



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-030
VICTORIA DP-MARTIN DP 115 KV
90 MW Capacity / 150 MW Energy**

January 2021

Table of Contents

1	Introduction.....	4
2	Preface.....	4
3	General	5
4	Point of Interconnection.....	6
4.1	Primary Point of Interconnection	6
4.2	Secondary Point of Interconnection.....	6
5	Cost Summary	6
6	Transmission Owner Scope of Work.....	7
7	Schedule.....	8
8	Transmission Owner Analysis.....	8
8.1	Power Flow Analysis	8
9	Interconnection Customer Requirements.....	9
9.1	System Protection.....	9
9.2	Compliance Issues and Interconnection Customer Requirements	9
9.3	Power Factor Requirements.....	9
10	Revenue Metering and SCADA Requirements	10
10.1	PJM Requirements	10
10.2	Meteorological Data Reporting Requirements	10
10.3	Interconnected Transmission Owner Requirements.....	10
11	Summer Peak - Load Flow Analysis	11
11.1	Generation Deliverability	12
11.2	Multiple Facility Contingency	12
11.3	Contribution to Previously Identified Overloads.....	12
11.4	Potential Congestion due to Local Energy Deliverability.....	14
11.5	System Reinforcements - Summer Peak Load Flow - Primary POI.....	17
11.6	Flow Gate Details.....	22
11.6.1	Index 1	23
11.6.2	Index 2	24
11.6.3	Index 3	27
11.6.4	Index 4	30
11.6.5	Index 5	33

11.6.6	Index 6	35
11.6.7	Index 7	36
11.6.8	Index 8	37
11.6.9	Index 9	41
11.6.10	Index 10.....	44
11.6.11	Index 11.....	47
11.6.12	Index 12.....	50
11.6.13	Index 13.....	53
11.6.14	Index 14.....	58
11.6.15	Index 15.....	61
11.6.16	Index 16.....	64
11.6.17	Index 17.....	66
11.6.18	Index 18.....	68
11.6.19	Index 19.....	71
11.6.20	Index 20.....	74
11.6.21	Index 21.....	77
11.6.22	Index 22.....	80
11.6.23	Index 23.....	82
11.6.24	Index 24.....	85
11.6.25	Index 25.....	89
11.6.26	Index 26.....	92
11.6.27	Index 27.....	95
11.6.28	Index 28.....	97
11.7	Queue Dependencies	100
11.8	Contingency Descriptions.....	105
12	Short Circuit Analysis.....	113
12.1	System Reinforcements - Short Circuit.....	113
13	Affected Systems	114
13.1	TVA.....	114
13.2	Duke Energy Progress.....	114
14	Attachment 1: One Line Diagram	115

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 Nottoway County, Virginia. The installed facilities will have a total capability of 150 MW with 90 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is January 01, 2023. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-030
Project Name	VICTORIA DP-MARTIN DP 115 KV
State	Virginia
County	Nottoway
Transmission Owner	Dominion
MFO	150
MWE	150
MWC	90
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

AG1-030 "Victoria DP-Martin DP 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 Victoria DP substation and Martin DP 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 AG1-030.

5 Cost Summary

The AG1-030 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$8,800,000
Total System Network Upgrade Costs	\$375,879,500 ¹
Total Costs	\$384,679,500

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 AG1-030 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
<i>Attachment Facilities</i>	\$1,700,000
<i>115 kV Three Breaker Ring-Bus Substation</i>	\$5,500,000
<i>Re-arrange line and tie-in new substation</i>	\$1,600,000
Total Physical Interconnection Costs	\$8,800,000

AG1-030 "Victoria DP-Martin DP 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 Victoria DP substation and Martin DP 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.

If the customer is ultimately responsible for network upgrades, then the schedule for those upgrades will be refined in future study phases. The customer would need to wait for those upgrades to be completed prior to commercial operation unless determined deliverable by an interim deliverability study. The elapsed time to complete any network upgrades is provided in the System Reinforcements table of this report¹.

8 Transmission Owner Analysis

Dominion assessed the impact of the proposed AG1-030 for compliance with NERC Reliability Criteria on the Dominion Transmission System. The system was assessed using the summer 2024 AG1 case provided to Dominion by PJM.

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

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

8.1 Power Flow Analysis

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

9 Interconnection Customer Requirements

9.1 System Protection

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

9.2 Compliance Issues and Interconnection Customer Requirements

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

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

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

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

9.3 Power Factor Requirements

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

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Meteorological Data Reporting Requirements

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

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

10.3 Interconnected Transmission Owner Requirements

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

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

11 Summer Peak - Load Flow Analysis

The Queue Project AG1-030 was evaluated as a 150.0 MW (Capacity 90.0 MW) injection tapping the Martin DP to Victoria DP 115 kV line in the Dominion area. Project AG1-030 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-030 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 DC	MW IMPACT
168307547	313755	3FLAT CREEK	115.0	DVP	314707	3MORAN	115.0	DVP	1	DVP_P1-2: LN 1045	single	203.979995728	65.56	109.66	DC	89.97
168608400	314310	6JUDES F	230.0	DVP	314322	6MDLTHA N	230.0	DVP	1	DVP_P1-2: LN 2028-B	single	800.880004883	98.17	100.14	DC	15.82
168608401	314310	6JUDES F	230.0	DVP	314322	6MDLTHA N	230.0	DVP	1	314765 6MTEAG LE 230 966790 AG1-550 TAP 230 1	single	800.880004883	98.16	100.13	DC	15.82
168608395	314333	6POWHAT N	230.0	DVP	314310	6JUDES F	230.0	DVP	1	314765 6MTEAG LE 230 966790 AG1-550 TAP 230 1	single	800.880004883	98.29	100.27	DC	15.82
168608396	314333	6POWHAT N	230.0	DVP	314310	6JUDES F	230.0	DVP	1	DVP_P1-2: LN 2028-B	single	800.880004883	98.29	100.27	DC	15.82
168908271	314562	3CLUBHSE	115.0	DVP	314563	6CLUBHSE	230.0	DVP	1	Base Case	single	176.81401062	99.76	104.17	DC	7.79
169088865	314691	3FARMVIL	115.0	DVP	314692	6FARMVIL	230.0	DVP	2	DVP_P1-2: LN 1045	single	182.641998291	83.84	107.48	DC	43.19
168307542	314701	3LONEPN	115.0	DVP	313755	3FLAT CREEK	115.0	DVP	1	DVP_P1-2: LN 1045	single	203.979995728	65.56	109.66	DC	89.97
169088901	314707	3MORAN	115.0	DVP	314691	3FARMVIL	115.0	DVP	1	DVP_P1-2: LN 1045	single	203.979995728	62.17	106.28	DC	89.97

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 DC	MW IMPACT
168069971	242631	05EDAN 1	138.0	AEP	242620	05DANVL2	138.0	AEP	1	AEP_P2-1_242520 05J.FERR 500 306719 8ANTIOCH 500 1	single	402.0	115.04	115.67	DC	5.69

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/DC	MW IMPACT
168069972	242631	05EDAN 1	138.0	AEP	242620	05DANVL2	138.0	AEP	1	AEP_P2-1_242520 05J.FERR 500 242514 05J.FERR 765 1	single	402.0	115.04	115.67	DC	5.69
168307607	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.760009766	120.72	123.76	DC	20.09
168307608	313707	6FORK UNION	230.0	DVP	961060	AF2-397 TAP	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	116.91	119.95	DC	20.09
168307629	313867	6BREMOD IST	230.0	DVP	313707	6FORK UNION	230.0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.760009766	121.93	125.26	DC	22.01
168307630	313867	6BREMOD IST	230.0	DVP	313707	6FORK UNION	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	117.76	121.09	DC	22.01
168608256	314435	6SAPONY	230.0	DVP	314282	6CARSON	230.0	DVP	1	DVP_P1-2: LN 2012-B	single	678.679992676	126.94	128.19	DC	8.46
168608257	314435	6SAPONY	230.0	DVP	314282	6CARSON	230.0	DVP	1	314266 6NORTHAMP TON 230 936400 AD2- 051 TAP 230 1	single	678.679992676	123.93	125.17	DC	8.46
168908324	314559	3CAROLN A	115.0	DVP	314561	6CAROLN A	230.0	DVP	1	DVP_P1-2: LN 68-A	single	239.888000488	102.36	104.69	DC	5.61
168908269	314562	3CLUBHSE	115.0	DVP	314563	6CLUBHSE	230.0	DVP	1	DVP_P1-2: LN 2201	single	182.641998291	159.34	163.57	DC	7.72
168908270	314562	3CLUBHSE	115.0	DVP	314563	6CLUBHSE	230.0	DVP	1	DVP_P1-2: LN 130	single	182.641998291	107.77	112.52	DC	8.67
163077941	314563	6CLUBHSE	230.0	DVP	940480	AE2-033 TAP	230.0	DVP	1	DVP_P2-2: BREMO B1	bus	830.0	125.22	126.06	DC	15.48
168908368	314563	6CLUBHSE	230.0	DVP	940480	AE2-033 TAP	230.0	DVP	1	DVP_P1-2: LN 2056-A	single	678.679992676	112.33	113.33	DC	8.34
168908369	314563	6CLUBHSE	230.0	DVP	940480	AE2-033 TAP	230.0	DVP	1	DVP_P1-2: LN 2012-B	single	678.679992676	107.89	109.09	DC	8.46
168908384	314579	6HORNRT N	230.0	DVP	934330	AD1-057 TAP	230.0	DVP	1	314435 6SAPONY 230 940480 AE2- 033 TAP 230 1	single	441.799987793	107.34	108.42	DC	4.74
168908385	314579	6HORNRT N	230.0	DVP	934330	AD1-057 TAP	230.0	DVP	1	DVP_P1-2: LN 238-A	single	441.799987793	107.32	108.39	DC	4.74
169088905	314677	6BUCKING	230.0	DVP	314747	6BREMO	230.0	DVP	1	DVP_P1-2: LN 556-C	single	571.520019531	152.02	157.87	DC	33.46
169088906	314677	6BUCKING	230.0	DVP	314747	6BREMO	230.0	DVP	1	DVP_P1-2: LN 556-B	single	571.520019531	152.03	157.89	DC	33.46
169088979	314686	6CLOVER	230.0	DVP	314690	6BLACK WALNU	230.0	DVP	1	DVP_P1-2: LN 556-D	single	814.979980469	112.05	113.27	DC	9.94
169088980	314686	6CLOVER	230.0	DVP	314690	6BLACK WALNU	230.0	DVP	1	DVP_P1-2: LN 556-C	single	814.979980469	112.09	113.31	DC	9.94
169088975	314690	6BLACK WALNU	230.0	DVP	962560	AG1-105 TAP	230.0	DVP	1	DVP_P1-2: LN 556-D	single	814.979980469	120.66	121.88	DC	9.94
169088976	314690	6BLACK WALNU	230.0	DVP	962560	AG1-105 TAP	230.0	DVP	1	DVP_P1-2: LN 556-C	single	814.979980469	120.69	121.91	DC	9.94
169088863	314691	3FARMVIL	115.0	DVP	314692	6FARMVIL	230.0	DVP	2	DVP_P1-2: LN 235-A	single	182.641998291	141.76	162.44	DC	37.76
169088884	314692	6FARMVIL	230.0	DVP	314677	6BUCKING	230.0	DVP	1	DVP_P1-2: LN 556-C	single	559.299987793	152.04	158.03	DC	33.47
169088885	314692	6FARMVIL	230.0	DVP	314677	6BUCKING	230.0	DVP	1	DVP_P1-2: LN 556-B	single	559.299987793	152.08	158.06	DC	33.47
169088911	314697	6SEDGE HILL	230.0	DVP	927250	AC1-221 TAP	230.0	DVP	1	DVP_P1-2: LN 556-D	single	674.91998291	137.59	140.74	DC	21.3

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/DC	MW IMPACT
169088912	314697	6SEDGE HILL	230.0	DVP	927250	AC1-221 TAP	230.0	DVP	1	DVP_P1-2: LN 556-C	single	674.91998291	137.62	140.77	DC	21.3
163457193	314702	3KERR	115.0	DVP	304102	3GW KING TAP	115.0	CPL E	1	DVP_P4-6: CAROLIN T122	breaker	199.0	133.35	143.11	DC	19.74
163457194	314702	3KERR	115.0	DVP	304102	3GW KING TAP	115.0	CPL E	1	DVP_P4-2: 13002	breaker	199.0	118.64	122.55	DC	17.23
163457195	314702	3KERR	115.0	DVP	304102	3GW KING TAP	115.0	CPL E	1	DVP_P4-2: 102802	breaker	199.0	118.64	122.55	DC	17.23
163458068	314702	3KERR	115.0	DVP	304102	3GW KING TAP	115.0	CPL E	1	DVP_P7-1: LN 22-90	tower	199.0	130.89	140.5	DC	19.51
169308917	314747	6BREMO	230.0	DVP	313867	6BREMOD IST	230.0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.760009766	124.09	127.42	DC	22.01
169308918	314747	6BREMO	230.0	DVP	313867	6BREMOD IST	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	119.92	123.25	DC	22.01
169308934	314747	6BREMO	230.0	DVP	314744	3BREMO	115.0	DVP	1	DVP_P1-2: LN 2193	single	269.779998779	114.18	117.79	DC	9.75
169308907	314765	6MTEAGLE	230.0	DVP	314749	6CHARLVL	230.0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.760009766	124.6	127.63	DC	20.09
169308908	314765	6MTEAGLE	230.0	DVP	314749	6CHARLVL	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	120.81	123.84	DC	20.09
163457360	927250	AC1-221 TAP	230.0	DVP	304070	6PERSON2 30 T	230.0	CPL E	1	DVP_P1-2: LN 556-D	single	718.0	141.3	144.27	DC	21.3
163457361	927250	AC1-221 TAP	230.0	DVP	304070	6PERSON2 30 T	230.0	CPL E	1	DVP_P1-2: LN 556-C	single	718.0	141.33	144.29	DC	21.3
169527954	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	DVP_P1-2: LN 2012-B	single	678.679992676	125.42	126.6	DC	8.46
169527955	940480	AE2-033 TAP	230.0	DVP	314435	6SAPONY	230.0	DVP	1	314266 6NORTHAMP TON 230 936400 AD2-051 TAP 230 1	single	678.679992676	122.4	123.58	DC	8.46
169836767	961060	AF2-397 TAP	230.0	DVP	966790	AG1-550 TAP	230.0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.760009766	128.17	131.2	DC	20.09
169836768	961060	AF2-397 TAP	230.0	DVP	966790	AG1-550 TAP	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	124.36	127.4	DC	20.09
169088955	962560	AG1-105 TAP	230.0	DVP	314697	6SEDGE HILL	230.0	DVP	1	DVP_P1-2: LN 556-D	single	814.979980469	120.66	121.88	DC	9.94
169088956	962560	AG1-105 TAP	230.0	DVP	314697	6SEDGE HILL	230.0	DVP	1	DVP_P1-2: LN 556-C	single	814.979980469	120.69	121.91	DC	9.94
169836777	966790	AG1-550 TAP	230.0	DVP	314765	6MTEAGLE	230.0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.760009766	128.14	131.17	DC	20.09
169836778	966790	AG1-550 TAP	230.0	DVP	314765	6MTEAGLE	230.0	DVP	1	DVP_P1-2: LN 2027	single	661.760009766	124.35	127.38	DC	20.09

