



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-027
SUFFOLK-HOLLAND 115 KV
96.6 MW Capacity / 150 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.

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

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 Undetermined County, Undetermined. The installed facilities will have a total capability of 150 MW with 96.6 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is December 31, 2024. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-027
Project Name	SUFFOLK-HOLLAND 115 KV
State	VA
County	City of Suffolk
Transmission Owner	Dominion
MFO	150
MWE	150
MWC	96.6
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

AG1-027 "Suffolk-Holland 115 kV" will interconnect with the Dominion transmission system. The primary POI will be a newly constructed 115 kV three breaker ring bus located on the line between the Suffolk substation and Holland 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

There is no secondary point of interconnection specified for AG1-027.

5 Cost Summary

The AG1-027 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$8,800,000
Total System Network Upgrade Costs	\$996,191,000 ¹
Total Costs	\$1,004,991,000

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 AG1-027 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
115 kV Three Breaker Ring-Bus Substation	\$5,500,000
Re-arrange line and tie-in new substation	\$1,600,000
Total Physical Interconnection Costs	\$8,800,000

AG1-027 "Suffolk-Holland 115 kV" will interconnect with the Dominion transmission system. The primary POI will be a newly constructed 115 kV three breaker ring bus located on the line between the Suffolk substation and Holland substation.

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.

8 Transmission Owner Analysis

Dominion assessed the impact of the proposed AG1-027 for compliance with NERC Reliability Criteria on the Dominion Transmission System. The system was assessed using the summer 2024 AG1 case provided to Dominion by PJM.

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

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

8.1 Power Flow Analysis

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

9 Interconnection Customer Requirements

9.1 System Protection

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

9.2 Compliance Issues and Interconnection Customer Requirements

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

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

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

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

9.3 Power Factor Requirements

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

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Meteorological Data Reporting Requirements

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

- Back Panel temperature (Fahrenheit)
- Irradiance (Watts/meter²)
- 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

The Queue Project AG1-027 was evaluated as a 150.0 MW (Capacity 96.6 MW) injection tapping the Suffolk to Holland 115 kV line in the Dominion area. Project AG1-027 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-027 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 LOADING %	POST PROJECT LOADING %	AC/D C	MW IMPACT
168606392	314280	3NEWBOHE	115.0	DVP	314329	3POE	115.0	DVP	1	Base Case	single	110.919998169	96.36	102.89	DC	7.25
168907245	314617	3TUNIS	115.0	DVP	314551	3AHOSKIE	115.0	DVP	1	Base Case	single	142.880004883	99.29	103.03	DC	5.35
169835139	957520	AF2-046 TAP	115.0	DVP	314617	3TUNIS	115.0	DVP	1	Base Case	single	142.880004883	99.36	103.1	DC	5.35
169835191	961850	AG1-027 TAP	115.0	DVP	314536	3SUFFOLK	115.0	DVP	1	DVP_P1-2: LN 136	single	269.779998779	82.93	113.63	DC	82.83
169835192	961850	AG1-027 TAP	115.0	DVP	314536	3SUFFOLK	115.0	DVP	1	DVP_P1-2: LN 108-C	single	269.779998779	82.78	113.49	DC	82.83
169835193	961850	AG1-027 TAP	115.0	DVP	314536	3SUFFOLK	115.0	DVP	1	Base Case	single	247.220001221	69.92	102.53	DC	80.6

11.2 Multiple Facility Contingency

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

None

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 LOADING %	POST PROJECT LOADING %	AC/D C	MW IMPACT
163454382	313845	6HATHAWAY	230.0	DVP	304222	6ROCKYMT230T	230.0	CPL E	1	DVP_P1-2: LN 2181	single	478.0	101.73	102.86	DC	5.4
168606407	314209	6SKIFF CREEK	230.0	DVP	314386	6KINGS M	230.0	DVP	1	DVP_P1-2: LN 567	single	441.799987793	155.26	155.94	DC	6.67
168606408	314209	6SKIFF CREEK	230.0	DVP	314386	6KINGS M	230.0	DVP	1	DVP_P1-2: LN 563	single	441.799987793	128.21	128.72	DC	5.06
168606568	314218	6ELMONT	230.0	DVP	314908	8ELMONT	500.0	DVP	2	DVP_P1-2: LN 557	single	879.840026855	149.54	150.01	DC	10.58
168606596	314218	6ELMONT	230.0	DVP	314908	8ELMONT	500.0	DVP	1	DVP_P1-2: LN 557	single	920.918029785	143.54	143.99	DC	10.63
168606603	314236	6NRTHEST	230.0	DVP	314218	6ELMONT	230.0	DVP	1	DVP_P1-2: LN 557	single	678.679992676	117.45	117.92	DC	6.97
168606386	314273	3BAKRS P	115.0	DVP	314280	3NEWBOHE	115.0	DVP	1	Base Case	single	110.919998169	106.82	113.35	DC	7.25
168606467	314287	6CHESTFB	230.0	DVP	314276	6BASIN	230.0	DVP	1	DVP_P1-2: LN 563	single	663.640014648	157.94	158.65	DC	6.82
168606468	314287	6CHESTFB	230.0	DVP	314276	6BASIN	230.0	DVP	1	DVP_P1-2: LN 217	single	663.640014648	147.07	147.08	DC	6.69

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/D C	MW IMPACT
168606415	314296	6PENNINGAN	230.0	DVP	314415	6WALR209	230.0	DVP	1	DVP_P1-2: LN 567	single	441.799987793	143.36	144.04	DC	6.67
168606416	314296	6PENNINGAN	230.0	DVP	314415	6WALR209	230.0	DVP	1	DVP_P1-2: LN 563	single	441.799987793	116.28	116.79	DC	5.06
168606552	314299	6HARROWG	230.0	DVP	314263	6TYLER1	230.0	DVP	1	DVP_P1-2: LN 563	single	441.799987793	126.75	128.08	DC	6.07
168606554	314299	6HARROWG	230.0	DVP	314263	6TYLER1	230.0	DVP	1	DVP_P1-2: LN 249	single	441.799987793	105.6	106.77	DC	5.17
168606464	314303	6HOPEWILL	230.0	DVP	314286	6CHESTFA	230.0	DVP	1	Base Case	single	449.320007324	147.99	149.24	DC	5.63
166876935	314329	3POE	115.0	DVP	314291	3PRGEORG	115.0	DVP	1	DVP_P7-1: LN 2002-2003	tower	301.0	103.86	105.98	DC	14.21
168606548	314331	6POE	230.0	DVP	314299	6HARROWG	230.0	DVP	1	DVP_P1-2: LN 563	single	441.799987793	126.77	128.1	DC	6.07
168606550	314331	6POE	230.0	DVP	314299	6HARROWG	230.0	DVP	1	DVP_P1-2: LN 249	single	441.799987793	105.62	106.79	DC	5.17
168606411	314386	6KINGS M	230.0	DVP	314296	6PENNINGAN	230.0	DVP	1	DVP_P1-2: LN 567	single	441.799987793	147.32	148.0	DC	6.67
168606412	314386	6KINGS M	230.0	DVP	314296	6PENNINGAN	230.0	DVP	1	DVP_P1-2: LN 563	single	441.799987793	120.24	120.75	DC	5.06
168606425	314415	6WALR209	230.0	DVP	314391	6LIGH209	230.0	DVP	1	DVP_P1-2: LN 567	single	441.799987793	127.22	127.9	DC	6.67
168606426	314415	6WALR209	230.0	DVP	314391	6LIGH209	230.0	DVP	1	DVP_P1-2: LN 563	single	441.799987793	100.14	100.65	DC	5.06
163454319	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P1-2: LN 2167	single	478.0	107.82	109.02	DC	5.76
163454322	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P1-2: LN 2177	single	478.0	102.05	103.26	DC	5.76
163455009	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE	230.0	CPL E	1	DVP_P7-1: LN 2058-2181	tower	478.0	178.66	179.61	DC	10.07
163454370	314591	6NASH	230.0	DVP	304226	6PA-RMOUNT#4	230.0	CPL E	1	DVP_P1-2: LN 2058	single	478.0	101.93	103.06	DC	5.38
163454166	314903	8CHCKAHM	500.0	DVP	314908	8ELMONT	500.0	DVP	1	DVP_P4-2: 562T563	breaker	3144.0	153.84	153.96	DC	42.66
163454359	314903	8CHCKAHM	500.0	DVP	314908	8ELMONT	500.0	DVP	1	DVP_P1-2: LN 563	single	2442.12011719	181.38	181.63	DC	26.62
163454360	314903	8CHCKAHM	500.0	DVP	314908	8ELMONT	500.0	DVP	1	DVP_P1-2: LN 576	single	2442.12011719	178.46	178.56	DC	26.77
163454326	314908	8ELMONT	500.0	DVP	314911	8LADYSMITH	500.0	DVP	1	DVP_P1-2: LN 576	single	2442.12011719	218.73	218.77	DC	29.08
163454329	314908	8ELMONT	500.0	DVP	314911	8LADYSMITH	500.0	DVP	1	DVP_P1-2: LN 563	single	2442.12011719	195.09	195.12	DC	24.78
163454391	314914	8MDLTHAN	500.0	DVP	314918	8NO ANNA	500.0	DVP	1	DVP_P1-2: LN 574	single	2442.12011719	173.5	173.75	DC	26.07

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
163454394	314914	8MDLTHAN	500.0	DVP	314918	8NO ANNA	500.0	DVP	1	DVP_P1-2: LN 557	single	2442.12011719	153.29	153.46	DC	24.44
163454174	314924	8SURREY	500.0	DVP	314903	8CHCKAHM	500.0	DVP	1	DVP_P4-2: 56372	breaker	3144.0	125.22	125.79	DC	37.49
163454175	314924	8SURREY	500.0	DVP	314903	8CHCKAHM	500.0	DVP	1	DVP_P4-2: 562T563	breaker	3144.0	112.13	112.69	DC	39.06
163454176	314924	8SURREY	500.0	DVP	314903	8CHCKAHM	500.0	DVP	1	DVP_P4-2: 563T576	breaker	3144.0	115.82	116.23	DC	38.33
169307668	316079	AB2-161 TAP	115.0	DVP	314273	3BAKRS P	115.0	DVP	1	DVP_P1-3: 8CARSON-TX#2	single	110.919998169	103.88	110.26	DC	7.08

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	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECTIONS LOADING %	POST PROJECTIONS LOADING %	AC/D C	MW IMPACT
168306042	313720	3NEWSOMS	115.0	DVP	314558	3BOYKINS	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	280.119995117	87.04	140.57	DC	149.93
168306135	313879	3BELL AVE 2	115.0	DVP	316079	AB2-161 TAP	115.0	DVP	1	DVP_P1-3: 8CARSON-TX#2	operation	110.919998169	117.27	121.73	DC	10.99
168306136	313879	3BELL AVE 2	115.0	DVP	316079	AB2-161 TAP	115.0	DVP	1	Base Case	operation	110.919998169	101.34	105.91	DC	11.26
168606405	314209	6SKIFF CREEK	230.0	DVP	314386	6KINGS M	230.0	DVP	1	DVP_P1-2: LN 567	operation	441.799987793	245.86	246.92	DC	10.35
168606640	314209	6SKIFF CREEK	230.0	DVP	314413	6WALR285	230.0	DVP	1	DVP_P1-2: LN 567	operation	678.679992676	140.93	141.59	DC	9.88
168606722	314225	6CHARCTY	230.0	DVP	314227	6LAKESIDE	230.0	DVP	1	DVP_P1-2: LN 563	operation	984.179992676	136.32	136.42	DC	10.44
168606820	314227	6LAKESIDE	230.0	DVP	314218	6ELMONT	230.0	DVP	1	DVP_P1-2: LN 557	operation	740.719970703	120.75	120.94	DC	10.51
168606710	314260	6VARINA	230.0	DVP	314225	6CHARCTY	230.0	DVP	1	DVP_P1-2: LN 563	operation	984.179992676	139.72	139.83	DC	10.44

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 DC	MW IMPACT
168606383	314273	3BAKRSP	115.0	DVP	314280	3NEWBOHE	115.0	DVP	1	Base Case	operation	110.919998169	207.65	212.22	DC	11.26
168606389	314280	3NEWBOHE	115.0	DVP	314329	3POE	115.0	DVP	1	Base Case	operation	110.919998169	197.19	201.76	DC	11.26
168606465	314287	6CHESTFB	230.0	DVP	314276	6BASIN	230.0	DVP	1	DVP_P1-2: LN 563	operation	663.640014648	192.48	193.2	DC	10.59
168606703	314287	6CHESTFB	230.0	DVP	314260	6VARINA	230.0	DVP	1	DVP_P1-2: LN 563	operation	984.179992676	140.08	140.19	DC	10.44
168606413	314296	6PENNIMAN	230.0	DVP	314415	6WALR209	230.0	DVP	1	DVP_P1-2: LN 567	operation	441.799987793	233.95	235.02	DC	10.35
168606551	314299	6HARROWG	230.0	DVP	314263	6TYLER1	230.0	DVP	1	DVP_P1-2: LN 563	operation	441.799987793	156.01	156.97	DC	9.42
168606876	314311	6IRON282	230.0	DVP	314307	6HULL282	230.0	DVP	1	DVP_P1-2: LN 563	operation	678.679992676	103.21	103.74	DC	7.95
168606830	314329	3POE	115.0	DVP	314291	3PRGEORG	115.0	DVP	1	DVP_P1-2: LN 2003	operation	246.279998779	104.69	106.44	DC	9.58
168606547	314331	6POE	230.0	DVP	314299	6HARROWG	230.0	DVP	1	DVP_P1-2: LN 563	operation	441.799987793	156.03	156.99	DC	9.42
168606851	314339	6SPRUNCE	230.0	DVP	314311	6IRON282	230.0	DVP	1	DVP_P1-2: LN 563	operation	678.679992676	108.67	109.2	DC	7.95
168606409	314386	6KINGSM	230.0	DVP	314296	6PENNIMAN	230.0	DVP	1	DVP_P1-2: LN 567	operation	441.799987793	237.91	238.98	DC	10.35
168606772	314390	6LIGH285	230.0	DVP	314214	6CHCKAHM	230.0	DVP	1	DVP_P1-2: LN 567	operation	678.679992676	120.35	121.02	DC	9.88
168606637	314391	6LIGH209	230.0	DVP	314388	6LANEXA	230.0	DVP	1	DVP_P1-2: LN 567	operation	663.640014648	137.27	137.98	DC	10.35
168606707	314413	6WALR285	230.0	DVP	314390	6LIGH285	230.0	DVP	1	DVP_P1-2: LN 567	operation	678.679992676	131.76	132.43	DC	9.88
168606423	314415	6WALR209	230.0	DVP	314391	6LIGH209	230.0	DVP	1	DVP_P1-2: LN 567	operation	441.799987793	217.81	218.88	DC	10.35
168606901	314524	3FRNKLN	115.0	DVP	314541	3WATKINS	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	269.779998779	49.38	104.99	DC	150.0
168306270	314526	3HANDSOM	115.0	DVP	313720	3NEWSOMS	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	280.119995117	51.35	104.89	DC	149.96
168606897	314534	3SHAMPT	115.0	DVP	314526	3HANDSOM	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	280.119995117	52.28	105.81	DC	149.96
168606848	314536	3SUFFOLK	115.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P1-3: 6SUFFOLK-TX#5	operation	248.441986084	85.42	106.34	DC	51.97
168907396	314558	3BOYKINS	115.0	DVP	314587	3MARGTSV	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	280.119995117	97.51	131.88	DC	96.29
168907415	314558	3BOYKINS	115.0	DVP	964800	AG1-343TAP	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	116.559997559	88.62	134.64	DC	53.64
163454318	314574	6EVERETS	230.0	DVP	304451	6GREENVILLE T	230.0	CPL E	1	Base Case	operation	478.0	126.4	127.12	DC	7.73
168907385	314580	3MAPLETN	115.0	DVP	957520	AF2-046TAP	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	142.880004883	99.38	136.92	DC	53.64

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 DC	MW IMPACT
1689073 98	31458 7	3MARGTS V	115.0	DVP	31460 4	3SEABOR D	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	280.119995 117	97.26	131.63	DC	96.29
1689073 75	31458 9	3MURPHY S	115.0	DVP	31458 0	3MAPLET N	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	142.880004 883	104.14	141.68	DC	53.64
1683059 90	31460 4	3SEABOR D	115.0	DVP	31372 3	3PECAN	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	280.119995 117	95.61	129.99	DC	96.29
1689072 43	31461 7	3TUNIS	115.0	DVP	31455 1	3AHOSKIE	115.0	DVP	1	Base Case	operation	142.880004 883	157.31	159.93	DC	8.3
1634543 64	31490 3	8CHCKAH M	500.0	DVP	31490 8	8ELMONT	500.0	DVP	1	Base Case	operation	2442.12011 719	159.44	159.53	DC	32.88
1634544 56	31492 4	8SURREY	500.0	DVP	31490 3	8CHCKAH M	500.0	DVP	1	DVP_P1-2: LN 563	operation	2442.12011 719	146.16	146.24	DC	37.43
1634544 63	31492 4	8SURREY	500.0	DVP	31490 3	8CHCKAH M	500.0	DVP	1	Base Case	operation	2442.12011 719	102.76	102.88	DC	28.81
1634545 76	31492 8	8SUFFOLK	500.0	DVP	31492 4	8SURREY	500.0	DVP	1	DVP_P1-2: LN 579	operation	2442.12011 719	105.73	106.27	DC	37.62
1693076 66	31607 9	AB2-161 TAP	115.0	DVP	31427 3	3BAKRSP	115.0	DVP	1	DVP_P1-3: 8CARSON-TX#2	operation	110.919998 169	192.62	197.08	DC	10.99
1693076 67	31607 9	AB2-161 TAP	115.0	DVP	31427 3	3BAKRSP	115.0	DVP	1	Base Case	operation	110.919998 169	177.65	182.22	DC	11.26
1686068 64	93259 0	AC2-079 TAP	115.0	DVP	31452 8	3IVOR106	115.0	DVP	1	DVP_P1-2: LN 2002	operation	110.919998 169	100.62	104.92	DC	10.59
1698351 37	95752 0	AF2-046 TAP	115.0	DVP	31461 7	3TUNIS	115.0	DVP	1	Base Case	operation	142.880004 883	157.38	160.0	DC	8.3
1698351 88	96185 0	AG1-027 TAP	115.0	DVP	31453 6	3SUFFOLK	115.0	DVP	1	DVP_P1-2: LN 1010	operation	269.779998 779	135.05	184.84	DC	134.3 3
1698351 90	96185 0	AG1-027 TAP	115.0	DVP	31453 6	3SUFFOLK	115.0	DVP	1	Base Case	operation	247.220001 221	112.55	163.18	DC	125.1 6
1689073 78	96480 0	AG1-343 TAP	115.0	DVP	31458 9	3MURPHY S	115.0	DVP	1	DVP_P1-2: LN 68-B	operation	116.559997 559	88.62	134.64	DC	53.64

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
163454359,163 454166,163454 360	21	8CHCKAHM 500.0 kV - 8ELMONT 500.0 kV Ckt 1	<u>DVP</u> dom-183 (1360) : Build new 500 kV Line from Rawlings to Morrisville Substation 110 miles Project Type : CON Cost : \$400,000,000 Time Estimate : 60-72 Months n6207 (1418) : Rebuild 27.72 miles of 500 kV Line 557 from Chickahominy to Elmont with 3-1351.5 113C ACSR. Project Type : FAC Cost : \$85,932,000 Time Estimate : 48-60 Months	\$485,932,000
163454326,163 454329	22	8ELMONT 500.0 kV - 8LADYSMITH 500.0 kV Ckt 1	b3020 (1162) : PJM baseline upgrade b3020: Rebuild 500kV Line #574 Ladysmith to Elmont - 26.2 miles long. The baseline project has an projected in-service date of 12/31/2022. Project Type : FAC Cost : \$0	
163454394,163 454391	23	8MDLTHAN 500.0 kV - 8NO ANNA 500.0 kV Ckt 1	<u>DVP</u> n5609 (1374) : Rebuild 41.13 miles of 500 kV Line 576 from Midlothian to North Anna with 3-1351.5 125C ACSR. Project Type : FAC Cost : \$127,503,000 Time Estimate : 48-60 Months n6055 (1379) : Replace Wave traps at Midlothian and North Anna 500kV substations Project Type : FAC Cost : \$300,000 Time Estimate : 16-18 Months	\$127,803,000
169307668	25	AB2-161 TAP 115.0 kV - 3BAKRS P 115.0 kV Ckt 1	<u>DVP</u> dom-382 (1608) : Reconductor 13.9 miles of 115 kV Line 106 from AB2-161 Tap to Bakers Pond DP with 636 ACSR 150 C. Project Type : FAC Cost : \$8,340,000 Time Estimate : 36-40 Months	\$8,340,000
168606603	9	6NRTHEST 230.0 kV - 6ELMONT 230.0 kV Ckt 1	<u>DVP</u> dom-156 (1333) : Rebuild 12.98 miles of 230 kV Line 283 from Elmont to Northeast with 2-636 ACSR Project Type : FAC Cost : \$19,470,000 Time Estimate : 30-36 Months	\$19,470,000

ID	Idx	Facility	Upgrade Description	Cost
168606408,168 606407	6	6SKIFF CREEK 230.0 kV - 6KINGS M 230.0 kV Ckt 1	<u>DVP</u> n6443 (1249) : Rebuild 1.55 miles of 230 kV Line 2154 from Skiffes Creek to Kings Mill with 2-636 ACSR. Project Type : FAC Cost : \$3,875,000 Time Estimate : 30-36 Months	\$3,875,000
168606411,168 606412	17	6KINGS M 230.0 kV - 6PENNIMAN 230.0 kV Ckt 1	<u>DVP</u> b3057 (1167) : PJM Baseline Upgrade b3057. Rebuild 6.1 miles of Waller-Skiff's Creek 230 kV Line (#2154) between Waller and Kings Mill to current standards with a minimum summer emergency rating of 1047 MVA utilizing single circuit steel structures. Remove this 6.1 mile section of Line #58 between Waller and Kings Mill. Rebuild the 1.6 miles of Line #2154 and #19 between Kings Mill and Skiffs Creek to current standards with a minimum summer emergency rating of 1047 MVA at 230 kV for Line #2154 and 261 MVA at 115 kV for Line #19, utilizing double circuit steel structures. The baseline project has an projected in-service date of 12/30/2024. Project Type : CON Cost : \$0	\$0
168606415,168 606416	12	6PENNIMAN 230.0 kV - 6WALR209 230.0 kV Ckt 1		
169835191,169 835193,169835 192	4	AG1-027 TAP 115.0 kV - 3SUFFOLK 115.0 kV Ckt 1	<u>DVP</u> dom-411 (1637) : Reconnector 6.45 miles of 115 kV Line 68 from AG1-027 Tap to Suffolk with 786.2 ACSS 250 C. Replace Wave Trap at Suffolk terminal. Project Type : FAC Cost : \$4,020,000 Time Estimate : 36-40 Months	\$4,020,000
163454382	5	6HATHAWAY 230.0 kV - 6ROCKYMT230T 230.0 kV Ckt 1	<u>DVP</u> n6441 (1173) : For DEV portion, rebuild 4.13 miles of 230 kV Line 2058 from Hathaway to Rocky Mountain with 2-636 ACSR. Project Type : FAC Cost : \$10,325,000 Time Estimate : 30-36 Months <u>CPL</u> The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase.	\$10,325,000
163454319,163 455009,163454 322	19	6EVERETS 230.0 kV - 6GREENVILE T 230.0 kV Ckt 1	<u>DVP</u> dom-173 (1351) : Rebuild 20.32 miles of 230 kV Line 218 from Everetts to Greenville with 2-636 ACSR Project Type : FAC Cost : \$30,480,000 Time Estimate : 30-36 Months <u>CPL</u> The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase.	\$30,480,000

ID	Idx	Facility	Upgrade Description	Cost
163454370	20	6NASH 230.0 kV - 6PA- RMOUNT#4 230.0 kV Ckt 1	<u>DVP</u> n6444 (1176) : For DEV portion, rebuild 3.3 miles of 230 kV Line 2181 from Nash to Parmount with 2-636 ACSR. Project Type : FAC Cost : \$8,250,000 Time Estimate : 30-36 Months <u>CPL</u> The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase.	\$8,250,000
168606392	1	3NEWBOHE 115.0 kV - 3POE 115.0 kV Ckt 1	<u>DVP</u> n6209 (1240) : Rebuild 2.68 miles of Line 106 from New Bohemia DP to Poe with 636 ACSR. Project Type : FAC Cost : \$3,484,000 Time Estimate : 30-36 Months	\$3,484,000
168606552,168 606554	13	6HARROWG 230.0 kV - 6TYLER1 230.0 kV Ckt 1	<u>DVP</u> n6178 (1412) : Rebuild 4.5 miles of 230 kV Line 2003 from Harrowgate to Tyler with 2-636 ACSR. Project Type : FAC Cost : \$11,250,000 Time Estimate : 30-36 Months	\$11,250,000
168606550,168 606548	16	6POE 230.0 kV - 6HARROWG 230.0 kV Ckt 1	<u>DVP</u> n6179 (1413) : Rebuild 12.3 miles of 230 kV Line 2003 from Poe to Harrowgate with 2-636 ACSR. Project Type : FAC Cost : \$30,750,000 Time Estimate : 30-36 Months	\$30,750,000
168606425,168 606426	18	6WALR209 230.0 kV - 6LIGH209 230.0 kV Ckt 1	<u>DVP</u> b3056 (1166) : PJM Baseline Upgrade b3056. Partial Rebuild 230 kV Line #2113 Waller to Lightfoot. The baseline project has an projected in-service date of 12/30/2024. Project Type : FAC Cost : \$0 Time Estimate : N/A Months	\$0

ID	Idx	Facility	Upgrade Description	Cost
168606464	14	6HOPEWLL 230.0 kV - 6CHESTF A 230.0 kV Ckt 1	<u>DVP</u> b2922 (1158) : PJM Baseline Upgrade b2922. Rebuild 8 of 11 miles of 230kV Lines #211 and #228 to current standard with a summer emergency rating of 1046 MVA for rebuilt section. Proposed conductor is 2-636 ACSR. The baseline project has an projected in-service date of 12/01/2020. Project Type : FAC Cost : \$0 Time Estimate : N/A Months n6155 (1397) : Rebuild 3 miles of 230 kV Line 211 from Hopewell to Chesterfield with 2-636 ACSR. Project Type : FAC Cost : \$7,500,000 Time Estimate : 30-36 Months	\$7,500,000
163454174,163 454175,163454 176	24	8SURREY 500.0 kV - 8CHCKAHM 500.0 kV Ckt 1	<u>DVP</u> n6324 (1217) : Replace Terminal Equipment at Surry and Chickahominy Substations Project Type : FAC Cost : \$4,000,000 Time Estimate : 16-18 Months dom-258 (1484) : Rebuild 44.44 miles of 500 kV Line 567 from Surry to Chickahominy with 3-1351.5 ACSR. Project Type : FAC Cost : \$137,764,000 Time Estimate : 48-60 Months	\$141,764,000
166876935	15	3POE 115.0 kV - 3PRGEORG 115.0 kV Ckt 1	<u>DVP</u> dom-043 (1220) : Rebuild 3.45 miles of 115 kV Line 121 from Poe to Prince George with 768 ACSS. Project Type : FAC Cost : \$4,485,000 Time Estimate : 30-36 Months	\$4,485,000
168606596	8	6ELMONT 230.0 kV - 8ELMONT 500.0 kV Ckt 1	<u>DVP</u> n6127 (1386) : Add additional 500/230 kV transformer at Elmont Substation Project Type : CON Cost : \$22,000,000 Time Estimate : 16-18 Months	\$22,000,000
168606568	7	6ELMONT 230.0 kV - 8ELMONT 500.0 kV Ckt 2		

ID	Idx	Facility	Upgrade Description	Cost
168606386	10	3BAKRS P 115.0 kV - 3NEWBOHE 115.0 kV Ckt 1	<u>DVP</u> n6205 (1417) : Rebuild 2.45 miles of Line 106 from Bakers Pond DP to New Bohemia DP with 636 ACSR. Project Type : FAC Cost : \$3,185,000 Time Estimate : 30-36 Months	\$3,185,000
168907245	2	3TUNIS 115.0 kV - 3AHOSKIE 115.0 kV Ckt 1	<u>DVP</u> dom-327 (1553) : Reconductor 7.98 miles of 115 kV Line 136 from Tunis to Ahoskie with 768.2 ACSS 250 C. Replace Line Switch and Line Lead at Ahoskie terminal. Replace Relay (Secondary CT), Relay Trip and Line Switch at Tunis terminal. Project Type : FAC Cost : \$5,308,000 Time Estimate : 30-36 Months	\$5,308,000
169835139	3	AF2-046 TAP 115.0 kV - 3TUNIS 115.0 kV Ckt 1	<u>DVP</u> dom-407 (1633) : Reconductor 9 miles of 115 kV Line 108 from AF2-046 Tap to Tunis with 768.2 ACSS 250 C. Replace relay (Secondary CT) at Tunis terminal. Project Type : FAC Cost : \$5,520,000 Time Estimate : 30-36 Months	\$5,520,000
168606467,168606468	11	6CHESTF B 230.0 kV - 6BASIN 230.0 kV Ckt 1	<u>DVP</u> n6130 (1387) : Rebuild 12.4 miles of 230 kV Line 259 from Chesterfield to Basin with 2-636 ACSR. Project Type : FAC Cost : \$31,000,000 Time Estimate : 30-36 Months dom-301 (1527) : Rebuild 12.4 miles of 230 kV Line 259 from Chesterfield to Basin with 2-795 ACSR 150 C. Replace Breaker Switch and Wave Trap at Basin terminal Project Type : FAC Cost : \$31,450,000 Time Estimate : 36-40 Months	\$62,450,000
			TOTAL COST	\$996,191,000¹

11.6 Flow Gate Details

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

11.6.1 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
168606392	314280	3NEWBOHE	DVP	314329	3POE	DVP	1	Base Case	single	110.92	96.36	102.89	DC	7.25

