	15.8417	50/50	15.8417
WEC	WEC	0.0050	Confirmed LTF	0.0050
LGEE	LGEE	0.0113	Confirmed LTF	0.0113
CBM-W2	CBM-W2	0.1075	Confirmed LTF	0.1075

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TVA	TVA	0.0140	Confirmed LTF	0.0140
O-066	O-066	0.0067	Confirmed LTF	0.0067
SIGE	SIGE	0.0019	Confirmed LTF	0.0019
CBM-S1	CBM-S1	0.0046	Confirmed LTF	0.0046
G-007	G-007	0.0010	Confirmed LTF	0.0010
HAMLET	HAMLET	0.0231	Confirmed LTF	0.0231
MEC	MEC	0.0238	Confirmed LTF	0.0238
LAGN	LAGN	0.0140	Confirmed LTF	0.0140
CATAWBA	CATAWBA	0.0070	Confirmed LTF	0.0070
CBM-W1	CBM-W1	0.2243	Confirmed LTF	0.2243

13.5.2 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
173854315	242792	05SCOTSV	AEP	946590	AF1-323 TAP	AEP	1	DVP_P4-2: 422	breaker	167.0	60.66	102.57	DC	70.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	91.8000	50/50	91.8000
938822	AE1-108 E O1	41.2000	50/50	41.2000
964231	AG1-284 C O2	42.0000	50/50	42.0000
964232	AG1-284 E O2	28.0000	50/50	28.0000
965581	AG1-426	20.0000	50/50	20.0000
966791	AG1-550 O2	35.0000	50/50	35.0000

13.5.3 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
173485496	938820	AE1-108 TAP	DVP	242792	05SCOTSV	AEP	1	DVP_P4-2: 422	breaker	167.0	66.65	108.56	DC	70.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	91.8000	50/50	91.8000
938822	AE1-108 E O1	41.2000	50/50	41.2000
964231	AG1-284 C O2	42.0000	50/50	42.0000
964232	AG1-284 E O2	28.0000	50/50	28.0000
965581	AG1-426	20.0000	50/50	20.0000
966791	AG1-550 O2	35.0000	50/50	35.0000

13.5.4 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
173854212	242603	05CLIFFR	AEP	242563	05BOXWD	AEP	1	DVP_P4-2: 422	breaker	167.0	133.59	175.51	DC	70.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	91.8000	50/50	91.8000
938822	AE1-108 E O1	41.2000	50/50	41.2000
946591	AF1-323 C	33.0000	50/50	33.0000
946592	AF1-323 E	22.0000	50/50	22.0000
958131	AF2-107 C	32.3000	50/50	32.3000
958132	AF2-107 E	17.7000	50/50	17.7000
960111	AF2-302 C	12.0000	50/50	12.0000
960112	AF2-302 E	8.0000	50/50	8.0000
961801	AG1-022 C	12.0000	50/50	12.0000
961802	AG1-022 E	8.0000	50/50	8.0000
964231	AG1-284 C O2	42.0000	50/50	42.0000
964232	AG1-284 E O2	28.0000	50/50	28.0000
965581	AG1-426	20.0000	50/50	20.0000
966791	AG1-550 O2	35.0000	50/50	35.0000

13.5.5 Index 5

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
173854233	242613	05COLLEEN SS	AEP	242603	05CLIFFR	AEP	1	DVP_P4-2: 422	breaker	167.0	109.4	151.32	DC	70.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	91.8000	50/50	91.8000
938822	AE1-108 E O1	41.2000	50/50	41.2000
946591	AF1-323 C	33.0000	50/50	33.0000
946592	AF1-323 E	22.0000	50/50	22.0000
960111	AF2-302 C	12.0000	50/50	12.0000
960112	AF2-302 E	8.0000	50/50	8.0000
961801	AG1-022 C	12.0000	50/50	12.0000
961802	AG1-022 E	8.0000	50/50	8.0000
964231	AG1-284 C O2	42.0000	50/50	42.0000
964232	AG1-284 E O2	28.0000	50/50	28.0000
965581	AG1-426	20.0000	50/50	20.0000
966791	AG1-550 O2	35.0000	50/50	35.0000

13.5.6 Index 6

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
173854231	244423	05JAMES RIVR	AEP	242613	05COLLEEN SS	AEP	1	DVP_P4-2: 422	breaker	167.0	111.62	153.53	DC	70.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	91.8000	50/50	91.8000
938822	AE1-108 E O1	41.2000	50/50	41.2000
946591	AF1-323 C	33.0000	50/50	33.0000
946592	AF1-323 E	22.0000	50/50	22.0000
960111	AF2-302 C	12.0000	50/50	12.0000
960112	AF2-302 E	8.0000	50/50	8.0000
961801	AG1-022 C	12.0000	50/50	12.0000
961802	AG1-022 E	8.0000	50/50	8.0000
964231	AG1-284 C O2	42.0000	50/50	42.0000
964232	AG1-284 E O2	28.0000	50/50	28.0000
965581	AG1-426	20.0000	50/50	20.0000
966791	AG1-550 O2	35.0000	50/50	35.0000

13.5.7 Index 7

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
173854227	244446	05SOAPSTONE	AEP	244423	05JAMES RIVR	AEP	1	DVP_P4-2: 422	breaker	167.0	114.55	156.47	DC	70.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	91.8000	50/50	91.8000
938822	AE1-108 E O1	41.2000	50/50	41.2000
946591	AF1-323 C	33.0000	50/50	33.0000
946592	AF1-323 E	22.0000	50/50	22.0000
960111	AF2-302 C	12.0000	50/50	12.0000
960112	AF2-302 E	8.0000	50/50	8.0000
961801	AG1-022 C	12.0000	50/50	12.0000
961802	AG1-022 E	8.0000	50/50	8.0000
964231	AG1-284 C O2	42.0000	50/50	42.0000
964232	AG1-284 E O2	28.0000	50/50	28.0000
965581	AG1-426	20.0000	50/50	20.0000
966791	AG1-550 O2	35.0000	50/50	35.0000

13.5.8 Index 8

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
168439139	313707	6FORK UNION	DVP	961060	AF2-397 TAP	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	143.97	147.03	DC	20.24

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1287	80/20	0.1287
315153	1CLOVER1	6.8569	80/20	6.8569
315154	1CLOVER2	6.7885	80/20	6.7885
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6058	80/20	0.6058
315160	1KERR 3	0.6058	80/20	0.6058
315161	1KERR 4	0.6058	80/20	0.6058
315162	1KERR 5	0.6058	80/20	0.6058
315163	1KERR 6	0.6058	80/20	0.6058
315164	1KERR 7	0.6058	80/20	0.6058
315191	1BEARGRDN G1	16.8024	80/20	16.8024
315192	1BEARGRDN G2	16.8024	80/20	16.8024
315193	1BEARGRDN S1	21.7287	80/20	21.7287
315266	1PLYWOOD A	0.6338	80/20	0.6338
316118	AC1-105 C	3.2102	80/20	3.2102
316123	AC1-075 C	0.3997	80/20	0.3997
316129	AC1-054 C	3.1902	80/20	3.1902
316131	AB2-060 C	1.1581	80/20	1.1581
924301	AB2-077 C O1 (Suspended)	1.5320	80/20	1.5320
924311	AB2-078 C O1 (Suspended)	1.5320	80/20	1.5320
924321	AB2-079 C O1 (Suspended)	1.5320	80/20	1.5320
925611	AC1-036 C	0.2580	80/20	0.2580
926023	AC1-080 C	0.1336	80/20	0.1336
927251	AC1-221 C	0.7557	80/20	0.7557
927261	AC1-222 C	1.8205	80/20	1.8205
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.9463	80/20	0.9463
932761	AC2-100 C	1.7391	80/20	1.7391
933501	AC2-165 C	31.7815	80/20	31.7815
934311	AD1-055 C	1.2640	80/20	1.2640
934341	AD1-058 C	1.8944	80/20	1.8944
934615	AD1-087 C	4.2935	80/20	4.2935
934625	AD1-088 C	14.0115	80/20	14.0115

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934991	AD1-131 C	0.6211	80/20	0.6211
935171	AD1-152 C O1	4.7160	80/20	4.7160
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.3677	80/20	0.3677
936265	AD2-033 C	13.9378	80/20	13.9378
936361	AD2-046 C O1	5.3677	80/20	5.3677
936485	AD2-063 C	13.8267	80/20	13.8267
937481	AD2-202 C O1	1.2576	80/20	1.2576
938371	AE1-056 C	10.0476	80/20	10.0476
938821	AE1-108 C O1	34.7050	80/20	34.7050
939181	AE1-148 C	5.3606	80/20	5.3606
940661	AE2-053 O1	1.9854	80/20	1.9854
941011	AE2-092 C	28.7117	80/20	28.7117
941791	AE2-182 C	2.2764	80/20	2.2764
942451	AE2-258	1.8439	80/20	1.8439
942461	AE2-259 C O1	18.4830	80/20	18.4830
942751	AE2-291 C	3.6928	80/20	3.6928
942761	AE2-292 C O1	4.5979	80/20	4.5979
943901	AF1-058 C	0.9990	80/20	0.9990
943911	AF1-059	9.4131	80/20	9.4131
945811	AF1-246 C O1	3.3289	80/20	3.3289
946281	AF1-292 C	0.4503	80/20	0.4503
946291	AF1-293 C O1	46.3247	80/20	46.3247
946301	AF1-294 C	6.1429	80/20	6.1429
946591	AF1-323 C	11.1052	80/20	11.1052
957481	AF2-042 C	23.7780	80/20	23.7780
958131	AF2-107 C	5.0071	80/20	5.0071
958211	AF2-115 C	3.6135	80/20	3.6135
958801	AF2-171 C	21.5919	80/20	21.5919
959311	AF2-222 C	19.7370	80/20	19.7370
959751	AF2-266	4.9220	80/20	4.9220
960061	AF2-297 C	3.9960	80/20	3.9960
960081	AF2-299 C	0.7590	80/20	0.7590
960111	AF2-302 C	4.0382	80/20	4.0382
961791	AG1-021 C	2.8908	80/20	2.8908
961801	AG1-022 C	4.0382	80/20	4.0382
961891	AG1-030 C	20.0871	80/20	20.0871
962041	AG1-048 C	18.0675	80/20	18.0675
962441	AG1-093 C O2	8.1291	80/20	8.1291
962491	AG1-098 C O2	10.6807	80/20	10.6807
962561	AG1-105 C O2	6.4428	80/20	6.4428
962741	AG1-123 C O2	3.0883	80/20	3.0883
962751	AG1-124 C O2	4.3368	80/20	4.3368
963171	AG1-166 C	2.8908	80/20	2.8908
963181	AG1-167 C	2.8908	80/20	2.8908
963191	AG1-168 C	2.8908	80/20	2.8908
963201	AG1-169 C	2.8908	80/20	2.8908
963211	AG1-170 C	2.8908	80/20	2.8908
963271	AG1-176 C O2	26.6508	80/20	26.6508
963301	AG1-179 C	2.7241	80/20	2.7241
963311	AG1-180	1.3273	80/20	1.3273
963321	AG1-181 C O2	18.6814	80/20	18.6814
963361	AG1-185 O2	9.0386	80/20	9.0386