11.4 Potential Congestion due to Local Energy Deliverability

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

Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC DC	MW IMPA CT
168069 968	2426 31	05EDAN 1	138 .0	AEP	2426 20	05DANVL2	138 .0	AEP	1	AEP_P1-3_#1377_05J.FERR 765_1	operati on	402.0	141.22	142.29	DC	9.49
168069 969	2426 31	05EDAN 1	138 .0	AEP	2426 20	05DANVL2	138 .0	AEP	1	AEP_P2-1_242520 05J.FERR 500 242514 05J.FERR 765 1	operati on	402.0	141.22	142.29	DC	9.49
168307 605	3137 07	6FORK UNION	230 .0	DVP	9610 60	AF2-397 TAP	230 .0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	operati on	661.760009 766	141.96	147.02	DC	33.48
168307 853	3137 08	3FORK UNION	115 .0	DVP	3137 07	6FORK UNION	230 .0	DVP	1	DVP_P1-2: LN 2193	operati on	269.779998 779	100.93	102.61	DC	9.97
168307 544	3137 55	3FLAT CREEK	115 .0	DVP	3147 07	3MORAN	115 .0	DVP	1	DVP_P1-2: LN 1045	operati on	203.979995 728	122.84	196.35	DC	149.9 4
168307 627	3138 67	6BREMO DIST	230 .0	DVP	3137 07	6FORK UNION	230 .0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	operati on	661.760009 766	138.67	144.21	DC	36.69
168307 770	3138 68	6CARTER V	230 .0	DVP	9335 00	AC2-165 TAP	230 .0	DVP	1	DVP_P1-2: LN 2028-B	operati on	800.880004 883	106.83	110.12	DC	26.39
168307 561	3138 98	3BUTCHE R CRK	115 .0	DVP	3142 67	3CHASCTY2	115 .0	DVP	1	DVP_P1-2: LN 158	operati on	269.779998 779	92.88	148.46	DC	149.9 4
168307 563	3138 98	3BUTCHE R CRK	115 .0	DVP	3142 67	3CHASCTY2	115 .0	DVP	1	Base Case	operati on	247.220001 221	83.07	114.21	DC	77.0
168608 398	3143 10	6JUDES F	230 .0	DVP	3143 22	6MDLTHAN	230 .0	DVP	1	DVP_P1-2: LN 2028-B	operati on	800.880004 883	117.42	120.71	DC	26.37
168608 393	3143 33	6POWHA TN	230 .0	DVP	3143 10	6JUDES F	230 .0	DVP	1	314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	operati on	800.880004 883	117.54	120.83	DC	26.37
168608 394	3143 33	6POWHA TN	230 .0	DVP	3143 10	6JUDES F	230 .0	DVP	1	DVP_P1-2: LN 2028-B	operati on	800.880004 883	117.54	120.83	DC	26.37
168908 323	3145 59	3CAROLN A	115 .0	DVP	3145 61	6CAROLNA	230 .0	DVP	1	Base Case	operati on	226.539993 286	111.32	113.03	DC	8.59
168908 267	3145 62	3CLUBHS E	115 .0	DVP	3145 63	6CLUBHSE	230 .0	DVP	1	DVP_P1-2: LN 2201	operati on	182.641998 291	210.75	213.93	DC	12.87
168908 268	3145 62	3CLUBHS E	115 .0	DVP	3145 63	6CLUBHSE	230 .0	DVP	1	Base Case	operati on	176.814010 62	145.82	149.13	DC	12.98
169088 903	3146 77	6BUCKIN G	230 .0	DVP	3147 47	6BREMO	230 .0	DVP	1	DVP_P1-2: LN 556-C	operati on	571.520019 531	196.15	205.89	DC	55.77
169088 907	3146 77	6BUCKIN G	230 .0	DVP	3147 47	6BREMO	230 .0	DVP	1	Base Case	operati on	571.520019 531	111.61	119.77	DC	46.68
169088 977	3146 86	6CLOVER	230 .0	DVP	3146 90	6BLACK WALNU	230 .0	DVP	1	DVP_P1-2: LN 556-D	operati on	814.979980 469	134.71	136.75	DC	16.57
169088 973	3146 90	6BLACK WALNU	230 .0	DVP	9625 60	AG1-105 TAP	230 .0	DVP	1	DVP_P1-2: LN 556-D	operati on	814.979980 469	146.82	148.85	DC	16.57
169088 861	3146 91	3FARMVIL	115 .0	DVP	3146 92	6FARMVIL	230 .0	DVP	2	DVP_P1-2: LN 235-A	operati on	182.641998 291	223.55	257.96	DC	62.93
169088 864	3146 91	3FARMVIL	115 .0	DVP	3146 92	6FARMVIL	230 .0	DVP	2	Base Case	operati on	176.814010 62	132.88	156.06	DC	40.98
169088 872	3146 91	3FARMVIL	115 .0	DVP	3146 92	6FARMVIL	230 .0	DVP	1	DVP_P1-2: LN 298	operati on	198.057998 657	149.4	177.68	DC	56.1

ID	FRO M BUS#	FROM BUS	kV	FRO M BUS ARE A	TO BUS#	TO BUS	kV	TO BUS ARE A	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE CT LOADI NG %	POST PROJE CT LOADI NG %	AC/ DC	MW IMPA CT
169088 875	3146 91	3FARMVIL	115 .0	DVP	3146 92	6FARMVIL	230 .0	DVP	1	Base Case	operati on	193.734008 789	97.66	114.69	DC	33.0
169088 882	3146 92	6FARMVIL	230 .0	DVP	3146 77	6BUCKING	230 .0	DVP	1	DVP_P1-2: LN 556-C	operati on	559.299987 793	198.07	208.03	DC	55.79
169088 886	3146 92	6FARMVIL	230 .0	DVP	3146 77	6BUCKING	230 .0	DVP	1	Base Case	operati on	559.299987 793	109.29	117.63	DC	46.7
169088 931	3146 96	3SEEDGE HILL	115 .0	DVP	3146 97	6SEEDGE HILL	230 .0	DVP	1	DVP_P1-3: 6SEEDGE HILL- TX#2	operati on	226.727996 826	148.0	151.98	DC	20.09
169088 947	3146 96	3SEEDGE HILL	115 .0	DVP	3146 97	6SEEDGE HILL	230 .0	DVP	2	DVP_P1-3: 6SEEDGE HILL- TX#1	operati on	256.055999 756	130.66	134.17	DC	20.03
169088 909	3146 97	6SEEDGE HILL	230 .0	DVP	9272 50	AC1-221 TAP	230 .0	DVP	1	DVP_P1-2: LN 556-D	operati on	674.919982 91	178.54	183.78	DC	35.51
168307 539	3147 01	3LONEPN	115 .0	DVP	3137 55	3FLAT CREEK	115 .0	DVP	1	DVP_P1-2: LN 1045	operati on	203.979995 728	122.84	196.35	DC	149.9 4
163457 401	3147 02	3KERR	115 .0	DVP	3041 02	3GW KING TAP	115 .0	CPL E	1	DVP_P1-2: LN 90	operati on	199.0	110.16	113.8	DC	16.17
163457 402	3147 02	3KERR	115 .0	DVP	3041 02	3GW KING TAP	115 .0	CPL E	1	Base Case	operati on	191.0	105.51	108.84	DC	14.26
169089 055	3147 02	3KERR	115 .0	DVP	3146 73	3PALMERSP RNG	115 .0	DVP	1	DVP_P1-2: LN 45	operati on	138.179992 676	110.7	114.19	DC	10.68
169088 898	3147 07	3MORAN	115 .0	DVP	3146 91	3FARMVIL	115 .0	DVP	1	DVP_P1-2: LN 1045	operati on	203.979995 728	119.46	192.97	DC	149.9 4
168307 748	3147 47	6BREMO	230 .0	DVP	3138 68	6CARTERV	230 .0	DVP	1	DVP_P1-2: LN 2028-B	operati on	800.880004 883	108.24	111.53	DC	26.39
169308 915	3147 47	6BREMO	230 .0	DVP	3138 67	6BREMODIS T	230 .0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	operati on	661.760009 766	140.83	146.37	DC	36.69
169308 933	3147 47	6BREMO	230 .0	DVP	3147 44	3BREMO	115 .0	DVP	1	DVP_P1-2: LN 2193	operati on	269.779998 779	139.31	145.34	DC	16.24
169308 905	3147 65	6MTEAGL E	230 .0	DVP	3147 49	6CHARLVL	230 .0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	operati on	661.760009 766	141.74	146.8	DC	33.48
163457 355	9272 50	AC1-221 TAP	230 .0	DVP	3040 70	6PERSON23 O T	230 .0	CPL E	1	DVP_P1-2: LN 556-D	operati on	718.0	185.2	190.12	DC	35.51
169528 090	9335 00	AC2-165 TAP	230 .0	DVP	3143 33	6POWHATN	230 .0	DVP	1	DVP_P1-2: LN 2028-B	operati on	800.880004 883	115.34	118.64	DC	26.39
168307 595	9362 60	AD2-033 TAP	115 .0	DVP	3138 98	3BUTCHER CRK	115 .0	DVP	1	DVP_P1-2: LN 158	operati on	269.779998 779	63.07	118.67	DC	149.9 9
169836 765	9610 60	AF2-397 TAP	230 .0	DVP	9667 90	AG1-550 TAP	230 .0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	operati on	661.760009 766	151.46	156.52	DC	33.48
169836 769	9610 60	AF2-397 TAP	230 .0	DVP	9667 90	AG1-550 TAP	230 .0	DVP	1	Base Case	operati on	661.760009 766	99.03	102.89	DC	25.54
169088 953	9625 60	AG1-105 TAP	230 .0	DVP	3146 97	6SEEDGE HILL	230 .0	DVP	1	DVP_P1-2: LN 556-D	operati on	814.979980 469	145.43	147.46	DC	16.57
169836 775	9667 90	AG1-550 TAP	230 .0	DVP	3147 65	6MTEAGLE	230 .0	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	operati on	661.760009 766	149.56	154.62	DC	33.48
169836 779	9667 90	AG1-550 TAP	230 .0	DVP	3147 65	6MTEAGLE	230 .0	DVP	1	Base Case	operati on	661.760009 766	98.47	102.34	DC	25.54

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
168069972,168069971	8	05EDAN 1 138.0 kV - 05DANVL2 138.0 kV Ckt 1	<u>AEP</u> n6124 (376) : PJM Network Upgrade n6124. Increasing the Danville East Danville 138 kV circuit summer rating to 572/572/572 MVA will still require us to rebuild the line. The network project has an projected in-service date of 06/01/2021. Project Type : FAC Cost : \$9,000,000 Time Estimate : Months	\$9,000,000
168307630,168307629	10	6BREMOMDIST 230.0 kV - 6FORK UNION 230.0 kV Ckt 1	<u>DVP</u> dom-202 (1428) : Rebuild 1.63 miles of 230 kV Line 2028 from Fork Union to Breomo Dist with 2-636 ACSR. Project Type : FAC Cost : \$2,445,000 Time Estimate : 30-36 Months	\$2,445,000
168608395,168608396	3	6POWHATN 230.0 kV - 6JUDES F 230.0 kV Ckt 1	<u>DVP</u> dom-303 (1529) : Rebuild 7.09 miles of 230 kV Line 2027 from Judes to Powhatan with 2-795 ACSR 150 C Project Type : FAC Cost : \$17,725,000 Time Estimate : 36-40 Months	\$17,725,000
168908324	12	3CAROLNA 115.0 kV - 6CAROLNA 230.0 kV Ckt 1	<u>DVP</u> n6113 (1382) : Add additional 230/115 kV transformer at Carolina substation. Project Type : CON Cost : \$6,000,000 Time Estimate : 16-18 Months	\$6,000,000
169527955,169527954	25	AE2-033 TAP 230.0 kV - 6SAPONY 230.0 kV Ckt 1	<u>DVP</u> n6452 (1230) : Rebuild 2.47 miles of 230 kV Line 238 from AE2-033 TAP to Sapony with 2-795 150C ACSR. Project Type : FAC Cost : \$3,705,000 Time Estimate : 30-36 Months	\$3,705,000
169308934	22	6BREMO 230.0 kV - 3BREMO 115.0 kV Ckt 1	<u>DVP</u> b2989 (1159) : PJM Baseline Upgrade b2989. Install a second 230 -115 kV Transformer(224 MVA) approximately 1 mile north of Breomo and tie 230 kV Line #2028(Bremo Charlottesville) and 115 kV Line #91 (Breomo-Sherwood) together. A three breaker 230 kV ring bus will split Line #2028 into two lines and Line #91 will also be split into two lines with a new three breaker 115 kV ring bus. Install a temporary 230-115 kV transformer at Breomo substation for the interim until the new substation is complete. The baseline project has an projected in-service date of 10/31/2019. Project Type : CON Cost : \$0	\$0

ID	Idx	Facility	Upgrade Description	Cost
168608400,168608401	2	6JUDES F 230.0 kV - 6MDLTHAN 230.0 kV Ckt 1	<u>DVP</u> dom-302 (1528) : Rebuild 7.09 miles of 230 kV Line 2027 from Judes to Midlothian with 2-795 ACSR 150 C. Project Type : FAC Cost : \$17,725,000 Time Estimate : 36-40 Months	\$17,725,000
163457195,163457193,163458068	20	3KERR 115.0 kV - 3GW KING TAP 115.0 kV Ckt 1	<u>DVP</u> n6115 (1171) : For DEV portion, rebuild 4.7 miles of 115 kV Line 45 from Kerr Dam to GW King Tap with 768 ACSS. Project Type : FAC Cost : \$6,123,000 Time Estimate : 30-36 Months <u>CPL</u> The external (i.e. Non-PJM) Transmission Owner, CPL, will not evaluate this violation until the impact study phase.	\$6,123,000
163457360,163457361	24	AC1-221 TAP 230.0 kV - 6PERSON230 T 230.0 kV Ckt 1	<u>DVP</u> n6449 (1178) : For DEV portion, rebuild 2 miles of 230 kV Line 296 from AC1-221 Tap to Persons DEP with 2-636 ACSR. Project Type : FAC Cost : \$3,000,000 Time Estimate : 30-36 Months dom-259 (1485) : For DEV portion, rebuild 2 miles of 230 kV Line 296 from AC1-221 Tap to Persons DEP with 2-795 ACSR. Project Type : FAC Cost : \$3,000,000 Time Estimate : 30-36 Months <u>CPL</u> The external (i.e. Non-PJM) Transmission Owner, CPL, will not evaluate this violation until the impact study phase.	\$6,000,000
169088906,169088905	15	6BUCKING 230.0 kV - 6BREMO 230.0 kV Ckt 1	<u>DVP</u> n6219 (1209) : Rebuild 15.51 miles of 230 kV Line 298 from Buckingham to Brema with 2-636 ACSR. Project Type : FAC Cost : \$23,265,000 Time Estimate : 30-36 Months	\$23,265,000
169088885,169088884	18	6FARMVIL 230.0 kV - 6BUCKING 230.0 kV Ckt 1	<u>DVP</u> n6245 (1211) : Rebuild 12.76 miles of 230 kV Line 298 from Buckingham to Farmville with 2-636 ACSR. Project Type : FAC Cost : \$19,140,000 Time Estimate : 30-36 Months	\$19,140,000

ID	Idx	Facility	Upgrade Description	Cost
168307542	6	3LONEPN 115.0 kV - 3FLAT CREEK 115.0 kV Ckt 1	<u>DVP</u> dom-271 (1497) : Rebuild 70 miles of 115 kV lines (158, 84, 154, 1012) from Chase City to Lone Pine with 2-636 ACSR 150 C. Line 84: - Willis Mountain terminal: Replace Line Switch - Farmville terminal: Replace Breaker Switch, Breaker Lead, Line Lead, Wave Trap - Pamplin terminal: Replace Wave Trap, Line Lead and Relay (Secondary CT) Line 154: - Twittys Creek terminal: Replace Wave Trap and Line Lead - Madisonville terminal: Replace Line Switch - Pamplin terminal: Replace Wave Trap and Line Lead Line 158: - Farmville terminal: Replace Breaker Switch, Breaker Lead - Moran DP terminal: Replace Line Switch - Lone Pine terminal: Replace Wave Trap Line 1012: - Chase City terminal: Replace Breaker, Breaker switch, Breaker Lead and Wave Trap - Central terminal: Replace Line Switch - Twitty's Creek terminal: Replace Wave Trap Project Type : FAC Cost : \$109,470,000 Time Estimate : 60-72 Months	\$109,470,000
168307547	1	3FLAT CREEK 115.0 kV - 3MORAN 115.0 kV Ckt 1		
169088901	7	3MORAN 115.0 kV - 3FARMVIL 115.0 kV Ckt 1		
169308917,169308918	21	6BREMO 230.0 kV - 6BREMODIST 230.0 kV Ckt 1	<u>DVP</u> n5873 (1377) : Rebuild 0.16 miles of Line 2028 from Bremo to Bremo Dist with 2-636 ACSR. Project Type : FAC Cost : \$500,000 Time Estimate : 30-36 Months	\$500,000
169308908,169308907	23	6MTEAGLE 230.0 kV - 6CHARLVL 230.0 kV Ckt 1	<u>DVP</u> n6184 (1415) : Rebuild 6.47 miles of 230 kV Line 2028 from Mt Eagle to Charlottesville with 2-636 ACSR. Project Type : FAC Cost : \$16,175,000 Time Estimate : 30-36 Months	\$16,175,000
169088865,169088863	5	3FARMVIL 115.0 kV - 6FARMVIL 230.0 kV Ckt 2	<u>DVP</u> dom-089 (1274) : Add additional 230/115 kV transformer at Farmville substation Project Type : CON Cost : \$6,000,000 Time Estimate : 16-18 Months	\$6,000,000