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315115	1S HAMPT1	0.4195	80/20	0.4195
316083	AB2-161 C (Suspended)	13.6621	80/20	13.6621
316103	AB2-015 C	2.6925	80/20	2.6925
932581	AC2-078 C O1	-1.3793	Adder	-1.62
932591	AC2-079 C O1	13.7039	80/20	13.7039
934575	AD1-082 C	31.1353	80/20	31.1353
938634	AE1-085 C	37.8365	80/20	37.8365
938771	AE1-103 C	1.3047	80/20	1.3047
940061	AE2-000BC O1	41.0898	80/20	41.0898
941101	AE2-104 C O1	1.5772	80/20	1.5772
958161	AF2-110 C	0.6502	80/20	0.6502
961091	AF2-400 C	0.1454	80/20	0.1454
961851	AG1-027 C	7.2489	80/20	7.2489
966731	AG1-544 C	29.5503	80/20	29.5503
WEC	WEC	0.0151	Confirmed LTF	0.0151
LGEE	LGEE	0.0308	Confirmed LTF	0.0308
CPL	CPL	0.2054	Confirmed LTF	0.2054
CBM-W2	CBM-W2	0.7168	Confirmed LTF	0.7168
NY	NY	0.0293	Confirmed LTF	0.0293
TVA	TVA	0.1386	Confirmed LTF	0.1386
SIGE	SIGE	0.0119	Confirmed LTF	0.0119
CBM-S2	CBM-S2	2.2759	Confirmed LTF	2.2759
CBM-S1	CBM-S1	0.0342	Confirmed LTF	0.0342
MEC	MEC	0.0938	Confirmed LTF	0.0938
LAGN	LAGN	0.1732	Confirmed LTF	0.1732
CBM-W1	CBM-W1	0.6169	Confirmed LTF	0.6169

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
168907245	314617	3TUNIS	DVP	314551	3AHOSKIE	DVP	1	Base Case	single	142.88	99.29	103.03	DC	5.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314589	3MURPHYS	0.2245	80/20	0.2245
315115	1S HAMPT1	1.3720	80/20	1.3720
315607	3AA1-063SOLA	0.8568	80/20	0.8568
315608	3AA2-088SOLA	1.3287	80/20	1.3287
316103	AB2-015 C	7.3710	80/20	7.3710
938771	AE1-103 C	2.3400	80/20	2.3400
957521	AF2-046 C	50.4848	80/20	50.4848
961091	AF2-400 C	0.3980	80/20	0.3980
961681	AG1-008 C	50.5860	80/20	50.5860
961851	AG1-027 C	5.3468	80/20	5.3468
961931	AG1-036 C	5.3163	80/20	5.3163
964801	AG1-343 C	9.3601	80/20	9.3601
965291	AG1-394 C	2.7781	80/20	2.7781
G-007A	G-007A	0.0288	Confirmed LTF	0.0288
VFT	VFT	0.0774	Confirmed LTF	0.0774
CALDERWOOD	CALDERWOOD	0.0562	Confirmed LTF	0.0562
PRAIRIE	PRAIRIE	0.1937	Confirmed LTF	0.1937
CHEOAH	CHEOAH	0.0576	Confirmed LTF	0.0576
CBM-N	CBM-N	0.0132	Confirmed LTF	0.0132
COTTONWOOD	COTTONWOOD	0.2100	Confirmed LTF	0.2100
HAMLET	HAMLET	0.1299	Confirmed LTF	0.1299
GIBSON	GIBSON	0.0339	Confirmed LTF	0.0339
BLUEG	BLUEG	0.1042	Confirmed LTF	0.1042
TRIMBLE	TRIMBLE	0.0334	Confirmed LTF	0.0334
CATAWBA	CATAWBA	0.0602	Confirmed LTF	0.0602

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
169835139	957520	AF2-046 TAP	DVP	314617	3TUNIS	DVP	1	Base Case	single	142.88	99.36	103.1	DC	5.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314589	3MURPHYS	0.2245	80/20	0.2245
315115	1S HAMPT1	1.3720	80/20	1.3720
315607	3AA1-063SOLA	0.8568	80/20	0.8568
315608	3AA2-088SOLA	1.3287	80/20	1.3287
316103	AB2-015 C	7.3710	80/20	7.3710
938771	AE1-103 C	2.3400	80/20	2.3400
957521	AF2-046 C	50.4848	80/20	50.4848
961091	AF2-400 C	0.3980	80/20	0.3980
961681	AG1-008 C	50.5860	80/20	50.5860
961851	AG1-027 C	5.3468	80/20	5.3468
964801	AG1-343 C	9.3601	80/20	9.3601
965291	AG1-394 C	2.7781	80/20	2.7781
G-007A	G-007A	0.0288	Confirmed LTF	0.0288
VFT	VFT	0.0774	Confirmed LTF	0.0774
CALDERWOOD	CALDERWOOD	0.0562	Confirmed LTF	0.0562
PRAIRIE	PRAIRIE	0.1937	Confirmed LTF	0.1937
CHEOAH	CHEOAH	0.0576	Confirmed LTF	0.0576
CBM-N	CBM-N	0.0132	Confirmed LTF	0.0132
COTTONWOOD	COTTONWOOD	0.2100	Confirmed LTF	0.2100
HAMLET	HAMLET	0.1299	Confirmed LTF	0.1299
GIBSON	GIBSON	0.0339	Confirmed LTF	0.0339
BLUEG	BLUEG	0.1042	Confirmed LTF	0.1042
TRIMBLE	TRIMBLE	0.0334	Confirmed LTF	0.0334
CATAWBA	CATAWBA	0.0602	Confirmed LTF	0.0602

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
169835192	961850	AG1-027 TAP	DVP	314536	3SUFFOLK	DVP	1	DVP_P1-2: LN 108-C	single	269.78	82.78	113.49	DC	82.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.7476	80/20	2.7476
314572	3EMPORIA	0.1276	80/20	0.1276
314589	3MURPHYS	0.2267	80/20	0.2267
315115	1S HAMPT1	5.0559	80/20	5.0559
315126	1ROARAP2	0.7800	80/20	0.7800
315128	1ROARAP4	0.7443	80/20	0.7443
315606	3AA2-053SOLA	0.7396	80/20	0.7396
315607	3AA1-063SOLA	1.8868	80/20	1.8868
315608	3AA2-088SOLA	2.8057	80/20	2.8057
316087	AB2-174 C	0.4095	80/20	0.4095
316103	AB2-015 C	32.0905	80/20	32.0905
316129	AC1-054 C	2.9570	80/20	2.9570
923991	AB2-040 C O1	2.9924	80/20	2.9924
927145	AC1-208 C	3.1135	80/20	3.1135
938771	AE1-103 C	15.2487	80/20	15.2487
957521	AF2-046 C	44.3940	80/20	44.3940
961091	AF2-400 C	1.7329	80/20	1.7329
961681	AG1-008 C	44.4830	80/20	44.4830
961851	AG1-027 C	82.8345	80/20	82.8345
964501	AG1-313 C O1	1.9613	80/20	1.9613
964801	AG1-343 C	15.5691	80/20	15.5691
965291	AG1-394 C	5.3380	80/20	5.3380
965721	AG1-440 C	2.2671	80/20	2.2671
965731	AG1-441 C	2.2671	80/20	2.2671
965771	AG1-445	1.3099	80/20	1.3099
965781	AG1-446	1.3099	80/20	1.3099
966751	AG1-546 C	6.8149	80/20	6.8149
966811	AG1-552 C	1.2385	80/20	1.2385
WEC	WEC	0.0397	Confirmed LTF	0.0397
LGEE	LGEE	0.0823	Confirmed LTF	0.0823
CPL	CPL	0.4941	Confirmed LTF	0.4941
CBM-W2	CBM-W2	1.7920	Confirmed LTF	1.7920
NY	NY	0.0702	Confirmed LTF	0.0702
TVA	TVA	0.3416	Confirmed LTF	0.3416
SIGE	SIGE	0.0298	Confirmed LTF	0.0298
CBM-S2	CBM-S2	5.4497	Confirmed LTF	5.4497
CBM-S1	CBM-S1	0.0851	Confirmed LTF	0.0851
MEC	MEC	0.2415	Confirmed LTF	0.2415
LAGN	LAGN	0.4253	Confirmed LTF	0.4253
CBM-W1	CBM-W1	1.6403	Confirmed LTF	1.6403

11.6.5 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
163454382	313845	6HATHAWAY	DVP	304222	6ROCKYMT230T	CPL	1	DVP_P1-2: LN 2181	single	478.0	101.73	102.86	DC	5.4

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	4.9769	80/20	4.9769
313719	3CHESTNUT	1.3428	80/20	1.3428
314435	6SAPONY	0.1633	80/20	0.1633
314572	3EMPORIA	0.2896	80/20	0.2896
314582	3KELFORD	0.2906	80/20	0.2906
314589	3MURPHYS	0.0557	80/20	0.0557
314623	3WITAKRS	0.2693	80/20	0.2693
314704	3LAWRENC	0.1555	80/20	0.1555
315115	1S HAMPT1	0.7175	80/20	0.7175
315126	1ROARAP2	1.0817	80/20	1.0817
315128	1ROARAP4	1.0323	80/20	1.0323
315131	1EDGECEMA (Deactivation : 22/04/2019)	25.4510	80/20	25.4510
315132	1EDGECEMB (Deactivation : 22/04/2019)	25.4510	80/20	25.4510
315136	1ROSEMG1	2.6866	80/20	2.6866
315137	1ROSEMS1	1.6660	80/20	1.6660
315138	1ROSEMG2	1.2591	80/20	1.2591
315139	1GASTONA	3.3238	80/20	3.3238
315141	1GASTONB	3.3238	80/20	3.3238
315292	1DOMTR78	0.7947	80/20	0.7947
315293	1DOMTR9	4.1102	80/20	4.1102
315294	1DOMTR10	5.0370	80/20	5.0370
315601	1CONETOE2SOL	2.3712	80/20	2.3712
315602	1HOLLOMANSOL	0.9675	80/20	0.9675
315605	6W1-029WIND	0.3244	80/20	0.3244
315606	3AA2-053SOLA	1.1540	80/20	1.1540
315607	3AA1-063SOLA	0.9931	80/20	0.9931
315608	3AA2-088SOLA	0.6088	80/20	0.6088
315611	6Z1-036WIND	0.3884	80/20	0.3884
315614	AA2-178 C	0.7254	80/20	0.7254
316020	AB2-059 C OP	2.7008	80/20	2.7008
316087	AB2-174 C	0.7985	80/20	0.7985
316096	AB2-100 C1	0.6775	80/20	0.6775
316098	AB2-100 C2	0.6775	80/20	0.6775
316103	AB2-015 C	4.0585	80/20	4.0585
316129	AC1-054 C	3.7242	80/20	3.7242
316140	AB2-099 C (Suspended)	0.4120	80/20	0.4120
920591	AA2-165 C	0.1803	80/20	0.1803
922922	AB1-081 C OP	2.2916	80/20	2.2916
923991	AB2-040 C O1	5.4204	80/20	5.4204
925121	AB2-169 C	0.6730	80/20	0.6730

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925591	AC1-034 C	11.0881	80/20	11.0881
926070	AC1-086 C	23.6910	80/20	23.6910
926201	AC1-098 C	6.0769	80/20	6.0769
926211	AC1-099 C	2.0364	80/20	2.0364
927024	AC1-189 C	12.4064	80/20	12.4064
927145	AC1-208 C	9.3283	80/20	9.3283
932631	AC2-084 C	8.6628	80/20	8.6628
933991	AD1-023 C	7.6814	80/20	7.6814
934331	AD1-057 C O1	20.4104	80/20	20.4104
934521	AD1-076 C	29.9373	80/20	29.9373
936401	AD2-051 C O1	6.1020	80/20	6.1020
938221	AE1-035 C	0.2419	80/20	0.2419
938771	AE1-103 C	1.4969	80/20	1.4969
940481	AE2-033 C	7.2695	80/20	7.2695
940491	AE2-034 C	3.4486	80/20	3.4486
940541	AE2-040	1.1775	80/20	1.1775
940571	AE2-044 C	7.2624	80/20	7.2624
941501	AE2-147 C	4.7457	80/20	4.7457
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1236	80/20	0.1236
942471	AE2-260 C O1	9.9463	80/20	9.9463
943171	AE2-346 C	0.9888	80/20	0.9888
943911	AF1-059	6.8508	80/20	6.8508
944141	AF1-082	4.6687	80/20	4.6687
944871	AF1-152 C	1.5819	80/20	1.5819
945711	AF1-236 C O1	37.7542	80/20	37.7542
946011	AF1-266	6.0852	80/20	6.0852
946281	AF1-292 C	1.0047	80/20	1.0047
957521	AF2-046 C	11.0658	80/20	11.0658
957531	AF2-047 C	8.1946	80/20	8.1946
957861	AF2-080 C	11.2680	80/20	11.2680
959511	AF2-242 C	5.1822	80/20	5.1822
960081	AF2-299 C	1.6934	80/20	1.6934
961091	AF2-400 C	0.2192	80/20	0.2192
961671	AG1-007 C	2.4920	80/20	2.4920
961681	AG1-008 C	11.0880	80/20	11.0880
961851	AG1-027 C	5.3990	80/20	5.3990
961931	AG1-036 C	0.9275	80/20	0.9275
961941	AG1-037 C	0.3532	80/20	0.3532
962331	AG1-082 C	1.4126	80/20	1.4126
962341	AG1-083 C	1.4126	80/20	1.4126
962351	AG1-084 C	1.2651	80/20	1.2651
962361	AG1-085 C	1.2651	80/20	1.2651
962571	AG1-106 C	6.5883	80/20	6.5883
963301	AG1-179 C	2.7897	80/20	2.7897
963311	AG1-180	1.3592	80/20	1.3592
964491	AG1-312 C O1	12.5787	80/20	12.5787
964501	AG1-313 C O1	3.5955	80/20	3.5955
964801	AG1-343 C	3.6792	80/20	3.6792
965291	AG1-394 C	1.2510	80/20	1.2510
965451	AG1-413 C O1	2.8798	80/20	2.8798
965601	AG1-428 C O1	2.3289	80/20	2.3289
965631	AG1-431	21.8577	80/20	21.8577

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965691	AG1-437 C O1	6.1932	80/20	6.1932
965701	AG1-438 C O1	6.1932	80/20	6.1932
965711	AG1-439 C O1	42.5370	80/20	42.5370
965721	AG1-440 C	2.5713	80/20	2.5713
965731	AG1-441 C	2.5713	80/20	2.5713
965741	AG1-442 O1	3.6127	80/20	3.6127
965751	AG1-443 O1	3.6127	80/20	3.6127
965761	AG1-444 O1	22.6864	80/20	22.6864
965771	AG1-445	1.4856	80/20	1.4856
965781	AG1-446	1.4856	80/20	1.4856
966621	AG1-532 C	0.9144	80/20	0.9144
966751	AG1-546 C	8.7116	80/20	8.7116
966801	AG1-551 C	1.6845	80/20	1.6845
966811	AG1-552 C	1.7175	80/20	1.7175
966931	AG1-431A	16.4220	80/20	16.4220
G-007A	G-007A	0.8583	Confirmed LTF	0.8583
VFT	VFT	2.2898	Confirmed LTF	2.2898
CALDERWOOD	CALDERWOOD	1.0815	Confirmed LTF	1.0815
PRAIRIE	PRAIRIE	3.7557	Confirmed LTF	3.7557
CHEOAH	CHEOAH	1.1081	Confirmed LTF	1.1081
CBM-N	CBM-N	0.4152	Confirmed LTF	0.4152
COTTONWOOD	COTTONWOOD	4.0047	Confirmed LTF	4.0047
HAMLET	HAMLET	2.3123	Confirmed LTF	2.3123
GIBSON	GIBSON	0.6656	Confirmed LTF	0.6656
BLUEG	BLUEG	2.0572	Confirmed LTF	2.0572
TRIMBLE	TRIMBLE	0.6533	Confirmed LTF	0.6533
CATAWBA	CATAWBA	1.1602	Confirmed LTF	1.1602

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
168606407	314209	6SKIFF CREEK	DVP	314386	6KINGS M	DVP	1	DVP_P1-2: LN 567	single	441.8	155.26	155.94	DC	6.67

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1610	80/20	0.1610
314295	6BIRDNECK	0.0194	80/20	0.0194
314421	6WINCHST	0.1065	80/20	0.1065
314491	3PENDLTN	0.1449	80/20	0.1449
314507	3THOMPSN	0.1454	80/20	0.1454
314638	6ELIZ CT	0.0941	80/20	0.0941
314639	6TANGLEW	0.1715	80/20	0.1715
314643	3O INLET	0.1897	80/20	0.1897
315092	1YORKTN3	19.6878	80/20	19.6878
315098	1CHESPKA	0.1923	80/20	0.1923
315099	1CHESPKB (Deactivation : 31/05/2019)	1.3332	80/20	1.3332
315108	1ELIZAR1	1.4176	80/20	1.4176
315109	1ELIZAR2	1.3929	80/20	1.3929
315110	1ELIZAR3	1.4357	80/20	1.4357
315116	1SURRY 1	9.3889	80/20	9.3889
315120	1GRAVEL4	0.9660	80/20	0.9660
315122	1GRAVEL6	0.9649	80/20	0.9649
315233	1SURRY 2	14.2114	80/20	14.2114
315260	1GOSPORTA	0.1535	80/20	0.1535
315261	1GOSPORTB	0.1961	80/20	0.1961
315262	1GOSPORTC	0.1664	80/20	0.1664
315293	1DOMTR9	2.0576	Adder	2.42
315294	1DOMTR10	2.5215	Adder	2.97
315603	6AA1-139SOLA	1.0029	80/20	1.0029
315605	6W1-029WIND	0.4711	80/20	0.4711
315611	6Z1-036WIND	0.4492	80/20	0.4492
316103	AB2-015 C	2.6142	Adder	3.08
316140	AB2-099 C (Suspended)	0.1612	Adder	0.19
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.1324	80/20	0.1324
316258	AE1-162 C	0.1417	80/20	0.1417
925863	AC1-065 C	-5.0524	Adder	-5.94
926661	AC1-147 C	0.1626	80/20	0.1626
926754	AC1-161 C	15.4929	80/20	15.4929
926784	AC1-164 C	-14.7667	Adder	-17.37
932044	AC2-012 C	4.6632	80/20	4.6632
933294	AC2-141 C	15.4929	80/20	15.4929
933731	AC2-196 C	0.1297	80/20	0.1297
933991	AD1-023 C	4.0400	Adder	4.75
934061	AD1-033 C	3.4520	80/20	3.4520
934141	AD1-041 C	-3.3367	Adder	-3.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934521	AD1-076 C	17.0999	Adder	20.12
935111	AD1-144 C	0.1311	80/20	0.1311
936401	AD2-051 C O1	2.5103	Adder	2.95
936661	AD2-085 C	0.9742	Adder	1.15
937221	AD2-160 C O1	2.6630	80/20	2.6630
938535	AE1-072 C	7.9537	80/20	7.9537
938771	AE1-103 C	1.1504	Adder	1.35
939414	AE1-173_C1	9.2677	Adder	10.9
939415	AE1-173_C2	7.9438	Adder	9.35
939416	AE1-173_C3	9.2677	Adder	10.9
939431	AE1-175 C	1.2929	80/20	1.2929
940231	AE2-005 C	-0.9186	Adder	-1.08
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	79.4303	80/20	79.4303
940491	AE2-034 C	2.3762	Adder	2.8
940641	AE2-051 C O1	4.5013	Adder	5.3
940891	AE2-078 C	1.0890	80/20	1.0890
940901	AE2-079 C	1.0890	80/20	1.0890
941101	AE2-104 C O1	1.3615	80/20	1.3615
941281	AE2-122 C O1	13.0346	80/20	13.0346
941291	AE2-123 C O1	13.3955	80/20	13.3955
941301	AE2-124 C O1	12.1844	80/20	12.1844
941501	AE2-147 C	6.8913	80/20	6.8913
941591	AE2-156 O1	8.1940	80/20	8.1940
942131	AE2-225 C	0.9659	80/20	0.9659
942171	AE2-229 C	0.7244	80/20	0.7244
942341	AE2-247 C	0.4210	Adder	0.5
942401	AE2-253 C	2.8011	80/20	2.8011
943171	AE2-346 C	0.3868	Adder	0.46
943461	AF1-017 C	0.3809	Adder	0.45
943611	AF1-032 C	0.7888	80/20	0.7888
943621	AF1-033 C	1.0890	80/20	1.0890
944581	AF1-123 C O1	22.4486	80/20	22.4486
944591	AF1-124 C O1	22.4486	80/20	22.4486
944601	AF1-125 C O1	22.4486	80/20	22.4486
944871	AF1-152 C	2.2971	80/20	2.2971
945361	AF1-201 C O1	6.4395	80/20	6.4395
945711	AF1-236 C O1	26.0136	Adder	30.6
957491	AF2-043 C	0.9659	80/20	0.9659
957521	AF2-046 C	4.6173	Adder	5.43
957531	AF2-047 C	5.6463	Adder	6.64
957631	AF2-057	1.6362	80/20	1.6362
957821	AF2-076 C	2.3502	80/20	2.3502
957871	AF2-081 C	4.5231	80/20	4.5231
958161	AF2-110 C	0.5613	80/20	0.5613
959511	AF2-242 C	2.0146	Adder	2.37
961091	AF2-400 C	0.1412	Adder	0.17
961611	AG1-000B C	2.5440	Adder	5.65
961681	AG1-008 C	2.4521	Adder	5.44
961851	AG1-027 C	3.0032	Adder	6.67
961931	AG1-036 C	0.1981	Adder	0.44
961941	AG1-037 C	0.0732	Adder	0.16

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.9900	80/20	0.9900
962331	AG1-082 C	0.2929	Adder	0.65
962341	AG1-083 C	0.2929	Adder	0.65
962351	AG1-084 C	0.2558	Adder	0.57
962361	AG1-085 C	0.2558	Adder	0.57
962961	AG1-145 C	1.1665	80/20	1.1665
963291	AG1-178 C O1	9.0334	Adder	20.05
963351	AG1-184 O1	4.8667	Adder	10.8
963821	AG1-235 C O1	11.0336	80/20	11.0336
964491	AG1-312 C O1	2.8942	Adder	6.42
964801	AG1-343 C	0.8615	Adder	1.91
964951	AG1-359 O1	12.3330	80/20	12.3330
965001	AG1-364 C O1	3.2768	80/20	3.2768
965181	AG1-383 C	1.2629	80/20	1.2629
965291	AG1-394 C	0.2955	Adder	0.66
965631	AG1-431	7.9821	Adder	17.72
965691	AG1-437 C O1	1.6202	Adder	3.6
965701	AG1-438 C O1	1.6202	Adder	3.6
965741	AG1-442 O1	0.9451	Adder	2.1
965751	AG1-443 O1	0.9451	Adder	2.1
966491	AG1-518 O1	4.0245	80/20	4.0245
966611	AG1-531 C	4.0435	80/20	4.0435
966801	AG1-551 C	0.3172	Adder	0.7
966931	AG1-431A	5.9971	Adder	13.31
WEC	WEC	0.1241	Confirmed LTF	0.1241
LGEE	LGEE	0.2582	Confirmed LTF	0.2582
CPLE	CPLE	1.8905	Confirmed LTF	1.8905
CBM-W2	CBM-W2	6.5139	Confirmed LTF	6.5139
NY	NY	0.3711	Confirmed LTF	0.3711
TVA	TVA	1.2908	Confirmed LTF	1.2908
SIGE	SIGE	0.1260	Confirmed LTF	0.1260
CBM-S2	CBM-S2	21.8196	Confirmed LTF	21.8196
CBM-S1	CBM-S1	0.3150	Confirmed LTF	0.3150
MEC	MEC	0.8088	Confirmed LTF	0.8088
LAGN	LAGN	1.6048	Confirmed LTF	1.6048
CBM-W1	CBM-W1	5.0332	Confirmed LTF	5.0332

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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
168606568	314218	6ELMONT	DVP	314908	8ELMONT	DVP	2	DVP_P1-2: LN 557	single	879.84	149.54	150.01	DC	10.58

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314229	6MT RD221	0.1393	80/20	0.1393
314236	6NRTHEST	0.1832	80/20	0.1832
314241	6OLDCHRC	0.8548	80/20	0.8548
314250	6ROCKVILLE	0.3145	80/20	0.3145
314309	6IRON208	0.3968	80/20	0.3968
315043	1FOUR RIVERA	3.0873	80/20	3.0873
315044	1FOUR RIVERB	3.0873	80/20	3.0873
315045	1FOUR RIVERC	3.7734	80/20	3.7734
315046	1FOUR RIVERD	3.0873	80/20	3.0873
315047	1FOUR RIVERE	3.0873	80/20	3.0873
315048	1FOUR RIVERF	3.7734	80/20	3.7734
315050	1FOURRIVERG	4.6210	80/20	4.6210
315051	1AA1-145 CT1	4.8597	80/20	4.8597
315052	1AA1-145 CT2	4.8597	80/20	4.8597
315058	1CHESTF3 (Deactivation : 13/12/2018)	16.7010	80/20	16.7010
315059	1CHESTF4 (Deactivation : 13/12/2018)	27.0723	80/20	27.0723
315060	1CHESTF5 (Deactivation : 31/05/2023)	56.0665	80/20	56.0665
315061	1CHESTG7	3.3032	80/20	3.3032
315062	1CHESTS7	1.5164	80/20	1.5164
315063	1CHESTG8	3.2501	80/20	3.2501
315064	1CHESTS8	1.6731	80/20	1.6731
315065	1CHESTF6 (Deactivation : 31/05/2023)	91.6222	Adder	107.79
315067	1DARBY 1	2.4661	80/20	2.4661
315068	1DARBY 2	2.4690	80/20	2.4690
315069	1DARBY 3	2.4776	80/20	2.4776
315070	1DARBY 4	2.4805	80/20	2.4805
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0129	Adder	0.02
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0129	Adder	0.02
315083	1SPRUNCA (Deactivation : 12/01/2021)	7.8772	Adder	9.27
315084	1SPRUNCB (Deactivation : 12/01/2021)	7.8772	Adder	9.27
316075	AC2-137 C	0.2994	80/20	0.2994
316083	AB2-161 C (Suspended)	2.1134	Adder	2.49
316103	AB2-015 C	4.3635	Adder	5.13
316108	AB2-160 C (Suspended)	3.7946	Adder	4.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	31.7658	Adder	37.37
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	31.7658	Adder	37.37
316114	AB2-068 ST (Withdrawn : 01/11/2021)	55.0309	Adder	64.74
316132	AB2-190 C	13.4527	Adder	15.83
316134	AC1-107 G1	59.6504	Adder	70.18
316135	AC1-107 G2	59.6504	Adder	70.18
316136	AC1-107 G3	59.6616	Adder	70.19
925863	AC1-065 C	4.9550	Adder	5.83
926754	AC1-161 C	15.6838	Adder	18.45
926784	AC1-164 C	29.3625	Adder	34.54
927044	AC1-191 C	11.0570	80/20	11.0570
932044	AC2-012 C	5.4501	Adder	6.41
932501	AC2-070 C	0.2809	80/20	0.2809
932581	AC2-078 C O1	2.5477	Adder	3.0
932591	AC2-079 C O1	3.3547	Adder	3.95
933294	AC2-141 C	15.6838	Adder	18.45
933991	AD1-023 C	6.3205	Adder	7.44
934014	AD1-025 C	11.0985	Adder	13.06
934061	AD1-033 C	3.9598	Adder	4.66
934141	AD1-041 C	3.5032	Adder	4.12
934521	AD1-076 C	26.3163	Adder	30.96
934575	AD1-082 C	4.8163	Adder	5.67
934781	AD1-105 C	7.4723	80/20	7.4723
935164	AD1-151 C	10.8102	Adder	12.72
936041	AD2-007 C	0.5302	Adder	0.62
936051	AD2-008 C	1.9322	Adder	2.27
936151	AD2-021	0.0341	80/20	0.0341
936581	AD2-073 C	1.1747	Adder	1.38
936591	AD2-074 C	3.3545	Adder	3.95
936661	AD2-085 C	1.9427	Adder	2.29
936761	AD2-097 C	1.4939	Adder	1.76
937221	AD2-160 C O1	3.0701	Adder	3.61
938535	AE1-072 C	9.2178	Adder	10.84
938634	AE1-085 C	5.6087	Adder	6.6
938771	AE1-103 C	1.8803	Adder	2.21
939195	AE1-149 C	6.8610	Adder	8.07
939245	AE1-155 C	7.6706	Adder	9.02
939414	AE1-173_C1	14.0087	Adder	16.48
939415	AE1-173_C2	12.0074	Adder	14.13
939416	AE1-173_C3	14.0087	Adder	16.48
939431	AE1-175 C	1.5371	Adder	1.81
939611	AE1-191 C	7.0064	Adder	8.24
939755	AE1-206 C	33.2373	80/20	33.2373
940061	AE2-000BC O1	6.6229	Adder	7.79
940231	AE2-005 C	0.9009	Adder	1.06
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	92.3294	Adder	108.62
940431	AE2-027 C O1	9.4713	Adder	11.14
940481	AE2-033 C	8.3782	Adder	9.86
940491	AE2-034 C	3.5500	Adder	4.18