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963641	AG1-215 C	1.3490	80/20	1.3490
964111	AG1-272 C	2.9318	80/20	2.9318
964121	AG1-273 C	2.9318	80/20	2.9318
964131	AG1-274 C	2.9318	80/20	2.9318
964231	AG1-284 C O2	20.2377	80/20	20.2377
964241	AG1-285 C O2	5.6317	80/20	5.6317
964261	AG1-287 C	0.7493	80/20	0.7493
964471	AG1-310 C	1.0449	80/20	1.0449
964791	AG1-342 C	2.5948	80/20	2.5948
964821	AG1-345 C	1.1534	80/20	1.1534
964841	AG1-347 C	11.8188	80/20	11.8188
964931	AG1-357 C O2	18.3312	80/20	18.3312
965191	AG1-384 C	2.9318	80/20	2.9318
965281	AG1-393 C	2.8908	80/20	2.8908
965451	AG1-413 C O2	4.0845	80/20	4.0845
965581	AG1-426	7.5610	80/20	7.5610
965591	AG1-427 C	10.5299	80/20	10.5299
965601	AG1-428 C O2	2.2741	80/20	2.2741
965641	AG1-432 C O2	36.9660	80/20	36.9660
965721	AG1-440 C	3.7895	80/20	3.7895
965731	AG1-441 C	3.7895	80/20	3.7895
965771	AG1-445	2.1895	80/20	2.1895
965781	AG1-446	2.1895	80/20	2.1895
965831	AG1-451	6.1610	80/20	6.1610
966251	AG1-494 C	1.8194	80/20	1.8194
966621	AG1-532 C	0.4099	80/20	0.4099
966691	AG1-539 C	1.9309	80/20	1.9309
966751	AG1-546 C	6.7436	80/20	6.7436
966791	AG1-550 O2	16.8647	80/20	16.8647
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	5.0279	80/20	5.0279
WEC	WEC	0.1342	Confirmed LTF	0.1342
LGEE	LGEE	0.2878	Confirmed LTF	0.2878
CPLE	CPLE	2.2686	Confirmed LTF	2.2686
CBM-W2	CBM-W2	7.5264	Confirmed LTF	7.5264
NY	NY	0.4396	Confirmed LTF	0.4396
TVA	TVA	1.5232	Confirmed LTF	1.5232
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.2148	Confirmed LTF	26.2148
CBM-S1	CBM-S1	0.3701	Confirmed LTF	0.3701
MEC	MEC	0.9057	Confirmed LTF	0.9057
LAGN	LAGN	1.8795	Confirmed LTF	1.8795
AA2-074	AA2-074	1.4972	LTF	1.4972
CBM-W1	CBM-W1	5.2996	Confirmed LTF	5.2996

13.5.9 Index 9

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
174040931	313867	6BREMODIST	DVP	313707	6FORK UNION	DVP	1	DVP_P4-2: 202712	breaker	809.0	140.76	142.08	DC	10.64

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.4243	50/50	0.4243
313853	3PONTONDP	1.0567	50/50	1.0567
314429	3JTRSVLE	0.6669	50/50	0.6669
314677	6BUCKING	1.0571	50/50	1.0571
314713	3PAMPLIN	2.7655	50/50	2.7655
315153	1CLOVER1	7.5123	50/50	7.5123
315154	1CLOVER2	7.4374	50/50	7.4374
315191	1BEARGRDN G1	18.4998	50/50	18.4998
315192	1BEARGRDN G2	18.4998	50/50	18.4998
315193	1BEARGRDN S1	23.9239	50/50	23.9239
316118	AC1-105 C	2.9070	Adder	3.42
316131	AB2-060 C	1.2610	50/50	1.2610
924022	AB2-043 E O1	2.4049	50/50	2.4049
924032	AB2-045 E	3.1268	50/50	3.1268
924162	AB2-060 E OP	3.7612	50/50	3.7612
924301	AB2-077 C O1 (Suspended)	1.6661	50/50	1.6661
924302	AB2-077 E O1 (Suspended)	1.1107	50/50	1.1107
924311	AB2-078 C O1 (Suspended)	1.6661	50/50	1.6661
924312	AB2-078 E O1 (Suspended)	1.1107	50/50	1.1107
924321	AB2-079 C O1 (Suspended)	1.6661	50/50	1.6661
924322	AB2-079 E O1 (Suspended)	1.1107	50/50	1.1107
925611	AC1-036 C	0.2822	50/50	0.2822
925612	AC1-036 E	1.0711	50/50	1.0711
926274	AC1-105 E	1.4282	Adder	1.68
932511	AC2-071 C (Withdrawn : 01/22/2021)	1.0414	50/50	1.0414
932512	AC2-071 E (Withdrawn : 01/22/2021)	3.3253	50/50	3.3253
934615	AD1-087 C	4.7030	50/50	4.7030
934616	AD1-087 E	2.0125	50/50	2.0125
934625	AD1-088 C	15.3924	50/50	15.3924
934626	AD1-088 E	4.0313	50/50	4.0313
935171	AD1-152 C O1	5.1658	50/50	5.1658
935172	AD1-152 E O1	3.4438	50/50	3.4438
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.4035	50/50	0.4035

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
935222	AD1-157 E (Withdrawn : 01/26/2021)	1.7050	50/50	1.7050
936265	AD2-033 C	15.2365	50/50	15.2365
936266	AD2-033 E	10.1577	50/50	10.1577
936361	AD2-046 C O1	5.8230	50/50	5.8230
936362	AD2-046 E O1	2.6778	50/50	2.6778
936485	AD2-063 C	15.0849	50/50	15.0849
936486	AD2-063 E	10.0566	50/50	10.0566
937481	AD2-202 C O1	1.3775	50/50	1.3775
937482	AD2-202 E O1	0.7749	50/50	0.7749
938371	AE1-056 C	11.0258	50/50	11.0258
938372	AE1-056 E	6.0244	50/50	6.0244
938821	AE1-108 C O1	11.0132	50/50	11.0132
938822	AE1-108 E O1	4.9428	50/50	4.9428
939181	AE1-148 C	5.8169	50/50	5.8169
939182	AE1-148 E	3.8779	50/50	3.8779
940661	AE2-053 O1	2.1544	50/50	2.1544
941791	AE2-182 C	2.5007	50/50	2.5007
941792	AE2-182 E	1.1641	50/50	1.1641
942451	AE2-258	2.0064	50/50	2.0064
942461	AE2-259 C O1	20.3100	50/50	20.3100
942462	AE2-259 E O1	13.5400	50/50	13.5400
943901	AF1-058 C	0.8966	Adder	1.05
943902	AF1-058 E	0.5977	Adder	0.7
943911	AF1-059	8.7364	Adder	10.28
945811	AF1-246 C O1	3.1123	Adder	3.66
945812	AF1-246 E O1	4.2980	Adder	5.06
946301	AF1-294 C	6.7366	50/50	6.7366
946302	AF1-294 E	4.4911	50/50	4.4911
946591	AF1-323 C	3.5356	50/50	3.5356
946592	AF1-323 E	2.3571	50/50	2.3571
957481	AF2-042 C	22.2309	Adder	26.15
957482	AF2-042 E	14.8206	Adder	17.44
958211	AF2-115 C	3.9627	50/50	3.9627
958212	AF2-115 E	2.6418	50/50	2.6418
958801	AF2-171 C	23.6772	50/50	23.6772
958802	AF2-171 E	15.7848	50/50	15.7848
959311	AF2-222 C	21.6010	50/50	21.6010
959312	AF2-222 E	14.4727	50/50	14.4727
959751	AF2-266	5.3925	50/50	5.3925
960061	AF2-297 C	3.5863	Adder	4.22
960062	AF2-297 E	2.3909	Adder	2.81
960111	AF2-302 C	1.2857	50/50	1.2857
960112	AF2-302 E	0.8571	50/50	0.8571
961063	AF2-397 BAT	15.8413	50/50	15.8413
961791	AG1-021 C	3.1702	50/50	3.1702
961792	AG1-021 E	2.1134	50/50	2.1134
961801	AG1-022 C	1.2857	50/50	1.2857
961802	AG1-022 E	0.8571	50/50	0.8571
961891	AG1-030 C	22.0122	50/50	22.0122
961892	AG1-030 E	14.6748	50/50	14.6748
962041	AG1-048 C	19.8135	50/50	19.8135
962042	AG1-048 E	13.2090	50/50	13.2090

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962441	AG1-093 C O2	3.9755	Adder	8.82
962442	AG1-093 E O2	1.2099	Adder	2.69
962491	AG1-098 C O2	11.6393	50/50	11.6393
962492	AG1-098 E O2	7.7595	50/50	7.7595
962561	AG1-105 C O2	6.9312	50/50	6.9312
962562	AG1-105 E O2	4.6208	50/50	4.6208
963171	AG1-166 C	3.1702	50/50	3.1702
963172	AG1-166 E	2.1134	50/50	2.1134
963181	AG1-167 C	3.1702	50/50	3.1702
963182	AG1-167 E	2.1134	50/50	2.1134
963191	AG1-168 C	3.1702	50/50	3.1702
963192	AG1-168 E	2.1134	50/50	2.1134
963201	AG1-169 C	3.1702	50/50	3.1702
963202	AG1-169 E	2.1134	50/50	2.1134
963211	AG1-170 C	3.1702	50/50	3.1702
963212	AG1-170 E	2.1134	50/50	2.1134
963271	AG1-176 C O2	29.3068	50/50	29.3068
963272	AG1-176 E O2	19.5379	50/50	19.5379
963301	AG1-179 C	1.3428	Adder	2.98
963311	AG1-180	0.6542	Adder	1.45
963321	AG1-181 C O2	20.4303	50/50	20.4303
963361	AG1-185 O2	9.8847	50/50	9.8847
963641	AG1-215 C	1.4794	50/50	1.4794
963642	AG1-215 E	2.2191	50/50	2.2191
964111	AG1-272 C	3.2072	50/50	3.2072
964112	AG1-272 E	0.9526	50/50	0.9526
964121	AG1-273 C	3.2072	50/50	3.2072
964122	AG1-273 E	0.9526	50/50	0.9526
964131	AG1-274 C	3.2072	50/50	3.2072
964132	AG1-274 E	0.9526	50/50	0.9526
964231	AG1-284 C O2	6.3853	50/50	6.3853
964232	AG1-284 E O2	4.2568	50/50	4.2568
964261	AG1-287 C	0.3564	Adder	0.79
964262	AG1-287 E	0.2376	Adder	0.53
964791	AG1-342 C	2.7843	50/50	2.7843
964792	AG1-342 E	2.1877	50/50	2.1877
964821	AG1-345 C	1.2648	50/50	1.2648
964822	AG1-345 E	0.8432	50/50	0.8432
964841	AG1-347 C	12.9864	50/50	12.9864
964842	AG1-347 E	10.2036	50/50	10.2036
964931	AG1-357 C O2	19.9968	50/50	19.9968
964932	AG1-357 E O2	13.3312	50/50	13.3312
965191	AG1-384 C	3.2072	50/50	3.2072
965192	AG1-384 E	0.9526	50/50	0.9526
965281	AG1-393 C	3.1702	50/50	3.1702
965282	AG1-393 E	2.1134	50/50	2.1134
965451	AG1-413 C O2	4.4581	50/50	4.4581
965452	AG1-413 E O2	2.9721	50/50	2.9721
965581	AG1-426	2.3994	50/50	2.3994
965591	AG1-427 C	11.4819	50/50	11.4819
965592	AG1-427 E	7.6708	50/50	7.6708
965601	AG1-428 C O2	1.1210	Adder	2.49

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965602	AG1-428 E O2	0.7460	Adder	1.66
965641	AG1-432 C O2	40.6200	50/50	40.6200
965642	AG1-432 E O2	27.0800	50/50	27.0800
965721	AG1-440 C	1.8527	Adder	4.11
965722	AG1-440 E	1.2351	Adder	2.74
965731	AG1-441 C	1.8527	Adder	4.11
965732	AG1-441 E	1.2351	Adder	2.74
965771	AG1-445	1.0705	Adder	2.38
965781	AG1-446	1.0705	Adder	2.38
965831	AG1-451	6.7700	50/50	6.7700
966791	AG1-550 O2	5.3211	50/50	5.3211
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	5.5327	50/50	5.5327
966862	AG1-557 E O2 (Withdrawn : 12/14/2020)	3.6885	50/50	3.6885
WEC	WEC	0.0699	Confirmed LTF	0.0699
LGEE	LGEE	0.1483	Confirmed LTF	0.1483
CPL	CPL	2.3396	Confirmed LTF	2.3396
CBM-W2	CBM-W2	5.8061	Confirmed LTF	5.8061
NY	NY	0.4076	Confirmed LTF	0.4076
TVA	TVA	1.2558	Confirmed LTF	1.2558
O-066	O-066	5.1956	Confirmed LTF	5.1956
SIGE	SIGE	0.1120	Confirmed LTF	0.1120
CBM-S2	CBM-S2	25.9121	Confirmed LTF	25.9121
CBM-S1	CBM-S1	0.2953	Confirmed LTF	0.2953
G-007	G-007	0.8127	Confirmed LTF	0.8127
MEC	MEC	0.5863	Confirmed LTF	0.5863
LAGN	LAGN	1.5645	Confirmed LTF	1.5645
AA2-074	AA2-074	1.5426	LTF	1.5426
CBM-W1	CBM-W1	2.5236	Confirmed LTF	2.5236