ID	Idx	Facility	Upgrade Description	Cost
168908384,168 908385	14	6HORNRTN 230.0 kV - AD1- 057 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-077 (1261) : Rebuild 16 miles of 230 kV Line 2056 from Hornertown to AD1-057 TAP with 2-636 ACSR. Project Type : FAC Cost : \$24,000,000 Time Estimate : 36-40 Months	\$24,000,000
168608257,168 608256	11	6SAPONY 230.0 kV - 6CARSON 230.0 kV Ckt 1	<u>DVP</u> n6221 (1419) : Rebuild 11.79 miles of 230 kV Line 238 from Sapony to Carson with 2-795 150C ACSR. Project Type : FAC Cost : \$17,685,000 Time Estimate : 30-36 Months	\$17,685,000
169088911,169 088912	19	6SEEDGE HILL 230.0 kV - AC1- 221 TAP 230.0 kV Ckt 1	<u>DVP</u> No upgrade needed on Dominion system. Need coordination with CPLE. <u>CPLE</u> The external (i.e. Non-PJM) Transmission Owner, CPLE, will not evaluate this violation until the impact study phase.	\$0
169088980,169 088979	16	6CLOVER 230.0 kV - 6BLACK WALNU 230.0 kV Ckt 1	<u>DVP</u> dom-342 (1568) : Rebuild 0.16 miles of 230 kV Line 2068 from Clover to Black Walnut with 2-768.2 ACSS 250 C. Replace wave trap at Clover terminal. Project Type : FAC Cost : \$440,000 Time Estimate : 30-36 Months	\$440,000
168908269,168 908270,168908 271	4	3CLUBHSE 115.0 kV - 6CLUBHSE 230.0 kV Ckt 1	<u>DVP</u> n6114 (1383) : Add additional 230/115 kV transformer at Clubhouse substation. Project Type : CON Cost : \$6,000,000 Time Estimate : 16-18 Months	\$6,000,000
168307607,168 307608	9	6FORK UNION 230.0 kV - AF2- 397 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-198 (1424) : Rebuild 5 miles of 230 kV Line 2028 from Fork Union to AF2-397 Tap with 2-636 ACSR. Project Type : FAC Cost : \$7,500,000 Time Estimate : 30-36 Months	\$7,500,000
169088976,169 088975	17	6BLACK WALNU 230.0 kV - AG1- 105 TAP 230.0 kV Ckt 1	<u>DVP</u> dom-345 (1571) : Rebuild 3.441 miles of 230 kV Line 2068 from AG1-105 to Black Walnut with 2-768.2 ACSS 250 C Project Type : FAC Cost : \$5,161,500 Time Estimate : 30-36 Months	\$5,161,500

ID	Idx	Facility	Upgrade Description	Cost
168908368,168 908369,163077 941	13	6CLUBHSE 230.0 kV - AE2-033 TAP 230.0 kV Ckt 1	<u>DVP</u> n6872 (1226) : Rebuild 14.28 miles of 230 kV Line 238 from Clubhouse to AE2-033 Tap with 2-795 150C ACSR. Project Type : FAC Cost : \$21,420,000 Time Estimate : 30-36 Months	\$21,420,000
169836767,169 836768	26	AF2-397 TAP 230.0 kV - J1180 TAP 345.0 kV Ckt 1	<u>DVP</u> dom-409 (1635) : Rebuild 5.6 miles of 230 kV Line 2028 from AG1-550 Tap to AF2-397 Tap with 2-636 ACSR 150 C. Project Type : FAC Cost : \$14,000,000 Time Estimate : 36-40 Months	\$14,000,000
169088955,169 088956	27	AG1-105 TAP 230.0 kV - 6SEGE HILL 230.0 kV Ckt 1	<u>DVP</u> dom-412 (1638) : Rebuild 13.3 miles of 230 kV Line 2068 from AG1-105 to Sedge Hill with 2-768.2 ACSS 250 C. Replace Wave Trap at Sedge Hill terminal. Project Type : FAC Cost : \$20,150,000 Time Estimate : 36-40 Months	\$20,150,000
169836778,169 836777	28	AG1-550 Tap 230.0 kV - 6MTEAGLE 230.0 kV Ckt 1	<u>DVP</u> dom-421 (1647) : Rebuild 6.5 miles of 230 kV Line 2028 from AG1-550 Tap to Mt Eagle with 2-768.2 ACSS 250 C Project Type : FAC Cost : \$16,250,000 Time Estimate : 30-36 Months	\$16,250,000
			TOTAL COST	\$375,879,500

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
168307547	313755	3FLAT CREEK	DVP	314707	3MORAN	DVP	1	DVP_P1-2: LN 1045	single	203.98	65.56	109.66	DC	89.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314429	3JTRSVLE	2.5234	80/20	2.5234
316131	AB2-060 C	8.5795	80/20	8.5795
936265	AD2-033 C	77.9711	80/20	77.9711
946301	AF1-294 C	25.4906	80/20	25.4906
958211	AF2-115 C	14.9945	80/20	14.9945
961791	AG1-021 C	11.9956	80/20	11.9956
961891	AG1-030 C	89.9667	80/20	89.9667
962041	AG1-048 C	74.9722	80/20	74.9722
963171	AG1-166 C	11.9956	80/20	11.9956
963181	AG1-167 C	11.9956	80/20	11.9956
963191	AG1-168 C	11.9956	80/20	11.9956
963201	AG1-169 C	11.9956	80/20	11.9956
963211	AG1-170 C	11.9956	80/20	11.9956
963641	AG1-215 C	5.5979	80/20	5.5979
964821	AG1-345 C	4.7982	80/20	4.7982
965281	AG1-393 C	11.9956	80/20	11.9956
CALDERWOOD	CALDERWOOD	0.0184	Confirmed LTF	0.0184
NY	NY	0.0205	Confirmed LTF	0.0205
PRAIRIE	PRAIRIE	0.0956	Confirmed LTF	0.0956
CHEOAH	CHEOAH	0.0185	Confirmed LTF	0.0185
COTTONWOOD	COTTONWOOD	0.0777	Confirmed LTF	0.0777
HAMLET	HAMLET	0.0214	Confirmed LTF	0.0214
GIBSON	GIBSON	0.0202	Confirmed LTF	0.0202
BLUEG	BLUEG	0.0642	Confirmed LTF	0.0642
TRIMBLE	TRIMBLE	0.0206	Confirmed LTF	0.0206
CATAWBA	CATAWBA	0.0129	Confirmed LTF	0.0129

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
168608401	314310	6JUDES F	DVP	314322	6MDLTHAN	DVP	1	314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	single	800.88	98.16	100.13	DC	15.82

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2807	80/20	0.2807
314333	6POWHATN	1.5975	80/20	1.5975
314429	3JTRSVLE	0.4832	80/20	0.4832
314677	6BUCKING	0.8048	80/20	0.8048
315153	1CLOVER1	4.3193	80/20	4.3193
315154	1CLOVER2	4.2763	80/20	4.2763
315158	1KERR 1	0.1408	80/20	0.1408
315159	1KERR 2	0.3943	80/20	0.3943
315160	1KERR 3	0.3943	80/20	0.3943
315161	1KERR 4	0.3943	80/20	0.3943
315162	1KERR 5	0.3943	80/20	0.3943
315163	1KERR 6	0.3943	80/20	0.3943
315164	1KERR 7	0.3943	80/20	0.3943
315191	1BEARGRDN G1	14.2573	80/20	14.2573
315192	1BEARGRDN G2	14.2573	80/20	14.2573
315193	1BEARGRDN S1	18.4374	80/20	18.4374
315266	1PLYWOOD A	0.4243	80/20	0.4243
316118	AC1-105 C	2.1828	80/20	2.1828
316131	AB2-060 C	0.8395	80/20	0.8395
924301	AB2-077 C O1 (Suspended)	1.0978	80/20	1.0978
924311	AB2-078 C O1 (Suspended)	1.0978	80/20	1.0978
924321	AB2-079 C O1 (Suspended)	1.0978	80/20	1.0978
925611	AC1-036 C	0.1989	80/20	0.1989
927261	AC1-222 C	1.2284	80/20	1.2284
932511	AC2-071 C	0.7929	80/20	0.7929
933501	AC2-165 C	39.2365	80/20	39.2365
934311	AD1-055 C	0.8529	80/20	0.8529
934615	AD1-087 C	2.7046	80/20	2.7046
934625	AD1-088 C	10.6886	80/20	10.6886
935171	AD1-152 C O1	2.9707	80/20	2.9707
935221	AD1-157 C	0.2944	80/20	0.2944
936265	AD2-033 C	10.6447	80/20	10.6447
936361	AD2-046 C O1	3.5752	80/20	3.5752
936485	AD2-063 C	10.2897	80/20	10.2897
937481	AD2-202 C O1	0.7922	80/20	0.7922
938371	AE1-056 C	8.0460	80/20	8.0460
938561	AE1-075 C	1.3891	80/20	1.3891

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938821	AE1-108 C O1	29.3641	80/20	29.3641
939181	AE1-148 C	3.5861	80/20	3.5861
940661	AE2-053 O1	1.3282	80/20	1.3282
941011	AE2-092 C	25.2714	80/20	25.2714
941791	AE2-182 C	1.7365	80/20	1.7365
942451	AE2-258	1.3272	80/20	1.3272
942461	AE2-259 C O1	15.0438	80/20	15.0438
943901	AF1-058 C	0.6629	80/20	0.6629
943911	AF1-059	5.8955	80/20	5.8955
946291	AF1-293 C O1	39.5291	80/20	39.5291
946301	AF1-294 C	4.8812	80/20	4.8812
946591	AF1-323 C	9.4218	80/20	9.4218
958131	AF2-107 C	4.3708	80/20	4.3708
958211	AF2-115 C	2.8713	80/20	2.8713
958501	AF2-144 C	7.4840	80/20	7.4840
958801	AF2-171 C	17.1486	80/20	17.1486
959311	AF2-222 C	15.2960	80/20	15.2960
959531	AF2-244 C (Withdrawn : 01/06/2021)	6.8971	80/20	6.8971
959751	AF2-266	3.1005	80/20	3.1005
960061	AF2-297 C	2.6515	80/20	2.6515
960111	AF2-302 C	3.4261	80/20	3.4261
961061	AF2-397 C	36.6436	80/20	36.6436
961791	AG1-021 C	2.2970	80/20	2.2970
961801	AG1-022 C	3.4261	80/20	3.4261
961891	AG1-030 C	15.8193	80/20	15.8193
962041	AG1-048 C	14.3565	80/20	14.3565
962441	AG1-093 C O1	5.8208	80/20	5.8208
962491	AG1-098 C O1	8.1525	80/20	8.1525
962561	AG1-105 C O1	3.5580	80/20	3.5580
962741	AG1-123 C O1	3.1784	80/20	3.1784
962751	AG1-124 C O1	3.5658	80/20	3.5658
963171	AG1-166 C	2.2970	80/20	2.2970
963181	AG1-167 C	2.2970	80/20	2.2970
963191	AG1-168 C	2.2970	80/20	2.2970
963201	AG1-169 C	2.2970	80/20	2.2970
963211	AG1-170 C	2.2970	80/20	2.2970
963271	AG1-176 C O1	14.5511	80/20	14.5511
963321	AG1-181 C O1	14.0444	80/20	14.0444
963361	AG1-185 O1	6.7951	80/20	6.7951
963641	AG1-215 C	1.0720	80/20	1.0720
964111	AG1-272 C	2.2600	80/20	2.2600
964121	AG1-273 C	2.2600	80/20	2.2600
964131	AG1-274 C	2.2600	80/20	2.2600
964231	AG1-284 C O1	16.9953	80/20	16.9953
964241	AG1-285 C O1	8.1345	80/20	8.1345
964261	AG1-287 C	0.4972	80/20	0.4972
964471	AG1-310 C	0.7101	80/20	0.7101
964791	AG1-342 C	1.7990	80/20	1.7990
964821	AG1-345 C	0.9162	80/20	0.9162
964841	AG1-347 C	9.1280	80/20	9.1280
965191	AG1-384 C	2.2600	80/20	2.2600
965281	AG1-393 C	2.2970	80/20	2.2970

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

11.6.3 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
168608396	314333	6POWHATN	DVP	314310	6JUDES F	DVP	1	DVP_P1-2: LN 2028-B	single	800.88	98.29	100.27	DC	15.82

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.2807	80/20	0.2807
314333	6POWHATN	1.5975	80/20	1.5975
314429	3JTRSVLE	0.4832	80/20	0.4832
314677	6BUCKING	0.8048	80/20	0.8048
315153	1CLOVER1	4.3193	80/20	4.3193
315154	1CLOVER2	4.2763	80/20	4.2763
315158	1KERR 1	0.1408	80/20	0.1408
315159	1KERR 2	0.3943	80/20	0.3943
315160	1KERR 3	0.3943	80/20	0.3943
315161	1KERR 4	0.3943	80/20	0.3943
315162	1KERR 5	0.3943	80/20	0.3943
315163	1KERR 6	0.3943	80/20	0.3943
315164	1KERR 7	0.3943	80/20	0.3943
315191	1BEARGRDN G1	14.2573	80/20	14.2573
315192	1BEARGRDN G2	14.2573	80/20	14.2573
315193	1BEARGRDN S1	18.4374	80/20	18.4374
315266	1PLYWOOD A	0.4243	80/20	0.4243
316118	AC1-105 C	2.1828	80/20	2.1828
316131	AB2-060 C	0.8395	80/20	0.8395
924301	AB2-077 C O1 (Suspended)	1.0978	80/20	1.0978
924311	AB2-078 C O1 (Suspended)	1.0978	80/20	1.0978
924321	AB2-079 C O1 (Suspended)	1.0978	80/20	1.0978
925611	AC1-036 C	0.1989	80/20	0.1989
927261	AC1-222 C	1.2284	80/20	1.2284
932511	AC2-071 C	0.7929	80/20	0.7929
933501	AC2-165 C	39.2365	80/20	39.2365
934311	AD1-055 C	0.8529	80/20	0.8529
934615	AD1-087 C	2.7046	80/20	2.7046
934625	AD1-088 C	10.6886	80/20	10.6886
935171	AD1-152 C O1	2.9707	80/20	2.9707
935221	AD1-157 C	0.2944	80/20	0.2944
936265	AD2-033 C	10.6447	80/20	10.6447
936361	AD2-046 C O1	3.5752	80/20	3.5752
936485	AD2-063 C	10.2897	80/20	10.2897
937481	AD2-202 C O1	0.7922	80/20	0.7922
938371	AE1-056 C	8.0460	80/20	8.0460
938561	AE1-075 C	1.3891	80/20	1.3891
938821	AE1-108 C O1	29.3641	80/20	29.3641
939181	AE1-148 C	3.5861	80/20	3.5861