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940541	AE2-040	1.4982	Adder	1.76
940551	AE2-041	4.7631	Adder	5.6
940651	AE2-052	2.2870	Adder	2.69
940891	AE2-078 C	1.4322	Adder	1.68
940901	AE2-079 C	1.4322	Adder	1.68
941101	AE2-104 C O1	1.8038	Adder	2.12
941281	AE2-122 C O1	15.0624	Adder	17.72
941291	AE2-123 C O1	15.4795	Adder	18.21
941301	AE2-124 C O1	14.0640	Adder	16.55
941501	AE2-147 C	8.1916	Adder	9.64
941581	AE2-155 C	0.1069	80/20	0.1069
941591	AE2-156 O1	9.5557	Adder	11.24
942001	AE2-212 C	1.5155	Adder	1.78
942131	AE2-225 C	1.1264	Adder	1.33
942151	AE2-227 C	2.0256	80/20	2.0256
942161	AE2-228 C	1.5941	Adder	1.88
942171	AE2-229 C	0.8448	Adder	0.99
942191	AE2-231 C O1	2.2128	Adder	2.6
942341	AE2-247 C	0.8426	Adder	0.99
942371	AE2-250 C O1	6.7404	Adder	7.93
942401	AE2-253 C	3.2293	Adder	3.8
942471	AE2-260 C O1	7.1645	Adder	8.43
942551	AE2-270	17.8270	Adder	20.97
943431	AF1-014 C	0.8535	Adder	1.0
943461	AF1-017 C	0.7623	Adder	0.9
943471	AF1-018	4.7631	Adder	5.6
943601	AF1-031 C	9.9823	80/20	9.9823
943611	AF1-032 C	0.9199	Adder	1.08
943621	AF1-033 C	1.4322	Adder	1.68
943741	AF1-042 C	1.7552	Adder	2.06
943991	AF1-067 C	4.9344	80/20	4.9344
944581	AF1-123 C O1	25.0863	Adder	29.51
944591	AF1-124 C O1	25.0863	Adder	29.51
944601	AF1-125 C O1	25.0863	Adder	29.51
944631	AF1-128 O1	49.1623	80/20	49.1623
944641	AF1-129	76.8810	Adder	90.45
944871	AF1-152 C	2.7305	Adder	3.21
945361	AF1-201 C O1	9.8494	Adder	11.59
945711	AF1-236 C O1	38.8641	Adder	45.72
946001	AF1-265	29.1555	80/20	29.1555
946011	AF1-266	7.0132	Adder	8.25
946261	AF1-291 C	1.5947	Adder	1.88
957411	AF2-035 C	4.0233	Adder	4.73
957491	AF2-043 C	1.1264	Adder	1.33
957531	AF2-047 C	8.4355	Adder	9.92
957601	AF2-054 C	1.3669	Adder	1.61
957631	AF2-057	1.9123	Adder	2.25
957711	AF2-065 C	9.0918	Adder	10.7
957821	AF2-076 C	2.7764	Adder	3.27
957831	AF2-077 C	1.3275	Adder	1.56
957871	AF2-081 C	5.2284	Adder	6.15
957911	AF2-085	2.0584	Adder	2.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958141	AF2-108	1.1888	Adder	1.4
958161	AF2-110 C	0.7436	Adder	0.87
958261	AF2-120 C	3.7568	Adder	4.42
959641	AF2-255 C	0.5064	80/20	0.5064
959651	AF2-256 C	0.3985	Adder	0.47
959661	AF2-257 C	0.3987	Adder	0.47
959671	AF2-258 C	0.3789	Adder	0.45
959681	AF2-259 C	1.7832	Adder	2.1
960091	AF2-300 C	1.0058	Adder	1.18
961091	AF2-400 C	0.2356	Adder	0.28
961611	AG1-000B C	5.2231	Adder	11.59
961711	AG1-011	9.9910	Adder	22.18
961851	AG1-027 C	4.7644	Adder	10.58
961951	AG1-038 C	1.0282	Adder	2.28
962131	AG1-057	1.2622	Adder	2.8
962191	AG1-064 C	1.4123	80/20	1.4123
962201	AG1-065 C	1.4123	80/20	1.4123
962271	AG1-075 C O1	6.1657	Adder	13.69
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.6901	Adder	1.53
962531	AG1-102 C	0.3612	Adder	0.8
962851	AG1-134 C	9.8688	80/20	9.8688
962861	AG1-135 C	1.9402	Adder	4.31
962961	AG1-145 C	0.7351	Adder	1.63
962971	AG1-146 C	1.0114	Adder	2.25
962981	AG1-147 C	2.3598	Adder	5.24
963221	AG1-171 C	0.7639	Adder	1.7
963231	AG1-172 C	0.7639	Adder	1.7
963241	AG1-173 C	0.7639	Adder	1.7
963251	AG1-174 C	0.7639	Adder	1.7
963261	AG1-175 C	0.7639	Adder	1.7
963291	AG1-178 C O1	8.9012	Adder	19.76
963341	AG1-183 C	1.5779	Adder	3.5
963351	AG1-184 O1	7.5174	Adder	16.69
963381	AG1-187	0.6433	Adder	1.43
963611	AG1-210 C	0.2021	Adder	0.45
963621	AG1-213 C	0.1777	Adder	0.39
963821	AG1-235 C O1	6.7197	Adder	14.92
964021	AG1-256 C	0.3910	Adder	0.87
964211	AG1-282 C	0.6321	Adder	1.4
964801	AG1-343 C	1.5171	Adder	3.37
964951	AG1-359 O1	7.4887	Adder	16.62
965001	AG1-364 C O1	2.0260	Adder	4.5
965181	AG1-383 C	0.7686	Adder	1.71
965231	AG1-388 C	0.6321	Adder	1.4
965291	AG1-394 C	0.5215	Adder	1.16
965631	AG1-431	11.9252	Adder	26.47
966491	AG1-518 O1	2.4874	Adder	5.52
966611	AG1-531 C	2.0603	Adder	4.57
966661	AG1-536 C	1.7118	Adder	3.8
966711	AG1-541 C	1.4216	Adder	3.16
966731	AG1-544 C	2.3216	Adder	5.15
966741	AG1-545 C	0.7727	Adder	1.72

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966871	AG1-558 C	2.4847	80/20	2.4847
966881	AG1-559 C	0.5331	Adder	1.18
966931	AG1-431A	8.9595	Adder	19.89
WEC	WEC	0.0702	Confirmed LTF	0.0702
LGEE	LGEE	0.1502	Confirmed LTF	0.1502
CPL	CPL	3.2692	Confirmed LTF	3.2692
CBM-W2	CBM-W2	7.4816	Confirmed LTF	7.4816
NY	NY	0.7001	Confirmed LTF	0.7001
TVA	TVA	1.6660	Confirmed LTF	1.6660
SIGE	SIGE	0.1751	Confirmed LTF	0.1751
CBM-S2	CBM-S2	35.9554	Confirmed LTF	35.9554
CBM-S1	CBM-S1	0.3865	Confirmed LTF	0.3865
MEC	MEC	0.6896	Confirmed LTF	0.6896
LAGN	LAGN	2.0825	Confirmed LTF	2.0825
AA2-074	AA2-074	2.1551	LTF	2.1551
CBM-W1	CBM-W1	2.3133	Confirmed LTF	2.3133

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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
168606596	314218	6ELMONT	DVP	314908	8ELMONT	DVP	1	DVP_P1-2: LN 557	single	920.92	143.54	143.99	DC	10.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314229	6MT RD221	0.1400	80/20	0.1400
314236	6NRTHEST	0.1840	80/20	0.1840
314241	6OLDCHRC	0.8588	80/20	0.8588
314250	6ROCKVILLE	0.3160	80/20	0.3160
314309	6IRON208	0.3986	80/20	0.3986
315043	1FOUR RIVERA	3.1016	80/20	3.1016
315044	1FOUR RIVERB	3.1016	80/20	3.1016
315045	1FOUR RIVERC	3.7909	80/20	3.7909
315046	1FOUR RIVERD	3.1016	80/20	3.1016
315047	1FOUR RIVERE	3.1016	80/20	3.1016
315048	1FOUR RIVERF	3.7909	80/20	3.7909
315050	1FOURRIVERG	4.6424	80/20	4.6424
315051	1AA1-145 CT1	4.8822	80/20	4.8822
315052	1AA1-145 CT2	4.8822	80/20	4.8822
315058	1CHESTF3 (Deactivation : 13/12/2018)	16.7790	80/20	16.7790
315059	1CHESTF4 (Deactivation : 13/12/2018)	27.1988	80/20	27.1988
315060	1CHESTF5 (Deactivation : 31/05/2023)	56.3255	80/20	56.3255
315061	1CHESTG7	3.3185	80/20	3.3185
315062	1CHESTS7	1.5234	80/20	1.5234
315063	1CHESTG8	3.2651	80/20	3.2651
315064	1CHESTS8	1.6808	80/20	1.6808
315065	1CHESTF6 (Deactivation : 31/05/2023)	92.0429	Adder	108.29
315067	1DARBY 1	2.4776	80/20	2.4776
315068	1DARBY 2	2.4805	80/20	2.4805
315069	1DARBY 3	2.4892	80/20	2.4892
315070	1DARBY 4	2.4921	80/20	2.4921
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0130	Adder	0.02
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0130	Adder	0.02
315083	1SPRUNCA (Deactivation : 12/01/2021)	7.9136	Adder	9.31
315084	1SPRUNCB (Deactivation : 12/01/2021)	7.9136	Adder	9.31
316075	AC2-137 C	0.3008	80/20	0.3008
316083	AB2-161 C (Suspended)	2.1232	Adder	2.5
316103	AB2-015 C	4.3839	Adder	5.16
316108	AB2-160 C (Suspended)	3.8122	Adder	4.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	31.9131	Adder	37.54
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	31.9131	Adder	37.54
316114	AB2-068 ST (Withdrawn : 01/11/2021)	55.2860	Adder	65.04
316132	AB2-190 C	13.5146	Adder	15.9
316134	AC1-107 G1	59.9269	Adder	70.5
316135	AC1-107 G2	59.9269	Adder	70.5
316136	AC1-107 G3	59.9382	Adder	70.52
925863	AC1-065 C	4.9781	Adder	5.86
926754	AC1-161 C	15.7567	Adder	18.54
926784	AC1-164 C	29.4977	Adder	34.7
927044	AC1-191 C	11.1083	80/20	11.1083
932044	AC2-012 C	5.4753	Adder	6.44
932501	AC2-070 C	0.2822	80/20	0.2822
932581	AC2-078 C O1	2.5595	Adder	3.01
932591	AC2-079 C O1	3.3704	Adder	3.97
933294	AC2-141 C	15.7567	Adder	18.54
933991	AD1-023 C	6.3502	Adder	7.47
934014	AD1-025 C	11.1497	Adder	13.12
934061	AD1-033 C	3.9781	Adder	4.68
934141	AD1-041 C	3.5195	Adder	4.14
934521	AD1-076 C	26.4390	Adder	31.1
934575	AD1-082 C	4.8388	Adder	5.69
934781	AD1-105 C	7.5069	80/20	7.5069
935164	AD1-151 C	10.8599	Adder	12.78
936041	AD2-007 C	0.5326	Adder	0.63
936051	AD2-008 C	1.9411	Adder	2.28
936151	AD2-021	0.0343	80/20	0.0343
936581	AD2-073 C	1.1801	Adder	1.39
936591	AD2-074 C	3.3700	Adder	3.96
936661	AD2-085 C	1.9517	Adder	2.3
936761	AD2-097 C	1.5009	Adder	1.77
937221	AD2-160 C O1	3.0844	Adder	3.63
938535	AE1-072 C	9.2607	Adder	10.89
938634	AE1-085 C	5.6346	Adder	6.63
938771	AE1-103 C	1.8889	Adder	2.22
939195	AE1-149 C	6.8932	Adder	8.11
939245	AE1-155 C	7.7061	Adder	9.07
939414	AE1-173_C1	14.0744	Adder	16.56
939415	AE1-173_C2	12.0637	Adder	14.19
939416	AE1-173_C3	14.0744	Adder	16.56
939431	AE1-175 C	1.5443	Adder	1.82
939611	AE1-191 C	7.0390	Adder	8.28
939755	AE1-206 C	33.3912	80/20	33.3912
940061	AE2-000BC O1	6.6535	Adder	7.83
940231	AE2-005 C	0.9051	Adder	1.06
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	92.7570	Adder	109.13
940431	AE2-027 C O1	9.5148	Adder	11.19
940481	AE2-033 C	8.4168	Adder	9.9
940491	AE2-034 C	3.5664	Adder	4.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940541	AE2-040	1.5052	Adder	1.77
940551	AE2-041	4.7852	Adder	5.63
940651	AE2-052	2.2977	Adder	2.7
940891	AE2-078 C	1.4390	Adder	1.69
940901	AE2-079 C	1.4390	Adder	1.69
941101	AE2-104 C O1	1.8121	Adder	2.13
941281	AE2-122 C O1	15.1327	Adder	17.8
941291	AE2-123 C O1	15.5517	Adder	18.3
941301	AE2-124 C O1	14.1296	Adder	16.62
941501	AE2-147 C	8.2299	Adder	9.68
941581	AE2-155 C	0.1074	80/20	0.1074
941591	AE2-156 O1	9.5999	Adder	11.29
942001	AE2-212 C	1.5226	Adder	1.79
942131	AE2-225 C	1.1317	Adder	1.33
942151	AE2-227 C	2.0350	80/20	2.0350
942161	AE2-228 C	1.6015	Adder	1.88
942171	AE2-229 C	0.8488	Adder	1.0
942191	AE2-231 C O1	2.2229	Adder	2.62
942341	AE2-247 C	0.8465	Adder	1.0
942371	AE2-250 C O1	6.7716	Adder	7.97
942401	AE2-253 C	3.2442	Adder	3.82
942471	AE2-260 C O1	7.1975	Adder	8.47
942551	AE2-270	17.9099	Adder	21.07
943431	AF1-014 C	0.8575	Adder	1.01
943461	AF1-017 C	0.7659	Adder	0.9
943471	AF1-018	4.7852	Adder	5.63
943601	AF1-031 C	10.0284	80/20	10.0284
943611	AF1-032 C	0.9242	Adder	1.09
943621	AF1-033 C	1.4390	Adder	1.69
943741	AF1-042 C	1.7634	Adder	2.07
943991	AF1-067 C	4.9572	80/20	4.9572
944581	AF1-123 C O1	25.2045	Adder	29.65
944591	AF1-124 C O1	25.2045	Adder	29.65
944601	AF1-125 C O1	25.2045	Adder	29.65
944631	AF1-128 O1	49.3894	80/20	49.3894
944641	AF1-129	77.2341	Adder	90.86
944871	AF1-152 C	2.7433	Adder	3.23
945361	AF1-201 C O1	9.8953	Adder	11.64
945711	AF1-236 C O1	39.0439	Adder	45.93
946001	AF1-265	29.2905	80/20	29.2905
946011	AF1-266	7.0455	Adder	8.29
946261	AF1-291 C	1.6021	Adder	1.88
957411	AF2-035 C	4.0416	Adder	4.75
957491	AF2-043 C	1.1317	Adder	1.33
957531	AF2-047 C	8.4745	Adder	9.97
957601	AF2-054 C	1.3733	Adder	1.62
957631	AF2-057	1.9212	Adder	2.26
957711	AF2-065 C	9.1341	Adder	10.75
957821	AF2-076 C	2.7894	Adder	3.28
957831	AF2-077 C	1.3337	Adder	1.57
957871	AF2-081 C	5.2522	Adder	6.18
957911	AF2-085	2.0679	Adder	2.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958141	AF2-108	1.1942	Adder	1.4
958161	AF2-110 C	0.7471	Adder	0.88
958261	AF2-120 C	3.7742	Adder	4.44
959641	AF2-255 C	0.5087	80/20	0.5087
959651	AF2-256 C	0.4004	Adder	0.47
959661	AF2-257 C	0.4005	Adder	0.47
959671	AF2-258 C	0.3806	Adder	0.45
959681	AF2-259 C	1.7914	Adder	2.11
960091	AF2-300 C	1.0104	Adder	1.19
961091	AF2-400 C	0.2367	Adder	0.28
961611	AG1-000B C	5.2476	Adder	11.65
961711	AG1-011	10.0371	Adder	22.28
961851	AG1-027 C	4.7866	Adder	10.63
961951	AG1-038 C	1.0330	Adder	2.29
962131	AG1-057	1.2681	Adder	2.81
962191	AG1-064 C	1.4189	80/20	1.4189
962201	AG1-065 C	1.4189	80/20	1.4189
962271	AG1-075 C O1	6.1943	Adder	13.75
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.6933	Adder	1.54
962531	AG1-102 C	0.3628	Adder	0.81
962851	AG1-134 C	9.9144	80/20	9.9144
962861	AG1-135 C	1.9491	Adder	4.33
962961	AG1-145 C	0.7385	Adder	1.64
962971	AG1-146 C	1.0161	Adder	2.26
962981	AG1-147 C	2.3708	Adder	5.26
963221	AG1-171 C	0.7674	Adder	1.7
963231	AG1-172 C	0.7674	Adder	1.7
963241	AG1-173 C	0.7674	Adder	1.7
963251	AG1-174 C	0.7674	Adder	1.7
963261	AG1-175 C	0.7674	Adder	1.7
963291	AG1-178 C O1	8.9423	Adder	19.85
963341	AG1-183 C	1.5851	Adder	3.52
963351	AG1-184 O1	7.5521	Adder	16.76
963381	AG1-187	0.6462	Adder	1.43
963611	AG1-210 C	0.2030	Adder	0.45
963621	AG1-213 C	0.1785	Adder	0.4
963821	AG1-235 C O1	6.7507	Adder	14.98
964021	AG1-256 C	0.3928	Adder	0.87
964211	AG1-282 C	0.6351	Adder	1.41
964801	AG1-343 C	1.5242	Adder	3.38
964951	AG1-359 O1	7.5231	Adder	16.7
965001	AG1-364 C O1	2.0355	Adder	4.52
965181	AG1-383 C	0.7721	Adder	1.71
965231	AG1-388 C	0.6351	Adder	1.41
965291	AG1-394 C	0.5238	Adder	1.16
965631	AG1-431	11.9803	Adder	26.59
966491	AG1-518 O1	2.4991	Adder	5.55
966611	AG1-531 C	2.0699	Adder	4.59
966661	AG1-536 C	1.7197	Adder	3.82
966711	AG1-541 C	1.4280	Adder	3.17
966731	AG1-544 C	2.3324	Adder	5.18
966741	AG1-545 C	0.7762	Adder	1.72

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966871	AG1-558 C	2.4962	80/20	2.4962
966881	AG1-559 C	0.5355	Adder	1.19
966931	AG1-431A	9.0010	Adder	19.98
WEC	WEC	0.0706	Confirmed LTF	0.0706
LGEE	LGEE	0.1508	Confirmed LTF	0.1508
CPL	CPL	3.2849	Confirmed LTF	3.2849
CBM-W2	CBM-W2	7.5085	Confirmed LTF	7.5085
NY	NY	0.7034	Confirmed LTF	0.7034
TVA	TVA	1.6744	Confirmed LTF	1.6744
SIGE	SIGE	0.1759	Confirmed LTF	0.1759
CBM-S2	CBM-S2	36.1224	Confirmed LTF	36.1224
CBM-S1	CBM-S1	0.3884	Confirmed LTF	0.3884
MEC	MEC	0.6912	Confirmed LTF	0.6912
LAGN	LAGN	2.0913	Confirmed LTF	2.0913
AA2-074	AA2-074	2.1654	LTF	2.1654
CBM-W1	CBM-W1	2.3273	Confirmed LTF	2.3273

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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
168606603	314236	6NRTHEST	DVP	314218	6ELMONT	DVP	1	DVP_P1-2: LN 557	single	678.68	117.45	117.92	DC	6.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314184	3SHACKLE	0.3039	80/20	0.3039
314236	6NRTHEST	0.3943	80/20	0.3943
314243	3PROV 92	0.2838	80/20	0.2838
314314	3LOCKS	0.1625	80/20	0.1625
314375	6CORRCTN	0.2160	80/20	0.2160
315058	1CHESTF3 (Deactivation : 13/12/2018)	13.0820	80/20	13.0820
315059	1CHESTF4 (Deactivation : 13/12/2018)	21.2059	80/20	21.2059
315060	1CHESTF5 (Deactivation : 31/05/2023)	27.2332	Adder	32.04
315065	1CHESTF6 (Deactivation : 31/05/2023)	72.1431	80/20	72.1431
315067	1DARBY 1	4.8719	80/20	4.8719
315068	1DARBY 2	4.8776	80/20	4.8776
315069	1DARBY 3	4.8947	80/20	4.8947
315070	1DARBY 4	4.9004	80/20	4.9004
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0095	80/20	0.0095
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0095	80/20	0.0095
315076	1HOPPOLC	0.7985	80/20	0.7985
315077	1HOPHCF1	1.2481	80/20	1.2481
315078	1HOPHCF2	1.2481	80/20	1.2481
315079	1HOPHCF3	1.2481	80/20	1.2481
315080	1HOPHCF4	1.8947	80/20	1.8947
315083	1SPRUNCA (Deactivation : 12/01/2021)	12.1446	80/20	12.1446
315084	1SPRUNCB (Deactivation : 12/01/2021)	12.1446	80/20	12.1446
316075	AC2-137 C	0.3699	80/20	0.3699
316083	AB2-161 C (Suspended)	1.3994	Adder	1.65
316103	AB2-015 C	2.8777	Adder	3.39
316108	AB2-160 C (Suspended)	3.1321	80/20	3.1321
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	21.7960	Adder	25.64
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	21.7960	Adder	25.64
316114	AB2-068 ST (Withdrawn : 01/11/2021)	37.7593	Adder	44.42
316132	AB2-190 C	8.5604	Adder	10.07
316134	AC1-107 G1	40.9289	Adder	48.15

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316135	AC1-107 G2	40.9289	Adder	48.15
316136	AC1-107 G3	40.9366	Adder	48.16
925863	AC1-065 C	4.0262	80/20	4.0262
926754	AC1-161 C	10.3668	Adder	12.2
926784	AC1-164 C	24.4404	80/20	24.4404
932044	AC2-012 C	3.5785	Adder	4.21
932581	AC2-078 C O1	1.6872	Adder	1.98
932591	AC2-079 C O1	2.2167	Adder	2.61
933294	AC2-141 C	10.3668	Adder	12.2
934014	AD1-025 C	7.0878	Adder	8.34
934061	AD1-033 C	2.6032	Adder	3.06
934141	AD1-041 C	2.8263	80/20	2.8263
934391	AD1-063 C	0.1367	80/20	0.1367
934575	AD1-082 C	3.1892	Adder	3.75
935164	AD1-151 C	6.8789	Adder	8.09
936041	AD2-007 C	0.3386	Adder	0.4
936051	AD2-008 C	1.2340	Adder	1.45
936151	AD2-021	0.0422	80/20	0.0422
936591	AD2-074 C	2.1500	Adder	2.53
936661	AD2-085 C	1.2821	Adder	1.51
936761	AD2-097 C	2.3033	80/20	2.3033
937221	AD2-160 C O1	2.0188	Adder	2.38
938535	AE1-072 C	6.0630	Adder	7.13
938634	AE1-085 C	3.7149	Adder	4.37
938771	AE1-103 C	1.2395	Adder	1.46
939195	AE1-149 C	4.5467	Adder	5.35
939245	AE1-155 C	4.8683	Adder	5.73
939431	AE1-175 C	1.2430	80/20	1.2430
939611	AE1-191 C	5.6526	80/20	5.6526
940061	AE2-000BC O1	4.3845	Adder	5.16
940231	AE2-005 C	0.7320	80/20	0.7320
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	60.6400	Adder	71.34
940431	AE2-027 C O1	8.2030	80/20	8.2030
940481	AE2-033 C	5.5436	Adder	6.52
940541	AE2-040	0.9914	Adder	1.17
940551	AE2-041	3.8512	80/20	3.8512
940651	AE2-052	1.5155	Adder	1.78
940891	AE2-078 C	0.9338	Adder	1.1
940901	AE2-079 C	0.9338	Adder	1.1
941101	AE2-104 C O1	1.1883	Adder	1.4
941281	AE2-122 C O1	9.8976	Adder	11.64
941291	AE2-123 C O1	10.1716	Adder	11.97
941301	AE2-124 C O1	9.2422	Adder	10.87
941501	AE2-147 C	5.3925	Adder	6.34
941591	AE2-156 O1	6.2747	Adder	7.38
942001	AE2-212 C	1.1974	80/20	1.1974
942131	AE2-225 C	0.7413	Adder	0.87
942161	AE2-228 C	1.2562	80/20	1.2562
942171	AE2-229 C	0.5560	Adder	0.65
942341	AE2-247 C	0.5561	Adder	0.65
942371	AE2-250 C O1	5.5636	80/20	5.5636
942401	AE2-253 C	2.1234	Adder	2.5

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942471	AE2-260 C O1	4.7386	Adder	5.57
942551	AE2-270	11.3666	Adder	13.37
943431	AF1-014 C	0.6935	80/20	0.6935
943461	AF1-017 C	0.5032	Adder	0.59
943471	AF1-018	3.8512	80/20	3.8512
943611	AF1-032 C	0.6054	Adder	0.71
943621	AF1-033 C	0.9338	Adder	1.1
943741	AF1-042 C	1.1250	Adder	1.32
944581	AF1-123 C O1	16.5029	Adder	19.42
944591	AF1-124 C O1	16.5029	Adder	19.42
944601	AF1-125 C O1	16.5029	Adder	19.42
944631	AF1-128 O1	23.8796	Adder	28.09
944641	AF1-129	60.5359	80/20	60.5359
944871	AF1-152 C	1.7975	Adder	2.11
945361	AF1-201 C O1	6.6479	Adder	7.82
946011	AF1-266	4.6405	Adder	5.46
946261	AF1-291 C	1.2548	80/20	1.2548
957491	AF2-043 C	0.7413	Adder	0.87
957601	AF2-054 C	0.9283	Adder	1.09
957631	AF2-057	1.2556	Adder	1.48
957711	AF2-065 C	5.7970	Adder	6.82
957821	AF2-076 C	1.8278	Adder	2.15
957831	AF2-077 C	0.8974	Adder	1.06
957871	AF2-081 C	3.4381	Adder	4.04
958141	AF2-108	0.9422	80/20	0.9422
958161	AF2-110 C	0.4899	Adder	0.58
958261	AF2-120 C	2.3851	Adder	2.81
959651	AF2-256 C	0.3140	80/20	0.3140
959661	AF2-257 C	0.3137	80/20	0.3137
959671	AF2-258 C	0.2993	80/20	0.2993
959681	AF2-259 C	1.4133	80/20	1.4133
961091	AF2-400 C	0.1554	Adder	0.18
961611	AG1-000B C	3.3764	Adder	7.49
961711	AG1-011	6.3805	Adder	14.16
961851	AG1-027 C	3.1398	Adder	6.97
961951	AG1-038 C	0.6590	Adder	1.46
962131	AG1-057	1.9256	80/20	1.9256
962271	AG1-075 C O1	9.6024	80/20	9.6024
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.4499	Adder	1.0
962531	AG1-102 C	0.2442	Adder	0.54
962861	AG1-135 C	1.2368	Adder	2.75
962961	AG1-145 C	1.1215	80/20	1.1215
962971	AG1-146 C	0.6601	Adder	1.47
962981	AG1-147 C	1.5402	Adder	3.42
963221	AG1-171 C	0.4861	Adder	1.08
963231	AG1-172 C	0.4861	Adder	1.08
963241	AG1-173 C	0.4861	Adder	1.08
963251	AG1-174 C	0.4861	Adder	1.08
963261	AG1-175 C	0.4861	Adder	1.08
963611	AG1-210 C	0.1238	Adder	0.27
963821	AG1-235 C O1	4.4184	Adder	9.81
964211	AG1-282 C	0.3960	Adder	0.88

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964951	AG1-359 O1	4.9235	Adder	10.93
965001	AG1-364 C O1	1.3304	Adder	2.95
965181	AG1-383 C	0.5054	Adder	1.12
965231	AG1-388 C	0.3960	Adder	0.88
966491	AG1-518 O1	1.6371	Adder	3.63
966611	AG1-531 C	1.3594	Adder	3.02
966661	AG1-536 C	1.0864	Adder	2.41
966731	AG1-544 C	1.5377	Adder	3.41
966741	AG1-545 C	0.5117	Adder	1.14
WEC	WEC	0.1191	Confirmed LTF	0.1191
LGEE	LGEE	0.2494	Confirmed LTF	0.2494
CPL	CPL	2.2154	Confirmed LTF	2.2154
CBM-W2	CBM-W2	6.9440	Confirmed LTF	6.9440
NY	NY	0.4606	Confirmed LTF	0.4606
TVA	TVA	1.4112	Confirmed LTF	1.4112
SIGE	SIGE	0.1432	Confirmed LTF	0.1432
CBM-S2	CBM-S2	25.2439	Confirmed LTF	25.2439
CBM-S1	CBM-S1	0.3409	Confirmed LTF	0.3409
MEC	MEC	0.8183	Confirmed LTF	0.8183
LAGN	LAGN	1.7552	Confirmed LTF	1.7552
AA2-074	AA2-074	1.4616	LTF	1.4616
CBM-W1	CBM-W1	4.7107	Confirmed LTF	4.7107

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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
168606386	314273	3BAKRS P	DVP	314280	3NEWBOHE	DVP	1	Base Case	single	110.92	106.82	113.35	DC	7.25

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
315115	1S HAMPT1	0.4195	80/20	0.4195
316083	AB2-161 C (Suspended)	13.6621	80/20	13.6621
316103	AB2-015 C	2.6925	80/20	2.6925
932581	AC2-078 C O1	-1.3793	Adder	-1.62
932591	AC2-079 C O1	13.7039	80/20	13.7039
934575	AD1-082 C	31.1353	80/20	31.1353
938634	AE1-085 C	37.8365	80/20	37.8365
938771	AE1-103 C	1.3047	80/20	1.3047
940061	AE2-000BC O1	41.0898	80/20	41.0898
941101	AE2-104 C O1	1.5772	80/20	1.5772
958161	AF2-110 C	0.6502	80/20	0.6502
961091	AF2-400 C	0.1454	80/20	0.1454
961851	AG1-027 C	7.2489	80/20	7.2489
966731	AG1-544 C	29.5503	80/20	29.5503
WEC	WEC	0.0151	Confirmed LTF	0.0151
LGEE	LGEE	0.0308	Confirmed LTF	0.0308
CPL	CPL	0.2054	Confirmed LTF	0.2054
CBM-W2	CBM-W2	0.7168	Confirmed LTF	0.7168
NY	NY	0.0293	Confirmed LTF	0.0293
TVA	TVA	0.1386	Confirmed LTF	0.1386
SIGE	SIGE	0.0119	Confirmed LTF	0.0119
CBM-S2	CBM-S2	2.2759	Confirmed LTF	2.2759
CBM-S1	CBM-S1	0.0342	Confirmed LTF	0.0342
MEC	MEC	0.0938	Confirmed LTF	0.0938
LAGN	LAGN	0.1732	Confirmed LTF	0.1732
CBM-W1	CBM-W1	0.6169	Confirmed LTF	0.6169

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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
168606467	314287	6CHESTF B	DVP	314276	6BASIN	DVP	1	DVP_P1-2: LN 563	single	663.64	157.94	158.65	DC	6.82

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.1609	80/20	3.1609
314314	3LOCKS	0.1812	80/20	0.1812
314435	6SAPONY	0.2595	80/20	0.2595
314572	3EMPORIA	0.2071	80/20	0.2071
314704	3LAWRENC	0.1265	80/20	0.1265
315065	1CHESTF6 (Deactivation : 31/05/2023)	171.7627	80/20	171.7627
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0130	80/20	0.0130
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0130	80/20	0.0130
315076	1HOPPOLC	1.0898	80/20	1.0898
315077	1HOPHCF1	1.7034	80/20	1.7034
315078	1HOPHCF2	1.7034	80/20	1.7034
315079	1HOPHCF3	1.7034	80/20	1.7034
315080	1HOPHCF4	2.5859	80/20	2.5859
315116	1SURRY 1	10.5895	80/20	10.5895
315117	1GRAVELC	0.3711	80/20	0.3711
315119	1GRAVEL3	1.0758	80/20	1.0758
315120	1GRAVEL4	1.0895	80/20	1.0895
315121	1GRAVEL5	1.0758	80/20	1.0758
315122	1GRAVEL6	1.0883	80/20	1.0883
315126	1ROARAP2	0.5558	80/20	0.5558
315128	1ROARAP4	0.5304	80/20	0.5304
315136	1ROSEMG1	0.9037	80/20	0.9037
315137	1ROSEMS1	0.5604	80/20	0.5604
315138	1ROSEMG2	0.4235	80/20	0.4235
315139	1GASTONA	1.3401	80/20	1.3401
315141	1GASTONB	1.3401	80/20	1.3401
315293	1DOMTR9	2.1172	Adder	2.49
315294	1DOMTR10	2.5946	Adder	3.05
316033	AB2-134 C	1.1577	80/20	1.1577
316083	AB2-161 C (Suspended)	2.4206	80/20	2.4206
316087	AB2-174 C	0.5296	80/20	0.5296
316096	AB2-100 C1	0.5104	80/20	0.5104
316098	AB2-100 C2	0.5104	80/20	0.5104
316103	AB2-015 C	3.4915	80/20	3.4915
316108	AB2-160 C (Suspended)	3.4917	80/20	3.4917
316132	AB2-190 C	12.0882	80/20	12.0882
316140	AB2-099 C (Suspended)	0.1958	Adder	0.23
316258	AE1-162 C	0.1367	80/20	0.1367
923991	AB2-040 C O1	3.4426	80/20	3.4426