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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
175476520	313868	6CARTERV	DVP	933500	AC2-165 TAP	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.88	106.94	109.07	DC	17.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2811	80/20	0.2811
314429	3JTRSVLE	0.4835	80/20	0.4835
314677	6BUCKING	0.8051	80/20	0.8051
315153	1CLOVER1	4.3284	80/20	4.3284
315154	1CLOVER2	4.2852	80/20	4.2852
315158	1KERR 1	0.1411	80/20	0.1411

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315159	1KERR 2	0.3952	80/20	0.3952
315160	1KERR 3	0.3952	80/20	0.3952
315161	1KERR 4	0.3952	80/20	0.3952
315162	1KERR 5	0.3952	80/20	0.3952
315163	1KERR 6	0.3952	80/20	0.3952
315164	1KERR 7	0.3952	80/20	0.3952
315191	1BEARGRDN G1	14.2612	80/20	14.2612
315192	1BEARGRDN G2	14.2612	80/20	14.2612
315193	1BEARGRDN S1	18.4425	80/20	18.4425
315266	1PLYWOOD A	0.4253	80/20	0.4253
316118	AC1-105 C	2.1876	80/20	2.1876
316131	AB2-060 C	0.8407	80/20	0.8407
924301	AB2-077 C O1 (Suspended)	1.0994	80/20	1.0994
924311	AB2-078 C O1 (Suspended)	1.0994	80/20	1.0994
924321	AB2-079 C O1 (Suspended)	1.0994	80/20	1.0994
925611	AC1-036 C	0.1990	80/20	0.1990
927261	AC1-222 C	1.2313	80/20	1.2313
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7931	80/20	0.7931
934311	AD1-055 C	0.8549	80/20	0.8549
934615	AD1-087 C	2.7103	80/20	2.7103
934625	AD1-088 C	10.6986	80/20	10.6986
935171	AD1-152 C O1	2.9770	80/20	2.9770
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2946	80/20	0.2946
936265	AD2-033 C	10.6548	80/20	10.6548
936361	AD2-046 C O1	3.5828	80/20	3.5828
936485	AD2-063 C	10.3014	80/20	10.3014
937481	AD2-202 C O1	0.7939	80/20	0.7939
938371	AE1-056 C	8.0510	80/20	8.0510
938821	AE1-108 C O1	29.3760	80/20	29.3760
939181	AE1-148 C	3.5932	80/20	3.5932
940661	AE2-053 O1	1.3308	80/20	1.3308
941011	AE2-092 C	25.2822	80/20	25.2822
941791	AE2-182 C	1.7381	80/20	1.7381
942451	AE2-258	1.3291	80/20	1.3291
942461	AE2-259 C O1	15.0516	80/20	15.0516
943901	AF1-058 C	0.6646	80/20	0.6646
943911	AF1-059	5.9093	80/20	5.9093
946291	AF1-293 C O1	39.5443	80/20	39.5443
946301	AF1-294 C	4.8845	80/20	4.8845
946591	AF1-323 C	9.4261	80/20	9.4261
958131	AF2-107 C	4.3750	80/20	4.3750
958211	AF2-115 C	2.8733	80/20	2.8733
958801	AF2-171 C	17.1603	80/20	17.1603
959311	AF2-222 C	15.3100	80/20	15.3100
959751	AF2-266	3.1070	80/20	3.1070
960061	AF2-297 C	2.6582	80/20	2.6582
960111	AF2-302 C	3.4277	80/20	3.4277
961061	AF2-397 C	36.6538	80/20	36.6538

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961791	AG1-021 C	2.2986	80/20	2.2986
961801	AG1-022 C	3.4277	80/20	3.4277
961891	AG1-030 C	15.8310	80/20	15.8310
962041	AG1-048 C	14.3663	80/20	14.3663
962441	AG1-093 C O2	5.1308	80/20	5.1308
962491	AG1-098 C O2	7.8412	80/20	7.8412
962561	AG1-105 C O2	4.5072	80/20	4.5072
962741	AG1-123 C O2	2.8673	80/20	2.8673
962751	AG1-124 C O2	4.0170	80/20	4.0170
963171	AG1-166 C	2.2986	80/20	2.2986
963181	AG1-167 C	2.2986	80/20	2.2986
963191	AG1-168 C	2.2986	80/20	2.2986
963201	AG1-169 C	2.2986	80/20	2.2986
963211	AG1-170 C	2.2986	80/20	2.2986
963271	AG1-176 C O2	21.5558	80/20	21.5558
963321	AG1-181 C O2	14.3538	80/20	14.3538
963361	AG1-185 O2	6.9447	80/20	6.9447
963641	AG1-215 C	1.0727	80/20	1.0727
964111	AG1-272 C	2.2620	80/20	2.2620
964121	AG1-273 C	2.2620	80/20	2.2620
964131	AG1-274 C	2.2620	80/20	2.2620
964231	AG1-284 C O2	17.0478	80/20	17.0478
964261	AG1-287 C	0.4984	80/20	0.4984
964471	AG1-310 C	0.7118	80/20	0.7118
964791	AG1-342 C	1.8023	80/20	1.8023
964821	AG1-345 C	0.9168	80/20	0.9168
964841	AG1-347 C	9.1353	80/20	9.1353
964931	AG1-357 C O2	13.6428	80/20	13.6428
965191	AG1-384 C	2.2620	80/20	2.2620
965281	AG1-393 C	2.2986	80/20	2.2986
965451	AG1-413 C O2	2.6075	80/20	2.6075
965581	AG1-426	6.4000	80/20	6.4000
965591	AG1-427 C	7.7911	80/20	7.7911
965641	AG1-432 C O2	30.1032	80/20	30.1032
965721	AG1-440 C	2.3620	80/20	2.3620
965731	AG1-441 C	2.3620	80/20	2.3620
965771	AG1-445	1.3647	80/20	1.3647
965781	AG1-446	1.3647	80/20	1.3647
965831	AG1-451	5.0172	80/20	5.0172
966251	AG1-494 C	1.6494	80/20	1.6494
966791	AG1-550 O2	14.2065	80/20	14.2065
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	4.1932	80/20	4.1932
WEC	WEC	0.1988	Confirmed LTF	0.1988
LGEE	LGEE	0.4247	Confirmed LTF	0.4247
CPL	CPL	1.0859	Confirmed LTF	1.0859
CBM-W2	CBM-W2	7.3114	Confirmed LTF	7.3114
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	1.3104	Confirmed LTF	1.3104
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.5012	Confirmed LTF	14.5012
CBM-S1	CBM-S1	0.3374	Confirmed LTF	0.3374

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
MEC	MEC	1.1075	Confirmed LTF	1.1075
LAGN	LAGN	1.5942	Confirmed LTF	1.5942
CBM-W1	CBM-W1	8.3419	Confirmed LTF	8.3419

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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
175256894	314310	6JUDES F	DVP	314322	6MDLTHAN	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.88	112.72	114.85	DC	17.04

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2807	80/20	0.2807
314333	6POWHATN	1.5975	80/20	1.5975
314429	3JTRSVLE	0.4832	80/20	0.4832
314677	6BUCKING	0.8048	80/20	0.8048
315153	1CLOVER1	4.3193	80/20	4.3193
315154	1CLOVER2	4.2763	80/20	4.2763
315158	1KERR 1	0.1408	80/20	0.1408
315159	1KERR 2	0.3943	80/20	0.3943
315160	1KERR 3	0.3943	80/20	0.3943
315161	1KERR 4	0.3943	80/20	0.3943
315162	1KERR 5	0.3943	80/20	0.3943
315163	1KERR 6	0.3943	80/20	0.3943
315164	1KERR 7	0.3943	80/20	0.3943
315191	1BEARGRDN G1	14.2573	80/20	14.2573
315192	1BEARGRDN G2	14.2573	80/20	14.2573
315193	1BEARGRDN S1	18.4374	80/20	18.4374
315266	1PLYWOOD A	0.4243	80/20	0.4243
316118	AC1-105 C	2.1828	80/20	2.1828
316131	AB2-060 C	0.8395	80/20	0.8395
924301	AB2-077 C O1 (Suspended)	1.0978	80/20	1.0978
924311	AB2-078 C O1 (Suspended)	1.0978	80/20	1.0978
924321	AB2-079 C O1 (Suspended)	1.0978	80/20	1.0978
925611	AC1-036 C	0.1989	80/20	0.1989
927261	AC1-222 C	1.2284	80/20	1.2284
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7929	80/20	0.7929
933501	AC2-165 C	39.2365	80/20	39.2365
934311	AD1-055 C	0.8529	80/20	0.8529
934615	AD1-087 C	2.7046	80/20	2.7046
934625	AD1-088 C	10.6893	80/20	10.6893
935171	AD1-152 C O1	2.9707	80/20	2.9707

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2944	80/20	0.2944
936265	AD2-033 C	10.6439	80/20	10.6439
936361	AD2-046 C O1	3.5752	80/20	3.5752
936485	AD2-063 C	10.2897	80/20	10.2897
937481	AD2-202 C O1	0.7922	80/20	0.7922
938371	AE1-056 C	8.0456	80/20	8.0456
938561	AE1-075 C	1.3891	80/20	1.3891
938821	AE1-108 C O1	29.3641	80/20	29.3641
939181	AE1-148 C	3.5861	80/20	3.5861
940661	AE2-053 O1	1.3282	80/20	1.3282
941011	AE2-092 C	25.2714	80/20	25.2714
941791	AE2-182 C	1.7366	80/20	1.7366
942451	AE2-258	1.3272	80/20	1.3272
942461	AE2-259 C O1	15.0438	80/20	15.0438
943901	AF1-058 C	0.6629	80/20	0.6629
943911	AF1-059	5.8955	80/20	5.8955
946291	AF1-293 C O1	39.5291	80/20	39.5291
946301	AF1-294 C	4.8810	80/20	4.8810
946591	AF1-323 C	9.4218	80/20	9.4218
958131	AF2-107 C	4.3708	80/20	4.3708
958211	AF2-115 C	2.8712	80/20	2.8712
958501	AF2-144 C	7.4840	80/20	7.4840
958801	AF2-171 C	17.1477	80/20	17.1477
959311	AF2-222 C	15.2960	80/20	15.2960
959531	AF2-244 C (Withdrawn : 01/06/2021)	6.8971	80/20	6.8971
959751	AF2-266	3.1005	80/20	3.1005
960061	AF2-297 C	2.6515	80/20	2.6515
960111	AF2-302 C	3.4261	80/20	3.4261
961061	AF2-397 C	36.6436	80/20	36.6436
961791	AG1-021 C	2.2969	80/20	2.2969
961801	AG1-022 C	3.4261	80/20	3.4261
961891	AG1-030 C	15.8193	80/20	15.8193
962041	AG1-048 C	14.3558	80/20	14.3558
962441	AG1-093 C O2	5.1180	80/20	5.1180
962491	AG1-098 C O2	7.8308	80/20	7.8308
962561	AG1-105 C O2	4.4994	80/20	4.4994
962741	AG1-123 C O2	2.8615	80/20	2.8615
962751	AG1-124 C O2	4.0087	80/20	4.0087
963171	AG1-166 C	2.2969	80/20	2.2969
963181	AG1-167 C	2.2969	80/20	2.2969
963191	AG1-168 C	2.2969	80/20	2.2969
963201	AG1-169 C	2.2969	80/20	2.2969
963211	AG1-170 C	2.2969	80/20	2.2969
963271	AG1-176 C O2	21.5432	80/20	21.5432
963321	AG1-181 C O2	14.3396	80/20	14.3396
963361	AG1-185 O2	6.9379	80/20	6.9379
963641	AG1-215 C	1.0719	80/20	1.0719
964111	AG1-272 C	2.2600	80/20	2.2600
964121	AG1-273 C	2.2600	80/20	2.2600
964131	AG1-274 C	2.2600	80/20	2.2600
964231	AG1-284 C O2	17.0419	80/20	17.0419