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940661	AE2-053 O1	1.3282	80/20	1.3282
941011	AE2-092 C	25.2714	80/20	25.2714
941791	AE2-182 C	1.7365	80/20	1.7365
942451	AE2-258	1.3272	80/20	1.3272
942461	AE2-259 C O1	15.0438	80/20	15.0438
943901	AF1-058 C	0.6629	80/20	0.6629
943911	AF1-059	5.8955	80/20	5.8955
946291	AF1-293 C O1	39.5291	80/20	39.5291
946301	AF1-294 C	4.8812	80/20	4.8812
946591	AF1-323 C	9.4218	80/20	9.4218
958131	AF2-107 C	4.3708	80/20	4.3708
958211	AF2-115 C	2.8713	80/20	2.8713
958501	AF2-144 C	7.4840	80/20	7.4840
958801	AF2-171 C	17.1486	80/20	17.1486
959311	AF2-222 C	15.2960	80/20	15.2960
959531	AF2-244 C (Withdrawn : 01/06/2021)	6.8971	80/20	6.8971
959751	AF2-266	3.1005	80/20	3.1005
960061	AF2-297 C	2.6515	80/20	2.6515
960111	AF2-302 C	3.4261	80/20	3.4261
961061	AF2-397 C	36.6436	80/20	36.6436
961791	AG1-021 C	2.2970	80/20	2.2970
961801	AG1-022 C	3.4261	80/20	3.4261
961891	AG1-030 C	15.8193	80/20	15.8193
962041	AG1-048 C	14.3565	80/20	14.3565
962441	AG1-093 C O1	5.8208	80/20	5.8208
962491	AG1-098 C O1	8.1525	80/20	8.1525
962561	AG1-105 C O1	3.5580	80/20	3.5580
962741	AG1-123 C O1	3.1784	80/20	3.1784
962751	AG1-124 C O1	3.5658	80/20	3.5658
963171	AG1-166 C	2.2970	80/20	2.2970
963181	AG1-167 C	2.2970	80/20	2.2970
963191	AG1-168 C	2.2970	80/20	2.2970
963201	AG1-169 C	2.2970	80/20	2.2970
963211	AG1-170 C	2.2970	80/20	2.2970
963271	AG1-176 C O1	14.5511	80/20	14.5511
963321	AG1-181 C O1	14.0444	80/20	14.0444
963361	AG1-185 O1	6.7951	80/20	6.7951
963641	AG1-215 C	1.0720	80/20	1.0720
964111	AG1-272 C	2.2600	80/20	2.2600
964121	AG1-273 C	2.2600	80/20	2.2600
964131	AG1-274 C	2.2600	80/20	2.2600
964231	AG1-284 C O1	16.9953	80/20	16.9953
964241	AG1-285 C O1	8.1345	80/20	8.1345
964261	AG1-287 C	0.4972	80/20	0.4972
964471	AG1-310 C	0.7101	80/20	0.7101
964791	AG1-342 C	1.7990	80/20	1.7990
964821	AG1-345 C	0.9162	80/20	0.9162
964841	AG1-347 C	9.1280	80/20	9.1280
965191	AG1-384 C	2.2600	80/20	2.2600
965281	AG1-393 C	2.2970	80/20	2.2970
965451	AG1-413 C O1	2.4782	80/20	2.4782
965581	AG1-426	6.3974	80/20	6.3974

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

11.6.4 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
168908269	314562	3CLUBHSE	DVP	314563	6CLUBHSE	DVP	1	DVP_P1-2: LN 2201	single	182.64	159.34	163.57	DC	7.72

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	14.9250	80/20	14.9250
313527	AB2-043 C	0.3856	80/20	0.3856
313719	3CHESTNUT	0.5206	80/20	0.5206
314429	3JTRSVLE	0.1956	80/20	0.1956
314572	3EMPORIA	1.2299	80/20	1.2299
314582	3KELFORD	0.1483	80/20	0.1483
314589	3MURPHYS	0.0389	80/20	0.0389
314623	3WITAKRS	0.0846	80/20	0.0846
314704	3LAWRENC	0.7289	80/20	0.7289
315115	1S HAMPT1	0.4811	80/20	0.4811
315126	1ROARAP2	1.1971	80/20	1.1971
315128	1ROARAP4	1.1424	80/20	1.1424
315136	1ROSEMG1	0.9301	80/20	0.9301
315137	1ROSEMS1	0.5767	80/20	0.5767
315138	1ROSEMG2	0.4359	80/20	0.4359
315139	1GASTONA	1.4047	80/20	1.4047
315141	1GASTONB	1.4047	80/20	1.4047
315158	1KERR 1	0.2620	80/20	0.2620
315159	1KERR 2	0.7337	80/20	0.7337
315160	1KERR 3	0.7337	80/20	0.7337
315161	1KERR 4	0.7337	80/20	0.7337
315162	1KERR 5	0.7337	80/20	0.7337
315163	1KERR 6	0.7337	80/20	0.7337
315164	1KERR 7	0.7337	80/20	0.7337
315266	1PLYWOOD A	0.3917	80/20	0.3917
315606	3AA2-053SOLA	1.1660	80/20	1.1660
315607	3AA1-063SOLA	0.9971	80/20	0.9971
315608	3AA2-088SOLA	0.4761	80/20	0.4761
316020	AB2-059 C OP	0.5459	80/20	0.5459
316087	AB2-174 C	2.7447	80/20	2.7447
316096	AB2-100 C1	0.4277	80/20	0.4277
316098	AB2-100 C2	0.4277	80/20	0.4277
316103	AB2-015 C	2.5605	80/20	2.5605
316118	AC1-105 C	2.0148	80/20	2.0148
316129	AC1-054 C	5.7187	80/20	5.7187
316131	AB2-060 C	1.0922	80/20	1.0922
316140	AB2-099 C (Suspended)	0.2281	80/20	0.2281
920591	AA2-165 C	0.0699	80/20	0.0699
922922	AB1-081 C OP	0.4632	80/20	0.4632
923991	AB2-040 C O1	16.2549	80/20	16.2549
924301	AB2-077 C O1 (Suspended)	1.5130	80/20	1.5130

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924311	AB2-078 C O1 (Suspended)	1.5130	80/20	1.5130
924321	AB2-079 C O1 (Suspended)	1.5130	80/20	1.5130
925591	AC1-034 C	2.2414	80/20	2.2414
925611	AC1-036 C	0.1376	80/20	0.1376
926070	AC1-086 C	10.0123	80/20	10.0123
926201	AC1-098 C	3.1031	80/20	3.1031
926211	AC1-099 C	1.0399	80/20	1.0399
927145	AC1-208 C	5.2586	80/20	5.2586
932631	AC2-084 C	4.4236	80/20	4.4236
934331	AD1-057 C O1	3.8417	80/20	3.8417
935221	AD1-157 C	0.0980	80/20	0.0980
936265	AD2-033 C	8.3234	80/20	8.3234
936361	AD2-046 C O1	6.2368	80/20	6.2368
936485	AD2-063 C	10.6713	80/20	10.6713
938371	AE1-056 C	2.6788	80/20	2.6788
939181	AE1-148 C	6.1781	80/20	6.1781
940571	AE2-044 C	1.4680	80/20	1.4680
940661	AE2-053 O1	2.2882	80/20	2.2882
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.0630	80/20	0.0630
942451	AE2-258	1.8236	80/20	1.8236
943171	AE2-346 C	0.5473	80/20	0.5473
943911	AF1-059	31.0992	80/20	31.0992
944141	AF1-082	0.9437	80/20	0.9437
946281	AF1-292 C	4.8137	80/20	4.8137
946301	AF1-294 C	1.9760	80/20	1.9760
957521	AF2-046 C	7.4161	80/20	7.4161
958211	AF2-115 C	1.1624	80/20	1.1624
958801	AF2-171 C	7.0200	80/20	7.0200
959311	AF2-222 C	9.8000	80/20	9.8000
960081	AF2-299 C	8.1131	80/20	8.1131
961091	AF2-400 C	0.1383	80/20	0.1383
961681	AG1-008 C	7.4310	80/20	7.4310
961791	AG1-021 C	0.9299	80/20	0.9299
961891	AG1-030 C	7.7229	80/20	7.7229
961931	AG1-036 C	0.5625	80/20	0.5625
961941	AG1-037 C	0.1955	80/20	0.1955
962041	AG1-048 C	5.8118	80/20	5.8118
962331	AG1-082 C	0.7819	80/20	0.7819
962341	AG1-083 C	0.7819	80/20	0.7819
962351	AG1-084 C	0.6452	80/20	0.6452
962361	AG1-085 C	0.6452	80/20	0.6452
962441	AG1-093 C O1	5.3728	80/20	5.3728
962571	AG1-106 C	2.7843	80/20	2.7843
963171	AG1-166 C	0.9299	80/20	0.9299
963181	AG1-167 C	0.9299	80/20	0.9299
963191	AG1-168 C	0.9299	80/20	0.9299
963201	AG1-169 C	0.9299	80/20	0.9299
963211	AG1-170 C	0.9299	80/20	0.9299
963301	AG1-179 C	12.9655	80/20	12.9655
963311	AG1-180	6.3171	80/20	6.3171

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963321	AG1-181 C O1	10.6630	80/20	10.6630
963361	AG1-185 O1	5.1590	80/20	5.1590
963641	AG1-215 C	0.4339	80/20	0.4339
964111	AG1-272 C	1.5637	80/20	1.5637
964121	AG1-273 C	1.5637	80/20	1.5637
964131	AG1-274 C	1.5637	80/20	1.5637
964241	AG1-285 C O1	9.1275	80/20	9.1275
964501	AG1-313 C O1	3.2212	80/20	3.2212
964791	AG1-342 C	1.9409	80/20	1.9409
964801	AG1-343 C	2.8707	80/20	2.8707
964821	AG1-345 C	0.3733	80/20	0.3733
965191	AG1-384 C	1.5637	80/20	1.5637
965281	AG1-393 C	0.9299	80/20	0.9299
965291	AG1-394 C	0.9982	80/20	0.9982
965451	AG1-413 C O1	13.0729	80/20	13.0729
965591	AG1-427 C	8.6159	80/20	8.6159
965601	AG1-428 C O1	10.8238	80/20	10.8238
965721	AG1-440 C	5.2753	80/20	5.2753
965731	AG1-441 C	5.2753	80/20	5.2753
965771	AG1-445	3.0480	80/20	3.0480
965781	AG1-446	3.0480	80/20	3.0480
966621	AG1-532 C	4.3810	80/20	4.3810
966751	AG1-546 C	12.7746	80/20	12.7746
966811	AG1-552 C	1.9007	80/20	1.9007
WEC	WEC	0.1181	Confirmed LTF	0.1181
LGEE	LGEE	0.2444	Confirmed LTF	0.2444
CPL	CPL	1.2353	Confirmed LTF	1.2353
CBM-W2	CBM-W2	4.9818	Confirmed LTF	4.9818
NY	NY	0.1526	Confirmed LTF	0.1526
TVA	TVA	0.9282	Confirmed LTF	0.9282
SIGE	SIGE	0.0771	Confirmed LTF	0.0771
CBM-S2	CBM-S2	13.8539	Confirmed LTF	13.8539
CBM-S1	CBM-S1	0.2329	Confirmed LTF	0.2329
MEC	MEC	0.6960	Confirmed LTF	0.6960
LAGN	LAGN	1.1515	Confirmed LTF	1.1515
CBM-W1	CBM-W1	4.9631	Confirmed LTF	4.9631

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
169088863	314691	3FARMVIL	DVP	314692	6FARMVIL	DVP	2	DVP_P1-2: LN 235-A	single	182.64	141.76	162.44	DC	37.76

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1970	80/20	2.1970
313527	AB2-043 C	0.6200	80/20	0.6200
314429	3JTRSVLE	1.1615	80/20	1.1615
314572	3EMPORIA	0.1428	80/20	0.1428
314704	3LAWRENC	0.1773	80/20	0.1773
315158	1KERR 1	0.3023	80/20	0.3023
315159	1KERR 2	0.8464	80/20	0.8464
315160	1KERR 3	0.8464	80/20	0.8464
315161	1KERR 4	0.8464	80/20	0.8464
315162	1KERR 5	0.8464	80/20	0.8464
315163	1KERR 6	0.8464	80/20	0.8464
315164	1KERR 7	0.8464	80/20	0.8464
315266	1PLYWOOD A	0.5826	80/20	0.5826
316087	AB2-174 C	0.3670	80/20	0.3670
316118	AC1-105 C	3.1833	80/20	3.1833
316129	AC1-054 C	4.1416	80/20	4.1416
316131	AB2-060 C	1.8663	80/20	1.8663
923991	AB2-040 C O1	2.3927	80/20	2.3927
924301	AB2-077 C O1 (Suspended)	2.4036	80/20	2.4036
924311	AB2-078 C O1 (Suspended)	2.4036	80/20	2.4036
924321	AB2-079 C O1 (Suspended)	2.4036	80/20	2.4036
925611	AC1-036 C	0.4665	80/20	0.4665
927261	AC1-222 C	1.3197	80/20	1.3197
934311	AD1-055 C	0.9163	80/20	0.9163
935221	AD1-157 C	0.7121	80/20	0.7121
936265	AD2-033 C	24.7775	80/20	24.7775
936361	AD2-046 C O1	7.7284	80/20	7.7284
936485	AD2-063 C	23.4252	80/20	23.4252
938371	AE1-056 C	19.4582	80/20	19.4582
939181	AE1-148 C	7.7609	80/20	7.7609
940661	AE2-053 O1	2.8744	80/20	2.8744
942451	AE2-258	2.9317	80/20	2.9317
942461	AE2-259 C O1	36.8346	80/20	36.8346
943901	AF1-058 C	0.7463	80/20	0.7463
943911	AF1-059	13.9793	80/20	13.9793
946281	AF1-292 C	0.5181	80/20	0.5181
946301	AF1-294 C	11.7333	80/20	11.7333
958211	AF2-115 C	6.9020	80/20	6.9020
958801	AF2-171 C	41.2074	80/20	41.2074

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959311	AF2-222 C	36.0450	80/20	36.0450
960061	AF2-297 C	2.9851	80/20	2.9851
960081	AF2-299 C	0.8732	80/20	0.8732
961791	AG1-021 C	5.5216	80/20	5.5216
961891	AG1-030 C	37.7604	80/20	37.7604
962041	AG1-048 C	34.5098	80/20	34.5098
962441	AG1-093 C O1	8.4888	80/20	8.4888
963171	AG1-166 C	5.5216	80/20	5.5216
963181	AG1-167 C	5.5216	80/20	5.5216
963191	AG1-168 C	5.5216	80/20	5.5216
963201	AG1-169 C	5.5216	80/20	5.5216
963211	AG1-170 C	5.5216	80/20	5.5216
963301	AG1-179 C	3.8659	80/20	3.8659
963311	AG1-180	1.8835	80/20	1.8835
963321	AG1-181 C O1	32.7592	80/20	32.7592
963361	AG1-185 O1	15.8498	80/20	15.8498
963641	AG1-215 C	2.5767	80/20	2.5767
964111	AG1-272 C	5.3022	80/20	5.3022
964121	AG1-273 C	5.3022	80/20	5.3022
964131	AG1-274 C	5.3022	80/20	5.3022
964241	AG1-285 C O1	18.3810	80/20	18.3810
964261	AG1-287 C	0.5597	80/20	0.5597
964471	AG1-310 C	0.7473	80/20	0.7473
964791	AG1-342 C	3.0915	80/20	3.0915
964821	AG1-345 C	2.2020	80/20	2.2020
965191	AG1-384 C	5.3022	80/20	5.3022
965281	AG1-393 C	5.5216	80/20	5.5216
965451	AG1-413 C O1	5.8764	80/20	5.8764
965591	AG1-427 C	17.6058	80/20	17.6058
965601	AG1-428 C O1	3.2273	80/20	3.2273
965641	AG1-432 C O1	73.6692	80/20	73.6692
965721	AG1-440 C	5.1777	80/20	5.1777
965731	AG1-441 C	5.1777	80/20	5.1777
965771	AG1-445	2.9916	80/20	2.9916
965781	AG1-446	2.9916	80/20	2.9916
965831	AG1-451	12.2782	80/20	12.2782
966621	AG1-532 C	0.4715	80/20	0.4715
966751	AG1-546 C	8.6364	80/20	8.6364
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	7.3669	80/20	7.3669
WEC	WEC	0.0813	Confirmed LTF	0.0813
LGEE	LGEE	0.1659	Confirmed LTF	0.1659
CPL	CPL	1.2422	Confirmed LTF	1.2422
CBM-W2	CBM-W2	4.0768	Confirmed LTF	4.0768
NY	NY	0.1233	Confirmed LTF	0.1233
TVA	TVA	0.7980	Confirmed LTF	0.7980
SIGE	SIGE	0.0565	Confirmed LTF	0.0565
CBM-S2	CBM-S2	13.8748	Confirmed LTF	13.8748
CBM-S1	CBM-S1	0.1953	Confirmed LTF	0.1953
MEC	MEC	0.5180	Confirmed LTF	0.5180
LAGN	LAGN	0.9958	Confirmed LTF	0.9958
CBM-W1	CBM-W1	3.3508	Confirmed LTF	3.3508