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926070	AC1-086 C	9.5521	80/20	9.5521
926201	AC1-098 C	2.0259	Adder	2.38
926211	AC1-099 C	0.6789	Adder	0.8
927145	AC1-208 C	3.0006	Adder	3.53
927225	AC1-216 C	0.8837	80/20	0.8837
932581	AC2-078 C O1	2.9460	80/20	2.9460
932591	AC2-079 C O1	3.2684	80/20	3.2684
932631	AC2-084 C	2.8880	Adder	3.4
933991	AD1-023 C	4.1331	Adder	4.86
934014	AD1-025 C	9.6272	80/20	9.6272
934331	AD1-057 C O1	3.4410	Adder	4.05
934521	AD1-076 C	16.9036	Adder	19.89
934575	AD1-082 C	5.5164	80/20	5.5164
935164	AD1-151 C	9.7137	80/20	9.7137
936041	AD2-007 C	0.4599	80/20	0.4599
936051	AD2-008 C	1.6761	80/20	1.6761
936401	AD2-051 C O1	2.8751	Adder	3.38
936661	AD2-085 C	1.7118	80/20	1.7118
936761	AD2-097 C	-2.4572	Adder	-2.89
938494	AE1-068_C1	8.5914	Adder	10.11
938497	AE1-068_C2	8.5914	Adder	10.11
938504	AE1-069_C1	6.5476	Adder	7.7
938507	AE1-069_C2	7.0599	Adder	8.31
938634	AE1-085 C	6.5375	80/20	6.5375
938771	AE1-103 C	1.4727	80/20	1.4727
939195	AE1-149 C	8.3088	80/20	8.3088
939414	AE1-173_C1	8.9050	Adder	10.48
939415	AE1-173_C2	7.6329	Adder	8.98
939416	AE1-173_C3	8.9050	Adder	10.48
940061	AE2-000BC O1	7.4610	80/20	7.4610
940471	AE2-031 C	9.3340	Adder	10.98
940481	AE2-033 C	10.3427	80/20	10.3427
940491	AE2-034 C	2.2016	Adder	2.59
940541	AE2-040	1.8713	80/20	1.8713
940641	AE2-051 C O1	4.8662	Adder	5.72
940651	AE2-052	2.7696	80/20	2.7696
940891	AE2-078 C	0.9797	80/20	0.9797
940901	AE2-079 C	0.9797	80/20	0.9797
941031	AE2-094 C	11.2699	Adder	13.26
941101	AE2-104 C O1	1.3412	80/20	1.3412
941501	AE2-147 C	4.6611	Adder	5.48
942001	AE2-212 C	2.5230	80/20	2.5230
942131	AE2-225 C	0.6279	Adder	0.74
942161	AE2-228 C	2.9064	80/20	2.9064
942171	AE2-229 C	0.4709	Adder	0.55
942341	AE2-247 C	0.7441	80/20	0.7441
942371	AE2-250 C O1	6.2024	80/20	6.2024
942471	AE2-260 C O1	8.1865	80/20	8.1865
942551	AE2-270	15.7155	80/20	15.7155
942931	AE2-313 C	10.0888	Adder	11.87
943171	AE2-346 C	0.4698	Adder	0.55
943461	AF1-017 C	0.6732	80/20	0.6732

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943611	AF1-032 C	0.5128	Adder	0.6
943621	AF1-033 C	0.9797	80/20	0.9797
943911	AF1-059	5.2683	Adder	6.2
944011	AF1-069 C	3.6823	Adder	4.33
944641	AF1-129	144.1277	80/20	144.1277
944871	AF1-152 C	1.5537	Adder	1.83
945711	AF1-236 C O1	24.1025	Adder	28.36
946011	AF1-266	8.6576	80/20	8.6576
946261	AF1-291 C	2.9323	80/20	2.9323
946281	AF1-292 C	0.7536	80/20	0.7536
957491	AF2-043 C	0.6279	Adder	0.74
957521	AF2-046 C	5.7260	Adder	6.74
957531	AF2-047 C	5.2315	Adder	6.15
957711	AF2-065 C	8.0149	80/20	8.0149
957821	AF2-076 C	1.5759	Adder	1.85
958141	AF2-108	1.7404	80/20	1.7404
958161	AF2-110 C	0.5529	80/20	0.5529
959651	AF2-256 C	0.7266	80/20	0.7266
959661	AF2-257 C	0.7331	80/20	0.7331
959671	AF2-258 C	0.6308	80/20	0.6308
959681	AF2-259 C	2.6106	80/20	2.6106
960081	AF2-299 C	1.2701	80/20	1.2701
961091	AF2-400 C	0.1885	80/20	0.1885
961611	AG1-000B C	7.5214	80/20	7.5214
961681	AG1-008 C	3.0409	Adder	6.75
961711	AG1-011	16.3520	80/20	16.3520
961851	AG1-027 C	6.8190	80/20	6.8190
961931	AG1-036 C	0.2430	Adder	0.54
961941	AG1-037 C	0.0889	Adder	0.2
962271	AG1-075 C O1	10.7050	80/20	10.7050
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.8906	80/20	0.8906
962331	AG1-082 C	0.3557	Adder	0.79
962341	AG1-083 C	0.3557	Adder	0.79
962351	AG1-084 C	0.3080	Adder	0.68
962361	AG1-085 C	0.3080	Adder	0.68
962571	AG1-106 C	2.6564	80/20	2.6564
963041	AG1-153 C	0.8277	Adder	1.84
963111	AG1-160 C	0.8397	Adder	1.86
963221	AG1-171 C	1.2952	80/20	1.2952
963231	AG1-172 C	1.2952	80/20	1.2952
963241	AG1-173 C	1.2952	80/20	1.2952
963251	AG1-174 C	1.2952	80/20	1.2952
963261	AG1-175 C	1.2952	80/20	1.2952
963291	AG1-178 C O1	9.1403	Adder	20.29
963301	AG1-179 C	1.0536	Adder	2.34
963311	AG1-180	0.5133	Adder	1.14
963351	AG1-184 O1	4.9243	Adder	10.93
964491	AG1-312 C O1	3.2282	Adder	7.17
964501	AG1-313 C O1	0.8475	Adder	1.88
964801	AG1-343 C	1.0867	Adder	2.41
965291	AG1-394 C	0.3738	Adder	0.83
965451	AG1-413 C O1	1.1737	Adder	2.61

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965601	AG1-428 C O1	0.8796	Adder	1.95
965631	AG1-431	7.3957	Adder	16.42
965691	AG1-437 C O1	1.7037	Adder	3.78
965701	AG1-438 C O1	1.7037	Adder	3.78
965741	AG1-442 O1	0.9938	Adder	2.21
965751	AG1-443 O1	0.9938	Adder	2.21
965811	AG1-449	3.4686	Adder	7.7
966491	AG1-518 O1	1.3866	Adder	3.08
966611	AG1-531 C	0.9927	Adder	2.2
966621	AG1-532 C	0.6858	80/20	0.6858
966731	AG1-544 C	5.1058	80/20	5.1058
966741	AG1-545 C	1.6929	80/20	1.6929
966811	AG1-552 C	0.8825	80/20	0.8825
966931	AG1-431A	5.5565	Adder	12.33
WEC	WEC	0.1978	Confirmed LTF	0.1978
LGEE	LGEE	0.4097	Confirmed LTF	0.4097
CPL	CPL	2.5471	Confirmed LTF	2.5471
CBM-W2	CBM-W2	9.5424	Confirmed LTF	9.5424
NY	NY	0.4474	Confirmed LTF	0.4474
TVA	TVA	1.8522	Confirmed LTF	1.8522
SIGE	SIGE	0.1700	Confirmed LTF	0.1700
CBM-S2	CBM-S2	29.7227	Confirmed LTF	29.7227
CBM-S1	CBM-S1	0.4564	Confirmed LTF	0.4564
MEC	MEC	1.2378	Confirmed LTF	1.2378
LAGN	LAGN	2.3013	Confirmed LTF	2.3013
AA2-074	AA2-074	1.6817	LTF	1.6817
CBM-W1	CBM-W1	8.1316	Confirmed LTF	8.1316

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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
168606415	314296	6PENNIMAN	DVP	314415	6WALR209	DVP	1	DVP_P1-2: LN 567	single	441.8	143.36	144.04	DC	6.67

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1610	80/20	0.1610
314295	6BIRDNECK	0.0194	80/20	0.0194
314421	6WINCHST	0.1065	80/20	0.1065
314491	3PENDLTN	0.1449	80/20	0.1449
314507	3THOMPSN	0.1454	80/20	0.1454
314638	6ELIZ CT	0.0941	80/20	0.0941
314639	6TANGLEW	0.1715	80/20	0.1715
314643	3O INLET	0.1897	80/20	0.1897
315092	1YORKTN3	19.6878	80/20	19.6878
315098	1CHESPKA	0.1923	80/20	0.1923
315099	1CHESPKB (Deactivation : 31/05/2019)	1.3332	80/20	1.3332
315108	1ELIZAR1	1.4176	80/20	1.4176
315109	1ELIZAR2	1.3929	80/20	1.3929
315110	1ELIZAR3	1.4357	80/20	1.4357
315116	1SURRY 1	9.3889	80/20	9.3889
315120	1GRAVEL4	0.9660	80/20	0.9660
315122	1GRAVEL6	0.9649	80/20	0.9649
315233	1SURRY 2	14.2114	80/20	14.2114
315260	1GOSPORTA	0.1535	80/20	0.1535
315261	1GOSPORTB	0.1961	80/20	0.1961
315262	1GOSPORTC	0.1664	80/20	0.1664
315293	1DOMTR9	2.0576	Adder	2.42
315294	1DOMTR10	2.5215	Adder	2.97
315603	6AA1-139SOLA	1.0029	80/20	1.0029
315605	6W1-029WIND	0.4711	80/20	0.4711
315611	6Z1-036WIND	0.4492	80/20	0.4492
316103	AB2-015 C	2.6142	Adder	3.08
316140	AB2-099 C (Suspended)	0.1612	Adder	0.19
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.1324	80/20	0.1324
316258	AE1-162 C	0.1417	80/20	0.1417
925863	AC1-065 C	-5.0524	Adder	-5.94
926661	AC1-147 C	0.1626	80/20	0.1626
926754	AC1-161 C	15.4929	80/20	15.4929
926784	AC1-164 C	-14.7667	Adder	-17.37
932044	AC2-012 C	4.6632	80/20	4.6632
933294	AC2-141 C	15.4929	80/20	15.4929
933731	AC2-196 C	0.1297	80/20	0.1297
933991	AD1-023 C	4.0400	Adder	4.75
934061	AD1-033 C	3.4520	80/20	3.4520
934141	AD1-041 C	-3.3367	Adder	-3.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934521	AD1-076 C	17.0999	Adder	20.12
935111	AD1-144 C	0.1311	80/20	0.1311
936401	AD2-051 C O1	2.5103	Adder	2.95
936661	AD2-085 C	0.9742	Adder	1.15
937221	AD2-160 C O1	2.6630	80/20	2.6630
938535	AE1-072 C	7.9537	80/20	7.9537
938771	AE1-103 C	1.1504	Adder	1.35
939414	AE1-173_C1	9.2677	Adder	10.9
939415	AE1-173_C2	7.9438	Adder	9.35
939416	AE1-173_C3	9.2677	Adder	10.9
939431	AE1-175 C	1.2929	80/20	1.2929
940231	AE2-005 C	-0.9186	Adder	-1.08
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	79.4303	80/20	79.4303
940491	AE2-034 C	2.3762	Adder	2.8
940641	AE2-051 C O1	4.5013	Adder	5.3
940891	AE2-078 C	1.0890	80/20	1.0890
940901	AE2-079 C	1.0890	80/20	1.0890
941101	AE2-104 C O1	1.3615	80/20	1.3615
941281	AE2-122 C O1	13.0346	80/20	13.0346
941291	AE2-123 C O1	13.3955	80/20	13.3955
941301	AE2-124 C O1	12.1844	80/20	12.1844
941501	AE2-147 C	6.8913	80/20	6.8913
941591	AE2-156 O1	8.1940	80/20	8.1940
942131	AE2-225 C	0.9659	80/20	0.9659
942171	AE2-229 C	0.7244	80/20	0.7244
942341	AE2-247 C	0.4210	Adder	0.5
942401	AE2-253 C	2.8011	80/20	2.8011
943171	AE2-346 C	0.3868	Adder	0.46
943461	AF1-017 C	0.3809	Adder	0.45
943611	AF1-032 C	0.7888	80/20	0.7888
943621	AF1-033 C	1.0890	80/20	1.0890
944581	AF1-123 C O1	22.4486	80/20	22.4486
944591	AF1-124 C O1	22.4486	80/20	22.4486
944601	AF1-125 C O1	22.4486	80/20	22.4486
944871	AF1-152 C	2.2971	80/20	2.2971
945361	AF1-201 C O1	6.4395	80/20	6.4395
945711	AF1-236 C O1	26.0136	Adder	30.6
957491	AF2-043 C	0.9659	80/20	0.9659
957521	AF2-046 C	4.6173	Adder	5.43
957531	AF2-047 C	5.6463	Adder	6.64
957631	AF2-057	1.6362	80/20	1.6362
957821	AF2-076 C	2.3502	80/20	2.3502
957871	AF2-081 C	4.5231	80/20	4.5231
958161	AF2-110 C	0.5613	80/20	0.5613
959511	AF2-242 C	2.0146	Adder	2.37
961091	AF2-400 C	0.1412	Adder	0.17
961611	AG1-000B C	2.5440	Adder	5.65
961681	AG1-008 C	2.4521	Adder	5.44
961851	AG1-027 C	3.0032	Adder	6.67
961931	AG1-036 C	0.1981	Adder	0.44
961941	AG1-037 C	0.0732	Adder	0.16

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.9900	80/20	0.9900
962331	AG1-082 C	0.2929	Adder	0.65
962341	AG1-083 C	0.2929	Adder	0.65
962351	AG1-084 C	0.2558	Adder	0.57
962361	AG1-085 C	0.2558	Adder	0.57
962961	AG1-145 C	1.1665	80/20	1.1665
963291	AG1-178 C O1	9.0334	Adder	20.05
963351	AG1-184 O1	4.8667	Adder	10.8
963821	AG1-235 C O1	11.0336	80/20	11.0336
964491	AG1-312 C O1	2.8942	Adder	6.42
964801	AG1-343 C	0.8615	Adder	1.91
964951	AG1-359 O1	12.3330	80/20	12.3330
965001	AG1-364 C O1	3.2768	80/20	3.2768
965181	AG1-383 C	1.2629	80/20	1.2629
965291	AG1-394 C	0.2955	Adder	0.66
965631	AG1-431	7.9821	Adder	17.72
965691	AG1-437 C O1	1.6202	Adder	3.6
965701	AG1-438 C O1	1.6202	Adder	3.6
965741	AG1-442 O1	0.9451	Adder	2.1
965751	AG1-443 O1	0.9451	Adder	2.1
966491	AG1-518 O1	4.0245	80/20	4.0245
966611	AG1-531 C	4.0435	80/20	4.0435
966801	AG1-551 C	0.3172	Adder	0.7
966931	AG1-431A	5.9971	Adder	13.31
WEC	WEC	0.1241	Confirmed LTF	0.1241
LGEE	LGEE	0.2582	Confirmed LTF	0.2582
CPLE	CPLE	1.8905	Confirmed LTF	1.8905
CBM-W2	CBM-W2	6.5139	Confirmed LTF	6.5139
NY	NY	0.3711	Confirmed LTF	0.3711
TVA	TVA	1.2908	Confirmed LTF	1.2908
SIGE	SIGE	0.1260	Confirmed LTF	0.1260
CBM-S2	CBM-S2	21.8196	Confirmed LTF	21.8196
CBM-S1	CBM-S1	0.3150	Confirmed LTF	0.3150
MEC	MEC	0.8088	Confirmed LTF	0.8088
LAGN	LAGN	1.6048	Confirmed LTF	1.6048
CBM-W1	CBM-W1	5.0332	Confirmed LTF	5.0332

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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
168606552	314299	6HARROWG	DVP	314263	6TYLER1	DVP	1	DVP_P1-2: LN 563	single	441.8	126.75	128.08	DC	6.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.3710	80/20	3.3710
313719	3CHESTNUT	0.4186	80/20	0.4186
314435	6SAPONY	0.3020	80/20	0.3020
314572	3EMPORIA	0.2256	80/20	0.2256
314582	3KELFORD	0.1281	80/20	0.1281
314589	3MURPHYS	0.0323	80/20	0.0323
314623	3WITAKRS	0.0765	80/20	0.0765
314704	3LAWRENC	0.1387	80/20	0.1387
315102	1BRUNSWICKG1	2.4537	80/20	2.4537
315103	1BRUNSWICKG2	2.4537	80/20	2.4537
315104	1BRUNSWICKG3	2.4537	80/20	2.4537
315105	1BRUNSWICKS1	5.0976	80/20	5.0976
315115	1S HAMPT1	0.5403	80/20	0.5403
315126	1ROARAP2	0.5660	80/20	0.5660
315128	1ROARAP4	0.5401	80/20	0.5401
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.2550	80/20	3.2550
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.2550	80/20	3.2550
315136	1ROSEMG1	0.9338	80/20	0.9338
315137	1ROSEMS1	0.5791	80/20	0.5791
315138	1ROSEMG2	0.4377	80/20	0.4377
315139	1GASTONA	1.3920	80/20	1.3920
315141	1GASTONB	1.3920	80/20	1.3920
315159	1KERR 2	0.3447	80/20	0.3447
315160	1KERR 3	0.3447	80/20	0.3447
315161	1KERR 4	0.3447	80/20	0.3447
315162	1KERR 5	0.3447	80/20	0.3447
315163	1KERR 6	0.3447	80/20	0.3447
315164	1KERR 7	0.3447	80/20	0.3447
315241	1Z1-086 GT1	3.1549	80/20	3.1549
315242	1Z1-086 GT2	3.1549	80/20	3.1549
315243	1Z1-086 GT3	3.1549	80/20	3.1549
315244	1Z1-086 ST	5.4843	80/20	5.4843
315293	1DOMTR9	1.7503	Adder	2.06
315294	1DOMTR10	2.1450	Adder	2.52
315601	1CONETOE2SOL	0.4539	80/20	0.4539
315602	1HOLLOMAN SOL	0.4740	80/20	0.4740
315606	3AA2-053SOLA	0.5973	80/20	0.5973
315607	3AA1-063SOLA	0.5544	80/20	0.5544
315608	3AA2-088SOLA	0.3920	80/20	0.3920
316020	AB2-059 C OP	0.5832	80/20	0.5832

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316083	AB2-161 C (Suspended)	3.6003	80/20	3.6003
316087	AB2-174 C	0.5694	80/20	0.5694
316096	AB2-100 C1	0.5685	80/20	0.5685
316098	AB2-100 C2	0.5685	80/20	0.5685
316103	AB2-015 C	3.2120	80/20	3.2120
316129	AC1-054 C	2.6954	80/20	2.6954
316140	AB2-099 C (Suspended)	0.2101	80/20	0.2101
920591	AA2-165 C	0.0562	80/20	0.0562
922922	AB1-081 C OP	0.4949	80/20	0.4949
923991	AB2-040 C O1	3.6714	80/20	3.6714
925591	AC1-034 C	2.3944	80/20	2.3944
926070	AC1-086 C	9.9220	80/20	9.9220
926201	AC1-098 C	2.2985	80/20	2.2985
926211	AC1-099 C	0.7702	80/20	0.7702
927024	AC1-189 C	2.8660	80/20	2.8660
927145	AC1-208 C	3.4775	80/20	3.4775
932581	AC2-078 C O1	4.4132	80/20	4.4132
932591	AC2-079 C O1	4.2148	80/20	4.2148
932631	AC2-084 C	3.2766	80/20	3.2766
933991	AD1-023 C	3.4020	Adder	4.0
934331	AD1-057 C O1	4.0899	80/20	4.0899
934575	AD1-082 C	8.2049	80/20	8.2049
936361	AD2-046 C O1	2.3961	Adder	2.82
936401	AD2-051 C O1	2.9711	80/20	2.9711
936661	AD2-085 C	1.9675	80/20	1.9675
936761	AD2-097 C	-0.5795	Adder	-0.68
938221	AE1-035 C	0.1185	80/20	0.1185
938494	AE1-068_C1	9.4459	80/20	9.4459
938497	AE1-068_C2	9.4459	80/20	9.4459
938504	AE1-069_C1	7.1988	80/20	7.1988
938507	AE1-069_C2	7.7620	80/20	7.7620
938634	AE1-085 C	9.8510	80/20	9.8510
938771	AE1-103 C	1.3373	80/20	1.3373
939181	AE1-148 C	2.3556	Adder	2.77
939195	AE1-149 C	12.8658	80/20	12.8658
939414	AE1-173_C1	7.3956	Adder	8.7
939415	AE1-173_C2	6.3391	Adder	7.46
939416	AE1-173_C3	7.3956	Adder	8.7
940061	AE2-000BC O1	10.9578	80/20	10.9578
940471	AE2-031 C	10.2695	80/20	10.2695
940481	AE2-033 C	11.9803	80/20	11.9803
940541	AE2-040	2.1774	80/20	2.1774
940571	AE2-044 C	1.5683	80/20	1.5683
940641	AE2-051 C O1	5.1129	80/20	5.1129
940651	AE2-052	4.2886	80/20	4.2886
940661	AE2-053 O1	0.8724	Adder	1.03
941031	AE2-094 C	12.3678	80/20	12.3678
941101	AE2-104 C O1	1.1780	80/20	1.1780
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.0604	80/20	0.0604
942161	AE2-228 C	-1.0844	Adder	-1.28
942341	AE2-247 C	0.8575	80/20	0.8575
942471	AE2-260 C O1	9.1780	80/20	9.1780

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942931	AE2-313 C	11.1024	80/20	11.1024
943171	AE2-346 C	0.5043	80/20	0.5043
943461	AF1-017 C	0.7758	80/20	0.7758
943911	AF1-059	6.7853	80/20	6.7853
944011	AF1-069 C	4.0410	80/20	4.0410
944141	AF1-082	1.0082	80/20	1.0082
946011	AF1-266	10.0284	80/20	10.0284
946261	AF1-291 C	-1.8452	Adder	-2.17
946281	AF1-292 C	0.8273	80/20	0.8273
957521	AF2-046 C	6.2694	80/20	6.2694
957861	AF2-080 C	2.6030	80/20	2.6030
958161	AF2-110 C	0.4856	80/20	0.4856
959511	AF2-242 C	1.9726	Adder	2.32
959651	AF2-256 C	-0.2711	Adder	-0.32
960081	AF2-299 C	1.3944	80/20	1.3944
961091	AF2-400 C	0.1734	80/20	0.1734
961671	AG1-007 C	0.4216	80/20	0.4216
961681	AG1-008 C	6.2820	80/20	6.2820
961851	AG1-027 C	6.0684	80/20	6.0684
961931	AG1-036 C	0.4969	80/20	0.4969
961941	AG1-037 C	0.1801	80/20	0.1801
962331	AG1-082 C	0.7204	80/20	0.7204
962341	AG1-083 C	0.7204	80/20	0.7204
962351	AG1-084 C	0.6183	80/20	0.6183
962361	AG1-085 C	0.6183	80/20	0.6183
962571	AG1-106 C	2.7592	80/20	2.7592
963041	AG1-153 C	1.7217	80/20	1.7217
963111	AG1-160 C	1.7439	80/20	1.7439
963291	AG1-178 C O1	17.8262	80/20	17.8262
963301	AG1-179 C	2.5632	80/20	2.5632
963311	AG1-180	1.2489	80/20	1.2489
963351	AG1-184 O1	9.6038	80/20	9.6038
964491	AG1-312 C O1	6.2093	80/20	6.2093
964501	AG1-313 C O1	1.8373	80/20	1.8373
964801	AG1-343 C	2.2813	80/20	2.2813
964931	AG1-357 C	6.3144	80/20	6.3144
965291	AG1-394 C	0.7865	80/20	0.7865
965451	AG1-413 C O1	2.8523	80/20	2.8523
965601	AG1-428 C O1	2.1398	80/20	2.1398
965691	AG1-437 C O1	3.1668	80/20	3.1668
965701	AG1-438 C O1	3.1668	80/20	3.1668
965711	AG1-439 C O1	8.1420	80/20	8.1420
965721	AG1-440 C	2.4817	80/20	2.4817
965731	AG1-441 C	2.4817	80/20	2.4817
965741	AG1-442 O1	1.8473	80/20	1.8473
965751	AG1-443 O1	1.8473	80/20	1.8473
965761	AG1-444 O1	4.3424	80/20	4.3424
965771	AG1-445	1.4339	80/20	1.4339
965781	AG1-446	1.4339	80/20	1.4339
965811	AG1-449	7.2004	80/20	7.2004
966361	AG1-505 C	5.0148	80/20	5.0148
966371	AG1-506 C	5.0148	80/20	5.0148

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966621	AG1-532 C	0.7530	80/20	0.7530
966731	AG1-544 C	7.6936	80/20	7.6936
966741	AG1-545 C	2.5440	80/20	2.5440
966751	AG1-546 C	6.0232	80/20	6.0232
966801	AG1-551 C	0.3278	Adder	0.73
966811	AG1-552 C	0.8986	80/20	0.8986
WEC	WEC	0.2255	Confirmed LTF	0.2255
LGEE	LGEE	0.4643	Confirmed LTF	0.4643
CPL	CPL	2.4734	Confirmed LTF	2.4734
CBM-W2	CBM-W2	10.0890	Confirmed LTF	10.0890
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	1.9138	Confirmed LTF	1.9138
SIGE	SIGE	0.1599	Confirmed LTF	0.1599
CBM-S2	CBM-S2	29.1902	Confirmed LTF	29.1902
CBM-S1	CBM-S1	0.4761	Confirmed LTF	0.4761
MEC	MEC	1.3634	Confirmed LTF	1.3634
LAGN	LAGN	2.3800	Confirmed LTF	2.3800
AA2-074	AA2-074	1.6339	LTF	1.6339
CBM-W1	CBM-W1	9.4074	Confirmed LTF	9.4074

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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
168606464	314303	6HOPEWLL	DVP	314286	6CHESTF A	DVP	1	Base Case	single	449.32	147.99	149.24	DC	5.63

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314314	3LOCKS	0.1086	80/20	0.1086
314435	6SAPONY	0.1477	80/20	0.1477
314507	3THOMPSN	0.1020	80/20	0.1020
315065	1CHESTF6 (Deactivation : 31/05/2023)	90.3161	80/20	90.3161
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0350	80/20	0.0350
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0350	80/20	0.0350
315076	1HOPPOLC	2.9283	80/20	2.9283
315077	1HOPHCF1	4.5772	80/20	4.5772
315078	1HOPHCF2	4.5772	80/20	4.5772
315079	1HOPHCF3	4.5772	80/20	4.5772
315080	1HOPHCF4	6.9485	80/20	6.9485
315098	1CHESPKA	0.1346	80/20	0.1346
315099	1CHESPKB (Deactivation : 31/05/2019)	0.9330	80/20	0.9330
315116	1SURRY 1	19.2736	80/20	19.2736
315117	1GRAVELC	0.6755	80/20	0.6755
315119	1GRAVEL3	1.9579	80/20	1.9579
315120	1GRAVEL4	1.9830	80/20	1.9830
315121	1GRAVEL5	1.9579	80/20	1.9579
315122	1GRAVEL6	1.9808	80/20	1.9808
315261	1GOSPORTB	0.1373	80/20	0.1373
316033	AB2-134 C	2.6808	80/20	2.6808
316083	AB2-161 C (Suspended)	2.2234	80/20	2.2234
316108	AB2-160 C (Suspended)	2.0930	80/20	2.0930
316132	AB2-190 C	29.1032	80/20	29.1032
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.0965	80/20	0.0965
316258	AE1-162 C	0.2106	80/20	0.2106
926661	AC1-147 C	0.1138	80/20	0.1138
926784	AC1-164 C	-18.7267	Adder	-22.03
927225	AC1-216 C	2.0464	80/20	2.0464
932044	AC2-012 C	3.2633	80/20	3.2633
932581	AC2-078 C O1	2.7096	80/20	2.7096
932591	AC2-079 C O1	2.9273	80/20	2.9273
934014	AD1-025 C	22.2934	80/20	22.2934
934575	AD1-082 C	5.0670	80/20	5.0670
935111	AD1-144 C	0.0955	80/20	0.0955
935164	AD1-151 C	23.3865	80/20	23.3865
936041	AD2-007 C	1.0650	80/20	1.0650
936051	AD2-008 C	3.8812	80/20	3.8812