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964261	AG1-287 C	0.4972	80/20	0.4972
964471	AG1-310 C	0.7101	80/20	0.7101
964791	AG1-342 C	1.7990	80/20	1.7990
964821	AG1-345 C	0.9162	80/20	0.9162
964841	AG1-347 C	9.1274	80/20	9.1274
964931	AG1-357 C O2	13.6260	80/20	13.6260
965191	AG1-384 C	2.2600	80/20	2.2600
965281	AG1-393 C	2.2969	80/20	2.2969
965451	AG1-413 C O2	2.6017	80/20	2.6017
965581	AG1-426	6.3974	80/20	6.3974
965591	AG1-427 C	7.7812	80/20	7.7812
965641	AG1-432 C O2	30.0876	80/20	30.0876
965721	AG1-440 C	2.3557	80/20	2.3557
965731	AG1-441 C	2.3557	80/20	2.3557
965771	AG1-445	1.3611	80/20	1.3611
965781	AG1-446	1.3611	80/20	1.3611
965831	AG1-451	5.0146	80/20	5.0146
966251	AG1-494 C	1.6466	80/20	1.6466
966791	AG1-550 O2	14.2016	80/20	14.2016
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	4.1915	80/20	4.1915
WEC	WEC	0.1947	Confirmed LTF	0.1947
LGEE	LGEE	0.4166	Confirmed LTF	0.4166
CPLE	CPLE	1.0770	Confirmed LTF	1.0770
CBM-W2	CBM-W2	7.1949	Confirmed LTF	7.1949
NY	NY	0.3583	Confirmed LTF	0.3583
TVA	TVA	1.2922	Confirmed LTF	1.2922
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.3654	Confirmed LTF	14.3654
CBM-S1	CBM-S1	0.3325	Confirmed LTF	0.3325
MEC	MEC	1.0869	Confirmed LTF	1.0869
LAGN	LAGN	1.5715	Confirmed LTF	1.5715
CBM-W1	CBM-W1	8.1596	Confirmed LTF	8.1596

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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
175256891	314333	6POWHATN	DVP	314310	6JUDES F	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.88	112.86	114.99	DC	17.04

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2807	80/20	0.2807
314333	6POWHATN	1.5975	80/20	1.5975
314429	3JTRSVLE	0.4832	80/20	0.4832
314677	6BUCKING	0.8048	80/20	0.8048

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315153	1CLOVER1	4.3193	80/20	4.3193
315154	1CLOVER2	4.2763	80/20	4.2763
315158	1KERR 1	0.1408	80/20	0.1408
315159	1KERR 2	0.3943	80/20	0.3943
315160	1KERR 3	0.3943	80/20	0.3943
315161	1KERR 4	0.3943	80/20	0.3943
315162	1KERR 5	0.3943	80/20	0.3943
315163	1KERR 6	0.3943	80/20	0.3943
315164	1KERR 7	0.3943	80/20	0.3943
315191	1BEARGRDN G1	14.2573	80/20	14.2573
315192	1BEARGRDN G2	14.2573	80/20	14.2573
315193	1BEARGRDN S1	18.4374	80/20	18.4374
315266	1PLYWOOD A	0.4243	80/20	0.4243
316118	AC1-105 C	2.1828	80/20	2.1828
316131	AB2-060 C	0.8395	80/20	0.8395
924301	AB2-077 C O1 (Suspended)	1.0978	80/20	1.0978
924311	AB2-078 C O1 (Suspended)	1.0978	80/20	1.0978
924321	AB2-079 C O1 (Suspended)	1.0978	80/20	1.0978
925611	AC1-036 C	0.1989	80/20	0.1989
927261	AC1-222 C	1.2284	80/20	1.2284
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7929	80/20	0.7929
933501	AC2-165 C	39.2365	80/20	39.2365
934311	AD1-055 C	0.8529	80/20	0.8529
934615	AD1-087 C	2.7046	80/20	2.7046
934625	AD1-088 C	10.6893	80/20	10.6893
935171	AD1-152 C O1	2.9707	80/20	2.9707
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2944	80/20	0.2944
936265	AD2-033 C	10.6439	80/20	10.6439
936361	AD2-046 C O1	3.5752	80/20	3.5752
936485	AD2-063 C	10.2897	80/20	10.2897
937481	AD2-202 C O1	0.7922	80/20	0.7922
938371	AE1-056 C	8.0456	80/20	8.0456
938561	AE1-075 C	1.3891	80/20	1.3891
938821	AE1-108 C O1	29.3641	80/20	29.3641
939181	AE1-148 C	3.5861	80/20	3.5861
940661	AE2-053 O1	1.3282	80/20	1.3282
941011	AE2-092 C	25.2714	80/20	25.2714
941791	AE2-182 C	1.7366	80/20	1.7366
942451	AE2-258	1.3272	80/20	1.3272
942461	AE2-259 C O1	15.0438	80/20	15.0438
943901	AF1-058 C	0.6629	80/20	0.6629
943911	AF1-059	5.8955	80/20	5.8955
946291	AF1-293 C O1	39.5291	80/20	39.5291
946301	AF1-294 C	4.8810	80/20	4.8810
946591	AF1-323 C	9.4218	80/20	9.4218
958131	AF2-107 C	4.3708	80/20	4.3708
958211	AF2-115 C	2.8712	80/20	2.8712
958501	AF2-144 C	7.4840	80/20	7.4840

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958801	AF2-171 C	17.1477	80/20	17.1477
959311	AF2-222 C	15.2960	80/20	15.2960
959531	AF2-244 C (Withdrawn : 01/06/2021)	6.8971	80/20	6.8971
959751	AF2-266	3.1005	80/20	3.1005
960061	AF2-297 C	2.6515	80/20	2.6515
960111	AF2-302 C	3.4261	80/20	3.4261
961061	AF2-397 C	36.6436	80/20	36.6436
961791	AG1-021 C	2.2969	80/20	2.2969
961801	AG1-022 C	3.4261	80/20	3.4261
961891	AG1-030 C	15.8193	80/20	15.8193
962041	AG1-048 C	14.3558	80/20	14.3558
962441	AG1-093 C O2	5.1180	80/20	5.1180
962491	AG1-098 C O2	7.8308	80/20	7.8308
962561	AG1-105 C O2	4.4994	80/20	4.4994
962741	AG1-123 C O2	2.8615	80/20	2.8615
962751	AG1-124 C O2	4.0087	80/20	4.0087
963171	AG1-166 C	2.2969	80/20	2.2969
963181	AG1-167 C	2.2969	80/20	2.2969
963191	AG1-168 C	2.2969	80/20	2.2969
963201	AG1-169 C	2.2969	80/20	2.2969
963211	AG1-170 C	2.2969	80/20	2.2969
963271	AG1-176 C O2	21.5432	80/20	21.5432
963321	AG1-181 C O2	14.3396	80/20	14.3396
963361	AG1-185 O2	6.9379	80/20	6.9379
963641	AG1-215 C	1.0719	80/20	1.0719
964111	AG1-272 C	2.2600	80/20	2.2600
964121	AG1-273 C	2.2600	80/20	2.2600
964131	AG1-274 C	2.2600	80/20	2.2600
964231	AG1-284 C O2	17.0419	80/20	17.0419
964261	AG1-287 C	0.4972	80/20	0.4972
964471	AG1-310 C	0.7101	80/20	0.7101
964791	AG1-342 C	1.7990	80/20	1.7990
964821	AG1-345 C	0.9162	80/20	0.9162
964841	AG1-347 C	9.1274	80/20	9.1274
964931	AG1-357 C O2	13.6260	80/20	13.6260
965191	AG1-384 C	2.2600	80/20	2.2600
965281	AG1-393 C	2.2969	80/20	2.2969
965451	AG1-413 C O2	2.6017	80/20	2.6017
965581	AG1-426	6.3974	80/20	6.3974
965591	AG1-427 C	7.7812	80/20	7.7812
965641	AG1-432 C O2	30.0876	80/20	30.0876
965721	AG1-440 C	2.3557	80/20	2.3557
965731	AG1-441 C	2.3557	80/20	2.3557
965771	AG1-445	1.3611	80/20	1.3611
965781	AG1-446	1.3611	80/20	1.3611
965831	AG1-451	5.0146	80/20	5.0146
966251	AG1-494 C	1.6466	80/20	1.6466
966791	AG1-550 O2	14.2016	80/20	14.2016
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	4.1915	80/20	4.1915
WEC	WEC	0.1947	Confirmed LTF	0.1947

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
LGEE	LGEE	0.4166	Confirmed LTF	0.4166
CPLE	CPLE	1.0770	Confirmed LTF	1.0770
CBM-W2	CBM-W2	7.1949	Confirmed LTF	7.1949
NY	NY	0.3583	Confirmed LTF	0.3583
TVA	TVA	1.2922	Confirmed LTF	1.2922
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.3654	Confirmed LTF	14.3654
CBM-S1	CBM-S1	0.3325	Confirmed LTF	0.3325
MEC	MEC	1.0869	Confirmed LTF	1.0869
LAGN	LAGN	1.5715	Confirmed LTF	1.5715
CBM-W1	CBM-W1	8.1596	Confirmed LTF	8.1596

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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
174040927	314747	6BREMO	DVP	313867	6BREMODIST	DVP	1	DVP_P4-2: 202712	breaker	809.0	142.53	143.85	DC	10.64

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.4243	50/50	0.4243
313853	3PONTONDP	1.0567	50/50	1.0567
314429	3JTRSVLE	0.6669	50/50	0.6669
314677	6BUCKING	1.0571	50/50	1.0571
314713	3PAMPLIN	2.7655	50/50	2.7655
315153	1CLOVER1	7.5123	50/50	7.5123
315154	1CLOVER2	7.4374	50/50	7.4374
315191	1BEARGRDN G1	18.4998	50/50	18.4998
315192	1BEARGRDN G2	18.4998	50/50	18.4998
315193	1BEARGRDN S1	23.9239	50/50	23.9239
316118	AC1-105 C	2.9070	Adder	3.42
316131	AB2-060 C	1.2610	50/50	1.2610
924022	AB2-043 E O1	2.4049	50/50	2.4049
924032	AB2-045 E	3.1268	50/50	3.1268
924162	AB2-060 E OP	3.7612	50/50	3.7612
924301	AB2-077 C O1 (Suspended)	1.6661	50/50	1.6661
924302	AB2-077 E O1 (Suspended)	1.1107	50/50	1.1107
924311	AB2-078 C O1 (Suspended)	1.6661	50/50	1.6661
924312	AB2-078 E O1 (Suspended)	1.1107	50/50	1.1107
924321	AB2-079 C O1 (Suspended)	1.6661	50/50	1.6661
924322	AB2-079 E O1 (Suspended)	1.1107	50/50	1.1107
925611	AC1-036 C	0.2822	50/50	0.2822

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925612	AC1-036 E	1.0711	50/50	1.0711
926274	AC1-105 E	1.4282	Adder	1.68
932511	AC2-071 C (Withdrawn : 01/22/2021)	1.0414	50/50	1.0414
932512	AC2-071 E (Withdrawn : 01/22/2021)	3.3253	50/50	3.3253
934615	AD1-087 C	4.7030	50/50	4.7030
934616	AD1-087 E	2.0125	50/50	2.0125
934625	AD1-088 C	15.3924	50/50	15.3924
934626	AD1-088 E	4.0313	50/50	4.0313
935171	AD1-152 C O1	5.1658	50/50	5.1658
935172	AD1-152 E O1	3.4438	50/50	3.4438
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.4035	50/50	0.4035
935222	AD1-157 E (Withdrawn : 01/26/2021)	1.7050	50/50	1.7050
936265	AD2-033 C	15.2365	50/50	15.2365
936266	AD2-033 E	10.1577	50/50	10.1577
936361	AD2-046 C O1	5.8230	50/50	5.8230
936362	AD2-046 E O1	2.6778	50/50	2.6778
936485	AD2-063 C	15.0849	50/50	15.0849
936486	AD2-063 E	10.0566	50/50	10.0566
937481	AD2-202 C O1	1.3775	50/50	1.3775
937482	AD2-202 E O1	0.7749	50/50	0.7749
938371	AE1-056 C	11.0258	50/50	11.0258
938372	AE1-056 E	6.0244	50/50	6.0244
938821	AE1-108 C O1	11.0132	50/50	11.0132
938822	AE1-108 E O1	4.9428	50/50	4.9428
939181	AE1-148 C	5.8169	50/50	5.8169
939182	AE1-148 E	3.8779	50/50	3.8779
940661	AE2-053 O1	2.1544	50/50	2.1544
941791	AE2-182 C	2.5007	50/50	2.5007
941792	AE2-182 E	1.1641	50/50	1.1641
942451	AE2-258	2.0064	50/50	2.0064
942461	AE2-259 C O1	20.3100	50/50	20.3100
942462	AE2-259 E O1	13.5400	50/50	13.5400
943901	AF1-058 C	0.8966	Adder	1.05
943902	AF1-058 E	0.5977	Adder	0.7
943911	AF1-059	8.7364	Adder	10.28
945811	AF1-246 C O1	3.1123	Adder	3.66
945812	AF1-246 E O1	4.2980	Adder	5.06
946301	AF1-294 C	6.7366	50/50	6.7366
946302	AF1-294 E	4.4911	50/50	4.4911
946591	AF1-323 C	3.5356	50/50	3.5356
946592	AF1-323 E	2.3571	50/50	2.3571
957481	AF2-042 C	22.2309	Adder	26.15
957482	AF2-042 E	14.8206	Adder	17.44
958211	AF2-115 C	3.9627	50/50	3.9627
958212	AF2-115 E	2.6418	50/50	2.6418
958801	AF2-171 C	23.6772	50/50	23.6772
958802	AF2-171 E	15.7848	50/50	15.7848
959311	AF2-222 C	21.6010	50/50	21.6010
959312	AF2-222 E	14.4727	50/50	14.4727