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
168307542	314701	3LONEPN	DVP	313755	3FLAT CREEK	DVP	1	DVP_P1-2: LN 1045	single	203.98	65.56	109.66	DC	89.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314429	3JTRSVLE	2.5234	80/20	2.5234
316131	AB2-060 C	8.5795	80/20	8.5795
936265	AD2-033 C	77.9711	80/20	77.9711
946301	AF1-294 C	25.4906	80/20	25.4906
958211	AF2-115 C	14.9945	80/20	14.9945
961791	AG1-021 C	11.9956	80/20	11.9956
961891	AG1-030 C	89.9667	80/20	89.9667
962041	AG1-048 C	74.9722	80/20	74.9722
963171	AG1-166 C	11.9956	80/20	11.9956
963181	AG1-167 C	11.9956	80/20	11.9956
963191	AG1-168 C	11.9956	80/20	11.9956
963201	AG1-169 C	11.9956	80/20	11.9956
963211	AG1-170 C	11.9956	80/20	11.9956
963641	AG1-215 C	5.5979	80/20	5.5979
964821	AG1-345 C	4.7982	80/20	4.7982
965281	AG1-393 C	11.9956	80/20	11.9956
CALDERWOOD	CALDERWOOD	0.0184	Confirmed LTF	0.0184
NY	NY	0.0205	Confirmed LTF	0.0205
PRAIRIE	PRAIRIE	0.0956	Confirmed LTF	0.0956
CHEOAH	CHEOAH	0.0185	Confirmed LTF	0.0185
COTTONWOOD	COTTONWOOD	0.0777	Confirmed LTF	0.0777
HAMLET	HAMLET	0.0214	Confirmed LTF	0.0214
GIBSON	GIBSON	0.0202	Confirmed LTF	0.0202
BLUEG	BLUEG	0.0642	Confirmed LTF	0.0642
TRIMBLE	TRIMBLE	0.0206	Confirmed LTF	0.0206
CATAWBA	CATAWBA	0.0129	Confirmed LTF	0.0129

11.6.7 Index 7

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
169088901	314707	3MORAN	DVP	314691	3FARMVIL	DVP	1	DVP_P1-2: LN 1045	single	203.98	62.17	106.28	DC	89.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314429	3JTRSVLE	2.5234	80/20	2.5234
316131	AB2-060 C	8.5795	80/20	8.5795
936265	AD2-033 C	77.9711	80/20	77.9711
946301	AF1-294 C	25.4906	80/20	25.4906
958211	AF2-115 C	14.9945	80/20	14.9945
961791	AG1-021 C	11.9956	80/20	11.9956
961891	AG1-030 C	89.9667	80/20	89.9667
962041	AG1-048 C	74.9722	80/20	74.9722
963171	AG1-166 C	11.9956	80/20	11.9956
963181	AG1-167 C	11.9956	80/20	11.9956
963191	AG1-168 C	11.9956	80/20	11.9956
963201	AG1-169 C	11.9956	80/20	11.9956
963211	AG1-170 C	11.9956	80/20	11.9956
963641	AG1-215 C	5.5979	80/20	5.5979
964821	AG1-345 C	4.7982	80/20	4.7982
965281	AG1-393 C	11.9956	80/20	11.9956
CALDERWOOD	CALDERWOOD	0.0184	Confirmed LTF	0.0184
NY	NY	0.0205	Confirmed LTF	0.0205
PRAIRIE	PRAIRIE	0.0956	Confirmed LTF	0.0956
CHEOAH	CHEOAH	0.0185	Confirmed LTF	0.0185
COTTONWOOD	COTTONWOOD	0.0777	Confirmed LTF	0.0777
HAMLET	HAMLET	0.0214	Confirmed LTF	0.0214
GIBSON	GIBSON	0.0202	Confirmed LTF	0.0202
BLUEG	BLUEG	0.0642	Confirmed LTF	0.0642
TRIMBLE	TRIMBLE	0.0206	Confirmed LTF	0.0206
CATAWBA	CATAWBA	0.0129	Confirmed LTF	0.0129

11.6.8 Index 8

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168069972	242631	05EDAN 1	AEP	242620	05DANVL2	AEP	1	AEP_P2-1_242520 05J.FERR 500 242514 05J.FERR 765 1	single	402.0	115.04	115.67	DC	5.69

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.2723	Adder	2.67
313527	AB2-043 C	0.2209	80/20	0.2209
313719	3CHESTNUT	0.5595	80/20	0.5595
314572	3EMPORIA	0.1370	Adder	0.16
314582	3KELFORD	0.1465	80/20	0.1465
314623	3WITAKRS	0.1084	80/20	0.1084
315126	1ROARAP2	0.5492	80/20	0.5492
315128	1ROARAP4	0.5241	80/20	0.5241
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.9062	80/20	4.9062
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.9062	80/20	4.9062
315136	1ROSEMG1	0.8438	80/20	0.8438
315137	1ROSEMS1	0.5232	80/20	0.5232
315138	1ROSEMG2	0.3955	80/20	0.3955
315153	1CLOVER1	4.8431	80/20	4.8431
315154	1CLOVER2	4.7949	80/20	4.7949
315158	1KERR 1	0.1936	80/20	0.1936
315159	1KERR 2	0.5421	80/20	0.5421
315160	1KERR 3	0.5421	80/20	0.5421
315161	1KERR 4	0.5421	80/20	0.5421
315162	1KERR 5	0.5421	80/20	0.5421
315163	1KERR 6	0.5421	80/20	0.5421
315164	1KERR 7	0.5421	80/20	0.5421
315266	1PLYWOOD A	0.5917	80/20	0.5917
315293	1DOMTR9	2.2091	Adder	2.6
315294	1DOMTR10	2.7072	Adder	3.18
315601	1CONETOE2SOL	0.6666	80/20	0.6666
315606	3AA2-053SOLA	0.5921	80/20	0.5921
316020	AB2-059 C OP	0.8793	80/20	0.8793
316118	AC1-105 C	2.8038	80/20	2.8038
316129	AC1-054 C	3.3922	80/20	3.3922
316131	AB2-060 C	0.6316	80/20	0.6316
316140	AB2-099 C (Suspended)	0.1921	Adder	0.23
920591	AA2-165 C	0.0751	80/20	0.0751
922922	AB1-081 C OP	0.7460	80/20	0.7460
923991	AB2-040 C O1	2.4748	Adder	2.91
924301	AB2-077 C O1 (Suspended)	0.8962	80/20	0.8962

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924311	AB2-078 C O1 (Suspended)	0.8962	80/20	0.8962
924321	AB2-079 C O1 (Suspended)	0.8962	80/20	0.8962
925591	AC1-034 C	3.6098	80/20	3.6098
926051	AC1-083 C O1	4.9267	80/20	4.9267
926070	AC1-086 C	7.1225	Adder	8.38
926201	AC1-098 C	2.7689	80/20	2.7689
926211	AC1-099 C	0.9279	80/20	0.9279
927024	AC1-189 C	4.1711	80/20	4.1711
927145	AC1-208 C	4.1616	80/20	4.1616
927251	AC1-221 C	1.8225	80/20	1.8225
927261	AC1-222 C	1.7942	80/20	1.7942
932631	AC2-084 C	3.9471	80/20	3.9471
932761	AC2-100 C	4.1943	80/20	4.1943
933941	AD1-017 C	0.9853	80/20	0.9853
933991	AD1-023 C	4.0525	Adder	4.77
934311	AD1-055 C	1.2458	80/20	1.2458
934331	AD1-057 C O1	4.7373	80/20	4.7373
934341	AD1-058 C	4.5688	80/20	4.5688
934615	AD1-087 C	3.0476	80/20	3.0476
934625	AD1-088 C	3.7118	Adder	4.37
934991	AD1-131 C	1.4980	80/20	1.4980
935171	AD1-152 C O1	3.3475	80/20	3.3475
936161	AD2-022 C O1	12.2316	80/20	12.2316
936171	AD2-023 C O1	7.1351	80/20	7.1351
936265	AD2-033 C	5.3407	80/20	5.3407
936361	AD2-046 C O1	4.4130	80/20	4.4130
936401	AD2-051 C O1	2.8492	Adder	3.35
936485	AD2-063 C	6.4260	80/20	6.4260
937481	AD2-202 C O1	0.8927	80/20	0.8927
939181	AE1-148 C	4.3346	80/20	4.3346
940081	AE1-250 C	16.7625	80/20	16.7625
940571	AE2-044 C	2.3643	80/20	2.3643
940661	AE2-053 O1	1.6054	80/20	1.6054
941791	AE2-182 C	0.6030	Adder	0.71
942451	AE2-258	1.0445	80/20	1.0445
943171	AE2-346 C	0.4611	Adder	0.54
943901	AF1-058 C	0.9977	80/20	0.9977
943911	AF1-059	6.8914	80/20	6.8914
944141	AF1-082	1.5199	80/20	1.5199
945811	AF1-246 C O1	2.3280	Adder	2.74
946281	AF1-292 C	0.4826	Adder	0.57
946301	AF1-294 C	1.3261	Adder	1.56
957481	AF2-042 C	16.6285	Adder	19.56
957521	AF2-046 C	5.3511	Adder	6.3
957861	AF2-080 C	3.7883	80/20	3.7883
958211	AF2-115 C	0.7800	Adder	0.92
958801	AF2-171 C	4.6894	Adder	5.52
959311	AF2-222 C	5.6338	Adder	6.63
959511	AF2-242 C	3.1500	80/20	3.1500
959751	AF2-266	3.4765	80/20	3.4765
960061	AF2-297 C	3.9907	80/20	3.9907

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960081	AF2-299 C	0.8133	Adder	0.96
961671	AG1-007 C	0.6235	80/20	0.6235
961681	AG1-008 C	2.8418	Adder	6.31
961791	AG1-021 C	0.3307	Adder	0.73
961891	AG1-030 C	2.5649	Adder	5.69
961931	AG1-036 C	0.2331	Adder	0.52
961941	AG1-037 C	0.0873	Adder	0.19
962041	AG1-048 C	2.0671	Adder	4.59
962331	AG1-082 C	0.3491	Adder	0.77
962341	AG1-083 C	0.3491	Adder	0.77
962351	AG1-084 C	0.3084	Adder	0.68
962361	AG1-085 C	0.3084	Adder	0.68
962441	AG1-093 C O1	7.4768	80/20	7.4768
962491	AG1-098 C O1	2.1986	Adder	4.88
962561	AG1-105 C O1	4.4586	80/20	4.4586
962571	AG1-106 C	1.0498	Adder	2.33
963171	AG1-166 C	0.3307	Adder	0.73
963181	AG1-167 C	0.3307	Adder	0.73
963191	AG1-168 C	0.3307	Adder	0.73
963201	AG1-169 C	0.3307	Adder	0.73
963211	AG1-170 C	0.3307	Adder	0.73
963301	AG1-179 C	1.0263	Adder	2.28
963311	AG1-180	0.5000	Adder	1.11
963321	AG1-181 C O1	6.8883	80/20	6.8883
963361	AG1-185 O1	3.3327	80/20	3.3327
963641	AG1-215 C	0.1543	Adder	0.34
964111	AG1-272 C	0.4663	Adder	1.04
964121	AG1-273 C	0.4663	Adder	1.04
964131	AG1-274 C	0.4663	Adder	1.04
964241	AG1-285 C O1	5.4135	80/20	5.4135
964261	AG1-287 C	0.7483	80/20	0.7483
964471	AG1-310 C	1.0236	80/20	1.0236
964491	AG1-312 C O1	3.2055	Adder	7.12
964501	AG1-313 C O1	0.8414	Adder	1.87
964791	AG1-342 C	2.0004	80/20	2.0004
964801	AG1-343 C	0.9747	Adder	2.16
964821	AG1-345 C	0.1324	Adder	0.29
964931	AG1-357 C	3.3550	Adder	7.45
965191	AG1-384 C	0.4663	Adder	1.04
965281	AG1-393 C	0.3307	Adder	0.73
965291	AG1-394 C	0.3332	Adder	0.74
965451	AG1-413 C O1	2.8969	80/20	2.8969
965591	AG1-427 C	5.1228	80/20	5.1228
965601	AG1-428 C O1	0.8568	Adder	1.9
965691	AG1-437 C O1	1.6775	Adder	3.72
965701	AG1-438 C O1	1.6775	Adder	3.72
965711	AG1-439 C O1	11.9580	80/20	11.9580
965721	AG1-440 C	3.5896	80/20	3.5896
965731	AG1-441 C	3.5896	80/20	3.5896
965741	AG1-442 O1	0.9785	Adder	2.17
965751	AG1-443 O1	0.9785	Adder	2.17
965761	AG1-444 O1	6.3776	80/20	6.3776

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965771	AG1-445	2.0740	80/20	2.0740
965781	AG1-446	2.0740	80/20	2.0740
966621	AG1-532 C	0.2328	Adder	0.52
966751	AG1-546 C	7.3693	80/20	7.3693
966801	AG1-551 C	1.0116	80/20	1.0116
966811	AG1-552 C	0.8720	80/20	0.8720
CPLE	CPLE	6.7370	Confirmed LTF	6.7370
G-007A	G-007A	1.0861	Confirmed LTF	1.0861
VFT	VFT	2.8767	Confirmed LTF	2.8767
CBM-W2	CBM-W2	2.6701	Confirmed LTF	2.6701
PRAIRIE	PRAIRIE	0.7439	Confirmed LTF	0.7439
TVA	TVA	1.3328	Confirmed LTF	1.3328
CBM-S2	CBM-S2	76.2955	Confirmed LTF	76.2955
CBM-S1	CBM-S1	0.2120	Confirmed LTF	0.2120
CBM-N	CBM-N	0.5172	Confirmed LTF	0.5172
GIBSON	GIBSON	0.5700	Confirmed LTF	0.5700
BLUEG	BLUEG	2.1804	Confirmed LTF	2.1804
TRIMBLE	TRIMBLE	0.7173	Confirmed LTF	0.7173
LAGN	LAGN	1.9565	Confirmed LTF	1.9565
AA2-074	AA2-074	4.4334	LTF	4.4334