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936661	AD2-085 C	1.5052	80/20	1.5052
938634	AE1-085 C	6.0195	80/20	6.0195
939195	AE1-149 C	7.6902	80/20	7.6902
940061	AE2-000BC O1	6.8370	80/20	6.8370
940481	AE2-033 C	5.9060	80/20	5.9060
940541	AE2-040	1.0648	80/20	1.0648
940651	AE2-052	2.5634	80/20	2.5634
940891	AE2-078 C	1.6837	80/20	1.6837
940901	AE2-079 C	1.6837	80/20	1.6837
941101	AE2-104 C O1	1.1373	80/20	1.1373
942001	AE2-212 C	1.3508	80/20	1.3508
942151	AE2-227 C	-1.9868	Adder	-2.34
942161	AE2-228 C	1.5346	80/20	1.5346
942341	AE2-247 C	0.6545	80/20	0.6545
942371	AE2-250 C O1	3.7179	80/20	3.7179
942471	AE2-260 C O1	4.7892	80/20	4.7892
942551	AE2-270	37.0575	80/20	37.0575
943461	AF1-017 C	0.5922	80/20	0.5922
943621	AF1-033 C	1.6837	80/20	1.6837
944641	AF1-129	75.7851	80/20	75.7851
946011	AF1-266	4.9438	80/20	4.9438
946261	AF1-291 C	1.5616	80/20	1.5616
957631	AF2-057	1.1450	80/20	1.1450
957711	AF2-065 C	18.8993	80/20	18.8993
958141	AF2-108	0.9523	80/20	0.9523
958161	AF2-110 C	0.4689	80/20	0.4689
959641	AF2-255 C	-0.4967	Adder	-0.58
959651	AF2-256 C	0.3836	80/20	0.3836
959661	AF2-257 C	0.3904	80/20	0.3904
959671	AF2-258 C	0.3377	80/20	0.3377
959681	AF2-259 C	1.4285	80/20	1.4285
961611	AG1-000B C	14.6868	80/20	14.6868
961711	AG1-011	37.8656	80/20	37.8656
961851	AG1-027 C	5.6298	80/20	5.6298
962271	AG1-075 C O1	6.4168	80/20	6.4168
962321	AG1-081 C (Withdrawn : 01/15/2021)	1.5306	80/20	1.5306
963221	AG1-171 C	3.1182	80/20	3.1182
963231	AG1-172 C	3.1182	80/20	3.1182
963241	AG1-173 C	3.1182	80/20	3.1182
963251	AG1-174 C	3.1182	80/20	3.1182
963261	AG1-175 C	3.1182	80/20	3.1182
966611	AG1-531 C	3.0679	80/20	3.0679
966731	AG1-544 C	4.7012	80/20	4.7012
966741	AG1-545 C	1.5580	80/20	1.5580
WEC	WEC	0.0743	Confirmed LTF	0.0743
LGEE	LGEE	0.1552	Confirmed LTF	0.1552
CPLE	CPLE	1.3261	Confirmed LTF	1.3261
CBM-W2	CBM-W2	4.2022	Confirmed LTF	4.2022
NY	NY	0.2748	Confirmed LTF	0.2748
TVA	TVA	0.8470	Confirmed LTF	0.8470
SIGE	SIGE	0.0867	Confirmed LTF	0.0867
CBM-S2	CBM-S2	14.9918	Confirmed LTF	14.9918

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S1	CBM-S1	0.2052	Confirmed LTF	0.2052
MEC	MEC	0.5021	Confirmed LTF	0.5021
LAGN	LAGN	1.0535	Confirmed LTF	1.0535
CBM-W1	CBM-W1	2.9582	Confirmed LTF	2.9582

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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
166876935	314329	3POE	DVP	314291	3PRGEORG	DVP	1	DVP_P7-1: LN 2002-2003	tower	301.0	103.86	105.98	DC	14.21

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314539	3UNCAMP	2.1973	Adder	2.59
316083	AB2-161 C (Suspended)	10.4872	50/50	10.4872
316084	AB2-161 E (Suspended)	17.1108	50/50	17.1108
316103	AB2-015 C	2.9401	Adder	3.46
316104	AB2-015 E	2.4109	Adder	2.84
932581	AC2-078 C O1	12.9110	50/50	12.9110
932582	AC2-078 E O1	21.0652	50/50	21.0652
932591	AC2-079 C O1	11.1293	50/50	11.1293
932592	AC2-079 E O1	18.1583	50/50	18.1583
934575	AD1-082 C	23.8999	50/50	23.8999
934576	AD1-082 E	13.6334	50/50	13.6334
936661	AD2-085 C	4.7041	50/50	4.7041
936662	AD2-085 E	7.6751	50/50	7.6751
938634	AE1-085 C	28.9230	50/50	28.9230
938635	AE1-085 E	14.4615	50/50	14.4615
938771	AE1-103 C	1.4130	Adder	1.66
938772	AE1-103 E	1.9513	Adder	2.3
939195	AE1-149 C	38.3790	50/50	38.3790
939196	AE1-149 E	25.5860	50/50	25.5860
940061	AE2-000BC O1	31.6722	50/50	31.6722
940062	AE2-000BE O1	21.1148	50/50	21.1148
940651	AE2-052	12.7930	50/50	12.7930
941101	AE2-104 C O1	1.9813	50/50	1.9813
941102	AE2-104 E O1	3.1500	50/50	3.1500
942341	AE2-247 C	2.0556	50/50	2.0556
942342	AE2-247 E	2.8386	50/50	2.8386
943461	AF1-017 C	1.8598	50/50	1.8598
943462	AF1-017 E	3.0344	50/50	3.0344
958161	AF2-110 C	0.8168	50/50	0.8168
958162	AF2-110 E	1.2776	50/50	1.2776
961091	AF2-400 C	0.1588	Adder	0.19
961092	AF2-400 E	0.2605	Adder	0.31
961851	AG1-027 C	4.1212	Adder	9.15
961852	AG1-027 E	2.2782	Adder	5.06
966731	AG1-544 C	22.5889	50/50	22.5889
966732	AG1-544 E	12.1187	50/50	12.1187
966741	AG1-545 C	7.4567	50/50	7.4567
966742	AG1-545 E	3.9975	50/50	3.9975
WEC	WEC	0.0318	Confirmed LTF	0.0318
LGEE	LGEE	0.0653	Confirmed LTF	0.0653
CPL	CPL	0.3795	Confirmed LTF	0.3795

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-W2	CBM-W2	1.4426	Confirmed LTF	1.4426
NY	NY	0.0465	Confirmed LTF	0.0465
TVA	TVA	0.2744	Confirmed LTF	0.2744
O-066	O-066	0.6528	Confirmed LTF	0.6528
SIGE	SIGE	0.0219	Confirmed LTF	0.0219
CBM-S2	CBM-S2	4.3013	Confirmed LTF	4.3013
CBM-S1	CBM-S1	0.0680	Confirmed LTF	0.0680
G-007	G-007	0.1029	Confirmed LTF	0.1029
MEC	MEC	0.1939	Confirmed LTF	0.1939
LAGN	LAGN	0.3412	Confirmed LTF	0.3412
CBM-W1	CBM-W1	1.3319	Confirmed LTF	1.3319

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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
168606548	314331	6POE	DVP	314299	6HARROWG	DVP	1	DVP_P1-2: LN 563	single	441.8	126.77	128.1	DC	6.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.3710	80/20	3.3710
313719	3CHESTNUT	0.4186	80/20	0.4186
314435	6SAPONY	0.3020	80/20	0.3020
314572	3EMPORIA	0.2256	80/20	0.2256
314582	3KELFORD	0.1281	80/20	0.1281
314589	3MURPHYS	0.0323	80/20	0.0323
314623	3WITAKRS	0.0765	80/20	0.0765
314704	3LAWRENC	0.1387	80/20	0.1387
315102	1BRUNSWICKG1	2.4537	80/20	2.4537
315103	1BRUNSWICKG2	2.4537	80/20	2.4537
315104	1BRUNSWICKG3	2.4537	80/20	2.4537
315105	1BRUNSWICKS1	5.0976	80/20	5.0976
315115	1S HAMPT1	0.5403	80/20	0.5403
315126	1ROARAP2	0.5660	80/20	0.5660
315128	1ROARAP4	0.5401	80/20	0.5401
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.2550	80/20	3.2550
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.2550	80/20	3.2550
315136	1ROSEMG1	0.9338	80/20	0.9338
315137	1ROSEMS1	0.5791	80/20	0.5791
315138	1ROSEMG2	0.4377	80/20	0.4377
315139	1GASTONA	1.3920	80/20	1.3920
315141	1GASTONB	1.3920	80/20	1.3920
315159	1KERR 2	0.3447	80/20	0.3447
315160	1KERR 3	0.3447	80/20	0.3447
315161	1KERR 4	0.3447	80/20	0.3447
315162	1KERR 5	0.3447	80/20	0.3447
315163	1KERR 6	0.3447	80/20	0.3447
315164	1KERR 7	0.3447	80/20	0.3447
315241	1Z1-086 GT1	3.1549	80/20	3.1549
315242	1Z1-086 GT2	3.1549	80/20	3.1549
315243	1Z1-086 GT3	3.1549	80/20	3.1549
315244	1Z1-086 ST	5.4843	80/20	5.4843
315293	1DOMTR9	1.7503	Adder	2.06
315294	1DOMTR10	2.1450	Adder	2.52
315601	1CONETOE2SOL	0.4539	80/20	0.4539
315602	1HOLLOMANSOL	0.4740	80/20	0.4740
315606	3AA2-053SOLA	0.5973	80/20	0.5973
315607	3AA1-063SOLA	0.5544	80/20	0.5544
315608	3AA2-088SOLA	0.3920	80/20	0.3920
316020	AB2-059 C OP	0.5832	80/20	0.5832

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316083	AB2-161 C (Suspended)	3.6003	80/20	3.6003
316087	AB2-174 C	0.5694	80/20	0.5694
316096	AB2-100 C1	0.5685	80/20	0.5685
316098	AB2-100 C2	0.5685	80/20	0.5685
316103	AB2-015 C	3.2120	80/20	3.2120
316129	AC1-054 C	2.6954	80/20	2.6954
316140	AB2-099 C (Suspended)	0.2101	80/20	0.2101
920591	AA2-165 C	0.0562	80/20	0.0562
922922	AB1-081 C OP	0.4949	80/20	0.4949
923991	AB2-040 C O1	3.6714	80/20	3.6714
925591	AC1-034 C	2.3944	80/20	2.3944
926070	AC1-086 C	9.9220	80/20	9.9220
926201	AC1-098 C	2.2985	80/20	2.2985
926211	AC1-099 C	0.7702	80/20	0.7702
927024	AC1-189 C	2.8660	80/20	2.8660
927145	AC1-208 C	3.4775	80/20	3.4775
932581	AC2-078 C O1	4.4132	80/20	4.4132
932591	AC2-079 C O1	4.2148	80/20	4.2148
932631	AC2-084 C	3.2766	80/20	3.2766
933991	AD1-023 C	3.4020	Adder	4.0
934331	AD1-057 C O1	4.0899	80/20	4.0899
934575	AD1-082 C	8.2049	80/20	8.2049
936361	AD2-046 C O1	2.3961	Adder	2.82
936401	AD2-051 C O1	2.9711	80/20	2.9711
936661	AD2-085 C	1.9675	80/20	1.9675
936761	AD2-097 C	-0.5795	Adder	-0.68
938221	AE1-035 C	0.1185	80/20	0.1185
938494	AE1-068_C1	9.4459	80/20	9.4459
938497	AE1-068_C2	9.4459	80/20	9.4459
938504	AE1-069_C1	7.1988	80/20	7.1988
938507	AE1-069_C2	7.7620	80/20	7.7620
938634	AE1-085 C	9.8510	80/20	9.8510
938771	AE1-103 C	1.3373	80/20	1.3373
939181	AE1-148 C	2.3556	Adder	2.77
939195	AE1-149 C	12.8658	80/20	12.8658
939414	AE1-173_C1	7.3956	Adder	8.7
939415	AE1-173_C2	6.3391	Adder	7.46
939416	AE1-173_C3	7.3956	Adder	8.7
940061	AE2-000BC O1	10.9578	80/20	10.9578
940471	AE2-031 C	10.2695	80/20	10.2695
940481	AE2-033 C	11.9803	80/20	11.9803
940541	AE2-040	2.1774	80/20	2.1774
940571	AE2-044 C	1.5683	80/20	1.5683
940641	AE2-051 C O1	5.1129	80/20	5.1129
940651	AE2-052	4.2886	80/20	4.2886
940661	AE2-053 O1	0.8724	Adder	1.03
941031	AE2-094 C	12.3678	80/20	12.3678
941101	AE2-104 C O1	1.1780	80/20	1.1780
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.0604	80/20	0.0604
942161	AE2-228 C	-1.0844	Adder	-1.28
942341	AE2-247 C	0.8575	80/20	0.8575
942471	AE2-260 C O1	9.1780	80/20	9.1780

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942931	AE2-313 C	11.1024	80/20	11.1024
943171	AE2-346 C	0.5043	80/20	0.5043
943461	AF1-017 C	0.7758	80/20	0.7758
943911	AF1-059	6.7853	80/20	6.7853
944011	AF1-069 C	4.0410	80/20	4.0410
944141	AF1-082	1.0082	80/20	1.0082
946011	AF1-266	10.0284	80/20	10.0284
946261	AF1-291 C	-1.8452	Adder	-2.17
946281	AF1-292 C	0.8273	80/20	0.8273
957521	AF2-046 C	6.2694	80/20	6.2694
957861	AF2-080 C	2.6030	80/20	2.6030
958161	AF2-110 C	0.4856	80/20	0.4856
959511	AF2-242 C	1.9726	Adder	2.32
959651	AF2-256 C	-0.2711	Adder	-0.32
960081	AF2-299 C	1.3944	80/20	1.3944
961091	AF2-400 C	0.1734	80/20	0.1734
961671	AG1-007 C	0.4216	80/20	0.4216
961681	AG1-008 C	6.2820	80/20	6.2820
961851	AG1-027 C	6.0684	80/20	6.0684
961931	AG1-036 C	0.4969	80/20	0.4969
961941	AG1-037 C	0.1801	80/20	0.1801
962331	AG1-082 C	0.7204	80/20	0.7204
962341	AG1-083 C	0.7204	80/20	0.7204
962351	AG1-084 C	0.6183	80/20	0.6183
962361	AG1-085 C	0.6183	80/20	0.6183
962571	AG1-106 C	2.7592	80/20	2.7592
963041	AG1-153 C	1.7217	80/20	1.7217
963111	AG1-160 C	1.7439	80/20	1.7439
963291	AG1-178 C O1	17.8262	80/20	17.8262
963301	AG1-179 C	2.5632	80/20	2.5632
963311	AG1-180	1.2489	80/20	1.2489
963351	AG1-184 O1	9.6038	80/20	9.6038
964491	AG1-312 C O1	6.2093	80/20	6.2093
964501	AG1-313 C O1	1.8373	80/20	1.8373
964801	AG1-343 C	2.2813	80/20	2.2813
964931	AG1-357 C	6.3144	80/20	6.3144
965291	AG1-394 C	0.7865	80/20	0.7865
965451	AG1-413 C O1	2.8523	80/20	2.8523
965601	AG1-428 C O1	2.1398	80/20	2.1398
965691	AG1-437 C O1	3.1668	80/20	3.1668
965701	AG1-438 C O1	3.1668	80/20	3.1668
965711	AG1-439 C O1	8.1420	80/20	8.1420
965721	AG1-440 C	2.4817	80/20	2.4817
965731	AG1-441 C	2.4817	80/20	2.4817
965741	AG1-442 O1	1.8473	80/20	1.8473
965751	AG1-443 O1	1.8473	80/20	1.8473
965761	AG1-444 O1	4.3424	80/20	4.3424
965771	AG1-445	1.4339	80/20	1.4339
965781	AG1-446	1.4339	80/20	1.4339
965811	AG1-449	7.2004	80/20	7.2004
966361	AG1-505 C	5.0148	80/20	5.0148
966371	AG1-506 C	5.0148	80/20	5.0148

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966621	AG1-532 C	0.7530	80/20	0.7530
966731	AG1-544 C	7.6936	80/20	7.6936
966741	AG1-545 C	2.5440	80/20	2.5440
966751	AG1-546 C	6.0232	80/20	6.0232
966801	AG1-551 C	0.3278	Adder	0.73
966811	AG1-552 C	0.8986	80/20	0.8986
WEC	WEC	0.2255	Confirmed LTF	0.2255
LGEE	LGEE	0.4643	Confirmed LTF	0.4643
CPL	CPL	2.4734	Confirmed LTF	2.4734
CBM-W2	CBM-W2	10.0890	Confirmed LTF	10.0890
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	1.9138	Confirmed LTF	1.9138
SIGE	SIGE	0.1599	Confirmed LTF	0.1599
CBM-S2	CBM-S2	29.1902	Confirmed LTF	29.1902
CBM-S1	CBM-S1	0.4761	Confirmed LTF	0.4761
MEC	MEC	1.3634	Confirmed LTF	1.3634
LAGN	LAGN	2.3800	Confirmed LTF	2.3800
AA2-074	AA2-074	1.6339	LTF	1.6339
CBM-W1	CBM-W1	9.4074	Confirmed LTF	9.4074

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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
168606411	314386	6KINGS M	DVP	314296	6PENNIMAN	DVP	1	DVP_P1-2: LN 567	single	441.8	147.32	148.0	DC	6.67

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1610	80/20	0.1610
314295	6BIRDNECK	0.0194	80/20	0.0194
314421	6WINCHST	0.1065	80/20	0.1065
314491	3PENDLTN	0.1449	80/20	0.1449
314507	3THOMPSN	0.1454	80/20	0.1454
314638	6ELIZ CT	0.0941	80/20	0.0941
314639	6TANGLEW	0.1715	80/20	0.1715
314643	3O INLET	0.1897	80/20	0.1897
315092	1YORKTN3	19.6878	80/20	19.6878
315098	1CHESPKA	0.1923	80/20	0.1923
315099	1CHESPKB (Deactivation : 31/05/2019)	1.3332	80/20	1.3332
315108	1ELIZAR1	1.4176	80/20	1.4176
315109	1ELIZAR2	1.3929	80/20	1.3929
315110	1ELIZAR3	1.4357	80/20	1.4357
315116	1SURRY 1	9.3889	80/20	9.3889
315120	1GRAVEL4	0.9660	80/20	0.9660
315122	1GRAVEL6	0.9649	80/20	0.9649
315233	1SURRY 2	14.2114	80/20	14.2114
315260	1GOSPORTA	0.1535	80/20	0.1535
315261	1GOSPORTB	0.1961	80/20	0.1961
315262	1GOSPORTC	0.1664	80/20	0.1664
315293	1DOMTR9	2.0576	Adder	2.42
315294	1DOMTR10	2.5215	Adder	2.97
315603	6AA1-139SOLA	1.0029	80/20	1.0029
315605	6W1-029WIND	0.4711	80/20	0.4711
315611	6Z1-036WIND	0.4492	80/20	0.4492
316103	AB2-015 C	2.6142	Adder	3.08
316140	AB2-099 C (Suspended)	0.1612	Adder	0.19
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.1324	80/20	0.1324
316258	AE1-162 C	0.1417	80/20	0.1417
925863	AC1-065 C	-5.0524	Adder	-5.94
926661	AC1-147 C	0.1626	80/20	0.1626
926754	AC1-161 C	15.4929	80/20	15.4929
926784	AC1-164 C	-14.7667	Adder	-17.37
932044	AC2-012 C	4.6632	80/20	4.6632
933294	AC2-141 C	15.4929	80/20	15.4929
933731	AC2-196 C	0.1297	80/20	0.1297
933991	AD1-023 C	4.0400	Adder	4.75
934061	AD1-033 C	3.4520	80/20	3.4520
934141	AD1-041 C	-3.3367	Adder	-3.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934521	AD1-076 C	17.0999	Adder	20.12
935111	AD1-144 C	0.1311	80/20	0.1311
936401	AD2-051 C O1	2.5103	Adder	2.95
936661	AD2-085 C	0.9742	Adder	1.15
937221	AD2-160 C O1	2.6630	80/20	2.6630
938535	AE1-072 C	7.9537	80/20	7.9537
938771	AE1-103 C	1.1504	Adder	1.35
939414	AE1-173_C1	9.2677	Adder	10.9
939415	AE1-173_C2	7.9438	Adder	9.35
939416	AE1-173_C3	9.2677	Adder	10.9
939431	AE1-175 C	1.2929	80/20	1.2929
940231	AE2-005 C	-0.9186	Adder	-1.08
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	79.4303	80/20	79.4303
940491	AE2-034 C	2.3762	Adder	2.8
940641	AE2-051 C O1	4.5013	Adder	5.3
940891	AE2-078 C	1.0890	80/20	1.0890
940901	AE2-079 C	1.0890	80/20	1.0890
941101	AE2-104 C O1	1.3615	80/20	1.3615
941281	AE2-122 C O1	13.0346	80/20	13.0346
941291	AE2-123 C O1	13.3955	80/20	13.3955
941301	AE2-124 C O1	12.1844	80/20	12.1844
941501	AE2-147 C	6.8913	80/20	6.8913
941591	AE2-156 O1	8.1940	80/20	8.1940
942131	AE2-225 C	0.9659	80/20	0.9659
942171	AE2-229 C	0.7244	80/20	0.7244
942341	AE2-247 C	0.4210	Adder	0.5
942401	AE2-253 C	2.8011	80/20	2.8011
943171	AE2-346 C	0.3868	Adder	0.46
943461	AF1-017 C	0.3809	Adder	0.45
943611	AF1-032 C	0.7888	80/20	0.7888
943621	AF1-033 C	1.0890	80/20	1.0890
944581	AF1-123 C O1	22.4486	80/20	22.4486
944591	AF1-124 C O1	22.4486	80/20	22.4486
944601	AF1-125 C O1	22.4486	80/20	22.4486
944871	AF1-152 C	2.2971	80/20	2.2971
945361	AF1-201 C O1	6.4395	80/20	6.4395
945711	AF1-236 C O1	26.0136	Adder	30.6
957491	AF2-043 C	0.9659	80/20	0.9659
957521	AF2-046 C	4.6173	Adder	5.43
957531	AF2-047 C	5.6463	Adder	6.64
957631	AF2-057	1.6362	80/20	1.6362
957821	AF2-076 C	2.3502	80/20	2.3502
957871	AF2-081 C	4.5231	80/20	4.5231
958161	AF2-110 C	0.5613	80/20	0.5613
959511	AF2-242 C	2.0146	Adder	2.37
961091	AF2-400 C	0.1412	Adder	0.17
961611	AG1-000B C	2.5440	Adder	5.65
961681	AG1-008 C	2.4521	Adder	5.44
961851	AG1-027 C	3.0032	Adder	6.67
961931	AG1-036 C	0.1981	Adder	0.44
961941	AG1-037 C	0.0732	Adder	0.16

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.9900	80/20	0.9900
962331	AG1-082 C	0.2929	Adder	0.65
962341	AG1-083 C	0.2929	Adder	0.65
962351	AG1-084 C	0.2558	Adder	0.57
962361	AG1-085 C	0.2558	Adder	0.57
962961	AG1-145 C	1.1665	80/20	1.1665
963291	AG1-178 C O1	9.0334	Adder	20.05
963351	AG1-184 O1	4.8667	Adder	10.8
963821	AG1-235 C O1	11.0336	80/20	11.0336
964491	AG1-312 C O1	2.8942	Adder	6.42
964801	AG1-343 C	0.8615	Adder	1.91
964951	AG1-359 O1	12.3330	80/20	12.3330
965001	AG1-364 C O1	3.2768	80/20	3.2768
965181	AG1-383 C	1.2629	80/20	1.2629
965291	AG1-394 C	0.2955	Adder	0.66
965631	AG1-431	7.9821	Adder	17.72
965691	AG1-437 C O1	1.6202	Adder	3.6
965701	AG1-438 C O1	1.6202	Adder	3.6
965741	AG1-442 O1	0.9451	Adder	2.1
965751	AG1-443 O1	0.9451	Adder	2.1
966491	AG1-518 O1	4.0245	80/20	4.0245
966611	AG1-531 C	4.0435	80/20	4.0435
966801	AG1-551 C	0.3172	Adder	0.7
966931	AG1-431A	5.9971	Adder	13.31
WEC	WEC	0.1241	Confirmed LTF	0.1241
LGEE	LGEE	0.2582	Confirmed LTF	0.2582
CPLE	CPLE	1.8905	Confirmed LTF	1.8905
CBM-W2	CBM-W2	6.5139	Confirmed LTF	6.5139
NY	NY	0.3711	Confirmed LTF	0.3711
TVA	TVA	1.2908	Confirmed LTF	1.2908
SIGE	SIGE	0.1260	Confirmed LTF	0.1260
CBM-S2	CBM-S2	21.8196	Confirmed LTF	21.8196
CBM-S1	CBM-S1	0.3150	Confirmed LTF	0.3150
MEC	MEC	0.8088	Confirmed LTF	0.8088
LAGN	LAGN	1.6048	Confirmed LTF	1.6048
CBM-W1	CBM-W1	5.0332	Confirmed LTF	5.0332

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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
168606425	314415	6WALR209	DVP	314391	6LIGH209	DVP	1	DVP_P1-2: LN 567	single	441.8	127.22	127.9	DC	6.67

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.1610	80/20	0.1610
314295	6BIRDNECK	0.0194	80/20	0.0194
314421	6WINCHST	0.1065	80/20	0.1065
314491	3PENDLTN	0.1449	80/20	0.1449
314507	3THOMPSN	0.1454	80/20	0.1454
314638	6ELIZ CT	0.0941	80/20	0.0941
314639	6TANGLEW	0.1715	80/20	0.1715
314643	3O INLET	0.1897	80/20	0.1897
315092	1YORKTN3	19.6878	80/20	19.6878
315098	1CHESPKA	0.1923	80/20	0.1923
315099	1CHESPKB (Deactivation : 31/05/2019)	1.3332	80/20	1.3332
315108	1ELIZAR1	1.4176	80/20	1.4176
315109	1ELIZAR2	1.3929	80/20	1.3929
315110	1ELIZAR3	1.4357	80/20	1.4357
315116	1SURRY 1	9.3889	80/20	9.3889
315120	1GRAVEL4	0.9660	80/20	0.9660
315122	1GRAVEL6	0.9649	80/20	0.9649
315233	1SURRY 2	14.2114	80/20	14.2114
315260	1GOSPORTA	0.1535	80/20	0.1535
315261	1GOSPORTB	0.1961	80/20	0.1961
315262	1GOSPORTC	0.1664	80/20	0.1664
315293	1DOMTR9	2.0576	Adder	2.42
315294	1DOMTR10	2.5215	Adder	2.97
315603	6AA1-139SOLA	1.0029	80/20	1.0029
315605	6W1-029WIND	0.4711	80/20	0.4711
315611	6Z1-036WIND	0.4492	80/20	0.4492
316103	AB2-015 C	2.6142	Adder	3.08
316140	AB2-099 C (Suspended)	0.1612	Adder	0.19
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.1324	80/20	0.1324
316258	AE1-162 C	0.1417	80/20	0.1417
925863	AC1-065 C	-5.0524	Adder	-5.94
926661	AC1-147 C	0.1626	80/20	0.1626
926754	AC1-161 C	15.4929	80/20	15.4929
926784	AC1-164 C	-14.7667	Adder	-17.37
932044	AC2-012 C	4.6632	80/20	4.6632
933294	AC2-141 C	15.4929	80/20	15.4929
933731	AC2-196 C	0.1297	80/20	0.1297
933991	AD1-023 C	4.0400	Adder	4.75
934061	AD1-033 C	3.4520	80/20	3.4520
934141	AD1-041 C	-3.3367	Adder	-3.93

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934521	AD1-076 C	17.0999	Adder	20.12
935111	AD1-144 C	0.1311	80/20	0.1311
936401	AD2-051 C O1	2.5103	Adder	2.95
936661	AD2-085 C	0.9742	Adder	1.15
937221	AD2-160 C O1	2.6630	80/20	2.6630
938535	AE1-072 C	7.9537	80/20	7.9537
938771	AE1-103 C	1.1504	Adder	1.35
939414	AE1-173_C1	9.2677	Adder	10.9
939415	AE1-173_C2	7.9438	Adder	9.35
939416	AE1-173_C3	9.2677	Adder	10.9
939431	AE1-175 C	1.2929	80/20	1.2929
940231	AE2-005 C	-0.9186	Adder	-1.08
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	79.4303	80/20	79.4303
940491	AE2-034 C	2.3762	Adder	2.8
940641	AE2-051 C O1	4.5013	Adder	5.3
940891	AE2-078 C	1.0890	80/20	1.0890
940901	AE2-079 C	1.0890	80/20	1.0890
941101	AE2-104 C O1	1.3615	80/20	1.3615
941281	AE2-122 C O1	13.0346	80/20	13.0346
941291	AE2-123 C O1	13.3955	80/20	13.3955
941301	AE2-124 C O1	12.1844	80/20	12.1844
941501	AE2-147 C	6.8913	80/20	6.8913
941591	AE2-156 O1	8.1940	80/20	8.1940
942131	AE2-225 C	0.9659	80/20	0.9659
942171	AE2-229 C	0.7244	80/20	0.7244
942341	AE2-247 C	0.4210	Adder	0.5
942401	AE2-253 C	2.8011	80/20	2.8011
943171	AE2-346 C	0.3868	Adder	0.46
943461	AF1-017 C	0.3809	Adder	0.45
943611	AF1-032 C	0.7888	80/20	0.7888
943621	AF1-033 C	1.0890	80/20	1.0890
944581	AF1-123 C O1	22.4486	80/20	22.4486
944591	AF1-124 C O1	22.4486	80/20	22.4486
944601	AF1-125 C O1	22.4486	80/20	22.4486
944871	AF1-152 C	2.2971	80/20	2.2971
945361	AF1-201 C O1	6.4395	80/20	6.4395
945711	AF1-236 C O1	26.0136	Adder	30.6
957491	AF2-043 C	0.9659	80/20	0.9659
957521	AF2-046 C	4.6173	Adder	5.43
957531	AF2-047 C	5.6463	Adder	6.64
957631	AF2-057	1.6362	80/20	1.6362
957821	AF2-076 C	2.3502	80/20	2.3502
957871	AF2-081 C	4.5231	80/20	4.5231
958161	AF2-110 C	0.5613	80/20	0.5613
959511	AF2-242 C	2.0146	Adder	2.37
961091	AF2-400 C	0.1412	Adder	0.17
961611	AG1-000B C	2.5440	Adder	5.65
961681	AG1-008 C	2.4521	Adder	5.44
961851	AG1-027 C	3.0032	Adder	6.67
961931	AG1-036 C	0.1981	Adder	0.44
961941	AG1-037 C	0.0732	Adder	0.16

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.9900	80/20	0.9900
962331	AG1-082 C	0.2929	Adder	0.65
962341	AG1-083 C	0.2929	Adder	0.65
962351	AG1-084 C	0.2558	Adder	0.57
962361	AG1-085 C	0.2558	Adder	0.57
962961	AG1-145 C	1.1665	80/20	1.1665
963291	AG1-178 C O1	9.0334	Adder	20.05
963351	AG1-184 O1	4.8667	Adder	10.8
963821	AG1-235 C O1	11.0336	80/20	11.0336
964491	AG1-312 C O1	2.8942	Adder	6.42
964801	AG1-343 C	0.8615	Adder	1.91
964951	AG1-359 O1	12.3330	80/20	12.3330
965001	AG1-364 C O1	3.2768	80/20	3.2768
965181	AG1-383 C	1.2629	80/20	1.2629
965291	AG1-394 C	0.2955	Adder	0.66
965631	AG1-431	7.9821	Adder	17.72
965691	AG1-437 C O1	1.6202	Adder	3.6
965701	AG1-438 C O1	1.6202	Adder	3.6
965741	AG1-442 O1	0.9451	Adder	2.1
965751	AG1-443 O1	0.9451	Adder	2.1
966491	AG1-518 O1	4.0245	80/20	4.0245
966611	AG1-531 C	4.0435	80/20	4.0435
966801	AG1-551 C	0.3172	Adder	0.7
966931	AG1-431A	5.9971	Adder	13.31
WEC	WEC	0.1241	Confirmed LTF	0.1241
LGEE	LGEE	0.2582	Confirmed LTF	0.2582
CPLE	CPLE	1.8905	Confirmed LTF	1.8905
CBM-W2	CBM-W2	6.5139	Confirmed LTF	6.5139
NY	NY	0.3711	Confirmed LTF	0.3711
TVA	TVA	1.2908	Confirmed LTF	1.2908
SIGE	SIGE	0.1260	Confirmed LTF	0.1260
CBM-S2	CBM-S2	21.8196	Confirmed LTF	21.8196
CBM-S1	CBM-S1	0.3150	Confirmed LTF	0.3150
MEC	MEC	0.8088	Confirmed LTF	0.8088
LAGN	LAGN	1.6048	Confirmed LTF	1.6048
CBM-W1	CBM-W1	5.0332	Confirmed LTF	5.0332