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959751	AF2-266	5.3925	50/50	5.3925
960061	AF2-297 C	3.5863	Adder	4.22
960062	AF2-297 E	2.3909	Adder	2.81
960111	AF2-302 C	1.2857	50/50	1.2857
960112	AF2-302 E	0.8571	50/50	0.8571
961063	AF2-397 BAT	15.8413	50/50	15.8413
961791	AG1-021 C	3.1702	50/50	3.1702
961792	AG1-021 E	2.1134	50/50	2.1134
961801	AG1-022 C	1.2857	50/50	1.2857
961802	AG1-022 E	0.8571	50/50	0.8571
961891	AG1-030 C	22.0122	50/50	22.0122
961892	AG1-030 E	14.6748	50/50	14.6748
962041	AG1-048 C	19.8135	50/50	19.8135
962042	AG1-048 E	13.2090	50/50	13.2090
962441	AG1-093 C O2	3.9755	Adder	8.82
962442	AG1-093 E O2	1.2099	Adder	2.69
962491	AG1-098 C O2	11.6393	50/50	11.6393
962492	AG1-098 E O2	7.7595	50/50	7.7595
962561	AG1-105 C O2	6.9312	50/50	6.9312
962562	AG1-105 E O2	4.6208	50/50	4.6208
963171	AG1-166 C	3.1702	50/50	3.1702
963172	AG1-166 E	2.1134	50/50	2.1134
963181	AG1-167 C	3.1702	50/50	3.1702
963182	AG1-167 E	2.1134	50/50	2.1134
963191	AG1-168 C	3.1702	50/50	3.1702
963192	AG1-168 E	2.1134	50/50	2.1134
963201	AG1-169 C	3.1702	50/50	3.1702
963202	AG1-169 E	2.1134	50/50	2.1134
963211	AG1-170 C	3.1702	50/50	3.1702
963212	AG1-170 E	2.1134	50/50	2.1134
963271	AG1-176 C O2	29.3068	50/50	29.3068
963272	AG1-176 E O2	19.5379	50/50	19.5379
963301	AG1-179 C	1.3428	Adder	2.98
963311	AG1-180	0.6542	Adder	1.45
963321	AG1-181 C O2	20.4303	50/50	20.4303
963361	AG1-185 O2	9.8847	50/50	9.8847
963641	AG1-215 C	1.4794	50/50	1.4794
963642	AG1-215 E	2.2191	50/50	2.2191
964111	AG1-272 C	3.2072	50/50	3.2072
964112	AG1-272 E	0.9526	50/50	0.9526
964121	AG1-273 C	3.2072	50/50	3.2072
964122	AG1-273 E	0.9526	50/50	0.9526
964131	AG1-274 C	3.2072	50/50	3.2072
964132	AG1-274 E	0.9526	50/50	0.9526
964231	AG1-284 C O2	6.3853	50/50	6.3853
964232	AG1-284 E O2	4.2568	50/50	4.2568
964261	AG1-287 C	0.3564	Adder	0.79
964262	AG1-287 E	0.2376	Adder	0.53
964791	AG1-342 C	2.7843	50/50	2.7843
964792	AG1-342 E	2.1877	50/50	2.1877
964821	AG1-345 C	1.2648	50/50	1.2648
964822	AG1-345 E	0.8432	50/50	0.8432

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964841	AG1-347 C	12.9864	50/50	12.9864
964842	AG1-347 E	10.2036	50/50	10.2036
964931	AG1-357 C O2	19.9968	50/50	19.9968
964932	AG1-357 E O2	13.3312	50/50	13.3312
965191	AG1-384 C	3.2072	50/50	3.2072
965192	AG1-384 E	0.9526	50/50	0.9526
965281	AG1-393 C	3.1702	50/50	3.1702
965282	AG1-393 E	2.1134	50/50	2.1134
965451	AG1-413 C O2	4.4581	50/50	4.4581
965452	AG1-413 E O2	2.9721	50/50	2.9721
965581	AG1-426	2.3994	50/50	2.3994
965591	AG1-427 C	11.4819	50/50	11.4819
965592	AG1-427 E	7.6708	50/50	7.6708
965601	AG1-428 C O2	1.1210	Adder	2.49
965602	AG1-428 E O2	0.7460	Adder	1.66
965641	AG1-432 C O2	40.6200	50/50	40.6200
965642	AG1-432 E O2	27.0800	50/50	27.0800
965721	AG1-440 C	1.8527	Adder	4.11
965722	AG1-440 E	1.2351	Adder	2.74
965731	AG1-441 C	1.8527	Adder	4.11
965732	AG1-441 E	1.2351	Adder	2.74
965771	AG1-445	1.0705	Adder	2.38
965781	AG1-446	1.0705	Adder	2.38
965831	AG1-451	6.7700	50/50	6.7700
966791	AG1-550 O2	5.3211	50/50	5.3211
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	5.5327	50/50	5.5327
966862	AG1-557 E O2 (Withdrawn : 12/14/2020)	3.6885	50/50	3.6885
WEC	WEC	0.0699	Confirmed LTF	0.0699
LGEE	LGEE	0.1483	Confirmed LTF	0.1483
CPL	CPL	2.3396	Confirmed LTF	2.3396
CBM-W2	CBM-W2	5.8061	Confirmed LTF	5.8061
NY	NY	0.4076	Confirmed LTF	0.4076
TVA	TVA	1.2558	Confirmed LTF	1.2558
O-066	O-066	5.1956	Confirmed LTF	5.1956
SIGE	SIGE	0.1120	Confirmed LTF	0.1120
CBM-S2	CBM-S2	25.9121	Confirmed LTF	25.9121
CBM-S1	CBM-S1	0.2953	Confirmed LTF	0.2953
G-007	G-007	0.8127	Confirmed LTF	0.8127
MEC	MEC	0.5863	Confirmed LTF	0.5863
LAGN	LAGN	1.5645	Confirmed LTF	1.5645
AA2-074	AA2-074	1.5426	LTF	1.5426
CBM-W1	CBM-W1	2.5236	Confirmed LTF	2.5236

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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
175476508	314747	6BREMO	DVP	313868	6CARTERV	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.88	108.35	110.48	DC	17.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2811	80/20	0.2811
314429	3JTRSVLE	0.4835	80/20	0.4835
314677	6BUCKING	0.8051	80/20	0.8051
315153	1CLOVER1	4.3284	80/20	4.3284
315154	1CLOVER2	4.2852	80/20	4.2852
315158	1KERR 1	0.1411	80/20	0.1411
315159	1KERR 2	0.3952	80/20	0.3952
315160	1KERR 3	0.3952	80/20	0.3952
315161	1KERR 4	0.3952	80/20	0.3952
315162	1KERR 5	0.3952	80/20	0.3952
315163	1KERR 6	0.3952	80/20	0.3952
315164	1KERR 7	0.3952	80/20	0.3952
315191	1BEARGRDN G1	14.2612	80/20	14.2612
315192	1BEARGRDN G2	14.2612	80/20	14.2612
315193	1BEARGRDN S1	18.4425	80/20	18.4425
315266	1PLYWOOD A	0.4253	80/20	0.4253
316118	AC1-105 C	2.1876	80/20	2.1876
316131	AB2-060 C	0.8407	80/20	0.8407
924301	AB2-077 C O1 (Suspended)	1.0994	80/20	1.0994
924311	AB2-078 C O1 (Suspended)	1.0994	80/20	1.0994
924321	AB2-079 C O1 (Suspended)	1.0994	80/20	1.0994
925611	AC1-036 C	0.1990	80/20	0.1990
927261	AC1-222 C	1.2313	80/20	1.2313
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7931	80/20	0.7931
934311	AD1-055 C	0.8549	80/20	0.8549
934615	AD1-087 C	2.7103	80/20	2.7103
934625	AD1-088 C	10.6986	80/20	10.6986
935171	AD1-152 C O1	2.9770	80/20	2.9770
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2946	80/20	0.2946
936265	AD2-033 C	10.6548	80/20	10.6548
936361	AD2-046 C O1	3.5828	80/20	3.5828
936485	AD2-063 C	10.3014	80/20	10.3014
937481	AD2-202 C O1	0.7939	80/20	0.7939
938371	AE1-056 C	8.0510	80/20	8.0510
938821	AE1-108 C O1	29.3760	80/20	29.3760
939181	AE1-148 C	3.5932	80/20	3.5932

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940661	AE2-053 O1	1.3308	80/20	1.3308
941011	AE2-092 C	25.2822	80/20	25.2822
941791	AE2-182 C	1.7381	80/20	1.7381
942451	AE2-258	1.3291	80/20	1.3291
942461	AE2-259 C O1	15.0516	80/20	15.0516
943901	AF1-058 C	0.6646	80/20	0.6646
943911	AF1-059	5.9093	80/20	5.9093
946291	AF1-293 C O1	39.5443	80/20	39.5443
946301	AF1-294 C	4.8845	80/20	4.8845
946591	AF1-323 C	9.4261	80/20	9.4261
958131	AF2-107 C	4.3750	80/20	4.3750
958211	AF2-115 C	2.8733	80/20	2.8733
958801	AF2-171 C	17.1603	80/20	17.1603
959311	AF2-222 C	15.3100	80/20	15.3100
959751	AF2-266	3.1070	80/20	3.1070
960061	AF2-297 C	2.6582	80/20	2.6582
960111	AF2-302 C	3.4277	80/20	3.4277
961061	AF2-397 C	36.6538	80/20	36.6538
961791	AG1-021 C	2.2986	80/20	2.2986
961801	AG1-022 C	3.4277	80/20	3.4277
961891	AG1-030 C	15.8310	80/20	15.8310
962041	AG1-048 C	14.3663	80/20	14.3663
962441	AG1-093 C O2	5.1308	80/20	5.1308
962491	AG1-098 C O2	7.8412	80/20	7.8412
962561	AG1-105 C O2	4.5072	80/20	4.5072
962741	AG1-123 C O2	2.8673	80/20	2.8673
962751	AG1-124 C O2	4.0170	80/20	4.0170
963171	AG1-166 C	2.2986	80/20	2.2986
963181	AG1-167 C	2.2986	80/20	2.2986
963191	AG1-168 C	2.2986	80/20	2.2986
963201	AG1-169 C	2.2986	80/20	2.2986
963211	AG1-170 C	2.2986	80/20	2.2986
963271	AG1-176 C O2	21.5558	80/20	21.5558
963321	AG1-181 C O2	14.3538	80/20	14.3538
963361	AG1-185 O2	6.9447	80/20	6.9447
963641	AG1-215 C	1.0727	80/20	1.0727
964111	AG1-272 C	2.2620	80/20	2.2620
964121	AG1-273 C	2.2620	80/20	2.2620
964131	AG1-274 C	2.2620	80/20	2.2620
964231	AG1-284 C O2	17.0478	80/20	17.0478
964261	AG1-287 C	0.4984	80/20	0.4984
964471	AG1-310 C	0.7118	80/20	0.7118
964791	AG1-342 C	1.8023	80/20	1.8023
964821	AG1-345 C	0.9168	80/20	0.9168
964841	AG1-347 C	9.1353	80/20	9.1353
964931	AG1-357 C O2	13.6428	80/20	13.6428
965191	AG1-384 C	2.2620	80/20	2.2620
965281	AG1-393 C	2.2986	80/20	2.2986
965451	AG1-413 C O2	2.6075	80/20	2.6075
965581	AG1-426	6.4000	80/20	6.4000
965591	AG1-427 C	7.7911	80/20	7.7911
965641	AG1-432 C O2	30.1032	80/20	30.1032