11.6.9 Index 9

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168307607	313707	6FORK UNION	DVP	961060	AF2-397 TAP	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	120.72	123.76	DC	20.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1287	80/20	0.1287
315153	1CLOVER1	6.8569	80/20	6.8569
315154	1CLOVER2	6.7885	80/20	6.7885
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6058	80/20	0.6058
315160	1KERR 3	0.6058	80/20	0.6058
315161	1KERR 4	0.6058	80/20	0.6058
315162	1KERR 5	0.6058	80/20	0.6058
315163	1KERR 6	0.6058	80/20	0.6058
315164	1KERR 7	0.6058	80/20	0.6058
315191	1BEARGRDN G1	16.8024	80/20	16.8024
315192	1BEARGRDN G2	16.8024	80/20	16.8024
315193	1BEARGRDN S1	21.7287	80/20	21.7287
315266	1PLYWOOD A	0.6338	80/20	0.6338
316118	AC1-105 C	3.2102	80/20	3.2102
316123	AC1-075 C	0.3997	80/20	0.3997
316129	AC1-054 C	3.1902	80/20	3.1902
316131	AB2-060 C	1.1581	80/20	1.1581
924301	AB2-077 C O1 (Suspended)	1.5320	80/20	1.5320
924311	AB2-078 C O1 (Suspended)	1.5320	80/20	1.5320
924321	AB2-079 C O1 (Suspended)	1.5320	80/20	1.5320
925611	AC1-036 C	0.2580	80/20	0.2580
926023	AC1-080 C	0.1336	80/20	0.1336
927251	AC1-221 C	0.7557	80/20	0.7557
927261	AC1-222 C	1.8205	80/20	1.8205
932511	AC2-071 C	0.9463	80/20	0.9463
932761	AC2-100 C	1.7391	80/20	1.7391
933501	AC2-165 C	31.7815	80/20	31.7815
934311	AD1-055 C	1.2640	80/20	1.2640
934341	AD1-058 C	1.8944	80/20	1.8944
934615	AD1-087 C	4.2935	80/20	4.2935
934625	AD1-088 C	14.0108	80/20	14.0108
934991	AD1-131 C	0.6211	80/20	0.6211

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
935171	AD1-152 C O1	4.7160	80/20	4.7160
935221	AD1-157 C	0.3677	80/20	0.3677
936265	AD2-033 C	13.9386	80/20	13.9386
936361	AD2-046 C O1	5.3677	80/20	5.3677
936485	AD2-063 C	13.8276	80/20	13.8276
937481	AD2-202 C O1	1.2576	80/20	1.2576
938371	AE1-056 C	10.0480	80/20	10.0480
938821	AE1-108 C O1	34.7050	80/20	34.7050
939181	AE1-148 C	5.3606	80/20	5.3606
940661	AE2-053 O1	1.9854	80/20	1.9854
941011	AE2-092 C	28.7117	80/20	28.7117
941791	AE2-182 C	2.2763	80/20	2.2763
942451	AE2-258	1.8439	80/20	1.8439
942461	AE2-259 C O1	18.4836	80/20	18.4836
942751	AE2-291 C	3.6928	80/20	3.6928
942761	AE2-292 C O1	4.5979	80/20	4.5979
943901	AF1-058 C	0.9989	80/20	0.9989
943911	AF1-059	9.4131	80/20	9.4131
945811	AF1-246 C O1	3.3289	80/20	3.3289
946281	AF1-292 C	0.4503	80/20	0.4503
946291	AF1-293 C O1	46.3247	80/20	46.3247
946301	AF1-294 C	6.1432	80/20	6.1432
946591	AF1-323 C	11.1052	80/20	11.1052
957481	AF2-042 C	23.7780	80/20	23.7780
958131	AF2-107 C	5.0071	80/20	5.0071
958211	AF2-115 C	3.6137	80/20	3.6137
958801	AF2-171 C	21.5919	80/20	21.5919
959311	AF2-222 C	19.7380	80/20	19.7380
959751	AF2-266	4.9220	80/20	4.9220
960061	AF2-297 C	3.9955	80/20	3.9955
960081	AF2-299 C	0.7590	80/20	0.7590
960111	AF2-302 C	4.0382	80/20	4.0382
961791	AG1-021 C	2.8909	80/20	2.8909
961801	AG1-022 C	4.0382	80/20	4.0382
961891	AG1-030 C	20.0871	80/20	20.0871
962041	AG1-048 C	18.0682	80/20	18.0682
962441	AG1-093 C O1	8.5606	80/20	8.5606
962491	AG1-098 C O1	11.2875	80/20	11.2875
962561	AG1-105 C O1	5.6502	80/20	5.6502
962741	AG1-123 C O1	3.4622	80/20	3.4622
962751	AG1-124 C O1	3.7973	80/20	3.7973
963171	AG1-166 C	2.8909	80/20	2.8909
963181	AG1-167 C	2.8909	80/20	2.8909
963191	AG1-168 C	2.8909	80/20	2.8909
963201	AG1-169 C	2.8909	80/20	2.8909
963211	AG1-170 C	2.8909	80/20	2.8909
963271	AG1-176 C O1	18.8540	80/20	18.8540
963301	AG1-179 C	2.7241	80/20	2.7241
963311	AG1-180	1.3273	80/20	1.3273
963321	AG1-181 C O1	18.3458	80/20	18.3458
963361	AG1-185 O1	8.8762	80/20	8.8762
963641	AG1-215 C	1.3491	80/20	1.3491

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964111	AG1-272 C	2.9318	80/20	2.9318
964121	AG1-273 C	2.9318	80/20	2.9318
964131	AG1-274 C	2.9318	80/20	2.9318
964231	AG1-284 C O1	20.2255	80/20	20.2255
964241	AG1-285 C O1	11.0250	80/20	11.0250
964261	AG1-287 C	0.7492	80/20	0.7492
964471	AG1-310 C	1.0449	80/20	1.0449
964791	AG1-342 C	2.5948	80/20	2.5948
964821	AG1-345 C	1.1534	80/20	1.1534
964841	AG1-347 C	11.8194	80/20	11.8194
964931	AG1-357 C	7.8348	80/20	7.8348
965191	AG1-384 C	2.9318	80/20	2.9318
965281	AG1-393 C	2.8909	80/20	2.8909
965451	AG1-413 C O1	3.9569	80/20	3.9569
965581	AG1-426	7.5610	80/20	7.5610
965591	AG1-427 C	10.5299	80/20	10.5299
965601	AG1-428 C O1	2.2741	80/20	2.2741
965641	AG1-432 C O1	36.9672	80/20	36.9672
965721	AG1-440 C	3.7895	80/20	3.7895
965731	AG1-441 C	3.7895	80/20	3.7895
965771	AG1-445	2.1895	80/20	2.1895
965781	AG1-446	2.1895	80/20	2.1895
965831	AG1-451	6.1612	80/20	6.1612
966251	AG1-494 C	1.8194	80/20	1.8194
966621	AG1-532 C	0.4099	80/20	0.4099
966691	AG1-539 C	1.9309	80/20	1.9309
966751	AG1-546 C	6.7436	80/20	6.7436
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.6967	80/20	3.6967
WEC	WEC	0.1342	Confirmed LTF	0.1342
LGEE	LGEE	0.2878	Confirmed LTF	0.2878
CPLE	CPLE	2.2686	Confirmed LTF	2.2686
CBM-W2	CBM-W2	7.5264	Confirmed LTF	7.5264
NY	NY	0.4396	Confirmed LTF	0.4396
TVA	TVA	1.5232	Confirmed LTF	1.5232
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.2148	Confirmed LTF	26.2148
CBM-S1	CBM-S1	0.3701	Confirmed LTF	0.3701
MEC	MEC	0.9057	Confirmed LTF	0.9057
LAGN	LAGN	1.8795	Confirmed LTF	1.8795
AA2-074	AA2-074	1.4972	LTF	1.4972
CBM-W1	CBM-W1	5.2996	Confirmed LTF	5.2996

11.6.10 Index 10

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
168307629	313867	6BREMODIST	DVP	313707	6FORK UNION	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	121.93	125.26	DC	22.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1780	80/20	2.1780
313527	AB2-043 C	0.4243	80/20	0.4243
314429	3JTRSVLE	0.6669	80/20	0.6669
314572	3EMPORIA	0.1382	80/20	0.1382
314677	6BUCKING	1.0571	80/20	1.0571
314704	3LAWRENC	0.1410	80/20	0.1410
315126	1ROARAP2	0.4085	80/20	0.4085
315128	1ROARAP4	0.3898	80/20	0.3898
315153	1CLOVER1	7.5116	80/20	7.5116
315154	1CLOVER2	7.4368	80/20	7.4368
315158	1KERR 1	0.2345	80/20	0.2345
315159	1KERR 2	0.6567	80/20	0.6567
315160	1KERR 3	0.6567	80/20	0.6567
315161	1KERR 4	0.6567	80/20	0.6567
315162	1KERR 5	0.6567	80/20	0.6567
315163	1KERR 6	0.6567	80/20	0.6567
315164	1KERR 7	0.6567	80/20	0.6567
315191	1BEARGRDN G1	18.4998	80/20	18.4998
315192	1BEARGRDN G2	18.4998	80/20	18.4998
315193	1BEARGRDN S1	23.9239	80/20	23.9239
315266	1PLYWOOD A	0.6737	80/20	0.6737
316087	AB2-174 C	0.3606	80/20	0.3606
316118	AC1-105 C	3.4200	80/20	3.4200
316123	AC1-075 C	0.3763	80/20	0.3763
316129	AC1-054 C	3.4710	80/20	3.4710
316131	AB2-060 C	1.2610	80/20	1.2610
923991	AB2-040 C O1	2.3720	80/20	2.3720
924301	AB2-077 C O1 (Suspended)	1.6661	80/20	1.6661
924311	AB2-078 C O1 (Suspended)	1.6661	80/20	1.6661
924321	AB2-079 C O1 (Suspended)	1.6661	80/20	1.6661
925611	AC1-036 C	0.2822	80/20	0.2822
926023	AC1-080 C	0.1258	80/20	0.1258
927251	AC1-221 C	0.7947	80/20	0.7947
927261	AC1-222 C	1.8844	80/20	1.8844
932511	AC2-071 C	1.0415	80/20	1.0415
932761	AC2-100 C	1.8288	80/20	1.8288
933501	AC2-165 C	34.9923	80/20	34.9923

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934311	AD1-055 C	1.3084	80/20	1.3084
934341	AD1-058 C	1.9921	80/20	1.9921
934615	AD1-087 C	4.7030	80/20	4.7030
934625	AD1-088 C	15.3924	80/20	15.3924
934991	AD1-131 C	0.6532	80/20	0.6532
935171	AD1-152 C O1	5.1658	80/20	5.1658
935221	AD1-157 C	0.4035	80/20	0.4035
936265	AD2-033 C	15.2365	80/20	15.2365
936361	AD2-046 C O1	5.8230	80/20	5.8230
936485	AD2-063 C	15.0849	80/20	15.0849
937481	AD2-202 C O1	1.3775	80/20	1.3775
938371	AE1-056 C	11.0262	80/20	11.0262
938821	AE1-108 C O1	11.0132	80/20	11.0132
939181	AE1-148 C	5.8169	80/20	5.8169
940661	AE2-053 O1	2.1544	80/20	2.1544
941791	AE2-182 C	2.5007	80/20	2.5007
942451	AE2-258	2.0064	80/20	2.0064
942461	AE2-259 C O1	20.3100	80/20	20.3100
942751	AE2-291 C	3.2791	80/20	3.2791
942761	AE2-292 C O1	4.0828	80/20	4.0828
943901	AF1-058 C	1.0548	80/20	1.0548
943911	AF1-059	10.2781	80/20	10.2781
945811	AF1-246 C O1	3.6616	80/20	3.6616
946281	AF1-292 C	0.4969	80/20	0.4969
946291	AF1-293 C O1	6.2287	80/20	6.2287
946301	AF1-294 C	6.7368	80/20	6.7368
946591	AF1-323 C	3.5356	80/20	3.5356
957481	AF2-042 C	26.1540	80/20	26.1540
958131	AF2-107 C	1.6496	80/20	1.6496
958211	AF2-115 C	3.9629	80/20	3.9629
958801	AF2-171 C	23.6781	80/20	23.6781
959311	AF2-222 C	21.6010	80/20	21.6010
959751	AF2-266	5.3920	80/20	5.3920
960061	AF2-297 C	4.2192	80/20	4.2192
960081	AF2-299 C	0.8375	80/20	0.8375
960111	AF2-302 C	1.2857	80/20	1.2857
961791	AG1-021 C	3.1703	80/20	3.1703
961801	AG1-022 C	1.2857	80/20	1.2857
961891	AG1-030 C	22.0131	80/20	22.0131
962041	AG1-048 C	19.8142	80/20	19.8142
962441	AG1-093 C O1	9.1200	80/20	9.1200
962491	AG1-098 C O1	12.3900	80/20	12.3900
962561	AG1-105 C O1	6.1674	80/20	6.1674
963171	AG1-166 C	3.1703	80/20	3.1703
963181	AG1-167 C	3.1703	80/20	3.1703
963191	AG1-168 C	3.1703	80/20	3.1703
963201	AG1-169 C	3.1703	80/20	3.1703
963211	AG1-170 C	3.1703	80/20	3.1703
963271	AG1-176 C O1	20.7171	80/20	20.7171
963301	AG1-179 C	2.9803	80/20	2.9803
963311	AG1-180	1.4521	80/20	1.4521
963321	AG1-181 C O1	20.0593	80/20	20.0593

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963361	AG1-185 O1	9.7052	80/20	9.7052
963641	AG1-215 C	1.4795	80/20	1.4795
964111	AG1-272 C	3.2072	80/20	3.2072
964121	AG1-273 C	3.2072	80/20	3.2072
964131	AG1-274 C	3.2072	80/20	3.2072
964231	AG1-284 C O1	2.9513	80/20	2.9513
964241	AG1-285 C O1	12.0195	80/20	12.0195
964261	AG1-287 C	0.7911	80/20	0.7911
964471	AG1-310 C	1.0720	80/20	1.0720
964791	AG1-342 C	2.7843	80/20	2.7843
964821	AG1-345 C	1.2648	80/20	1.2648
964841	AG1-347 C	12.9875	80/20	12.9875
964931	AG1-357 C	8.6556	80/20	8.6556
965191	AG1-384 C	3.2072	80/20	3.2072
965281	AG1-393 C	3.1703	80/20	3.1703
965451	AG1-413 C O1	4.3205	80/20	4.3205
965581	AG1-426	2.3994	80/20	2.3994
965591	AG1-427 C	11.4819	80/20	11.4819
965601	AG1-428 C O1	2.4880	80/20	2.4880
965641	AG1-432 C O1	40.6200	80/20	40.6200
965721	AG1-440 C	4.1121	80/20	4.1121
965731	AG1-441 C	4.1121	80/20	4.1121
965771	AG1-445	2.3759	80/20	2.3759
965781	AG1-446	2.3759	80/20	2.3759
965831	AG1-451	6.7700	80/20	6.7700
966361	AG1-505 C	4.9734	80/20	4.9734
966371	AG1-506 C	4.9734	80/20	4.9734
966621	AG1-532 C	0.4522	80/20	0.4522
966691	AG1-539 C	1.7146	80/20	1.7146
966751	AG1-546 C	7.3410	80/20	7.3410
966811	AG1-552 C	0.6485	80/20	0.6485
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	4.0620	80/20	4.0620
WEC	WEC	0.0699	Confirmed LTF	0.0699
LGEE	LGEE	0.1483	Confirmed LTF	0.1483
CPL	CPL	2.3396	Confirmed LTF	2.3396
CBM-W2	CBM-W2	5.8061	Confirmed LTF	5.8061
NY	NY	0.4076	Confirmed LTF	0.4076
TVA	TVA	1.2558	Confirmed LTF	1.2558
SIGE	SIGE	0.1120	Confirmed LTF	0.1120
CBM-S2	CBM-S2	25.9121	Confirmed LTF	25.9121
CBM-S1	CBM-S1	0.2953	Confirmed LTF	0.2953
MEC	MEC	0.5863	Confirmed LTF	0.5863
LAGN	LAGN	1.5645	Confirmed LTF	1.5645
AA2-074	AA2-074	1.5426	LTF	1.5426
CBM-W1	CBM-W1	2.5236	Confirmed LTF	2.5236