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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
163455009	314574	6EVERETS	DVP	304451	6GREENVILLE	CPL	1	DVP_P7-1: LN 2058-2181	tower	478.0	178.66	179.61	DC	10.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.9855	Adder	3.51
314539	3UNCAMP	2.4187	Adder	2.85
314541	3WATKINS	0.2950	Adder	0.35
314572	3EMPORIA	0.1716	Adder	0.2
314582	3KELFORD	0.2963	50/50	0.2963
314589	3MURPHYS	0.0602	50/50	0.0602
314594	6PLYMOTH	0.0896	50/50	0.0896
314632	6AYDLETOLD	0.6586	Adder	0.77
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.5990	50/50	9.5990
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.5990	50/50	9.5990
315136	1ROSEMG1	1.5370	50/50	1.5370
315137	1ROSEMS1	0.9531	50/50	0.9531
315138	1ROSEMG2	0.7203	50/50	0.7203
315139	1GASTONA	2.1216	50/50	2.1216
315141	1GASTONB	2.1216	50/50	2.1216
315292	1DOMTR78	1.6763	50/50	1.6763
315293	1DOMTR9	8.6700	50/50	8.6700
315294	1DOMTR10	10.6250	50/50	10.6250
315601	1CONETOESOL	2.1704	50/50	2.1704
315602	1HOLLOMANSOL	1.5332	50/50	1.5332
315606	3AA2-053SOLA	0.9398	50/50	0.9398
315611	6Z1-036WIND	0.6573	50/50	0.6573
315614	AA2-178 C	1.2997	50/50	1.2997
316088	AB2-174 E	2.7352	Adder	3.22
316097	AB2-100 E1	1.2133	Adder	1.43
316099	AB2-100 E2	1.2133	Adder	1.43
316103	AB2-015 C	3.5908	Adder	4.22
316104	AB2-015 E	2.9445	Adder	3.46
316140	AB2-099 C (Suspended)	0.5180	50/50	0.5180
316141	AB2-099 E (Suspended)	0.2220	50/50	0.2220
900672	V4-068 E	0.2092	50/50	0.2092
901082	W1-029 E	18.7397	Adder	22.05
913392	Y1-086 E	0.7676	Adder	0.9
916042	Z1-036 E (Suspended)	27.9147	50/50	27.9147
917122	Z2-027 E	0.3981	Adder	0.47
917332	Z2-043 E	0.8838	50/50	0.8838
917342	Z2-044 E	0.2085	Adder	0.25
917512	Z2-088 E OP1	12.8742	50/50	12.8742
918492	AA1-063AE OP	2.0182	Adder	2.37

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
918512	AA1-065 E OP	4.3514	50/50	4.3514
918532	AA1-067 E	1.5974	50/50	1.5974
919692	AA2-053 E OP	2.4457	50/50	2.4457
919702	AA2-057 E OP	1.3810	Adder	1.62
920042	AA2-088 E OP	5.1904	Adder	6.11
920592	AA2-165 E	0.1898	Adder	0.22
920692	AA2-178 E	3.5306	50/50	3.5306
922923	AB1-081 E OP	1.4211	Adder	1.67
923262	AB1-132 C OP (Suspended)	10.2690	50/50	10.2690
923263	AB1-132 E OP (Suspended)	4.4010	50/50	4.4010
923573	AB1-173 E OP	0.4656	Adder	0.55
923832	AB2-022 E	0.4333	Adder	0.51
923991	AB2-040 C O1	3.2516	Adder	3.83
923992	AB2-040 E O1	2.6604	Adder	3.13
924152	AB2-059 E OP	2.0132	Adder	2.37
925121	AB2-169 C	1.6064	50/50	1.6064
925122	AB2-169 E	9.1375	50/50	9.1375
925591	AC1-034 C	2.5313	Adder	2.98
925592	AC1-034 E	1.9096	Adder	2.25
926070	AC1-086 C	15.1223	50/50	15.1223
926071	AC1-086 E	6.8827	50/50	6.8827
926201	AC1-098 C	3.8972	50/50	3.8972
926202	AC1-098 E	2.3218	50/50	2.3218
926211	AC1-099 C	1.3060	50/50	1.3060
926212	AC1-099 E	0.7670	50/50	0.7670
927024	AC1-189 C	15.5186	50/50	15.5186
927025	AC1-189 E	7.7302	50/50	7.7302
927145	AC1-208 C	4.2602	Adder	5.01
927146	AC1-208 E	1.8840	Adder	2.22
932631	AC2-084 C	5.5556	50/50	5.5556
932632	AC2-084 E	2.7364	50/50	2.7364
933991	AD1-023 C	13.4949	50/50	13.4949
933992	AD1-023 E	7.3467	50/50	7.3467
934331	AD1-057 C O1	8.8818	50/50	8.8818
934332	AD1-057 E O1	4.7379	50/50	4.7379
934521	AD1-076 C	54.8301	50/50	54.8301
934522	AD1-076 E	27.9194	50/50	27.9194
936401	AD2-051 C O1	9.4142	50/50	9.4142
936402	AD2-051 E O1	4.0424	50/50	4.0424
938221	AE1-035 C	0.3834	50/50	0.3834
938222	AE1-035 E	1.1966	50/50	1.1966
938535	AE1-072 C	5.1769	Adder	6.09
938536	AE1-072 E	2.6669	Adder	3.14
938771	AE1-103 C	1.3869	Adder	1.63
938772	AE1-103 E	1.9153	Adder	2.25
940491	AE2-034 C	6.1786	50/50	6.1786
940492	AE2-034 E	2.6480	50/50	2.6480
940571	AE2-044 C	1.6579	Adder	1.95
940572	AE2-044 E	0.7105	Adder	0.84
941501	AE2-147 C	6.4620	Adder	7.6
941502	AE2-147 E	4.3080	Adder	5.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1618	50/50	0.1618
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.5523	50/50	0.5523
942471	AE2-260 C O1	5.7670	Adder	6.78
942472	AE2-260 E O1	8.1798	Adder	9.62
943171	AE2-346 C	1.2432	50/50	1.2432
943172	AE2-346 E	0.5328	50/50	0.5328
944141	AF1-082	1.0658	Adder	1.25
944871	AF1-152 C	2.1540	Adder	2.53
944872	AF1-152 E	1.4360	Adder	1.69
945711	AF1-236 C O1	67.6412	50/50	67.6412
945712	AF1-236 E O1	41.7792	50/50	41.7792
946281	AF1-292 C	0.5921	Adder	0.7
946282	AF1-292 E	0.3992	Adder	0.47
957521	AF2-046 C	12.3552	50/50	12.3552
957522	AF2-046 E	6.2148	50/50	6.2148
957531	AF2-047 C	14.6816	50/50	14.6816
957532	AF2-047 E	7.3849	50/50	7.3849
957821	AF2-076 C	1.7985	Adder	2.12
957822	AF2-076 E	1.1990	Adder	1.41
957861	AF2-080 C	14.0946	50/50	14.0946
957862	AF2-080 E	6.2481	50/50	6.2481
959511	AF2-242 C	13.2102	50/50	13.2102
959512	AF2-242 E	10.2746	50/50	10.2746
960081	AF2-299 C	0.9979	Adder	1.17
960082	AF2-299 E	0.6653	Adder	0.78
961091	AF2-400 C	0.1939	Adder	0.23
961092	AF2-400 E	0.3181	Adder	0.37
961671	AG1-007 C	1.8117	50/50	1.8117
961672	AG1-007 E	1.0117	50/50	1.0117
961681	AG1-008 C	12.3800	50/50	12.3800
961682	AG1-008 E	6.1900	50/50	6.1900
961851	AG1-027 C	2.9209	Adder	6.48
961852	AG1-027 E	1.6147	Adder	3.58
961931	AG1-036 C	1.1069	50/50	1.1069
961932	AG1-036 E	0.7380	50/50	0.7380
961941	AG1-037 C	0.4440	50/50	0.4440
961942	AG1-037 E	0.2960	50/50	0.2960
962331	AG1-082 C	1.7760	50/50	1.7760
962332	AG1-082 E	1.1840	50/50	1.1840
962341	AG1-083 C	1.7760	50/50	1.7760
962342	AG1-083 E	1.1840	50/50	1.1840
962351	AG1-084 C	1.6569	50/50	1.6569
962352	AG1-084 E	1.1046	50/50	1.1046
962361	AG1-085 C	1.6569	50/50	1.6569
962362	AG1-085 E	1.1046	50/50	1.1046
962571	AG1-106 C	4.2054	50/50	4.2054
962572	AG1-106 E	1.9071	50/50	1.9071
964491	AG1-312 C O1	20.1914	50/50	20.1914
964492	AG1-312 E O1	5.0478	50/50	5.0478
964501	AG1-313 C O1	3.3352	50/50	3.3352
964502	AG1-313 E O1	2.2235	50/50	2.2235

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964801	AG1-343 C	3.6197	50/50	3.6197
964802	AG1-343 E	2.8440	50/50	2.8440
965291	AG1-394 C	1.2042	50/50	1.2042
965292	AG1-394 E	0.8028	50/50	0.8028
965631	AG1-431	39.1607	50/50	39.1607
965691	AG1-437 C O1	10.5492	50/50	10.5492
965692	AG1-437 E O1	7.0328	50/50	7.0328
965701	AG1-438 C O1	10.5492	50/50	10.5492
965702	AG1-438 E O1	7.0328	50/50	7.0328
965711	AG1-439 C O1	38.9340	50/50	38.9340
965712	AG1-439 E O1	25.9560	50/50	25.9560
965741	AG1-442 O1	6.1537	50/50	6.1537
965751	AG1-443 O1	6.1537	50/50	6.1537
965761	AG1-444 O1	20.7648	50/50	20.7648
966621	AG1-532 C	0.2856	Adder	0.63
966622	AG1-532 E	0.1904	Adder	0.42
966751	AG1-546 C	2.7754	Adder	6.16
966752	AG1-546 E	1.4892	Adder	3.31
966801	AG1-551 C	4.5154	50/50	4.5154
966802	AG1-551 E	1.9352	50/50	1.9352
966811	AG1-552 C	0.5563	Adder	1.23
966812	AG1-552 E	0.2384	Adder	0.53
966931	AG1-431A	29.4220	50/50	29.4220
G-007A	G-007A	1.1364	Confirmed LTF	1.1364
VFT	VFT	3.0250	Confirmed LTF	3.0250
CALDERWOOD	CALDERWOOD	1.3349	Confirmed LTF	1.3349
PRAIRIE	PRAIRIE	4.5383	Confirmed LTF	4.5383
AC1-131	AC1-131	5.3107	LTF	5.3107
CHEOAH	CHEOAH	1.3689	Confirmed LTF	1.3689
CBM-N	CBM-N	0.5508	Confirmed LTF	0.5508
COTTONWOOD	COTTONWOOD	4.9854	Confirmed LTF	4.9854
HAMLET	HAMLET	3.1098	Confirmed LTF	3.1098
GIBSON	GIBSON	0.7851	Confirmed LTF	0.7851
BLUEG	BLUEG	2.4096	Confirmed LTF	2.4096
TRIMBLE	TRIMBLE	0.7641	Confirmed LTF	0.7641
CATAWBA	CATAWBA	1.4357	Confirmed LTF	1.4357

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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
163454370	314591	6NASH	DVP	304226	6PA-RMOUNT#4	CPL	1	DVP_P1-2: LN 2058	single	478.0	101.93	103.06	DC	5.38

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	4.8981	80/20	4.8981
313719	3CHESTNUT	0.9415	80/20	0.9415
314435	6SAPONY	0.1663	80/20	0.1663
314572	3EMPORIA	0.2884	80/20	0.2884
314582	3KELFORD	0.2606	80/20	0.2606
314589	3MURPHYS	0.0543	80/20	0.0543
314623	3WITAKRS	0.1788	80/20	0.1788
314639	6TANGLEW	0.1106	80/20	0.1106
314704	3LAWRENC	0.1552	80/20	0.1552
315115	1S HAMPT1	0.7028	80/20	0.7028
315126	1ROARAP2	1.0451	80/20	1.0451
315128	1ROARAP4	0.9973	80/20	0.9973
315131	1EDGECEMA (Deactivation : 22/04/2019)	26.6922	80/20	26.6922
315132	1EDGECEMB (Deactivation : 22/04/2019)	26.6922	80/20	26.6922
315136	1ROSEMG1	2.7702	80/20	2.7702
315137	1ROSEMS1	1.7178	80/20	1.7178
315138	1ROSEMG2	1.2983	80/20	1.2983
315139	1GASTONA	3.4079	80/20	3.4079
315141	1GASTONB	3.4079	80/20	3.4079
315292	1DOMTR78	0.8158	80/20	0.8158
315293	1DOMTR9	4.2195	80/20	4.2195
315294	1DOMTR10	5.1710	80/20	5.1710
315601	1CONETOE2SOL	2.4841	80/20	2.4841
315602	1HOLLOMANSOL	0.9804	80/20	0.9804
315605	6W1-029WIND	0.3297	80/20	0.3297
315606	3AA2-053SOLA	1.1164	80/20	1.1164
315607	3AA1-063SOLA	0.9620	80/20	0.9620
315608	3AA2-088SOLA	0.5932	80/20	0.5932
315611	6Z1-036WIND	0.3953	80/20	0.3953
315614	AA2-178 C	0.7394	80/20	0.7394
316020	AB2-059 C OP	1.7747	80/20	1.7747
316087	AB2-174 C	0.7892	80/20	0.7892
316096	AB2-100 C1	0.6912	80/20	0.6912
316098	AB2-100 C2	0.6912	80/20	0.6912
316103	AB2-015 C	3.9820	80/20	3.9820
316129	AC1-054 C	3.5854	80/20	3.5854
316140	AB2-099 C (Suspended)	0.4014	80/20	0.4014
920591	AA2-165 C	0.1264	80/20	0.1264
922922	AB1-081 C OP	1.5058	80/20	1.5058
923991	AB2-040 C O1	5.3346	80/20	5.3346

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925121	AB2-169 C	0.6954	80/20	0.6954
925591	AC1-034 C	7.2859	80/20	7.2859
926070	AC1-086 C	24.2910	80/20	24.2910
926201	AC1-098 C	4.8342	80/20	4.8342
926211	AC1-099 C	1.6200	80/20	1.6200
927024	AC1-189 C	12.9879	80/20	12.9879
927145	AC1-208 C	7.2851	80/20	7.2851
932631	AC2-084 C	6.8914	80/20	6.8914
933991	AD1-023 C	7.8190	80/20	7.8190
934331	AD1-057 C O1	21.2858	80/20	21.2858
934521	AD1-076 C	30.5338	80/20	30.5338
936401	AD2-051 C O1	6.1863	80/20	6.1863
938221	AE1-035 C	0.2451	80/20	0.2451
938771	AE1-103 C	1.4755	80/20	1.4755
940481	AE2-033 C	7.4057	80/20	7.4057
940491	AE2-034 C	3.5150	80/20	3.5150
940541	AE2-040	1.1995	80/20	1.1995
940571	AE2-044 C	4.7720	80/20	4.7720
941501	AE2-147 C	4.8222	80/20	4.8222
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1204	80/20	0.1204
942471	AE2-260 C O1	10.1365	80/20	10.1365
943171	AE2-346 C	0.9633	80/20	0.9633
943911	AF1-059	6.8021	80/20	6.8021
944141	AF1-082	3.0677	80/20	3.0677
944871	AF1-152 C	1.6074	80/20	1.6074
945711	AF1-236 C O1	38.4807	80/20	38.4807
946011	AF1-266	6.1991	80/20	6.1991
946281	AF1-292 C	1.0061	80/20	1.0061
957521	AF2-046 C	10.7784	80/20	10.7784
957531	AF2-047 C	8.3523	80/20	8.3523
957861	AF2-080 C	11.7962	80/20	11.7962
959511	AF2-242 C	5.3743	80/20	5.3743
960081	AF2-299 C	1.6956	80/20	1.6956
961091	AF2-400 C	0.2150	80/20	0.2150
961671	AG1-007 C	2.6116	80/20	2.6116
961681	AG1-008 C	10.8000	80/20	10.8000
961851	AG1-027 C	5.3768	80/20	5.3768
961931	AG1-036 C	0.9036	80/20	0.9036
961941	AG1-037 C	0.3440	80/20	0.3440
962331	AG1-082 C	1.3762	80/20	1.3762
962341	AG1-083 C	1.3762	80/20	1.3762
962351	AG1-084 C	1.2326	80/20	1.2326
962361	AG1-085 C	1.2326	80/20	1.2326
962571	AG1-106 C	6.7551	80/20	6.7551
963301	AG1-179 C	2.7800	80/20	2.7800
963311	AG1-180	1.3545	80/20	1.3545
964491	AG1-312 C O1	12.7534	80/20	12.7534
964501	AG1-313 C O1	3.4839	80/20	3.4839
964801	AG1-343 C	3.5833	80/20	3.5833
965291	AG1-394 C	1.2184	80/20	1.2184
965451	AG1-413 C O1	2.8594	80/20	2.8594
965601	AG1-428 C O1	2.3208	80/20	2.3208

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965631	AG1-431	22.2783	80/20	22.2783
965691	AG1-437 C O1	6.2958	80/20	6.2958
965701	AG1-438 C O1	6.2958	80/20	6.2958
965711	AG1-439 C O1	44.5620	80/20	44.5620
965721	AG1-440 C	2.4651	80/20	2.4651
965731	AG1-441 C	2.4651	80/20	2.4651
965741	AG1-442 O1	3.6725	80/20	3.6725
965751	AG1-443 O1	3.6725	80/20	3.6725
965761	AG1-444 O1	23.7664	80/20	23.7664
965771	AG1-445	1.4243	80/20	1.4243
965781	AG1-446	1.4243	80/20	1.4243
966621	AG1-532 C	0.9156	80/20	0.9156
966751	AG1-546 C	8.3914	80/20	8.3914
966801	AG1-551 C	1.7522	80/20	1.7522
966811	AG1-552 C	1.6593	80/20	1.6593
966931	AG1-431A	16.7380	80/20	16.7380
G-007A	G-007A	0.8895	Confirmed LTF	0.8895
VFT	VFT	2.3672	Confirmed LTF	2.3672
CALDERWOOD	CALDERWOOD	1.0899	Confirmed LTF	1.0899
PRAIRIE	PRAIRIE	3.7763	Confirmed LTF	3.7763
CHEOAH	CHEOAH	1.1166	Confirmed LTF	1.1166
CBM-N	CBM-N	0.4308	Confirmed LTF	0.4308
COTTONWOOD	COTTONWOOD	4.0320	Confirmed LTF	4.0320
HAMLET	HAMLET	2.3325	Confirmed LTF	2.3325
GIBSON	GIBSON	0.6688	Confirmed LTF	0.6688
BLUEG	BLUEG	2.0658	Confirmed LTF	2.0658
TRIMBLE	TRIMBLE	0.6561	Confirmed LTF	0.6561
CATAWBA	CATAWBA	1.1704	Confirmed LTF	1.1704

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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
163454359	314903	8CHCKAHM	DVP	314908	8ELMONT	DVP	1	DVP_P1-2: LN 563	single	2442.12	181.38	181.63	DC	26.62

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.6083	80/20	0.6083
314295	6BIRDNECK	0.0728	80/20	0.0728
314421	6WINCHST	0.2201	80/20	0.2201
314491	3PENDLTN	0.5432	80/20	0.5432
314507	3THOMPSN	0.5459	80/20	0.5459
314638	6ELIZ CT	0.3556	80/20	0.3556
314639	6TANGLEW	0.6491	80/20	0.6491
314643	3O INLET	0.7144	80/20	0.7144
315092	1YORKTN3	39.1963	80/20	39.1963
315098	1CHESPKA	0.7220	80/20	0.7220
315099	1CHESPKB (Deactivation : 31/05/2019)	5.0053	80/20	5.0053
315108	1ELIZAR1	5.3195	80/20	5.3195
315109	1ELIZAR2	5.2271	80/20	5.2271
315110	1ELIZAR3	5.3876	80/20	5.3876
315116	1SURRY 1	36.1526	80/20	36.1526
315120	1GRAVEL4	3.7197	80/20	3.7197
315233	1SURRY 2	48.5856	80/20	48.5856
315260	1GOSPORTA	0.5763	80/20	0.5763
315261	1GOSPORTB	0.7361	80/20	0.7361
315262	1GOSPORTC	0.6247	80/20	0.6247
315293	1DOMTR9	8.4474	Adder	9.94
315294	1DOMTR10	10.3521	Adder	12.18
315603	6AA1-139SOLA	3.7714	80/20	3.7714
315605	6W1-029WIND	1.7838	80/20	1.7838
315611	6Z1-036WIND	1.7276	80/20	1.7276
316103	AB2-015 C	10.8609	Adder	12.78
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	165.2340	80/20	165.2340
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	165.2340	80/20	165.2340
316114	AB2-068 ST (Withdrawn : 01/11/2021)	286.2505	80/20	286.2505
316132	AB2-190 C	21.8808	Adder	25.74
316134	AC1-107 G1	310.2793	80/20	310.2793
316135	AC1-107 G2	310.2793	80/20	310.2793
316136	AC1-107 G3	310.3375	80/20	310.3375
316140	AB2-099 C (Suspended)	0.6942	Adder	0.82
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.4566	80/20	0.4566
316258	AE1-162 C	0.5400	80/20	0.5400
925863	AC1-065 C	8.9827	Adder	10.57

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926661	AC1-147 C	0.6105	80/20	0.6105
926754	AC1-161 C	56.7826	80/20	56.7826
926784	AC1-164 C	50.7130	Adder	59.66
932044	AC2-012 C	17.5064	80/20	17.5064
932591	AC2-079 C O1	6.8775	Adder	8.09
933294	AC2-141 C	56.7826	80/20	56.7826
933731	AC2-196 C	0.4864	80/20	0.4864
933991	AD1-023 C	16.4881	Adder	19.4
934014	AD1-025 C	19.0719	Adder	22.44
934061	AD1-033 C	12.9436	80/20	12.9436
934141	AD1-041 C	6.4875	Adder	7.63
934521	AD1-076 C	69.1001	Adder	81.29
934575	AD1-082 C	0.5273	Adder	0.62
935111	AD1-144 C	0.4519	80/20	0.4519
935164	AD1-151 C	17.5828	Adder	20.69
936041	AD2-007 C	0.9111	Adder	1.07
936051	AD2-008 C	3.3204	Adder	3.91
936401	AD2-051 C O1	10.6005	Adder	12.47
936661	AD2-085 C	4.3566	Adder	5.13
937221	AD2-160 C O1	10.0056	80/20	10.0056
938494	AE1-068_C1	34.5957	Adder	40.7
938497	AE1-068_C2	34.5957	Adder	40.7
938504	AE1-069_C1	26.3658	Adder	31.02
938507	AE1-069_C2	28.4286	Adder	33.45
938535	AE1-072 C	29.9356	80/20	29.9356
938771	AE1-103 C	4.7010	Adder	5.53
939414	AE1-173_C1	48.4949	80/20	48.4949
939415	AE1-173_C2	41.5670	80/20	41.5670
939416	AE1-173_C3	48.4949	80/20	48.4949
939431	AE1-175 C	4.0622	80/20	4.0622
939611	AE1-191 C	12.9749	Adder	15.26
940061	AE2-000BC O1	11.4939	Adder	13.52
940231	AE2-005 C	1.6332	Adder	1.92
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	298.0885	80/20	298.0885
940471	AE2-031 C	37.7130	Adder	44.37
940491	AE2-034 C	9.4119	Adder	11.07
940551	AE2-041	8.8624	Adder	10.43
940641	AE2-051 C O1	25.3584	80/20	25.3584
940891	AE2-078 C	3.6585	80/20	3.6585
940901	AE2-079 C	3.6585	80/20	3.6585
941031	AE2-094 C	45.4213	Adder	53.44
941101	AE2-104 C O1	5.3617	80/20	5.3617
941281	AE2-122 C O1	48.8761	80/20	48.8761
941291	AE2-123 C O1	50.2294	80/20	50.2294
941301	AE2-124 C O1	45.6816	80/20	45.6816
941501	AE2-147 C	26.0919	80/20	26.0919
941591	AE2-156 O1	30.7590	80/20	30.7590
942131	AE2-225 C	3.5741	80/20	3.5741
942171	AE2-229 C	2.6806	80/20	2.6806
942341	AE2-247 C	1.8863	Adder	2.22
942401	AE2-253 C	10.5242	80/20	10.5242
942551	AE2-270	29.8924	Adder	35.17

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942931	AE2-313 C	40.7636	Adder	47.96
943171	AE2-346 C	1.6661	Adder	1.96
943431	AF1-014 C	1.5473	Adder	1.82
943461	AF1-017 C	1.7067	Adder	2.01
943471	AF1-018	8.8624	Adder	10.43
943611	AF1-032 C	2.9188	80/20	2.9188
943621	AF1-033 C	3.6585	80/20	3.6585
944011	AF1-069 C	14.8409	Adder	17.46
944581	AF1-123 C O1	84.0753	80/20	84.0753
944591	AF1-124 C O1	84.0753	80/20	84.0753
944601	AF1-125 C O1	84.0753	80/20	84.0753
944871	AF1-152 C	8.6973	80/20	8.6973
945361	AF1-201 C O1	26.6814	80/20	26.6814
945711	AF1-236 C O1	103.0384	Adder	121.22
957491	AF2-043 C	3.5741	80/20	3.5741
957521	AF2-046 C	19.9647	Adder	23.49
957531	AF2-047 C	22.3646	Adder	26.31
957601	AF2-054 C	2.6029	Adder	3.06
957631	AF2-057	6.1426	80/20	6.1426
957711	AF2-065 C	15.2451	Adder	17.94
957821	AF2-076 C	8.7747	80/20	8.7747
957831	AF2-077 C	3.4444	80/20	3.4444
957871	AF2-081 C	17.0094	80/20	17.0094
958161	AF2-110 C	2.2104	80/20	2.2104
959511	AF2-242 C	8.5768	Adder	10.09
961091	AF2-400 C	0.5865	Adder	0.69
961611	AG1-000B C	10.5837	Adder	23.49
961681	AG1-008 C	10.6025	Adder	23.53
961711	AG1-011	17.1687	Adder	38.11
961851	AG1-027 C	26.6172	80/20	26.6172
961931	AG1-036 C	0.8549	Adder	1.9
961941	AG1-037 C	0.3154	Adder	0.7
962131	AG1-057	2.3485	Adder	5.21
962321	AG1-081 C (Withdrawn : 01/15/2021)	3.3259	80/20	3.3259
962331	AG1-082 C	1.2615	Adder	2.8
962341	AG1-083 C	1.2615	Adder	2.8
962351	AG1-084 C	1.1000	Adder	2.44
962361	AG1-085 C	1.1000	Adder	2.44
962531	AG1-102 C	1.7681	80/20	1.7681
962961	AG1-145 C	3.6652	80/20	3.6652
962971	AG1-146 C	1.8384	Adder	4.08
962981	AG1-147 C	4.2896	Adder	9.52
963041	AG1-153 C	3.3297	Adder	7.39
963111	AG1-160 C	3.3798	Adder	7.5
963221	AG1-171 C	1.2425	Adder	2.76
963231	AG1-172 C	1.2425	Adder	2.76
963241	AG1-173 C	1.2425	Adder	2.76
963251	AG1-174 C	1.2425	Adder	2.76
963261	AG1-175 C	1.2425	Adder	2.76
963291	AG1-178 C O1	93.1181	80/20	93.1181
963351	AG1-184 O1	50.1669	80/20	50.1669
963821	AG1-235 C O1	41.4126	80/20	41.4126

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964491	AG1-312 C O1	12.1221	Adder	26.91
964801	AG1-343 C	3.7374	Adder	8.3
964931	AG1-357 C	12.1894	Adder	27.06
964951	AG1-359 O1	46.2435	80/20	46.2435
965001	AG1-364 C O1	12.3004	80/20	12.3004
965181	AG1-383 C	4.7390	80/20	4.7390
965291	AG1-394 C	1.2828	Adder	2.85
965631	AG1-431	31.6165	Adder	70.18
965691	AG1-437 C O1	6.6656	Adder	14.8
965701	AG1-438 C O1	6.6656	Adder	14.8
965741	AG1-442 O1	3.8883	Adder	8.63
965751	AG1-443 O1	3.8883	Adder	8.63
965811	AG1-449	14.0145	Adder	31.11
966361	AG1-505 C	9.7134	Adder	21.56
966371	AG1-506 C	9.7134	Adder	21.56
966491	AG1-518 O1	14.8920	80/20	14.8920
966611	AG1-531 C	10.5001	80/20	10.5001
966931	AG1-431A	23.7540	Adder	52.73
WEC	WEC	0.5714	Confirmed LTF	0.5714
LGEE	LGEE	1.1894	Confirmed LTF	1.1894
CPL	CPL	9.3434	Confirmed LTF	9.3434
CBM-W2	CBM-W2	31.1539	Confirmed LTF	31.1539
NY	NY	1.8006	Confirmed LTF	1.8006
TVA	TVA	6.2356	Confirmed LTF	6.2356
SIGE	SIGE	0.5991	Confirmed LTF	0.5991
CBM-S2	CBM-S2	107.7304	Confirmed LTF	107.7304
CBM-S1	CBM-S1	1.5158	Confirmed LTF	1.5158
MEC	MEC	3.7945	Confirmed LTF	3.7945
LAGN	LAGN	7.7578	Confirmed LTF	7.7578
AA2-074	AA2-074	6.1659	LTF	6.1659
CBM-W1	CBM-W1	22.9648	Confirmed LTF	22.9648

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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
163454326	314908	8ELMONT	DVP	314911	8LADYSMITH	DVP	1	DVP_P1-2: LN 576	single	2442.12	218.73	218.77	DC	29.08