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965721	AG1-440 C	2.3620	80/20	2.3620
965731	AG1-441 C	2.3620	80/20	2.3620
965771	AG1-445	1.3647	80/20	1.3647
965781	AG1-446	1.3647	80/20	1.3647
965831	AG1-451	5.0172	80/20	5.0172
966251	AG1-494 C	1.6494	80/20	1.6494
966791	AG1-550 O2	14.2065	80/20	14.2065
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	4.1932	80/20	4.1932
WEC	WEC	0.1988	Confirmed LTF	0.1988
LGEE	LGEE	0.4247	Confirmed LTF	0.4247
CPLE	CPLE	1.0859	Confirmed LTF	1.0859
CBM-W2	CBM-W2	7.3114	Confirmed LTF	7.3114
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	1.3104	Confirmed LTF	1.3104
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.5012	Confirmed LTF	14.5012
CBM-S1	CBM-S1	0.3374	Confirmed LTF	0.3374
MEC	MEC	1.1075	Confirmed LTF	1.1075
LAGN	LAGN	1.5942	Confirmed LTF	1.5942
CBM-W1	CBM-W1	8.3419	Confirmed LTF	8.3419

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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
169402697	314765	6MTEAGLE	DVP	314749	6CHARLVL	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	147.84	150.9	DC	20.24

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3898	80/20	0.3898
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1286	80/20	0.1286
315153	1CLOVER1	6.8555	80/20	6.8555
315154	1CLOVER2	6.7871	80/20	6.7871
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6056	80/20	0.6056
315160	1KERR 3	0.6056	80/20	0.6056
315161	1KERR 4	0.6056	80/20	0.6056
315162	1KERR 5	0.6056	80/20	0.6056
315163	1KERR 6	0.6056	80/20	0.6056
315164	1KERR 7	0.6056	80/20	0.6056
315191	1BEARGRDN G1	16.8015	80/20	16.8015

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315192	1BEARGRDN G2	16.8015	80/20	16.8015
315193	1BEARGRDN S1	21.7276	80/20	21.7276
315266	1PLYWOOD A	0.6337	80/20	0.6337
316118	AC1-105 C	3.2095	80/20	3.2095
316123	AC1-075 C	0.3995	80/20	0.3995
316129	AC1-054 C	3.1893	80/20	3.1893
316131	AB2-060 C	1.1579	80/20	1.1579
924301	AB2-077 C O1 (Suspended)	1.5318	80/20	1.5318
924311	AB2-078 C O1 (Suspended)	1.5318	80/20	1.5318
924321	AB2-079 C O1 (Suspended)	1.5318	80/20	1.5318
925611	AC1-036 C	0.2579	80/20	0.2579
926023	AC1-080 C	0.1335	80/20	0.1335
926451	AC1-116 C	0.5713	80/20	0.5713
927251	AC1-221 C	0.7553	80/20	0.7553
927261	AC1-222 C	1.8201	80/20	1.8201
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.9462	80/20	0.9462
932761	AC2-100 C	1.7381	80/20	1.7381
933501	AC2-165 C	31.7798	80/20	31.7798
934311	AD1-055 C	1.2637	80/20	1.2637
934341	AD1-058 C	1.8933	80/20	1.8933
934615	AD1-087 C	4.2927	80/20	4.2927
934625	AD1-088 C	14.0094	80/20	14.0094
934991	AD1-131 C	0.6208	80/20	0.6208
935171	AD1-152 C O1	4.7150	80/20	4.7150
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.3677	80/20	0.3677
936265	AD2-033 C	13.9363	80/20	13.9363
936361	AD2-046 C O1	5.3660	80/20	5.3660
936485	AD2-063 C	13.8249	80/20	13.8249
937481	AD2-202 C O1	1.2573	80/20	1.2573
938371	AE1-056 C	10.0469	80/20	10.0469
938821	AE1-108 C O1	34.7022	80/20	34.7022
939181	AE1-148 C	5.3595	80/20	5.3595
940661	AE2-053 O1	1.9850	80/20	1.9850
941011	AE2-092 C	28.7092	80/20	28.7092
941791	AE2-182 C	2.2760	80/20	2.2760
942451	AE2-258	1.8434	80/20	1.8434
942461	AE2-259 C O1	18.4818	80/20	18.4818
942751	AE2-291 C	3.6916	80/20	3.6916
942761	AE2-292 C O1	4.5964	80/20	4.5964
943901	AF1-058 C	0.9986	80/20	0.9986
943911	AF1-059	9.4111	80/20	9.4111
945811	AF1-246 C O1	3.3281	80/20	3.3281
946281	AF1-292 C	0.4501	80/20	0.4501
946291	AF1-293 C O1	46.3226	80/20	46.3226
946301	AF1-294 C	6.1424	80/20	6.1424
946591	AF1-323 C	11.1045	80/20	11.1045
957481	AF2-042 C	23.7720	80/20	23.7720
958131	AF2-107 C	5.0062	80/20	5.0062

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958211	AF2-115 C	3.6132	80/20	3.6132
958801	AF2-171 C	21.5892	80/20	21.5892
959311	AF2-222 C	19.7350	80/20	19.7350
959751	AF2-266	4.9210	80/20	4.9210
960061	AF2-297 C	3.9946	80/20	3.9946
960081	AF2-299 C	0.7586	80/20	0.7586
960111	AF2-302 C	4.0380	80/20	4.0380
961061	AF2-397 C	49.3795	80/20	49.3795
961791	AG1-021 C	2.8906	80/20	2.8906
961801	AG1-022 C	4.0380	80/20	4.0380
961891	AG1-030 C	20.0853	80/20	20.0853
962041	AG1-048 C	18.0660	80/20	18.0660
962441	AG1-093 C O2	8.1264	80/20	8.1264
962491	AG1-098 C O2	10.6792	80/20	10.6792
962561	AG1-105 C O2	6.4410	80/20	6.4410
962741	AG1-123 C O2	3.0874	80/20	3.0874
962751	AG1-124 C O2	4.3356	80/20	4.3356
963171	AG1-166 C	2.8906	80/20	2.8906
963181	AG1-167 C	2.8906	80/20	2.8906
963191	AG1-168 C	2.8906	80/20	2.8906
963201	AG1-169 C	2.8906	80/20	2.8906
963211	AG1-170 C	2.8906	80/20	2.8906
963271	AG1-176 C O2	26.6490	80/20	26.6490
963301	AG1-179 C	2.7231	80/20	2.7231
963311	AG1-180	1.3268	80/20	1.3268
963321	AG1-181 C O2	18.6784	80/20	18.6784
963361	AG1-185 O2	9.0371	80/20	9.0371
963641	AG1-215 C	1.3489	80/20	1.3489
964111	AG1-272 C	2.9313	80/20	2.9313
964121	AG1-273 C	2.9313	80/20	2.9313
964131	AG1-274 C	2.9313	80/20	2.9313
964231	AG1-284 C O2	20.2364	80/20	20.2364
964241	AG1-285 C O2	5.6295	80/20	5.6295
964261	AG1-287 C	0.7490	80/20	0.7490
964471	AG1-310 C	1.0445	80/20	1.0445
964791	AG1-342 C	2.5943	80/20	2.5943
964821	AG1-345 C	1.1533	80/20	1.1533
964841	AG1-347 C	11.8171	80/20	11.8171
964931	AG1-357 C O2	18.3276	80/20	18.3276
965191	AG1-384 C	2.9313	80/20	2.9313
965281	AG1-393 C	2.8906	80/20	2.8906
965451	AG1-413 C O2	4.0837	80/20	4.0837
965581	AG1-426	7.5604	80/20	7.5604
965591	AG1-427 C	10.5285	80/20	10.5285
965601	AG1-428 C O2	2.2733	80/20	2.2733
965641	AG1-432 C O2	36.9636	80/20	36.9636
965721	AG1-440 C	3.7881	80/20	3.7881
965731	AG1-441 C	3.7881	80/20	3.7881
965771	AG1-445	2.1887	80/20	2.1887
965781	AG1-446	2.1887	80/20	2.1887
965831	AG1-451	6.1606	80/20	6.1606
966251	AG1-494 C	1.8190	80/20	1.8190

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966621	AG1-532 C	0.4096	80/20	0.4096
966691	AG1-539 C	1.9302	80/20	1.9302
966751	AG1-546 C	6.7407	80/20	6.7407
966791	AG1-550 O2	16.8637	80/20	16.8637
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	5.0276	80/20	5.0276
WEC	WEC	0.1332	Confirmed LTF	0.1332
LGEE	LGEE	0.2859	Confirmed LTF	0.2859
CPLE	CPLE	2.2666	Confirmed LTF	2.2666
CBM-W2	CBM-W2	7.4995	Confirmed LTF	7.4995
NY	NY	0.4413	Confirmed LTF	0.4413
TVA	TVA	1.5190	Confirmed LTF	1.5190
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.1835	Confirmed LTF	26.1835
CBM-S1	CBM-S1	0.3690	Confirmed LTF	0.3690
MEC	MEC	0.9010	Confirmed LTF	0.9010
LAGN	LAGN	1.8743	Confirmed LTF	1.8743
AA2-074	AA2-074	1.4958	LTF	1.4958
CBM-W1	CBM-W1	5.2575	Confirmed LTF	5.2575

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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
175256902	933500	AC2-165 TAP	DVP	314333	6POWHATN	DVP	1	DVP_P1-2: LN 2028-B-1	single	800.88	111.76	113.89	DC	17.05

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2811	80/20	0.2811
314429	3JTRSVLE	0.4835	80/20	0.4835
314677	6BUCKING	0.8051	80/20	0.8051
315153	1CLOVER1	4.3284	80/20	4.3284
315154	1CLOVER2	4.2852	80/20	4.2852
315158	1KERR 1	0.1411	80/20	0.1411
315159	1KERR 2	0.3952	80/20	0.3952
315160	1KERR 3	0.3952	80/20	0.3952
315161	1KERR 4	0.3952	80/20	0.3952
315162	1KERR 5	0.3952	80/20	0.3952
315163	1KERR 6	0.3952	80/20	0.3952
315164	1KERR 7	0.3952	80/20	0.3952
315191	1BEARGRDN G1	14.2612	80/20	14.2612
315192	1BEARGRDN G2	14.2612	80/20	14.2612
315193	1BEARGRDN S1	18.4425	80/20	18.4425
315266	1PLYWOOD A	0.4253	80/20	0.4253
316118	AC1-105 C	2.1876	80/20	2.1876
316131	AB2-060 C	0.8407	80/20	0.8407

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924301	AB2-077 C O1 (Suspended)	1.0994	80/20	1.0994
924311	AB2-078 C O1 (Suspended)	1.0994	80/20	1.0994
924321	AB2-079 C O1 (Suspended)	1.0994	80/20	1.0994
925611	AC1-036 C	0.1990	80/20	0.1990
927261	AC1-222 C	1.2313	80/20	1.2313
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.7931	80/20	0.7931
933501	AC2-165 C	39.2445	80/20	39.2445
934311	AD1-055 C	0.8549	80/20	0.8549
934615	AD1-087 C	2.7103	80/20	2.7103
934625	AD1-088 C	10.6986	80/20	10.6986
935171	AD1-152 C O1	2.9770	80/20	2.9770
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.2946	80/20	0.2946
936265	AD2-033 C	10.6548	80/20	10.6548
936361	AD2-046 C O1	3.5828	80/20	3.5828
936485	AD2-063 C	10.3014	80/20	10.3014
937481	AD2-202 C O1	0.7939	80/20	0.7939
938371	AE1-056 C	8.0510	80/20	8.0510
938821	AE1-108 C O1	29.3760	80/20	29.3760
939181	AE1-148 C	3.5932	80/20	3.5932
940661	AE2-053 O1	1.3308	80/20	1.3308
941011	AE2-092 C	25.2822	80/20	25.2822
941791	AE2-182 C	1.7381	80/20	1.7381
942451	AE2-258	1.3291	80/20	1.3291
942461	AE2-259 C O1	15.0516	80/20	15.0516
943901	AF1-058 C	0.6646	80/20	0.6646
943911	AF1-059	5.9093	80/20	5.9093
946291	AF1-293 C O1	39.5443	80/20	39.5443
946301	AF1-294 C	4.8845	80/20	4.8845
946591	AF1-323 C	9.4261	80/20	9.4261
958131	AF2-107 C	4.3750	80/20	4.3750
958211	AF2-115 C	2.8733	80/20	2.8733
958801	AF2-171 C	17.1603	80/20	17.1603
959311	AF2-222 C	15.3100	80/20	15.3100
959751	AF2-266	3.1070	80/20	3.1070
960061	AF2-297 C	2.6582	80/20	2.6582
960111	AF2-302 C	3.4277	80/20	3.4277
961061	AF2-397 C	36.6538	80/20	36.6538
961791	AG1-021 C	2.2986	80/20	2.2986
961801	AG1-022 C	3.4277	80/20	3.4277
961891	AG1-030 C	15.8310	80/20	15.8310
962041	AG1-048 C	14.3663	80/20	14.3663
962441	AG1-093 C O2	5.1308	80/20	5.1308
962491	AG1-098 C O2	7.8412	80/20	7.8412
962561	AG1-105 C O2	4.5072	80/20	4.5072
962741	AG1-123 C O2	2.8673	80/20	2.8673
962751	AG1-124 C O2	4.0170	80/20	4.0170
963171	AG1-166 C	2.2986	80/20	2.2986
963181	AG1-167 C	2.2986	80/20	2.2986