11.6.11 Index 11

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
168608256	314435	6SAPONY	DVP	314282	6CARSON	DVP	1	DVP_P1-2: LN 2012-B	single	678.68	126.94	128.19	DC	8.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	15.3156	80/20	15.3156
313527	AB2-043 C	0.4288	80/20	0.4288
313719	3CHESTNUT	1.2935	80/20	1.2935
314435	6SAPONY	1.6595	80/20	1.6595
314572	3EMPORIA	1.0789	80/20	1.0789
314582	3KELFORD	0.2858	80/20	0.2858
314589	3MURPHYS	0.0711	80/20	0.0711
314623	3WITAKRS	0.2312	80/20	0.2312
314704	3LAWRENC	0.6279	80/20	0.6279
315115	1S HAMPT1	0.8776	80/20	0.8776
315126	1ROARAP2	2.2662	80/20	2.2662
315128	1ROARAP4	2.1626	80/20	2.1626
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.7660	80/20	9.7660
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.7660	80/20	9.7660
315136	1ROSEMG1	4.4501	80/20	4.4501
315137	1ROSEMS1	2.7595	80/20	2.7595
315138	1ROSEMG2	2.0856	80/20	2.0856
315139	1GASTONA	6.8704	80/20	6.8704
315141	1GASTONB	6.8704	80/20	6.8704
315158	1KERR 1	0.3730	80/20	0.3730
315159	1KERR 2	1.0443	80/20	1.0443
315160	1KERR 3	1.0443	80/20	1.0443
315161	1KERR 4	1.0443	80/20	1.0443
315162	1KERR 5	1.0443	80/20	1.0443
315163	1KERR 6	1.0443	80/20	1.0443
315164	1KERR 7	1.0443	80/20	1.0443
315601	1CONETOE2SOL	1.0903	80/20	1.0903
315606	3AA2-053SOLA	2.1939	80/20	2.1939
315607	3AA1-063SOLA	1.8762	80/20	1.8762
315608	3AA2-088SOLA	0.8797	80/20	0.8797
316020	AB2-059 C OP	1.7279	80/20	1.7279
316087	AB2-174 C	2.6391	80/20	2.6391
316096	AB2-100 C1	2.9775	80/20	2.9775
316098	AB2-100 C2	2.9775	80/20	2.9775
316103	AB2-015 C	4.6450	80/20	4.6450
316129	AC1-054 C	9.5364	80/20	9.5364
316131	AB2-060 C	1.2144	80/20	1.2144
316140	AB2-099 C (Suspended)	0.4045	80/20	0.4045
920591	AA2-165 C	0.1736	80/20	0.1736
922922	AB1-081 C OP	1.4661	80/20	1.4661

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
923991	AB2-040 C O1	16.6804	80/20	16.6804
924301	AB2-077 C O1 (Suspended)	1.7041	80/20	1.7041
924311	AB2-078 C O1 (Suspended)	1.7041	80/20	1.7041
924321	AB2-079 C O1 (Suspended)	1.7041	80/20	1.7041
925591	AC1-034 C	7.0939	80/20	7.0939
925611	AC1-036 C	0.1517	80/20	0.1517
926070	AC1-086 C	48.9704	80/20	48.9704
926201	AC1-098 C	6.6875	80/20	6.6875
926211	AC1-099 C	2.2410	80/20	2.2410
927024	AC1-189 C	6.2932	80/20	6.2932
927145	AC1-208 C	11.4102	80/20	11.4102
932631	AC2-084 C	9.5333	80/20	9.5333
934331	AD1-057 C O1	16.4836	80/20	16.4836
936265	AD2-033 C	9.1978	80/20	9.1978
936361	AD2-046 C O1	8.5115	80/20	8.5115
936401	AD2-051 C O1	20.4858	80/20	20.4858
936485	AD2-063 C	11.8350	80/20	11.8350
939181	AE1-148 C	8.3608	80/20	8.3608
940481	AE2-033 C	65.5004	80/20	65.5004
940541	AE2-040	11.9665	80/20	11.9665
940571	AE2-044 C	4.6463	80/20	4.6463
940661	AE2-053 O1	3.0966	80/20	3.0966
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1104	80/20	0.1104
942451	AE2-258	2.0279	80/20	2.0279
942471	AE2-260 C O1	48.3208	80/20	48.3208
943171	AE2-346 C	0.9707	80/20	0.9707
943911	AF1-059	27.9684	80/20	27.9684
944141	AF1-082	2.9869	80/20	2.9869
946011	AF1-266	54.8290	80/20	54.8290
946281	AF1-292 C	4.0269	80/20	4.0269
957521	AF2-046 C	13.4760	80/20	13.4760
957861	AF2-080 C	5.7157	80/20	5.7157
958801	AF2-171 C	7.6482	80/20	7.6482
959311	AF2-222 C	10.7910	80/20	10.7910
960081	AF2-299 C	6.7869	80/20	6.7869
961091	AF2-400 C	0.2508	80/20	0.2508
961671	AG1-007 C	1.0795	80/20	1.0795
961681	AG1-008 C	13.5030	80/20	13.5030
961891	AG1-030 C	8.4555	80/20	8.4555
961931	AG1-036 C	1.0099	80/20	1.0099
961941	AG1-037 C	0.3467	80/20	0.3467
962331	AG1-082 C	1.3867	80/20	1.3867
962341	AG1-083 C	1.3867	80/20	1.3867
962351	AG1-084 C	1.1305	80/20	1.1305
962361	AG1-085 C	1.1305	80/20	1.1305
962571	AG1-106 C	13.6183	80/20	13.6183
963301	AG1-179 C	11.3000	80/20	11.3000
963311	AG1-180	5.5056	80/20	5.5056
963321	AG1-181 C O1	11.7750	80/20	11.7750

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963361	AG1-185 O1	5.6970	80/20	5.6970
964111	AG1-272 C	1.7243	80/20	1.7243
964121	AG1-273 C	1.7243	80/20	1.7243
964131	AG1-274 C	1.7243	80/20	1.7243
964241	AG1-285 C O1	10.1302	80/20	10.1302
964501	AG1-313 C O1	6.0063	80/20	6.0063
964791	AG1-342 C	2.2708	80/20	2.2708
964801	AG1-343 C	5.3000	80/20	5.3000
964821	AG1-345 C	0.4067	80/20	0.4067
965191	AG1-384 C	1.7243	80/20	1.7243
965291	AG1-394 C	1.8468	80/20	1.8468
965451	AG1-413 C O1	11.7569	80/20	11.7569
965591	AG1-427 C	9.5615	80/20	9.5615
965601	AG1-428 C O1	9.4335	80/20	9.4335
965711	AG1-439 C O1	19.5585	80/20	19.5585
965721	AG1-440 C	8.0249	80/20	8.0249
965731	AG1-441 C	8.0249	80/20	8.0249
965761	AG1-444 O1	10.4312	80/20	10.4312
965771	AG1-445	4.6366	80/20	4.6366
965781	AG1-446	4.6366	80/20	4.6366
966621	AG1-532 C	3.6649	80/20	3.6649
966751	AG1-546 C	21.6531	80/20	21.6531
966811	AG1-552 C	3.5982	80/20	3.5982
WEC	WEC	0.2712	Confirmed LTF	0.2712
LGEE	LGEE	0.5579	Confirmed LTF	0.5579
CPL	CPL	3.0856	Confirmed LTF	3.0856
CBM-W2	CBM-W2	11.7645	Confirmed LTF	11.7645
NY	NY	0.3528	Confirmed LTF	0.3528
TVA	TVA	2.2106	Confirmed LTF	2.2106
SIGE	SIGE	0.1774	Confirmed LTF	0.1774
CBM-S2	CBM-S2	34.1492	Confirmed LTF	34.1492
CBM-S1	CBM-S1	0.5521	Confirmed LTF	0.5521
MEC	MEC	1.6160	Confirmed LTF	1.6160
LAGN	LAGN	2.7492	Confirmed LTF	2.7492
AA2-074	AA2-074	2.0381	LTF	2.0381
CBM-W1	CBM-W1	11.3702	Confirmed LTF	11.3702

11.6.12 Index 12

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
168908324	314559	3CAROLNA	DVP	314561	6CAROLNA	DVP	1	DVP_P1-2: LN 68-A	single	239.89	102.36	104.69	DC	5.61

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	9.1583	80/20	9.1583
313527	AB2-043 C	0.2767	80/20	0.2767
313719	3CHESTNUT	0.6686	80/20	0.6686
314429	3JTRSVLE	0.1425	80/20	0.1425
314572	3EMPORIA	0.3133	80/20	0.3133
314582	3KELFORD	0.2006	80/20	0.2006
314589	3MURPHYS	0.1129	80/20	0.1129
314623	3WITAKRS	0.0694	80/20	0.0694
314704	3LAWRENC	0.1513	80/20	0.1513
315115	1S HAMPT1	2.4343	80/20	2.4343
315126	1ROARAP2	3.2338	80/20	3.2338
315128	1ROARAP4	3.0859	80/20	3.0859
315158	1KERR 1	0.3617	80/20	0.3617
315159	1KERR 2	1.0128	80/20	1.0128
315160	1KERR 3	1.0128	80/20	1.0128
315161	1KERR 4	1.0128	80/20	1.0128
315162	1KERR 5	1.0128	80/20	1.0128
315163	1KERR 6	1.0128	80/20	1.0128
315164	1KERR 7	1.0128	80/20	1.0128
315606	3AA2-053SOLA	2.9990	80/20	2.9990
315607	3AA1-063SOLA	2.9020	80/20	2.9020
315608	3AA2-088SOLA	1.7420	80/20	1.7420
316087	AB2-174 C	1.2565	80/20	1.2565
316103	AB2-015 C	14.5285	80/20	14.5285
316129	AC1-054 C	11.8223	80/20	11.8223
316131	AB2-060 C	0.7844	80/20	0.7844
316140	AB2-099 C (Suspended)	0.3725	80/20	0.3725
920591	AA2-165 C	0.0898	80/20	0.0898
923991	AB2-040 C O1	9.9744	80/20	9.9744
924301	AB2-077 C O1 (Suspended)	1.1269	80/20	1.1269
924311	AB2-078 C O1 (Suspended)	1.1269	80/20	1.1269
924321	AB2-079 C O1 (Suspended)	1.1269	80/20	1.1269
925611	AC1-036 C	0.0993	80/20	0.0993
926201	AC1-098 C	5.1546	80/20	5.1546
926211	AC1-099 C	1.7273	80/20	1.7273
927145	AC1-208 C	10.1194	80/20	10.1194
932631	AC2-084 C	7.3480	80/20	7.3480
935221	AD1-157 C	0.0717	80/20	0.0717
936265	AD2-033 C	6.0029	80/20	6.0029

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936361	AD2-046 C O1	7.8298	80/20	7.8298
936485	AD2-063 C	7.6716	80/20	7.6716
938371	AE1-056 C	1.9594	80/20	1.9594
938771	AE1-103 C	6.1020	80/20	6.1020
939181	AE1-148 C	7.6064	80/20	7.6064
940661	AE2-053 O1	2.8172	80/20	2.8172
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.0703	80/20	0.0703
942451	AE2-258	1.3082	80/20	1.3082
943171	AE2-346 C	0.8941	80/20	0.8941
943911	AF1-059	8.8526	80/20	8.8526
946281	AF1-292 C	0.7553	80/20	0.7553
946301	AF1-294 C	1.4395	80/20	1.4395
957521	AF2-046 C	19.9560	80/20	19.9560
958211	AF2-115 C	0.8468	80/20	0.8468
958801	AF2-171 C	5.1111	80/20	5.1111
959311	AF2-222 C	7.0820	80/20	7.0820
960081	AF2-299 C	1.2731	80/20	1.2731
961091	AF2-400 C	0.7845	80/20	0.7845
961681	AG1-008 C	19.9960	80/20	19.9960
961791	AG1-021 C	0.6774	80/20	0.6774
961891	AG1-030 C	5.6061	80/20	5.6061
961931	AG1-036 C	1.2171	80/20	1.2171
961941	AG1-037 C	0.3193	80/20	0.3193
962041	AG1-048 C	4.2337	80/20	4.2337
962331	AG1-082 C	1.2773	80/20	1.2773
962341	AG1-083 C	1.2773	80/20	1.2773
962351	AG1-084 C	0.7200	80/20	0.7200
962361	AG1-085 C	0.7200	80/20	0.7200
963171	AG1-166 C	0.6774	80/20	0.6774
963181	AG1-167 C	0.6774	80/20	0.6774
963191	AG1-168 C	0.6774	80/20	0.6774
963201	AG1-169 C	0.6774	80/20	0.6774
963211	AG1-170 C	0.6774	80/20	0.6774
963301	AG1-179 C	2.9574	80/20	2.9574
963311	AG1-180	1.4409	80/20	1.4409
963321	AG1-181 C O1	7.6889	80/20	7.6889
963361	AG1-185 O1	3.7201	80/20	3.7201
963641	AG1-215 C	0.3161	80/20	0.3161
964111	AG1-272 C	1.1289	80/20	1.1289
964121	AG1-273 C	1.1289	80/20	1.1289
964131	AG1-274 C	1.1289	80/20	1.1289
964241	AG1-285 C O1	6.5573	80/20	6.5573
964501	AG1-313 C O1	7.6739	80/20	7.6739
964791	AG1-342 C	1.4230	80/20	1.4230
964801	AG1-343 C	9.7545	80/20	9.7545
964821	AG1-345 C	0.2719	80/20	0.2719
965191	AG1-384 C	1.1289	80/20	1.1289
965281	AG1-393 C	0.6774	80/20	0.6774
965291	AG1-394 C	3.4868	80/20	3.4868
965451	AG1-413 C O1	3.7213	80/20	3.7213
965591	AG1-427 C	6.1907	80/20	6.1907
965601	AG1-428 C O1	2.4689	80/20	2.4689

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965721	AG1-440 C	8.7340	80/20	8.7340
965731	AG1-441 C	8.7340	80/20	8.7340
965771	AG1-445	5.0463	80/20	5.0463
965781	AG1-446	5.0463	80/20	5.0463
966621	AG1-532 C	0.6874	80/20	0.6874
966751	AG1-546 C	27.3941	80/20	27.3941
966811	AG1-552 C	5.1344	80/20	5.1344
WEC	WEC	0.0176	Confirmed LTF	0.0176
LGEE	LGEE	0.0390	Confirmed LTF	0.0390
CPL	CPL	0.1269	Confirmed LTF	0.1269
CBM-W2	CBM-W2	0.7168	Confirmed LTF	0.7168
NY	NY	0.0597	Confirmed LTF	0.0597
TVA	TVA	0.1344	Confirmed LTF	0.1344
SIGE	SIGE	0.0194	Confirmed LTF	0.0194
CBM-S2	CBM-S2	1.7226	Confirmed LTF	1.7226
CBM-S1	CBM-S1	0.0338	Confirmed LTF	0.0338
MEC	MEC	0.1017	Confirmed LTF	0.1017
LAGN	LAGN	0.1610	Confirmed LTF	0.1610
CBM-W1	CBM-W1	0.7150	Confirmed LTF	0.7150

11.6.13 Index 13

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
163077941	314563	6CLUBHSE	DVP	940480	AE2-033 TAP	DVP	1	DVP_P2-2: BREMO B1	bus	830.0	125.22	126.06	DC	15.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	13.8867	50/50	13.8867
313719	3CHESTNUT	1.2185	50/50	1.2185
313853	3PONTONDP	0.3272	Adder	0.38
314541	3WATKINS	0.3552	Adder	0.42
314572	3EMPORIA	0.9898	50/50	0.9898
314582	3KELFORD	0.3498	50/50	0.3498
314589	3MURPHYS	0.0779	50/50	0.0779
314623	3WITAKRS	0.2162	50/50	0.2162
314704	3LAWRENC	0.5820	50/50	0.5820
315126	1ROARAP2	1.9893	50/50	1.9893
315128	1ROARAP4	1.8984	50/50	1.8984
315131	1EDGECEMA (Deactivation : 22/04/2019)	8.9790	50/50	8.9790
315132	1EDGECEMB (Deactivation : 22/04/2019)	8.9790	50/50	8.9790
315136	1ROSEMG1	3.6122	50/50	3.6122
315137	1ROSEMS1	2.2400	50/50	2.2400
315138	1ROSEMG2	1.6929	50/50	1.6929
315139	1GASTONA	5.5340	50/50	5.5340
315141	1GASTONB	5.5340	50/50	5.5340
315293	1DOMTR9	3.4788	Adder	4.09
315294	1DOMTR10	4.2632	Adder	5.02
315606	3AA2-053SOLA	2.0171	50/50	2.0171
315607	3AA1-063SOLA	1.7021	50/50	1.7021
316020	AB2-059 C OP	1.5986	50/50	1.5986
316087	AB2-174 C	2.4040	50/50	2.4040
316088	AB2-174 E	13.7864	50/50	13.7864
316096	AB2-100 C1	2.7313	50/50	2.7313
316097	AB2-100 E1	8.5269	50/50	8.5269
316098	AB2-100 C2	2.7313	50/50	2.7313
316099	AB2-100 E2	8.5269	50/50	8.5269
316103	AB2-015 C	4.0974	Adder	4.82
316104	AB2-015 E	3.3599	Adder	3.95
316129	AC1-054 C	8.5809	50/50	8.5809
316140	AB2-099 C (Suspended)	0.5367	50/50	0.5367
316141	AB2-099 E (Suspended)	0.2300	50/50	0.2300
900672	V4-068 E	0.2705	50/50	0.2705
917332	Z2-043 E	1.0433	50/50	1.0433
917342	Z2-044 E	0.5873	50/50	0.5873
917512	Z2-088 E OP1	5.8408	Adder	6.87
918492	AA1-063AE OP	5.0870	50/50	5.0870