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314229	6MT RD221	0.2111	80/20	0.2111
314236	6NRTHEST	0.3205	80/20	0.3205
314241	6OLDCHRC	1.4851	80/20	1.4851
314250	6ROCKVILLE	0.5532	80/20	0.5532
314309	6IRON208	0.7631	80/20	0.7631
314421	6WINCHST	0.2285	80/20	0.2285
315058	1CHESTF3 (Deactivation : 13/12/2018)	32.0440	80/20	32.0440
315059	1CHESTF4 (Deactivation : 13/12/2018)	51.9433	80/20	51.9433
315060	1CHESTF5 (Deactivation : 31/05/2023)	114.1420	80/20	114.1420
315061	1CHESTG7	6.7247	80/20	6.7247
315062	1CHESTS7	3.0871	80/20	3.0871
315063	1CHESTG8	6.6167	80/20	6.6167
315064	1CHESTS8	3.4061	80/20	3.4061
315065	1CHESTF6 (Deactivation : 31/05/2023)	182.6276	Adder	214.86
315067	1DARBY 1	4.4333	80/20	4.4333
315068	1DARBY 2	4.4384	80/20	4.4384
315069	1DARBY 3	4.4540	80/20	4.4540
315070	1DARBY 4	4.4592	80/20	4.4592
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0320	80/20	0.0320
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0320	80/20	0.0320
315076	1HOPPOLC	2.6791	80/20	2.6791
315077	1HOPHCF1	4.1877	80/20	4.1877
315078	1HOPHCF2	4.1877	80/20	4.1877
315079	1HOPHCF3	4.1877	80/20	4.1877
315080	1HOPHCF4	6.3573	80/20	6.3573
315083	1SPRUNCA (Deactivation : 12/01/2021)	15.5433	Adder	18.29
315084	1SPRUNCB (Deactivation : 12/01/2021)	15.5433	Adder	18.29
315092	1YORKTN3	40.1074	80/20	40.1074
315233	1SURRY 2	43.8786	80/20	43.8786
316033	AB2-134 C	3.6034	80/20	3.6034
316075	AC2-137 C	0.5978	80/20	0.5978
316083	AB2-161 C (Suspended)	4.9845	Adder	5.86
316103	AB2-015 C	12.2332	Adder	14.39
316108	AB2-160 C (Suspended)	8.0636	Adder	9.49

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	112.2311	80/20	112.2311
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	112.2311	80/20	112.2311
316114	AB2-068 ST (Withdrawn : 01/11/2021)	194.4286	80/20	194.4286
316132	AB2-190 C	35.6664	80/20	35.6664
316134	AC1-107 G1	210.7495	80/20	210.7495
316135	AC1-107 G2	210.7495	80/20	210.7495
316136	AC1-107 G3	210.7890	80/20	210.7890
925863	AC1-065 C	10.6892	Adder	12.58
926754	AC1-161 C	53.7550	80/20	53.7550
926784	AC1-164 C	73.8929	80/20	73.8929
927044	AC1-191 C	14.0019	Adder	16.47
927225	AC1-216 C	2.7506	80/20	2.7506
932044	AC2-012 C	15.1881	Adder	17.87
932501	AC2-070 C	0.4880	80/20	0.4880
932581	AC2-078 C O1	5.9830	Adder	7.04
932591	AC2-079 C O1	8.4424	Adder	9.93
933294	AC2-141 C	53.7550	80/20	53.7550
934014	AD1-025 C	29.9650	80/20	29.9650
934061	AD1-033 C	11.1488	Adder	13.12
934141	AD1-041 C	7.5903	Adder	8.93
934575	AD1-082 C	11.3595	Adder	13.36
935164	AD1-151 C	28.6605	80/20	28.6605
936041	AD2-007 C	1.4315	80/20	1.4315
936051	AD2-008 C	5.2168	80/20	5.2168
936151	AD2-021	0.0682	80/20	0.0682
936661	AD2-085 C	5.0562	Adder	5.95
936761	AD2-097 C	2.9479	Adder	3.47
937221	AD2-160 C O1	8.6556	Adder	10.18
938535	AE1-072 C	26.0023	Adder	30.59
938634	AE1-085 C	13.1232	Adder	15.44
938771	AE1-103 C	5.2299	Adder	6.15
939195	AE1-149 C	15.7651	Adder	18.55
939414	AE1-173_C1	42.9257	Adder	50.5
939415	AE1-173_C2	36.7934	Adder	43.29
939416	AE1-173_C3	42.9257	Adder	50.5
939431	AE1-175 C	4.3577	80/20	4.3577
939611	AE1-191 C	15.1807	Adder	17.86
940061	AE2-000BC O1	15.7340	Adder	18.51
940231	AE2-005 C	1.9435	Adder	2.29
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	257.8906	Adder	303.4
940431	AE2-027 C O1	19.2994	Adder	22.71
940481	AE2-033 C	21.7350	Adder	25.57
940491	AE2-034 C	10.2123	Adder	12.01
940541	AE2-040	3.8606	Adder	4.54
940551	AE2-041	10.3397	Adder	12.16
940641	AE2-051 C O1	22.6991	Adder	26.7
940651	AE2-052	5.2550	Adder	6.18
940891	AE2-078 C	4.1910	80/20	4.1910
940901	AE2-079 C	4.1910	80/20	4.1910

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941031	AE2-094 C	49.8737	Adder	58.67
941101	AE2-104 C O1	4.9241	Adder	5.79
941281	AE2-122 C O1	42.2321	Adder	49.68
941291	AE2-123 C O1	43.4015	Adder	51.06
941301	AE2-124 C O1	39.4579	Adder	46.42
941501	AE2-147 C	23.1382	Adder	27.22
941581	AE2-155 C	0.1857	80/20	0.1857
941591	AE2-156 O1	26.6526	Adder	31.36
942001	AE2-212 C	3.1840	Adder	3.75
942131	AE2-225 C	3.1468	Adder	3.7
942151	AE2-227 C	3.8953	80/20	3.8953
942161	AE2-228 C	3.2195	Adder	3.79
942171	AE2-229 C	2.3601	Adder	2.78
942341	AE2-247 C	2.1916	Adder	2.58
942371	AE2-250 C O1	14.3236	Adder	16.85
942401	AE2-253 C	9.1042	Adder	10.71
942551	AE2-270	47.7375	80/20	47.7375
943431	AF1-014 C	1.8412	Adder	2.17
943461	AF1-017 C	1.9829	Adder	2.33
943471	AF1-018	10.3397	Adder	12.16
943611	AF1-032 C	2.5699	Adder	3.02
943621	AF1-033 C	4.1910	80/20	4.1910
944011	AF1-069 C	16.2956	Adder	19.17
944581	AF1-123 C O1	71.3344	Adder	83.92
944591	AF1-124 C O1	71.3344	Adder	83.92
944601	AF1-125 C O1	71.3344	Adder	83.92
944631	AF1-128 O1	100.0862	80/20	100.0862
944641	AF1-129	153.2445	Adder	180.29
944871	AF1-152 C	7.7127	Adder	9.07
945361	AF1-201 C O1	23.9575	Adder	28.19
945711	AF1-236 C O1	111.8008	Adder	131.53
946011	AF1-266	18.1939	Adder	21.4
946261	AF1-291 C	3.2203	Adder	3.79
957491	AF2-043 C	3.1468	Adder	3.7
957531	AF2-047 C	24.2665	Adder	28.55
957601	AF2-054 C	2.9790	Adder	3.5
957631	AF2-057	5.3292	Adder	6.27
957711	AF2-065 C	24.3461	80/20	24.3461
957821	AF2-076 C	7.7829	Adder	9.16
957831	AF2-077 C	3.1471	Adder	3.7
957871	AF2-081 C	14.7441	Adder	17.35
957911	AF2-085	5.0310	Adder	5.92
958141	AF2-108	2.6198	Adder	3.08
958161	AF2-110 C	2.0300	Adder	2.39
959641	AF2-255 C	0.9738	80/20	0.9738
959651	AF2-256 C	0.8049	Adder	0.95
959661	AF2-257 C	0.8051	Adder	0.95
959671	AF2-258 C	0.7960	Adder	0.94
959681	AF2-259 C	3.9297	Adder	4.62
961091	AF2-400 C	0.6606	Adder	0.78
961611	AG1-000B C	12.7108	Adder	28.21
961711	AG1-011	50.8960	80/20	50.8960

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961851	AG1-027 C	13.0994	Adder	29.08
962131	AG1-057	2.7400	Adder	6.08
962191	AG1-064 C	2.5838	80/20	2.5838
962201	AG1-065 C	2.5838	80/20	2.5838
962271	AG1-075 C O1	13.1023	Adder	29.08
962321	AG1-081 C (Withdrawn : 01/15/2021)	3.8100	80/20	3.8100
962531	AG1-102 C	0.8562	Adder	1.9
962961	AG1-145 C	3.9318	80/20	3.9318
963221	AG1-171 C	3.8214	80/20	3.8214
963231	AG1-172 C	3.8214	80/20	3.8214
963241	AG1-173 C	3.8214	80/20	3.8214
963251	AG1-174 C	3.8214	80/20	3.8214
963261	AG1-175 C	3.8214	80/20	3.8214
963291	AG1-178 C O1	43.7239	Adder	97.06
963351	AG1-184 O1	23.5560	Adder	52.29
963821	AG1-235 C O1	18.9380	Adder	42.04
964951	AG1-359 O1	21.0983	Adder	46.83
965001	AG1-364 C O1	5.6502	Adder	12.54
965181	AG1-383 C	2.1659	Adder	4.81
965631	AG1-431	34.3052	Adder	76.15
965811	AG1-449	0.7051	Adder	1.57
966491	AG1-518 O1	6.9492	Adder	15.43
966611	AG1-531 C	11.4998	80/20	11.4998
966731	AG1-544 C	5.4321	Adder	12.06
966741	AG1-545 C	1.8110	Adder	4.02
966871	AG1-558 C	1.6676	Adder	3.7
966931	AG1-431A	25.7740	Adder	57.21
WEC	WEC	1.7334	Confirmed LTF	1.7334
LGEE	LGEE	3.6649	Confirmed LTF	3.6649
CPLE	CPLE	12.6624	Confirmed LTF	12.6624
CBM-W2	CBM-W2	69.0010	Confirmed LTF	69.0010
NY	NY	3.9622	Confirmed LTF	3.9622
TVA	TVA	12.6700	Confirmed LTF	12.6700
SIGE	SIGE	1.5098	Confirmed LTF	1.5098
CBM-S2	CBM-S2	160.4524	Confirmed LTF	160.4524
CBM-S1	CBM-S1	3.2167	Confirmed LTF	3.2167
MEC	MEC	9.9678	Confirmed LTF	9.9678
LAGN	LAGN	15.5628	Confirmed LTF	15.5628
AA2-074	AA2-074	8.3718	LTF	8.3718
CBM-W1	CBM-W1	72.3572	Confirmed LTF	72.3572

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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
163454391	314914	8MDLTHAN	DVP	314918	8NO ANNA	DVP	1	DVP_P1-2: LN 574	single	2442.12	173.5	173.75	DC	26.07

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.5622	80/20	0.5622
314295	6BIRDNECK	0.0659	80/20	0.0659
314435	6SAPONY	0.5994	80/20	0.5994
314491	3PENDLTN	0.4916	80/20	0.4916
314507	3THOMPSN	0.4946	80/20	0.4946
314572	3EMPORIA	0.5341	Adder	0.63
314638	6ELIZ CT	0.3286	80/20	0.3286
314639	6TANGLEW	0.6031	80/20	0.6031
314643	3O INLET	0.6534	80/20	0.6534
315065	1CHESTF6 (Deactivation : 31/05/2023)	145.8715	Adder	171.61
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0214	Adder	0.03
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0214	Adder	0.03
315083	1SPRUNCA (Deactivation : 12/01/2021)	13.1246	Adder	15.44
315084	1SPRUNCB (Deactivation : 12/01/2021)	13.1246	Adder	15.44
315098	1CHESPKA	0.6537	80/20	0.6537
315099	1CHESPKB (Deactivation : 31/05/2019)	4.5315	80/20	4.5315
315102	1BRUNSWICKG1	12.9917	80/20	12.9917
315103	1BRUNSWICKG2	12.9917	80/20	12.9917
315104	1BRUNSWICKG3	12.9917	80/20	12.9917
315105	1BRUNSWICKS1	26.9901	80/20	26.9901
315108	1ELIZAR1	4.8060	80/20	4.8060
315109	1ELIZAR2	4.7226	80/20	4.7226
315110	1ELIZAR3	4.8675	80/20	4.8675
315233	1SURRY 2	35.9591	80/20	35.9591
315241	1Z1-086 GT1	16.6986	80/20	16.6986
315242	1Z1-086 GT2	16.6986	80/20	16.6986
315243	1Z1-086 GT3	16.6986	80/20	16.6986
315244	1Z1-086 ST	29.0284	80/20	29.0284
315260	1GOSPORTA	0.5220	80/20	0.5220
315261	1GOSPORTB	0.6667	80/20	0.6667
315262	1GOSPORTC	0.5658	80/20	0.5658
315293	1DOMTR9	8.7258	Adder	10.27
315294	1DOMTR10	10.6934	Adder	12.58
315603	6AA1-139SOLA	3.4369	80/20	3.4369
315605	6W1-029WIND	1.6716	80/20	1.6716
315611	6Z1-036WIND	1.6481	80/20	1.6481

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316083	AB2-161 C (Suspended)	5.0935	80/20	5.0935
316103	AB2-015 C	11.1329	Adder	13.1
316108	AB2-160 C (Suspended)	6.7143	Adder	7.9
316132	AB2-190 C	24.4835	Adder	28.8
316140	AB2-099 C (Suspended)	0.7462	Adder	0.88
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.4209	80/20	0.4209
316258	AE1-162 C	0.5108	80/20	0.5108
923991	AB2-040 C O1	3.6718	Adder	4.32
926661	AC1-147 C	0.5528	80/20	0.5528
926754	AC1-161 C	47.5821	80/20	47.5821
932044	AC2-012 C	15.8494	80/20	15.8494
932581	AC2-078 C O1	6.1088	80/20	6.1088
932591	AC2-079 C O1	8.7326	80/20	8.7326
933294	AC2-141 C	47.5821	80/20	47.5821
933731	AC2-196 C	0.4394	80/20	0.4394
933991	AD1-023 C	16.8659	Adder	19.84
934014	AD1-025 C	20.7117	Adder	24.37
934061	AD1-033 C	11.6962	80/20	11.6962
934521	AD1-076 C	69.9533	Adder	82.3
934575	AD1-082 C	11.6079	80/20	11.6079
934615	AD1-087 C	9.6681	Adder	11.37
935111	AD1-144 C	0.4166	80/20	0.4166
935164	AD1-151 C	19.6743	Adder	23.15
935171	AD1-152 C O1	10.6194	Adder	12.49
936041	AD2-007 C	0.9894	Adder	1.16
936051	AD2-008 C	3.6059	Adder	4.24
936401	AD2-051 C O1	11.2116	Adder	13.19
936661	AD2-085 C	5.2613	80/20	5.2613
936761	AD2-097 C	2.4892	Adder	2.93
937221	AD2-160 C O1	9.0951	80/20	9.0951
937481	AD2-202 C O1	2.8318	Adder	3.33
938494	AE1-068_C1	49.9889	80/20	49.9889
938497	AE1-068_C2	49.9889	80/20	49.9889
938504	AE1-069_C1	38.0971	80/20	38.0971
938507	AE1-069_C2	41.0778	80/20	41.0778
938535	AE1-072 C	27.3517	80/20	27.3517
938551	AE1-074 C	0.6107	80/20	0.6107
938634	AE1-085 C	13.3895	80/20	13.3895
938771	AE1-103 C	4.7311	Adder	5.57
939195	AE1-149 C	16.0272	80/20	16.0272
939414	AE1-173_C1	51.9170	80/20	51.9170
939415	AE1-173_C2	44.5003	80/20	44.5003
939416	AE1-173_C3	51.9170	80/20	51.9170
940061	AE2-000BC O1	16.1010	80/20	16.1010
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	269.3798	80/20	269.3798
940431	AE2-027 C O1	15.4401	Adder	18.16
940471	AE2-031 C	54.5281	80/20	54.5281
940481	AE2-033 C	24.3299	80/20	24.3299
940491	AE2-034 C	9.3106	Adder	10.95
940541	AE2-040	4.3222	80/20	4.3222
940641	AE2-051 C O1	28.7217	80/20	28.7217

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940651	AE2-052	5.3424	80/20	5.3424
940891	AE2-078 C	2.9568	Adder	3.48
940901	AE2-079 C	2.9568	Adder	3.48
941031	AE2-094 C	65.4234	80/20	65.4234
941101	AE2-104 C O1	5.1652	80/20	5.1652
941281	AE2-122 C O1	44.2187	80/20	44.2187
941291	AE2-123 C O1	45.4431	80/20	45.4431
941301	AE2-124 C O1	41.3261	80/20	41.3261
941501	AE2-147 C	24.4512	80/20	24.4512
941591	AE2-156 O1	27.8230	80/20	27.8230
942001	AE2-212 C	2.6624	Adder	3.13
942131	AE2-225 C	3.3056	80/20	3.3056
942161	AE2-228 C	2.6023	Adder	3.06
942171	AE2-229 C	2.4792	80/20	2.4792
942341	AE2-247 C	2.2803	80/20	2.2803
942371	AE2-250 C O1	11.9267	Adder	14.03
942401	AE2-253 C	9.5665	80/20	9.5665
942471	AE2-260 C O1	18.4328	Adder	21.69
942551	AE2-270	32.8963	Adder	38.7
942931	AE2-313 C	58.9598	80/20	58.9598
943171	AE2-346 C	1.7909	Adder	2.11
943461	AF1-017 C	2.0631	80/20	2.0631
943611	AF1-032 C	2.6996	80/20	2.6996
943621	AF1-033 C	2.9568	Adder	3.48
944011	AF1-069 C	21.3763	80/20	21.3763
944581	AF1-123 C O1	75.0792	80/20	75.0792
944591	AF1-124 C O1	75.0792	80/20	75.0792
944601	AF1-125 C O1	75.0792	80/20	75.0792
944641	AF1-129	122.4021	Adder	144.0
944871	AF1-152 C	8.1504	80/20	8.1504
945711	AF1-236 C O1	101.9285	Adder	119.92
945811	AF1-246 C O1	11.5823	80/20	11.5823
946011	AF1-266	20.3661	80/20	20.3661
946261	AF1-291 C	2.6015	Adder	3.06
946281	AF1-292 C	1.9090	Adder	2.25
957481	AF2-042 C	82.7310	80/20	82.7310
957491	AF2-043 C	3.3056	80/20	3.3056
957521	AF2-046 C	21.4450	Adder	25.23
957531	AF2-047 C	22.1237	Adder	26.03
957631	AF2-057	5.5612	80/20	5.5612
957711	AF2-065 C	16.7771	Adder	19.74
957821	AF2-076 C	8.1999	80/20	8.1999
957871	AF2-081 C	15.5008	80/20	15.5008
957911	AF2-085	6.6022	80/20	6.6022
958141	AF2-108	2.6769	80/20	2.6769
958161	AF2-110 C	2.1294	80/20	2.1294
958501	AF2-144 C	2.2982	Adder	2.7
959531	AF2-244 C (Withdrawn : 01/06/2021)	2.1180	Adder	2.49
959651	AF2-256 C	0.6506	Adder	0.77
959661	AF2-257 C	0.6504	Adder	0.77
959671	AF2-258 C	0.6656	Adder	0.78
959681	AF2-259 C	4.0154	80/20	4.0154

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959751	AF2-266	11.0755	Adder	13.03
960081	AF2-299 C	3.2173	Adder	3.79
961091	AF2-400 C	0.6012	Adder	0.71
961611	AG1-000B C	10.5561	Adder	23.43
961681	AG1-008 C	11.3886	Adder	25.28
961711	AG1-011	18.6449	Adder	41.39
961851	AG1-027 C	26.0714	80/20	26.0714
961931	AG1-036 C	0.9186	Adder	2.04
961941	AG1-037 C	0.3390	Adder	0.75
962271	AG1-075 C O1	10.9098	Adder	24.22
962321	AG1-081 C (Withdrawn : 01/15/2021)	1.4246	Adder	3.16
962331	AG1-082 C	1.3560	Adder	3.01
962341	AG1-083 C	1.3560	Adder	3.01
962351	AG1-084 C	1.1827	Adder	2.63
962361	AG1-085 C	1.1827	Adder	2.63
962491	AG1-098 C O1	8.4219	Adder	18.69
962561	AG1-105 C O1	6.8494	Adder	15.2
963041	AG1-153 C	9.1158	80/20	9.1158
963111	AG1-160 C	9.2304	80/20	9.2304
963221	AG1-171 C	1.3903	Adder	3.09
963231	AG1-172 C	1.3903	Adder	3.09
963241	AG1-173 C	1.3903	Adder	3.09
963251	AG1-174 C	1.3903	Adder	3.09
963261	AG1-175 C	1.3903	Adder	3.09
963291	AG1-178 C O1	102.6810	80/20	102.6810
963351	AG1-184 O1	55.3190	80/20	55.3190
963821	AG1-235 C O1	37.5219	80/20	37.5219
964491	AG1-312 C O1	12.7300	Adder	28.26
964801	AG1-343 C	4.0122	Adder	8.91
964931	AG1-357 C	34.4172	80/20	34.4172
964951	AG1-359 O1	41.7780	80/20	41.7780
965001	AG1-364 C O1	11.1280	80/20	11.1280
965181	AG1-383 C	4.2908	80/20	4.2908
965291	AG1-394 C	1.3770	Adder	3.06
965631	AG1-431	31.2759	Adder	69.42
965691	AG1-437 C O1	6.8756	Adder	15.26
965701	AG1-438 C O1	6.8756	Adder	15.26
965741	AG1-442 O1	4.0108	Adder	8.9
965751	AG1-443 O1	4.0108	Adder	8.9
965811	AG1-449	38.2324	80/20	38.2324
966361	AG1-505 C	26.9271	80/20	26.9271
966371	AG1-506 C	26.9271	80/20	26.9271
966491	AG1-518 O1	13.7735	80/20	13.7735
966611	AG1-531 C	4.2316	Adder	9.39
966621	AG1-532 C	0.9208	Adder	2.04
966731	AG1-544 C	10.4572	80/20	10.4572
966741	AG1-545 C	3.4875	80/20	3.4875
966931	AG1-431A	23.4981	Adder	52.16
WEC	WEC	1.4011	Confirmed LTF	1.4011
LGEE	LGEE	2.9461	Confirmed LTF	2.9461
CPLE	CPLE	12.4679	Confirmed LTF	12.4679
CBM-W2	CBM-W2	59.3331	Confirmed LTF	59.3331

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
NY	NY	3.1466	Confirmed LTF	3.1466
TVA	TVA	11.1076	Confirmed LTF	11.1076
SIGE	SIGE	1.2049	Confirmed LTF	1.2049
CBM-S2	CBM-S2	153.5306	Confirmed LTF	153.5306
CBM-S1	CBM-S1	2.7911	Confirmed LTF	2.7911
MEC	MEC	8.2707	Confirmed LTF	8.2707
LAGN	LAGN	13.6973	Confirmed LTF	13.6973
AA2-074	AA2-074	8.2386	LTF	8.2386
CBM-W1	CBM-W1	58.1970	Confirmed LTF	58.1970

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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
163454174	314924	8SURREY	DVP	314903	8CHCKAHM	DVP	1	DVP_P4-2: 56372	breaker	3144.0	125.22	125.79	DC	37.49

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313717	6SLIGO L2192	3.1319	Adder	3.68
314295	6BIRDNECK	0.0719	50/50	0.0719
314466	6FENTRES	3.7992	50/50	3.7992
314491	3PENDLTN	0.5360	50/50	0.5360
314525	6KINGFORK	5.6243	Adder	6.62
314550	6HICKORY	6.9891	50/50	6.9891
314632	6AYDLETOLD	3.1340	Adder	3.69
315099	1CHESPKB (Deactivation : 31/05/2019)	4.9116	50/50	4.9116
315108	1ELIZAR1	5.2434	50/50	5.2434
315109	1ELIZAR2	5.1523	50/50	5.1523
315110	1ELIZAR3	5.3105	50/50	5.3105
315233	1SURREY 2	51.9844	50/50	51.9844
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	-11.9140	Adder	-14.02
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	-11.9140	Adder	-14.02
316114	AB2-068 ST (Withdrawn : 01/11/2021)	-20.6397	Adder	-24.28
316151	AD2-215 E (Withdrawn : 01/14/2021)	1.2036	Adder	1.42
901082	W1-029 E	62.1224	Adder	73.09
913392	Y1-086 E	3.0559	Adder	3.6
916042	Z1-036 E (Suspended)	59.7462	Adder	70.29
916192	Z1-068 E	3.1893	50/50	3.1893
917122	Z2-027 E	1.4593	Adder	1.72
919152	AA1-139 E	9.1809	Adder	10.8
923832	AB2-022 E	1.7251	Adder	2.03
925522	AC1-027 E	1.9414	50/50	1.9414
926662	AC1-147 E	1.8957	Adder	2.23
926754	AC1-161 C	60.4629	50/50	60.4629
926755	AC1-161 E	25.8099	50/50	25.8099
932044	AC2-012 C	14.6019	Adder	17.18
932046	AC2-012 E	23.8241	Adder	28.03
933294	AC2-141 C	60.4629	50/50	60.4629
933295	AC2-141 E	25.8099	50/50	25.8099
933731	AC2-196 C	0.4835	50/50	0.4835
933732	AC2-196 E	2.0409	50/50	2.0409
934061	AD1-033 C	12.8537	50/50	12.8537
934062	AD1-033 E	8.5691	50/50	8.5691
935112	AD1-144 E	1.2268	Adder	1.44
937221	AD2-160 C O1	9.9013	50/50	9.9013
937222	AD2-160 E O1	5.1922	50/50	5.1922

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938494	AE1-068_C1	37.9417	Adder	44.64
938497	AE1-068_C2	37.9417	Adder	44.64
938498	AE1-068_E1	20.9740	Adder	24.68
938499	AE1-068_E2	20.9740	Adder	24.68
938504	AE1-069_C1	28.9158	Adder	34.02
938507	AE1-069_C2	31.1781	Adder	36.68
938508	AE1-069_E1	16.4492	Adder	19.35
938509	AE1-069_E2	17.7218	Adder	20.85
938535	AE1-072 C	25.0860	Adder	29.51
938536	AE1-072 E	12.9231	Adder	15.2
939414	AE1-173_C1	51.8297	50/50	51.8297
939415	AE1-173_C2	44.4254	50/50	44.4254
939416	AE1-173_C3	51.8297	50/50	51.8297
939423	AE1-173_E1	34.5531	50/50	34.5531
939424	AE1-173_E2	29.6170	50/50	29.6170
939425	AE1-173_E3	34.5531	50/50	34.5531
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	293.6472	50/50	293.6472
940471	AE2-031 C	41.3957	Adder	48.7
940472	AE2-031 E	27.5972	Adder	32.47
940641	AE2-051 C O1	27.7668	50/50	27.7668
940642	AE2-051 E O1	18.5112	50/50	18.5112
941031	AE2-094 C	49.9159	Adder	58.72
941032	AE2-094 E	22.3562	Adder	26.3
941101	AE2-104 C O1	4.1712	Adder	4.91
941102	AE2-104 E O1	6.6316	Adder	7.8
941281	AE2-122 C O1	48.2881	50/50	48.2881
941282	AE2-122 E O1	194.8543	50/50	194.8543
941291	AE2-123 C O1	49.6252	50/50	49.6252
941292	AE2-123 E O1	193.5171	50/50	193.5171
941301	AE2-124 C O1	45.1633	50/50	45.1633
941302	AE2-124 E O1	198.1711	50/50	198.1711
941501	AE2-147 C	21.4215	Adder	25.2
941502	AE2-147 E	14.2810	Adder	16.8
941591	AE2-156 O1	30.2330	50/50	30.2330
942131	AE2-225 C	2.9306	Adder	3.45
942132	AE2-225 E	1.9537	Adder	2.3
942171	AE2-229 C	2.1979	Adder	2.59
942172	AE2-229 E	1.4653	Adder	1.72
942401	AE2-253 C	10.4145	50/50	10.4145
942402	AE2-253 E	4.6790	50/50	4.6790
942931	AE2-313 C	44.7367	Adder	52.63
942932	AE2-313 E	29.8245	Adder	35.09
943611	AF1-032 C	2.3933	Adder	2.82
943612	AF1-032 E	1.2699	Adder	1.49
944011	AF1-069 C	16.3094	Adder	19.19
944012	AF1-069 E	6.3359	Adder	7.45
944581	AF1-123 C O1	85.1238	50/50	85.1238
944582	AF1-123 E O1	194.9097	50/50	194.9097
944591	AF1-124 C O1	85.1238	50/50	85.1238
944592	AF1-124 E O1	194.9097	50/50	194.9097
944601	AF1-125 C O1	85.1238	50/50	85.1238
944602	AF1-125 E O1	194.9097	50/50	194.9097

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
944871	AF1-152 C	7.1405	Adder	8.4
944872	AF1-152 E	4.7603	Adder	5.6
957491	AF2-043 C	2.9306	Adder	3.45
957492	AF2-043 E	1.9537	Adder	2.3
957631	AF2-057	5.1235	Adder	6.03
957821	AF2-076 C	7.1561	Adder	8.42
957822	AF2-076 E	4.7707	Adder	5.61
957871	AF2-081 C	14.2814	Adder	16.8
957872	AF2-081 E	6.1206	Adder	7.2
958161	AF2-110 C	1.7196	Adder	2.02
958162	AF2-110 E	2.6897	Adder	3.16
961851	AG1-027 C	10.8778	Adder	24.15
961852	AG1-027 E	6.0132	Adder	13.35
963041	AG1-153 C	3.6420	Adder	8.08
963042	AG1-153 E	5.4630	Adder	12.13
963111	AG1-160 C	3.7026	Adder	8.22
963112	AG1-160 E	5.5539	Adder	12.33
963291	AG1-178 C O1	101.6770	50/50	101.6770
963351	AG1-184 O1	54.7780	50/50	54.7780
963821	AG1-235 C O1	41.0778	50/50	41.0778
963822	AG1-235 E O1	27.3852	50/50	27.3852
964951	AG1-359 O1	45.9660	50/50	45.9660
965001	AG1-364 C O1	12.0872	50/50	12.0872
965002	AG1-364 E O1	18.1308	50/50	18.1308
965181	AG1-383 C	4.7031	50/50	4.7031
965182	AG1-383 E	1.3929	50/50	1.3929
965811	AG1-449	15.3830	Adder	34.15
966361	AG1-505 C	10.5904	Adder	23.51
966362	AG1-505 E	7.0602	Adder	15.67
966371	AG1-506 C	10.5904	Adder	23.51
966372	AG1-506 E	7.0602	Adder	15.67
966491	AG1-518 O1	6.4717	Adder	14.37
WEC	WEC	0.6817	Confirmed LTF	0.6817
LGEE	LGEE	1.4137	Confirmed LTF	1.4137
CPL	CPL	9.4458	Confirmed LTF	9.4458
CBM-W2	CBM-W2	34.3168	Confirmed LTF	34.3168
NY	NY	1.7204	Confirmed LTF	1.7204
TVA	TVA	6.7340	Confirmed LTF	6.7340
O-066	O-066	23.3666	Confirmed LTF	23.3666
SIGE	SIGE	0.6239	Confirmed LTF	0.6239
CBM-S2	CBM-S2	110.7266	Confirmed LTF	110.7266
CBM-S1	CBM-S1	1.6511	Confirmed LTF	1.6511
G-007	G-007	3.6676	Confirmed LTF	3.6676
MEC	MEC	4.3523	Confirmed LTF	4.3523
LAGN	LAGN	8.3738	Confirmed LTF	8.3738
AA2-074	AA2-074	6.2352	LTF	6.2352
CBM-W1	CBM-W1	27.8157	Confirmed LTF	27.8157