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963191	AG1-168 C	2.2986	80/20	2.2986
963201	AG1-169 C	2.2986	80/20	2.2986
963211	AG1-170 C	2.2986	80/20	2.2986
963271	AG1-176 C O2	21.5558	80/20	21.5558
963321	AG1-181 C O2	14.3538	80/20	14.3538
963361	AG1-185 O2	6.9447	80/20	6.9447
963641	AG1-215 C	1.0727	80/20	1.0727
964111	AG1-272 C	2.2620	80/20	2.2620
964121	AG1-273 C	2.2620	80/20	2.2620
964131	AG1-274 C	2.2620	80/20	2.2620
964231	AG1-284 C O2	17.0478	80/20	17.0478
964261	AG1-287 C	0.4984	80/20	0.4984
964471	AG1-310 C	0.7118	80/20	0.7118
964791	AG1-342 C	1.8023	80/20	1.8023
964821	AG1-345 C	0.9168	80/20	0.9168
964841	AG1-347 C	9.1353	80/20	9.1353
964931	AG1-357 C O2	13.6428	80/20	13.6428
965191	AG1-384 C	2.2620	80/20	2.2620
965281	AG1-393 C	2.2986	80/20	2.2986
965451	AG1-413 C O2	2.6075	80/20	2.6075
965581	AG1-426	6.4000	80/20	6.4000
965591	AG1-427 C	7.7911	80/20	7.7911
965641	AG1-432 C O2	30.1032	80/20	30.1032
965721	AG1-440 C	2.3620	80/20	2.3620
965731	AG1-441 C	2.3620	80/20	2.3620
965771	AG1-445	1.3647	80/20	1.3647
965781	AG1-446	1.3647	80/20	1.3647
965831	AG1-451	5.0172	80/20	5.0172
966251	AG1-494 C	1.6494	80/20	1.6494
966791	AG1-550 O2	14.2065	80/20	14.2065
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	4.1932	80/20	4.1932
WEC	WEC	0.1988	Confirmed LTF	0.1988
LGEE	LGEE	0.4247	Confirmed LTF	0.4247
CPL	CPL	1.0859	Confirmed LTF	1.0859
CBM-W2	CBM-W2	7.3114	Confirmed LTF	7.3114
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	1.3104	Confirmed LTF	1.3104
SIGE	SIGE	0.1503	Confirmed LTF	0.1503
CBM-S2	CBM-S2	14.5012	Confirmed LTF	14.5012
CBM-S1	CBM-S1	0.3374	Confirmed LTF	0.3374
MEC	MEC	1.1075	Confirmed LTF	1.1075
LAGN	LAGN	1.5942	Confirmed LTF	1.5942
CBM-W1	CBM-W1	8.3419	Confirmed LTF	8.3419

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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
174862175	941010	AE2-092 TAP	DVP	314774	3SHERWOD	DVP	1	DVP_P1-2: LN 2028-B-1	single	169.2	100.91	104.7	DC	6.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314333	6POWHATN	0.1118	80/20	0.1118
314677	6BUCKING	0.1716	80/20	0.1716
315191	1BEARGRDN G1	2.9664	80/20	2.9664
315192	1BEARGRDN G2	2.9664	80/20	2.9664
315193	1BEARGRDN S1	3.8361	80/20	3.8361
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.1691	80/20	0.1691
932854	AC2-112 C	-5.8435	Adder	-6.87
933501	AC2-165 C	3.3938	80/20	3.3938
938561	AE1-075 C	0.0972	80/20	0.0972
938821	AE1-108 C O1	10.9435	80/20	10.9435
941011	AE2-092 C	30.5466	80/20	30.5466
942461	AE2-259 C O1	3.3924	80/20	3.3924
946291	AF1-293 C O1	26.9341	80/20	26.9341
946591	AF1-323 C	3.4901	80/20	3.4901
958501	AF2-144 C	0.5237	80/20	0.5237
959531	AF2-244 C (Withdrawn : 01/06/2021)	0.4826	80/20	0.4826
960111	AF2-302 C	1.2691	80/20	1.2691
961061	AF2-397 C	7.9412	80/20	7.9412
961801	AG1-022 C	1.2691	80/20	1.2691
963271	AG1-176 C O2	4.9200	80/20	4.9200
964231	AG1-284 C O2	6.4197	80/20	6.4197
965581	AG1-426	2.3842	80/20	2.3842
965641	AG1-432 C O2	6.7848	80/20	6.7848
965831	AG1-451	1.1308	80/20	1.1308
966791	AG1-550 O2	5.3498	80/20	5.3498
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	0.9028	80/20	0.9028
WEC	WEC	0.0019	Confirmed LTF	0.0019
LGEE	LGEE	0.0057	Confirmed LTF	0.0057
CPLE	CPLE	0.5678	Confirmed LTF	0.5678
CBM-W2	CBM-W2	1.0304	Confirmed LTF	1.0304
NY	NY	0.0758	Confirmed LTF	0.0758
TVA	TVA	0.2506	Confirmed LTF	0.2506
SIGE	SIGE	0.0162	Confirmed LTF	0.0162
CBM-S2	CBM-S2	6.1387	Confirmed LTF	6.1387
CBM-S1	CBM-S1	0.0562	Confirmed LTF	0.0562
MEC	MEC	0.0699	Confirmed LTF	0.0699
LAGN	LAGN	0.3133	Confirmed LTF	0.3133

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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
173854225	946590	AF1-323 TAP	AEP	244446	05SOAPSTONE	AEP	1	DVP_P4-2: 422	breaker	167.0	117.54	159.46	DC	70.0

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	91.8000	50/50	91.8000
938822	AE1-108 E O1	41.2000	50/50	41.2000
946591	AF1-323 C	33.0000	50/50	33.0000
946592	AF1-323 E	22.0000	50/50	22.0000
960111	AF2-302 C	12.0000	50/50	12.0000
960112	AF2-302 E	8.0000	50/50	8.0000
961801	AG1-022 C	12.0000	50/50	12.0000
961802	AG1-022 E	8.0000	50/50	8.0000
964231	AG1-284 C O2	42.0000	50/50	42.0000
964232	AG1-284 E O2	28.0000	50/50	28.0000
965581	AG1-426	20.0000	50/50	20.0000
966791	AG1-550 O2	35.0000	50/50	35.0000

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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
175065295	961060	AF2-397 TAP	DVP	314765	6MTEAGLE	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	151.37	154.43	DC	20.24

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1287	80/20	0.1287
315153	1CLOVER1	6.8569	80/20	6.8569
315154	1CLOVER2	6.7885	80/20	6.7885
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6058	80/20	0.6058
315160	1KERR 3	0.6058	80/20	0.6058
315161	1KERR 4	0.6058	80/20	0.6058
315162	1KERR 5	0.6058	80/20	0.6058
315163	1KERR 6	0.6058	80/20	0.6058
315164	1KERR 7	0.6058	80/20	0.6058

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315191	1BEARGRDN G1	16.8024	80/20	16.8024
315192	1BEARGRDN G2	16.8024	80/20	16.8024
315193	1BEARGRDN S1	21.7287	80/20	21.7287
315266	1PLYWOOD A	0.6338	80/20	0.6338
316118	AC1-105 C	3.2102	80/20	3.2102
316123	AC1-075 C	0.3997	80/20	0.3997
316129	AC1-054 C	3.1902	80/20	3.1902
316131	AB2-060 C	1.1581	80/20	1.1581
924301	AB2-077 C O1 (Suspended)	1.5320	80/20	1.5320
924311	AB2-078 C O1 (Suspended)	1.5320	80/20	1.5320
924321	AB2-079 C O1 (Suspended)	1.5320	80/20	1.5320
925611	AC1-036 C	0.2580	80/20	0.2580
926023	AC1-080 C	0.1336	80/20	0.1336
927251	AC1-221 C	0.7557	80/20	0.7557
927261	AC1-222 C	1.8205	80/20	1.8205
932511	AC2-071 C (Withdrawn : 01/22/2021)	0.9463	80/20	0.9463
932761	AC2-100 C	1.7391	80/20	1.7391
933501	AC2-165 C	31.7815	80/20	31.7815
934311	AD1-055 C	1.2640	80/20	1.2640
934341	AD1-058 C	1.8944	80/20	1.8944
934615	AD1-087 C	4.2935	80/20	4.2935
934625	AD1-088 C	14.0115	80/20	14.0115
934991	AD1-131 C	0.6211	80/20	0.6211
935171	AD1-152 C O1	4.7160	80/20	4.7160
935221	AD1-157 C (Withdrawn : 01/26/2021)	0.3677	80/20	0.3677
936265	AD2-033 C	13.9378	80/20	13.9378
936361	AD2-046 C O1	5.3677	80/20	5.3677
936485	AD2-063 C	13.8267	80/20	13.8267
937481	AD2-202 C O1	1.2576	80/20	1.2576
938371	AE1-056 C	10.0476	80/20	10.0476
938821	AE1-108 C O1	34.7050	80/20	34.7050
939181	AE1-148 C	5.3606	80/20	5.3606
940661	AE2-053 O1	1.9854	80/20	1.9854
941011	AE2-092 C	28.7117	80/20	28.7117
941791	AE2-182 C	2.2764	80/20	2.2764
942451	AE2-258	1.8439	80/20	1.8439
942461	AE2-259 C O1	18.4830	80/20	18.4830
942751	AE2-291 C	3.6928	80/20	3.6928
942761	AE2-292 C O1	4.5979	80/20	4.5979
943901	AF1-058 C	0.9990	80/20	0.9990
943911	AF1-059	9.4131	80/20	9.4131
945811	AF1-246 C O1	3.3289	80/20	3.3289
946281	AF1-292 C	0.4503	80/20	0.4503
946291	AF1-293 C O1	46.3247	80/20	46.3247
946301	AF1-294 C	6.1429	80/20	6.1429
946591	AF1-323 C	11.1052	80/20	11.1052
957481	AF2-042 C	23.7780	80/20	23.7780
958131	AF2-107 C	5.0071	80/20	5.0071

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958211	AF2-115 C	3.6135	80/20	3.6135
958801	AF2-171 C	21.5919	80/20	21.5919
959311	AF2-222 C	19.7370	80/20	19.7370
959751	AF2-266	4.9220	80/20	4.9220
960061	AF2-297 C	3.9960	80/20	3.9960
960081	AF2-299 C	0.7590	80/20	0.7590
960111	AF2-302 C	4.0382	80/20	4.0382
961061	AF2-397 C	49.3810	80/20	49.3810
961791	AG1-021 C	2.8908	80/20	2.8908
961801	AG1-022 C	4.0382	80/20	4.0382
961891	AG1-030 C	20.0871	80/20	20.0871
962041	AG1-048 C	18.0675	80/20	18.0675
962441	AG1-093 C O2	8.1291	80/20	8.1291
962491	AG1-098 C O2	10.6807	80/20	10.6807
962561	AG1-105 C O2	6.4428	80/20	6.4428
962741	AG1-123 C O2	3.0883	80/20	3.0883
962751	AG1-124 C O2	4.3368	80/20	4.3368
963171	AG1-166 C	2.8908	80/20	2.8908
963181	AG1-167 C	2.8908	80/20	2.8908
963191	AG1-168 C	2.8908	80/20	2.8908
963201	AG1-169 C	2.8908	80/20	2.8908
963211	AG1-170 C	2.8908	80/20	2.8908
963271	AG1-176 C O2	26.6508	80/20	26.6508
963301	AG1-179 C	2.7241	80/20	2.7241
963311	AG1-180	1.3273	80/20	1.3273
963321	AG1-181 C O2	18.6814	80/20	18.6814
963361	AG1-185 O2	9.0386	80/20	9.0386
963641	AG1-215 C	1.3490	80/20	1.3490
964111	AG1-272 C	2.9318	80/20	2.9318
964121	AG1-273 C	2.9318	80/20	2.9318
964131	AG1-274 C	2.9318	80/20	2.9318
964231	AG1-284 C O2	20.2377	80/20	20.2377
964241	AG1-285 C O2	5.6317	80/20	5.6317
964261	AG1-287 C	0.7493	80/20	0.7493
964471	AG1-310 C	1.0449	80/20	1.0449
964791	AG1-342 C	2.5948	80/20	2.5948
964821	AG1-345 C	1.1534	80/20	1.1534
964841	AG1-347 C	11.8188	80/20	11.8188
964931	AG1-357 C O2	18.3312	80/20	18.3312
965191	AG1-384 C	2.9318	80/20	2.9318
965281	AG1-393 C	2.8908	80/20	2.8908
965451	AG1-413 C O2	4.0845	80/20	4.0845
965581	AG1-426	7.5610	80/20	7.5610
965591	AG1-427 C	10.5299	80/20	10.5299
965601	AG1-428 C O2	2.2741	80/20	2.2741
965641	AG1-432 C O2	36.9660	80/20	36.9660
965721	AG1-440 C	3.7895	80/20	3.7895
965731	AG1-441 C	3.7895	80/20	3.7895
965771	AG1-445	2.1895	80/20	2.1895
965781	AG1-446	2.1895	80/20	2.1895
965831	AG1-451	6.1610	80/20	6.1610
966251	AG1-494 C	1.8194	80/20	1.8194