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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
169307668	316079	AB2-161 TAP	DVP	314273	3BAKRS P	DVP	1	DVP_P1-3: 8CARSON-TX#2	single	110.92	103.88	110.26	DC	7.08

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316083	AB2-161 C (Suspended)	13.4892	80/20	13.4892
316103	AB2-015 C	2.5565	80/20	2.5565
932581	AC2-078 C O1	-1.5603	Adder	-1.84
932591	AC2-079 C O1	13.5253	80/20	13.5253
934575	AD1-082 C	30.7413	80/20	30.7413
938771	AE1-103 C	1.2554	80/20	1.2554
940061	AE2-000BC O1	40.5684	80/20	40.5684
941101	AE2-104 C O1	1.5507	80/20	1.5507
958161	AF2-110 C	0.6393	80/20	0.6393
961091	AF2-400 C	0.1381	80/20	0.1381
961851	AG1-027 C	7.0779	80/20	7.0779
WEC	WEC	0.0195	Confirmed LTF	0.0195
LGEE	LGEE	0.0402	Confirmed LTF	0.0402
CPLE	CPLE	0.2402	Confirmed LTF	0.2402
CBM-W2	CBM-W2	0.9139	Confirmed LTF	0.9139
NY	NY	0.0332	Confirmed LTF	0.0332
TVA	TVA	0.1750	Confirmed LTF	0.1750
SIGE	SIGE	0.0144	Confirmed LTF	0.0144
CBM-S2	CBM-S2	2.7875	Confirmed LTF	2.7875
CBM-S1	CBM-S1	0.0433	Confirmed LTF	0.0433
MEC	MEC	0.1208	Confirmed LTF	0.1208
LAGN	LAGN	0.2187	Confirmed LTF	0.2187
CBM-W1	CBM-W1	0.8132	Confirmed LTF	0.8132

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
AA1-063	Huntsville (Cabin Creek) 69kV	Withdrawn
AA1-063A	Carolina–Seaboard 115kV	In Service
AA1-065	Earleys 230kV	In Service
AA1-067	Everetts 34.5kV	In Service
AA1-139	Hickory-Shawboro 230kV	In Service
AA1-145	Four Rivers 230kV	In Service
AA2-053	Carolina-Jackson 115kV	In Service
AA2-057	Hornertown-Whitakers 115kV	In Service
AA2-074	CPL- PJM	Confirmed
AA2-088	Boykins-Handsome 115kV	In Service
AA2-165	Hornertown-Whitakers 115kV	In Service
AA2-178	Mackeys 230kV	Partially in Service - Under Construction
AB1-081	Anaconda-Mayo Dunbar 115kV	In Service
AB1-132	Thelma 230kV	Suspended
AB1-173	Brink-Trego 115kV	Engineering and Procurement
AB2-015	Franklin 115kV	Engineering and Procurement
AB2-022	Elizabeth City 34.5kV	Engineering and Procurement
AB2-040	Brink 115kV	Engineering and Procurement
AB2-059	Benson-Dunbar 115kV	Partially in Service - Under Construction
AB2-068	Chickahominy 500kV	Withdrawn
AB2-099	Ahoskie 34.5kV	Suspended
AB2-100	Clubhouse-Lakeview 230kV	Under Construction
AB2-134	Hopewell-Surry 230kV	In Service
AB2-160	Reams 115kV	Suspended
AB2-161	Waverly #2 DP 115kV	Suspended
AB2-169	Pantago-Five Points 115kV	Partially in Service - Under Construction
AB2-174	Emporia-Trego 115kV	In Service
AB2-190	Hopewell-Surry 230kV	Engineering and Procurement
AC1-027	Pendleton 34.5kV	In Service
AC1-034	Heartsease DP - Mayo Dunbar 115kV	Engineering and Procurement
AC1-054	Kerr Dam–Eatons Ferry 115 kV	Engineering and Procurement
AC1-065	Harmony Village-Shackleford 115kV	Engineering and Procurement
AC1-086	Thelma 230kV	Active
AC1-098	Dawson-South Justice 115kV	Engineering and Procurement
AC1-099	Dawson-South Justice 115kV	Engineering and Procurement
AC1-107	Chickahominy 500kV	Engineering and Procurement
AC1-131	PJM-CPL	Confirmed
AC1-147	Grassfield 34.5kV	Engineering and Procurement
AC1-161	Septa 500kV	Engineering and Procurement

Queue Number	Project Name	Status
AC1-164	Chickahominy 230kV	Engineering and Procurement
AC1-189	Chinquapin-Everetts 230kV	Active
AC1-191	Elmont 115kV	Active
AC1-208	Cox-Whitakers 115kV	Engineering and Procurement
AC1-216	Hopewell-Surry 230kV	Partially in Service - Under Construction
AC2-012	Grassfield-Great Bridge 115kV	Active
AC2-070	Old Church 34.5kV	Engineering and Procurement
AC2-078	Disputanta-Waverly 115kV	Engineering and Procurement
AC2-079	Ivor-Oak Ridge 115kV	Engineering and Procurement
AC2-084	Dawson-South Justice 115kV	Active
AC2-137	Elko 34.5kV	Partially in Service - Under Construction
AC2-141	Septa 500kV	Active
AC2-196	Fentress 34.5kV	Engineering and Procurement
AD1-023	Cashie-Trowbridge 230 kV	Active
AD1-025	Hopewell-Surry 230 kV	Active
AD1-033	Fentress-Landstown 230 kV	Engineering and Procurement
AD1-041	Harmony Village-Shackleford 115 kV	Engineering and Procurement
AD1-057	Hornertown-Hathaway 230 kV	Active
AD1-063	Harmony Village 34.5 kV	In Service
AD1-076	Trowbridge 230 kV	Active
AD1-082	Bakers Pond-Ivor 115kV	Engineering and Procurement
AD1-087	Clover-Sedge Hill 230 kV	Active
AD1-105	Kings Dominion DP 115 kV	Active
AD1-144	Kings Fork 34.5 kV	Partially in Service - Under Construction
AD1-151	Hopewell-Surry 230 kV	Active
AD1-152	Clover-Sedge Hill 230 kV	Active
AD2-007	Hopewell-Surry 230 kV	Active
AD2-008	Hopewell-Surry 230 kV	Active
AD2-021	Elko 34.5 kV	Partially in Service - Under Construction
AD2-046	Boydton DP-Kerr Dam 115 kV	Active
AD2-051	Earleys – Northampton 230kV	Active
AD2-073	Sanders DP 230 kV	Active
AD2-074	Garner DP-Lancaster 115 kV	Active
AD2-085	Myrtle-Windsor DP 115kV	Active
AD2-097	Spruance NUG 230kV	In Service
AD2-160	Hickory-Moyock 230kV	Active
AD2-202	Clover-Sedge Hill 230kV	Active
AD2-215	Kings Fork 34.5 kV	Withdrawn
AE1-035	Earleys 230 kV	Partially in Service - Under Construction
AE1-068	Carson-Rogers Rd 500 kV	Active
AE1-069	Carson-Rogers Road 500 kV	Active
AE1-072	Shawboro-Sligo 230 kV	Active
AE1-074	Winterpock 34.5 kV	Engineering and Procurement
AE1-085	Bakers Pond-Bell Ave 115 kV	Active
AE1-103	Holland-Union Camp 115 kV	Active
AE1-148	Kerr Dam-Ridge Rd 115 kV	Active
AE1-149	Disputanta-Poe 115 kV	Active
AE1-155	Garner-Northern Neck 115 kV	Active
AE1-162	Smithfield 34.5 kV	Engineering and Procurement
AE1-173	Carson-Suffolk 500 kV	Active
AE1-175	Light Foot 34.5 kV	Engineering and Procurement
AE1-191	Harmony Village-Shackleford 115 kV	Active

Queue Number	Project Name	Status
AE1-206	Four Rivers-Hanover 230 kV	Active
AE2-000B	N/A	N/A
AE2-005	Harmony Village-Shackleford 115 kV	Engineering and Procurement
AE2-007	Chesapeake 230 kV	Withdrawn
AE2-027	Harrowgate-Locks 115kV	Active
AE2-031	Carson-Rawlings 500 kV	Active
AE2-033	Clubhouse-Sappony 230 kV	Active
AE2-034	Mackeys 230 kV	Active
AE2-040	Sapony 34.5 kV	Active
AE2-041	Harmony Village 230 kV	Active
AE2-044	Anaconda-Dunbar 115 kV	Active
AE2-051	Carson-Septa 500 kV	Active
AE2-052	Disputanta-Poe 115 kV	Active
AE2-053	Kerr Dam-Ridge Road 115 kV	Active
AE2-078	Poolesville 34.5 kV	Engineering and Procurement
AE2-079	Poolesville 34.5 kV	Engineering and Procurement
AE2-094	Carson-Rogers Road 500 kV	Active
AE2-104	Suffolk 115 kV	Active
AE2-122	Birdneck-Landstown 230 kV	Active
AE2-123	Birdneck-Landstown 230 kV	Active
AE2-124	Landstown 230 kV	Active
AE2-147	Swamp 230 kV	Active
AE2-151	Earleys 34.5kV	Withdrawn
AE2-155	Old Church 34.5 kV	Partially in Service - Under Construction
AE2-156	Yadkin 115 kV	Active
AE2-212	Harrowgate 34 kV	Active
AE2-225	Suffolk 34 kV	Engineering and Procurement
AE2-227	Iron Bridge 34 kV	Engineering and Procurement
AE2-228	Tyler 34 kV	Engineering and Procurement
AE2-229	Suffolk 34 kV	Engineering and Procurement
AE2-231	St. Johns 115 kV	Active
AE2-247	Myrtle-Windsor 115 kV	Active
AE2-250	Purdy Sw.-Reams 115 kV	Active
AE2-253	Hickory-Moyock 230 kV	Active
AE2-260	Clubhouse 230 kV	Active
AE2-270	Hopewell-Surry 230 kV	Active
AE2-313	Carson-Rawlings 500 kV	Active
AE2-346	Ahoskie 34.5 kV	Active
AF1-014	Harmony Village-Shackleford 115 kV	Active
AF1-017	Myrtle-Windsor 115 kV	Active
AF1-018	Harmony Village 230 kV	Active
AF1-031	Kings Dominion DP 115 kV	Active
AF1-032	Suffolk 34.5 kV	Engineering and Procurement
AF1-033	Poolesville 34 kV	Engineering and Procurement
AF1-042	Garner DP-Lancaster 115 kV	Active
AF1-059	Brodnax-South Hill 115 kV	Active
AF1-067	Kings Dominion DP 115 kV	Active
AF1-069	Carson-Rogers Rd 500 kV	Active
AF1-082	Heartsease-Mayo Dunbar DP	Active
AF1-123	Fentress 500 kV	Active
AF1-124	Fentress 500 kV	Active
AF1-125	Fentress 500 kV	Active

Queue Number	Project Name	Status
AF1-128	Chesterfield 230 kV	Active
AF1-129	Chesterfield 230 kV	Active
AF1-152	Swamp 230 kV	Active
AF1-201	Hayes-White Marsh 115 kV	Active
AF1-236	Mackeys 230 kV	Active
AF1-246	Clover-Rawlings 500 kV	Active
AF1-265	Four Rivers-Hanover 230 kV	Active
AF1-266	Clubhouse-Sapony 230 kV	Active
AF1-291	Tyler 34.5 kV	Engineering and Procurement
AF1-292	Fields 34.5kV	Active
AF2-035	St. Johns 115 kV	Active
AF2-042	Clover-Rawlings 500 kV	Active
AF2-043	Suffolk 34.5 kV	Engineering and Procurement
AF2-046	Tunis-Mapleton 115 kV	Active
AF2-047	Creswell-Riders Creek 115 kV	Active
AF2-054	Wan 34.5 kV	Active
AF2-057	Grassfield 34.5 kV	Active
AF2-065	Surry-Hopewell 230 kV	Active
AF2-076	Suffolk-Nucor Steel 230 kV	Active
AF2-077	White Marsh 34.5 kV	Active
AF2-080	Chinquapin-Everetts 230 kV	Active
AF2-081	Moyock 230 kV	Active
AF2-085	Midlothian 34.5 kV	Engineering and Procurement
AF2-108	Locks 34.5 kV	Active
AF2-110	Suffolk 115 kV	Active
AF2-120	Garner-Northern Neck 115 kV	Active
AF2-144	Powhatan 34.5 kV	Active
AF2-242	Wharton 115 kV	Active
AF2-244	Powhatan 34.5 kV	Withdrawn
AF2-255	Iron Bridge 34.5 kV	Engineering and Procurement
AF2-256	Tyler 34.5 kV	Engineering and Procurement
AF2-257	Tyler 34.5 kV	Active
AF2-258	Harrowgate 34.5 kV	Active
AF2-259	Locks 34.5 kV	Active
AF2-266	Clover 230 kV	Active
AF2-299	Fields 34.5 kV	Active
AF2-300	St. Johns 115 kV	Active
AF2-400	Franklin 13.2 kV	Engineering and Procurement
AG1-000B	N/A	N/A
AG1-007	Tar River 12.5 kV	Active
AG1-008	Tunis-Mapleton 115 kV	Active
AG1-011	Colonial Trial 230 kV	Active
AG1-027	Suffolk-Holland 115 kV	Active
AG1-036	Tunis 34.5 kV	Active
AG1-037	Earlys 34.5 kV	Active
AG1-038	Garner DP-Lancaster 115 kV	Active
AG1-057	Harmony Village 230 kV	Active
AG1-064	Plaza 34.5 kV	Active
AG1-065	Plaza 34.5 kV	Active
AG1-075	Purdy-Sapony 115 kV	Active
AG1-081	Poolesville 34.5 kV	Withdrawn
AG1-082	Ahoskie 34.5 kV	Active

Queue Number	Project Name	Status
AG1-083	Ahoskie 34.5 kV	Active
AG1-084	Earlys 34.5 kV	Active
AG1-085	Earlys 34.5	Active
AG1-098	Briery-Clover 230 kV	Active
AG1-102	White Marsh 34.5 kV	Active
AG1-105	Clover-Sedge Hill 230 kV	Active
AG1-106	Thelma 230 kV	Active
AG1-134	Kings Dominion DP 115 kV	Active
AG1-135	Garner-Lancaster 115 kV	Active
AG1-145	Lightfoot 34.5 kV	Active
AG1-146	Garner DP-Lancaster 115 kV	Active
AG1-147	Garner DP-Lancaster 115 kV	Active
AG1-153	Heritage 500 kV	Active
AG1-160	Rogers Road 500 kV	Active
AG1-171	Hopewell-Surry 230kV	Active
AG1-172	Hopewell-Surry 230 kV	Active
AG1-173	Hopewell-Surry 230 kV	Active
AG1-174	Hopewell-Surry 230 kV	Active
AG1-175	Hopewell-Surry 230 kV	Active
AG1-178	Carson-Septa 500 kV	Active
AG1-179	Brunswick 69 kV	Active
AG1-180	Brunswick 69 kV	Active
AG1-183	St. Johns DP-REC 115 kV	Active
AG1-184	Carson-Septa 500 kV	Active
AG1-187	St. Johns DP-REC 115 kV	Active
AG1-210	Northern Neck 34.5 kV	Active
AG1-213	St Johns 13.2 kV	Active
AG1-235	Fentress-Sligo 230 kV	Active
AG1-256	Northern Neck 230 kV	Active
AG1-282	Dunnsville 34.5 kV	Active
AG1-312	Earleys-Cashie 230 kV	Active
AG1-313	Jackson DP-Occoneetchee 115 kV	Active
AG1-343	Boykins-Murphy 115 kV	Active
AG1-357	Clover-Rawlins 500 kV	Active
AG1-359	Fentress 230 kV	Active
AG1-364	Deep Creek 115 kV	Active
AG1-383	Hickory 34.5 kV	Active
AG1-388	Dunnsville 34.5 kV	Active
AG1-394	Boykins 34.5 kV	Active
AG1-413	South Hill-Bordnax 115 kV	Active
AG1-428	Danielstown 69 kV	Active
AG1-431	Mackeys 230 kV	Active
AG1-431A	Mackeys 230 kV	Active
AG1-437	Cashie-Earleys 230 kV	Active
AG1-438	Cashie-Earleys 230 kV	Active
AG1-439	Chinquapin 230 kV	Active
AG1-440	Palmer Springs 115 kV	Active
AG1-441	Palmer Springs 115 kV	Active
AG1-442	Cashie-Earleys 230 kV	Active
AG1-443	Cashie-Earleys 230 kV	Active
AG1-444	Chinquapin 230 kV	Active
AG1-445	Palmer Spring 115 kV	Active

Queue Number	Project Name	Status
AG1-446	Palmer Springs 115 kV	Active
AG1-449	Rawlings-Carson 500 kV	Active
AG1-505	Rawlings-Clover 500 kV	Active
AG1-506	Rawlings-Clover 500 kV	Active
AG1-518	Suffolk 230 kV	Active
AG1-531	Poolesville-Winchester 230 kV	Active
AG1-532	Fields 34.5 kV	Active
AG1-536	Garner-Northern Neck 115 kV	Active
AG1-541	St. Johns 115 kV	Active
AG1-544	Bakers Pond DP 115 kV	Active
AG1-545	W. Quaker Rd-Disputanta 34.5 kV	Active
AG1-546	Ebony-Elams Road 115 kV	Active
AG1-551	Parmelee 12.5 kV	Active
AG1-552	Carolina 13.2 kV	Active
AG1-558	Buckner 34.5 kV	Active
AG1-559	Caroline Pines 22 kV	Active
V4-068	Murphy's 34.5kV	In Service
W1-029	Winfall 230kV	In Service
Y1-086	Morgans Corner	In Service
Z1-036	WinFall-Chowan 230kV	Suspended
Z1-068	Birdneck 34.5kV	In Service
Z1-086	Heritage-Carson	In Service
Z2-027	Pasquotank 34.5kV	In Service
Z2-043	Kelford 34.5kV	In Service
Z2-044	Whitakers 34.5kV	In Service
Z2-088	Tarboro-Everetts 230kV	In Service

11.8 Contingency Descriptions

Contingency Name	Contingency Definition
DVP_P1-2: LN 567	CONTINGENCY 'DVP_P1-2: LN 567' OPEN BRANCH FROM BUS 314903 TO BUS 314924 CKT 1 /* 8CHCKAHM 500.00 - 8SURREY 500.00 END
DVP_P1-2: LN 563	CONTINGENCY 'DVP_P1-2: LN 563' OPEN BRANCH FROM BUS 314902 TO BUS 314914 CKT 1 /* 8CARSON 500.00 - 8MDLTHAN 500.00 END
DVP_P1-2: LN 108-C	CONTINGENCY 'DVP_P1-2: LN 108-C' OPEN BRANCH FROM BUS 957520 TO BUS 314617 CKT 1 /* AF2-046 TAP 115.00 - 3TUNIS 115.00 OPEN BRANCH FROM BUS 314617 TO BUS 314866 CKT 1 /* 3TUNIS 115.00 - 3TUNIS_1 115.00 OPEN BUS 314866 /* ISLAND: 3TUNIS_1 115.00 END
DVP_P4-2: 562T563	CONTINGENCY 'DVP_P4-2: 562T563' /* CARSON 500 KV OPEN BRANCH FROM BUS 314902 TO BUS 940640 CKT 1 /* 8CARSON 500.00 - AE2- 051 TAP 500.00 OPEN BRANCH FROM BUS 314902 TO BUS 314914 CKT 1 /* 8CARSON 500.00 - 8MDLTHAN 500.00 END
DVP_P1-2: LN 136	CONTINGENCY 'DVP_P1-2: LN 136' OPEN BRANCH FROM BUS 314551 TO BUS 314568 CKT 1 /* 3AHOSKIE 115.00 - 3EARLEYS 115.00 OPEN BRANCH FROM BUS 314551 TO BUS 314617 CKT 1 /* 3AHOSKIE 115.00 - 3TUNIS 115.00 OPEN BUS 314551 /* ISLAND: 3AHOSKIE 115.00 OPEN BUS 316140 /* ISLAND: AB2-099 C 115.00 OPEN BUS 316141 /* ISLAND: AB2-099 E 115.00 END

Contingency Name	Contingency Definition
DVP_P7-1: LN 2058-2181	CONTINGENCY 'DVP_P7-1: LN 2058-2181' /* . OPEN BRANCH FROM BUS 304222 TO BUS 313845 CKT 1 /* 6ROCKYMT230T230.00 - 6HATHAWAY 230.00 OPEN BRANCH FROM BUS 313844 TO BUS 313845 CKT 2 /* 3HATHAWAY 115.00 - 6HATHAWAY 230.00 OPEN BUS 304226 /* ISLAND: 6PA-RMOUNT#4115.00 OPEN BRANCH FROM BUS 304226 TO BUS 314591 CKT 1 /* 6PA-RMOUNT#4230.00 - 6NASH 230.00 OPEN BRANCH FROM BUS 313845 TO BUS 314591 CKT 1 /* 6HATHAWAY 230.00 - 6NASH 230.00 OPEN BUS 314591 /* ISLAND: 6NASH 230.00 END
DVP_P1-2: LN 2167	CONTINGENCY 'DVP_P1-2: LN 2167' OPEN BRANCH FROM BUS 313845 TO BUS 314564 CKT 1 /* 6HATHAWAY 230.00 - 6EDGECOM 230.00 END
DVP_P1-2: LN 249	CONTINGENCY 'DVP_P1-2: LN 249' OPEN BRANCH FROM BUS 314282 TO BUS 314285 CKT 1 /* 6CARSON 230.00 - 6CHRL249 230.00 OPEN BRANCH FROM BUS 314285 TO BUS 314316 CKT 1 /* 6CHRL249 230.00 - 6LOCKS 230.00 OPEN BRANCH FROM BUS 314314 TO BUS 314316 CKT 2 /* 3LOCKS 115.00 - 6LOCKS 230.00 OPEN BUS 314285 /* ISLAND: 6CHRL249 230.00 END
DVP_P1-3: 6SUFFOLK-TX#5	CONTINGENCY 'DVP_P1-3: 6SUFFOLK-TX#5' OPEN BRANCH FROM BUS 314536 TO BUS 314537 CKT 2 /* 3SUFFOLK 115.00 - 6SUFFOLK 230.00 END
DVP_P1-2: LN 2181	CONTINGENCY 'DVP_P1-2: LN 2181' OPEN BUS 304226 /* ISLAND: 6PA-RMOUNT#4115.00 OPEN BRANCH FROM BUS 304226 TO BUS 314591 CKT 1 /* 6PA-RMOUNT#4230.00 - 6NASH 230.00 OPEN BRANCH FROM BUS 313845 TO BUS 314591 CKT 1 /* 6HATHAWAY 230.00 - 6NASH 230.00 OPEN BUS 314591 /* ISLAND: 6NASH 230.00 END
DVP_P4-2: 56372	CONTINGENCY 'DVP_P4-2: 56372' /* CARSON 500 KV OPEN BRANCH FROM BUS 314902 TO BUS 314914 CKT 1 /* 8CARSON 500.00 - 8MDLTAN 500.00 OPEN BRANCH FROM BUS 314282 TO BUS 314902 CKT 1 /* 6CARSON 230.00 - 8CARSON 500.00 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 579	CONTINGENCY 'DVP_P1-2: LN 579' OPEN BRANCH FROM BUS 314923 TO BUS 314927 CKT 1 /* 8SEPTA 500.00 - 8YADKIN 500.00 END
DVP_P1-3: 8CARSON-TX#2	CONTINGENCY 'DVP_P1-3: 8CARSON-TX#2' OPEN BRANCH FROM BUS 314282 TO BUS 314902 CKT 1 /* 6CARSON 230.00 - 8CARSON 500.00 END
DVP_P1-2: LN 557	CONTINGENCY 'DVP_P1-2: LN 557' OPEN BRANCH FROM BUS 314903 TO BUS 314908 CKT 1 /* 8CHCKAHM 500.00 - 8ELMONT 500.00 END
DVP_P1-2: LN 217	CONTINGENCY 'DVP_P1-2: LN 217' OPEN BRANCH FROM BUS 314225 TO BUS 314227 CKT 1 /* 6CHARCTY 230.00 - 6LAKESIDE 230.00 OPEN BRANCH FROM BUS 314225 TO BUS 314260 CKT 1 /* 6CHARCTY 230.00 - 6VARINA 230.00 OPEN BRANCH FROM BUS 314260 TO BUS 314287 CKT 1 /* 6VARINA 230.00 - 6CHESTF B 230.00 OPEN BUS 314225 /* ISLAND: 6CHARCTY 230.00 OPEN BUS 314260 /* ISLAND: 6VARINA 230.00 END
DVP_P1-2: LN 574	CONTINGENCY 'DVP_P1-2: LN 574' OPEN BRANCH FROM BUS 314908 TO BUS 314911 CKT 1 /* 8ELMONT 500.00 - 8LADYSMITH 500.00 END
DVP_P1-2: LN 576	CONTINGENCY 'DVP_P1-2: LN 576' OPEN BRANCH FROM BUS 314914 TO BUS 314918 CKT 1 /* 8MDLTHAN 500.00 - 8NO ANNA 500.00 END
DVP_P1-2: LN 68-B	CONTINGENCY 'DVP_P1-2: LN 68-B' OPEN BRANCH FROM BUS 961850 TO BUS 314536 CKT 1 /* 3COPELD DP 115.00 - 3SUFFOLK 115.00 END
Base Case	

Contingency Name	Contingency Definition
DVP_P1-2: LN 2002	CONTINGENCY 'DVP_P1-2: LN 2002' OPEN BRANCH FROM BUS 314282 TO BUS 314331 CKT 1 /* 6CARSON 230.00 - 6POE 230.00 OPEN BRANCH FROM BUS 314329 TO BUS 314331 CKT 1 /* 3POE 115.00 - 6POE 230.00 END
DVP_P1-2: LN 2003	CONTINGENCY 'DVP_P1-2: LN 2003' OPEN BRANCH FROM BUS 314263 TO BUS 314287 CKT 1 /* 6TYLER1 230.00 - 6CHESTF B 230.00 OPEN BRANCH FROM BUS 314263 TO BUS 314299 CKT 1 /* 6TYLER1 230.00 - 6HARROWG 230.00 OPEN BRANCH FROM BUS 314299 TO BUS 314331 CKT 1 /* 6HARROWG 230.00 - 6POE 230.00 OPEN BRANCH FROM BUS 314329 TO BUS 314331 CKT 2 /* 3POE 115.00 - 6POE 230.00 OPEN BUS 314263 /* ISLAND: 6TYLER1 230.00 OPEN BUS 314299 /* ISLAND: 6HARROWG 230.00 END
DVP_P4-2: 563T576	CONTINGENCY 'DVP_P4-2: 563T576' /* MIDLOTHIAN 500 500 KV OPEN BRANCH FROM BUS 314902 TO BUS 314914 CKT 1 /* 8CARSON 500.00 - 8MDLTHAN 500.00 OPEN BRANCH FROM BUS 314914 TO BUS 314918 CKT 1 /* 8MDLTHAN 500.00 - 8NO ANNA 500.00 END
DVP_P7-1: LN 2002-2003	CONTINGENCY 'DVP_P7-1: LN 2002-2003' /* . OPEN BRANCH FROM BUS 314282 TO BUS 314331 CKT 1 /* 6CARSON 230.00 - 6POE 230.00 OPEN BRANCH FROM BUS 314329 TO BUS 314331 CKT 1 /* 3POE 115.00 - 6POE 230.00 OPEN BRANCH FROM BUS 314263 TO BUS 314287 CKT 1 /* 6TYLER1 230.00 - 6CHESTF B 230.00 OPEN BRANCH FROM BUS 314263 TO BUS 314299 CKT 1 /* 6TYLER1 230.00 - 6HARROWG 230.00 OPEN BRANCH FROM BUS 314299 TO BUS 314331 CKT 1 /* 6HARROWG 230.00 - 6POE 230.00 OPEN BRANCH FROM BUS 314329 TO BUS 314331 CKT 2 /* 3POE 115.00 - 6POE 230.00 OPEN BUS 314263 /* ISLAND: 6TYLER1 230.00 OPEN BUS 314299 /* ISLAND: 6HARROWG 230.00 END
DVP_P1-2: LN 2177	CONTINGENCY 'DVP_P1-2: LN 2177' OPEN BRANCH FROM BUS 313701 TO BUS 314609 CKT 1 /* 6CHINQUAPIN 230.00 - 6TARBORO 230.00 OPEN BRANCH FROM BUS 314608 TO BUS 314609 CKT 2 /* 3TARBORO 115.00 - 6TARBORO 230.00 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 1010	CONTINGENCY 'DVP_P1-2: LN 1010' OPEN BRANCH FROM BUS 313723 TO BUS 314559 CKT 1 /* 3PECAN 115.00 - 3CAROLNA 115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314835 CKT 1 /* 3CAROLNA 115.00 - 3CAROL_1 115.00 OPEN BUS 314835 /* ISLAND: 3CAROL_1 115.00 END
DVP_P1-2: LN 2058	CONTINGENCY 'DVP_P1-2: LN 2058' OPEN BRANCH FROM BUS 304222 TO BUS 313845 CKT 1 /* 6ROCKYMT230T230.00 - 6HATHAWAY 230.00 OPEN BRANCH FROM BUS 313844 TO BUS 313845 CKT 2 /* 3HATHAWAY 115.00 - 6HATHAWAY 230.00 END

12 Short Circuit Analysis

The following Breakers are overdutied:

None

13 Affected Systems

13.1 TVA

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

13.2 Duke Energy Progress

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

14 Attachment 1: One Line Diagram