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966621	AG1-532 C	0.4099	80/20	0.4099
966691	AG1-539 C	1.9309	80/20	1.9309
966751	AG1-546 C	6.7436	80/20	6.7436
966791	AG1-550 O2	16.8647	80/20	16.8647
966861	AG1-557 C O2 (Withdrawn : 12/14/2020)	5.0279	80/20	5.0279
WEC	WEC	0.1342	Confirmed LTF	0.1342
LGEE	LGEE	0.2878	Confirmed LTF	0.2878
CPL	CPL	2.2686	Confirmed LTF	2.2686
CBM-W2	CBM-W2	7.5264	Confirmed LTF	7.5264
NY	NY	0.4396	Confirmed LTF	0.4396
TVA	TVA	1.5232	Confirmed LTF	1.5232
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.2148	Confirmed LTF	26.2148
CBM-S1	CBM-S1	0.3701	Confirmed LTF	0.3701
MEC	MEC	0.9057	Confirmed LTF	0.9057
LAGN	LAGN	1.8795	Confirmed LTF	1.8795
AA2-074	AA2-074	1.4972	LTF	1.4972
CBM-W1	CBM-W1	5.2996	Confirmed LTF	5.2996

13.6 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
DVP_P1-2: LN 553	CONTINGENCY 'DVP_P1-2: LN 553' / 579 OPEN BRANCH FROM BUS 314908 TO BUS 314910 CKT 1 / 314908 8ELMONT 500 314910 8CUNNINGHAM 500 1 END
DVP_P7-1: LN 181-2027	CONTINGENCY 'DVP_P7-1: LN 181-2027' /* . OPEN BRANCH FROM BUS 314321 TO BUS 314447 CKT 1 /* 3LITTLECREEK 115.00 - 3BURTN67 115.00 OPEN BRANCH FROM BUS 314321 TO BUS 314488 CKT 1 /* 3LITTLECREEK 115.00 - 3OAKWOOD 115.00 OPEN BUS 314321 /* ISLAND: 3LITTLECREEK 115.00 OPEN BRANCH FROM BUS 313868 TO BUS 314747 CKT 1 /* 6CARTERV 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 313868 TO BUS 933500 CKT 1 /* 6CARTERV 230.00 - AC2- 165 TAP 230.00 OPEN BRANCH FROM BUS 314310 TO BUS 314322 CKT 1 /* 6JUDES F 230.00 - 6MDLTHAN 230.00 OPEN BRANCH FROM BUS 314310 TO BUS 314333 CKT 1 /* 6JUDES F 230.00 - 6POWHATN 230.00 OPEN BRANCH FROM BUS 314333 TO BUS 933500 CKT 1 /* 6POWHATN 230.00 - AC2-165 TAP 230.00 OPEN BUS 313868 /* ISLAND: 6CARTERV 230.00 OPEN BUS 314310 /* ISLAND: 6JUDES F 230.00 OPEN BUS 314333 /* ISLAND: 6POWHATN 230.00 OPEN BUS 923862 /* ISLAND: AB2-026 E 230.00 OPEN BUS 938561 /* ISLAND: AE1-075 C 230.00 OPEN BUS 938562 /* ISLAND: AE1-075 E 230.00 OPEN BUS 933500 /* ISLAND: AC2-165 TAP 230.00 OPEN BUS 933501 /* ISLAND: AC2-165 C 230.00 OPEN BUS 933502 /* ISLAND: AC2-165 E 230.00 END
DVP_P4-2: 2028T2054	CONTINGENCY 'DVP_P4-2: 2028T2054' / 952 OPEN BRANCH FROM BUS 314765 TO BUS 961060 CKT 1 / 314765 6MTEAGLE 230 961060 AF2-397 TAP 230 1 OPEN BRANCH FROM BUS 314749 TO BUS 314765 CKT 1 / 314749 6CHARLVL 230 314765 6MTEAGLE 230 1 OPEN BRANCH FROM BUS 314765 TO BUS 926451 CKT 1 / 314765 6MTEAGLE 230 926451 AC1-116 C 230 1 OPEN BRANCH FROM BUS 926451 TO BUS 926452 CKT 1 / 926451 AC1-116 C 230 926452 AC1-116 E 230 1 OPEN BRANCH FROM BUS 314749 TO BUS 314772 CKT 1 / 314749 6CHARLVL 230 314772 6PROFFIT 230 1 OPEN BRANCH FROM BUS 314759 TO BUS 314772 CKT 1 / 314759 6HOLLYMD 230 314772 6PROFFIT 230 1 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 2193	CONTINGENCY 'DVP_P1-2: LN 2193' / 583 OPEN BRANCH FROM BUS 313707 TO BUS 313867 CKT 1 / 313707 6FORK UNION 230 313867 6BREMODIST 230 1 OPEN BRANCH FROM BUS 313867 TO BUS 314747 CKT 1 / 313867 6BREMODIST 230 314747 6BREMO 230 1 END
DVP_P2-2: BREMO B4	CONTINGENCY 'DVP_P2-2: BREMO B4' /* BREMO 115 KV OPEN BRANCH FROM BUS 313871 TO BUS 313874 CKT 1 /* 3COBBS CREEK115.00 - 3JAMES RI TP115.00 OPEN BRANCH FROM BUS 313871 TO BUS 314762 CKT 1 /* 3COBBS CREEK115.00 - 3JAMES R 115.00 OPEN BRANCH FROM BUS 313874 TO BUS 313875 CKT 1 /* 3JAMES RI TP115.00 - 3TRICESLK 115.00 OPEN BRANCH FROM BUS 313874 TO BUS 314744 CKT 1 /* 3JAMES RI TP115.00 - 3BREMO 115.00 OPEN BUS 313871 /* ISLAND: 3COBBS CREEK115.00 OPEN BUS 313874 /* ISLAND: 3JAMES RI TP115.00 OPEN BUS 313875 /* ISLAND: 3TRICESLK 115.00 OPEN BUS 314762 /* ISLAND: 3JAMES R 115.00 OPEN BRANCH FROM BUS 313708 TO BUS 314744 CKT 1 /* 3FORK UNION 115.00 - 3BREMO 115.00 OPEN BRANCH FROM BUS 314744 TO BUS 314747 CKT 1 /* 3BREMO 115.00 - 6BREMO 230.00 END
DVP_P4-2: 422	CONTINGENCY 'DVP_P4-2: 422' /* BREMO 115 KV OPEN BRANCH FROM BUS 313871 TO BUS 313874 CKT 1 /* 3COBBS CREEK115.00 - 3JAMES RI TP115.00 OPEN BRANCH FROM BUS 313871 TO BUS 314762 CKT 1 /* 3COBBS CREEK115.00 - 3JAMES R 115.00 OPEN BRANCH FROM BUS 313874 TO BUS 313875 CKT 1 /* 3JAMES RI TP115.00 - 3TRICESLK 115.00 OPEN BRANCH FROM BUS 313874 TO BUS 314744 CKT 1 /* 3JAMES RI TP115.00 - 3BREMO 115.00 OPEN BUS 313871 /* ISLAND: 3COBBS CREEK115.00 OPEN BUS 313874 /* ISLAND: 3JAMES RI TP115.00 OPEN BUS 313875 /* ISLAND: 3TRICESLK 115.00 OPEN BUS 314762 /* ISLAND: 3JAMES R 115.00 OPEN BRANCH FROM BUS 313708 TO BUS 314744 CKT 1 /* 3FORK UNION 115.00 - 3BREMO 115.00 OPEN BRANCH FROM BUS 314744 TO BUS 314747 CKT 1 /* 3BREMO 115.00 - 6BREMO 230.00 END
Base Case	

Contingency Name	Contingency Definition
DVP_P1-2: LN 2028-B-1	CONTINGENCY 'DVP_P1-2: LN 2028-B-1' / 729 OPEN BRANCH FROM BUS 314765 TO BUS 961060 CKT 1 / 314765 6MTEAGLE 230 961060 AF2-397 TAP 230 1 OPEN BRANCH FROM BUS 314749 TO BUS 314765 CKT 1 / 314749 6CHARLVL 230 314765 6MTEAGLE 230 1 OPEN BRANCH FROM BUS 314765 TO BUS 926451 CKT 1 / 314765 6MTEAGLE 230 926451 AC1-116 C 230 1 OPEN BRANCH FROM BUS 926451 TO BUS 926452 CKT 1 / 926451 AC1-116 C 230 926452 AC1-116 E 230 1 END
DVP_P4-2: 202712	CONTINGENCY 'DVP_P4-2: 202712' / 723 OPEN BRANCH FROM BUS 313868 TO BUS 314747 CKT 1 / 313868 6CARTERV 230 314747 6BREMO 230 1 OPEN BRANCH FROM BUS 313868 TO BUS 933500 CKT 1 / 313868 6CARTERV 230 933500 AC2-165 TAP 230 1 OPEN BRANCH FROM BUS 314310 TO BUS 314322 CKT 1 / 314310 6JUDES F 230 314322 6MDLTHAN 230 1 OPEN BRANCH FROM BUS 314310 TO BUS 314333 CKT 1 / 314310 6JUDES F 230 314333 6POWHATN 230 1 OPEN BRANCH FROM BUS 314333 TO BUS 933500 CKT 1 / 314333 6POWHATN 230 933500 AC2-165 TAP 230 1 OPEN BRANCH FROM BUS 314333 TO BUS 923862 CKT 1 / 314333 6POWHATN 230 923862 AB2-026 E 230 1 OPEN BRANCH FROM BUS 314333 TO BUS 938561 CKT 1 / 314333 6POWHATN 230 938561 AE1-075 C 230 1 OPEN BRANCH FROM BUS 314333 TO BUS 958501 CKT 1 / 314333 6POWHATN 230 958501 AF2-144 C 230 1 OPEN BRANCH FROM BUS 314333 TO BUS 959531 CKT 1 / 314333 6POWHATN 230 959531 AF2-244 C 230 1 OPEN BRANCH FROM BUS 938561 TO BUS 938562 CKT 1 / 938561 AE1-075 C 230 938562 AE1-075 E 230 1 OPEN BRANCH FROM BUS 933500 TO BUS 933501 CKT 1 / 933500 AC2-165 TAP 230 933501 AC2-165 C 230 1 OPEN BRANCH FROM BUS 933501 TO BUS 933502 CKT 1 / 933501 AC2-165 C 230 933502 AC2-165 E 230 1 END
314333 6POWHATN 230 933500 AC2-165 TAP 230 1	CONTINGENCY '314333 6POWHATN 230 933500 AC2-165 TAP 230 1' OPEN BRANCH FROM BUS 314333 TO BUS 933500 CKT 1 END

14 Affected Systems

14.1 TVA

TVA Impacts to be determined during later study phases (as applicable).

14.2 Duke Energy Progress

Duke Energy Progress Impacts to be determined during later study phases (as applicable).

15 Attachment 1: One Line Diagram