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
918512	AA1-065 E OP	2.7942	Adder	3.29
918532	AA1-067 E	0.4668	Adder	0.55
919692	AA2-053 E OP	5.2493	50/50	5.2493
919702	AA2-057 E OP	3.6457	50/50	3.6457
920042	AA2-088 E OP	7.6895	Adder	9.05
920591	AA2-165 C	0.1636	50/50	0.1636
920592	AA2-165 E	0.5011	50/50	0.5011
922922	AB1-081 C OP	1.3564	50/50	1.3564
922923	AB1-081 E OP	3.6845	50/50	3.6845
923262	AB1-132 C OP (Suspended)	26.7859	50/50	26.7859
923263	AB1-132 E OP (Suspended)	11.4797	50/50	11.4797
923573	AB1-173 E OP	2.1655	50/50	2.1655
923991	AB2-040 C O1	15.1241	50/50	15.1241
923992	AB2-040 E O1	12.3743	50/50	12.3743
924022	AB2-043 E O1	2.0077	Adder	2.36
924152	AB2-059 E OP	5.2197	50/50	5.2197
924162	AB2-060 E OP	3.0038	Adder	3.53
924301	AB2-077 C O1 (Suspended)	1.4054	Adder	1.65
924302	AB2-077 E O1 (Suspended)	0.9369	Adder	1.1
924311	AB2-078 C O1 (Suspended)	1.4054	Adder	1.65
924312	AB2-078 E O1 (Suspended)	0.9369	Adder	1.1
924321	AB2-079 C O1 (Suspended)	1.4054	Adder	1.65
924322	AB2-079 E O1 (Suspended)	0.9369	Adder	1.1
925122	AB2-169 E	3.2044	Adder	3.77
925591	AC1-034 C	6.5630	50/50	6.5630
925592	AC1-034 E	4.9510	50/50	4.9510
925612	AC1-036 E	0.5092	Adder	0.6
925785	AC1-054 E	3.9530	50/50	3.9530
926070	AC1-086 C	39.4455	50/50	39.4455
926071	AC1-086 E	17.9529	50/50	17.9529
926201	AC1-098 C	6.7545	50/50	6.7545
926202	AC1-098 E	4.0239	50/50	4.0239
926211	AC1-099 C	2.2635	50/50	2.2635
926212	AC1-099 E	1.3293	50/50	1.3293
927024	AC1-189 C	6.0446	Adder	7.11
927025	AC1-189 E	3.0110	Adder	3.54
927145	AC1-208 C	10.7199	50/50	10.7199
927146	AC1-208 E	4.7407	50/50	4.7407
932631	AC2-084 C	9.6287	50/50	9.6287
932632	AC2-084 E	4.7425	50/50	4.7425
933991	AD1-023 C	6.9493	Adder	8.18
933992	AD1-023 E	3.7832	Adder	4.45
934331	AD1-057 C O1	13.9218	50/50	13.9218
934332	AD1-057 E O1	7.4265	50/50	7.4265
934521	AD1-076 C	25.6185	Adder	30.14

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934522	AD1-076 E	13.0449	Adder	15.35
936265	AD2-033 C	8.0077	Adder	9.42
936266	AD2-033 E	5.3385	Adder	6.28
936361	AD2-046 C O1	6.7839	Adder	7.98
936362	AD2-046 E O1	3.1196	Adder	3.67
936401	AD2-051 C O1	6.3189	Adder	7.43
936402	AD2-051 E O1	2.7133	Adder	3.19
936485	AD2-063 C	10.0008	Adder	11.77
936486	AD2-063 E	6.6672	Adder	7.84
938222	AE1-035 E	0.7684	Adder	0.9
939181	AE1-148 C	6.6734	Adder	7.85
939182	AE1-148 E	4.4489	Adder	5.23
940542	AE2-040 BAT	4.0845	50/50	4.0845
940571	AE2-044 C	4.2986	50/50	4.2986
940572	AE2-044 E	1.8422	50/50	1.8422
940661	AE2-053 O1	2.4716	Adder	2.91
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1574	50/50	0.1574
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.5373	50/50	0.5373
942451	AE2-258	1.6750	Adder	1.97
942471	AE2-260 C O1	44.7837	50/50	44.7837
942472	AE2-260 E O1	63.5203	50/50	63.5203
943171	AE2-346 C	1.2881	50/50	1.2881
943172	AE2-346 E	0.5520	50/50	0.5520
943911	AF1-059	26.1590	50/50	26.1590
944141	AF1-082	2.7634	50/50	2.7634
946012	AF1-266 BAT	21.5610	50/50	21.5610
946281	AF1-292 C	3.7088	50/50	3.7088
946282	AF1-292 E	2.5003	50/50	2.5003
946301	AF1-294 C	2.0860	Adder	2.45
946302	AF1-294 E	1.3907	Adder	1.64
957521	AF2-046 C	15.2614	50/50	15.2614
957522	AF2-046 E	7.6766	50/50	7.6766
957861	AF2-080 C	5.4899	Adder	6.46
957862	AF2-080 E	2.4337	Adder	2.86
958211	AF2-115 C	1.2271	Adder	1.44
958212	AF2-115 E	0.8180	Adder	0.96
958801	AF2-171 C	7.3945	Adder	8.7
958802	AF2-171 E	4.9297	Adder	5.8
959311	AF2-222 C	9.6441	Adder	11.35
959312	AF2-222 E	6.4615	Adder	7.6
959511	AF2-242 C	4.3096	Adder	5.07
959512	AF2-242 E	3.3519	Adder	3.94
960081	AF2-299 C	6.2508	50/50	6.2508
960082	AF2-299 E	4.1672	50/50	4.1672
961091	AF2-400 C	0.2213	Adder	0.26
961092	AF2-400 E	0.3630	Adder	0.43
961671	AG1-007 C	0.4951	Adder	1.1
961672	AG1-007 E	0.2765	Adder	0.61
961681	AG1-008 C	15.2920	50/50	15.2920
961682	AG1-008 E	7.6460	50/50	7.6460
961791	AG1-021 C	0.5203	Adder	1.15

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961792	AG1-021 E	0.3468	Adder	0.77
961891	AG1-030 C	4.1851	Adder	9.29
961892	AG1-030 E	2.7900	Adder	6.19
961931	AG1-036 C	1.2404	50/50	1.2404
961932	AG1-036 E	0.8270	50/50	0.8270
961941	AG1-037 C	0.4600	50/50	0.4600
961942	AG1-037 E	0.3067	50/50	0.3067
962041	AG1-048 C	3.2517	Adder	7.22
962042	AG1-048 E	2.1678	Adder	4.81
962331	AG1-082 C	1.8401	50/50	1.8401
962332	AG1-082 E	1.2267	50/50	1.2267
962341	AG1-083 C	1.8401	50/50	1.8401
962342	AG1-083 E	1.2267	50/50	1.2267
962351	AG1-084 C	1.6119	50/50	1.6119
962352	AG1-084 E	1.0746	50/50	1.0746
962361	AG1-085 C	1.6119	50/50	1.6119
962362	AG1-085 E	1.0746	50/50	1.0746
962571	AG1-106 C	10.9695	50/50	10.9695
962572	AG1-106 E	4.9745	50/50	4.9745
963171	AG1-166 C	0.5203	Adder	1.15
963172	AG1-166 E	0.3468	Adder	0.77
963181	AG1-167 C	0.5203	Adder	1.15
963182	AG1-167 E	0.3468	Adder	0.77
963191	AG1-168 C	0.5203	Adder	1.15
963192	AG1-168 E	0.3468	Adder	0.77
963201	AG1-169 C	0.5203	Adder	1.15
963202	AG1-169 E	0.3468	Adder	0.77
963211	AG1-170 C	0.5203	Adder	1.15
963212	AG1-170 E	0.3468	Adder	0.77
963301	AG1-179 C	10.5002	50/50	10.5002
963311	AG1-180	5.1160	50/50	5.1160
963321	AG1-181 C O1	5.4531	Adder	12.1
963361	AG1-185 O1	2.6383	Adder	5.86
963641	AG1-215 C	0.2428	Adder	0.54
963642	AG1-215 E	0.3642	Adder	0.81
964111	AG1-272 C	0.8080	Adder	1.79
964112	AG1-272 E	0.2400	Adder	0.53
964121	AG1-273 C	0.8080	Adder	1.79
964122	AG1-273 E	0.2400	Adder	0.53
964131	AG1-274 C	0.8080	Adder	1.79
964132	AG1-274 E	0.2400	Adder	0.53
964241	AG1-285 C O1	4.5056	Adder	10.0
964242	AG1-285 E O1	3.0037	Adder	6.67
964491	AG1-312 C O1	6.6950	Adder	14.86
964492	AG1-312 E O1	1.6738	Adder	3.72
964501	AG1-313 C O1	5.8945	50/50	5.8945
964502	AG1-313 E O1	3.9297	50/50	3.9297
964801	AG1-343 C	5.3396	50/50	5.3396
964802	AG1-343 E	4.1954	50/50	4.1954
964821	AG1-345 C	0.2086	Adder	0.46
964822	AG1-345 E	0.1391	Adder	0.31
965191	AG1-384 C	0.8080	Adder	1.79

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965192	AG1-384 E	0.2400	Adder	0.53
965281	AG1-393 C	0.5203	Adder	1.15
965282	AG1-393 E	0.3468	Adder	0.77
965291	AG1-394 C	1.8301	50/50	1.8301
965292	AG1-394 E	1.2201	50/50	1.2201
965451	AG1-413 C O1	10.9963	50/50	10.9963
965452	AG1-413 E O1	7.3309	50/50	7.3309
965591	AG1-427 C	4.2575	Adder	9.45
965592	AG1-427 E	2.8443	Adder	6.31
965601	AG1-428 C O1	8.7658	50/50	8.7658
965602	AG1-428 E O1	5.8335	50/50	5.8335
965691	AG1-437 C O1	3.0849	Adder	6.85
965692	AG1-437 E O1	2.0566	Adder	4.57
965701	AG1-438 C O1	3.0849	Adder	6.85
965702	AG1-438 E O1	2.0566	Adder	4.57
965711	AG1-439 C O1	9.3618	Adder	20.78
965712	AG1-439 E O1	6.2412	Adder	13.85
965721	AG1-440 C	7.3638	50/50	7.3638
965722	AG1-440 E	4.9092	50/50	4.9092
965731	AG1-441 C	7.3638	50/50	7.3638
965732	AG1-441 E	4.9092	50/50	4.9092
965741	AG1-442 O1	1.7995	Adder	3.99
965751	AG1-443 O1	1.7995	Adder	3.99
965761	AG1-444 O1	4.9930	Adder	11.08
965771	AG1-445	4.2546	50/50	4.2546
965781	AG1-446	4.2546	50/50	4.2546
966621	AG1-532 C	3.3754	50/50	3.3754
966622	AG1-532 E	2.2503	50/50	2.2503
966751	AG1-546 C	19.4195	50/50	19.4195
966752	AG1-546 E	10.4200	50/50	10.4200
966801	AG1-551 C	0.7384	Adder	1.64
966802	AG1-551 E	0.3165	Adder	0.7
966811	AG1-552 C	3.1586	50/50	3.1586
966812	AG1-552 E	1.3537	50/50	1.3537
WEC	WEC	0.2753	Confirmed LTF	0.2753
LGEE	LGEE	0.5655	Confirmed LTF	0.5655
CPL	CPL	3.1586	Confirmed LTF	3.1586
CBM-W2	CBM-W2	11.9526	Confirmed LTF	11.9526
NY	NY	0.3512	Confirmed LTF	0.3512
TVA	TVA	2.2470	Confirmed LTF	2.2470
O-066	O-066	4.9869	Confirmed LTF	4.9869
SIGE	SIGE	0.1786	Confirmed LTF	0.1786
CBM-S2	CBM-S2	34.8278	Confirmed LTF	34.8278
CBM-S1	CBM-S1	0.5613	Confirmed LTF	0.5613
G-007	G-007	0.7844	Confirmed LTF	0.7844
MEC	MEC	1.6414	Confirmed LTF	1.6414
LAGN	LAGN	2.7947	Confirmed LTF	2.7947
AA2-074	AA2-074	2.0862	LTF	2.0862
CBM-W1	CBM-W1	11.5385	Confirmed LTF	11.5385

11.6.14 Index 14

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
168908385	314579	6HORNRTN	DVP	934330	AD1-057 TAP	DVP	1	DVP_P1-2: LN 238-A	single	441.8	107.32	108.39	DC	4.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	9.4310	80/20	9.4310
313527	AB2-043 C	0.2306	80/20	0.2306
314572	3EMPORIA	0.6295	80/20	0.6295
314582	3KELFORD	0.1655	80/20	0.1655
314589	3MURPHYS	0.0598	80/20	0.0598
314704	3LAWRENC	0.3570	80/20	0.3570
315115	1S HAMPT1	0.8023	80/20	0.8023
315126	1ROARAP2	1.5926	80/20	1.5926
315128	1ROARAP4	1.5198	80/20	1.5198
315136	1ROSEMG1	4.9736	80/20	4.9736
315137	1ROSEMS1	3.0842	80/20	3.0842
315138	1ROSEMG2	2.3310	80/20	2.3310
315139	1GASTONA	6.1774	80/20	6.1774
315141	1GASTONB	6.1774	80/20	6.1774
315158	1KERR 1	0.2031	80/20	0.2031
315159	1KERR 2	0.5688	80/20	0.5688
315160	1KERR 3	0.5688	80/20	0.5688
315161	1KERR 4	0.5688	80/20	0.5688
315162	1KERR 5	0.5688	80/20	0.5688
315163	1KERR 6	0.5688	80/20	0.5688
315164	1KERR 7	0.5688	80/20	0.5688
315602	1HOLLOMANSOL	0.7974	80/20	0.7974
315606	3AA2-053SOLA	1.5807	80/20	1.5807
315607	3AA1-063SOLA	1.3712	80/20	1.3712
315608	3AA2-088SOLA	0.7227	80/20	0.7227
316087	AB2-174 C	1.5913	80/20	1.5913
316096	AB2-100 C1	1.7163	80/20	1.7163
316098	AB2-100 C2	1.7163	80/20	1.7163
316103	AB2-015 C	4.4390	80/20	4.4390
316129	AC1-054 C	6.0845	80/20	6.0845
316131	AB2-060 C	0.6539	80/20	0.6539
316140	AB2-099 C (Suspended)	0.3673	80/20	0.3673
923991	AB2-040 C O1	10.2714	80/20	10.2714
924301	AB2-077 C O1 (Suspended)	0.9127	80/20	0.9127
924311	AB2-078 C O1 (Suspended)	0.9127	80/20	0.9127
924321	AB2-079 C O1 (Suspended)	0.9127	80/20	0.9127
925591	AC1-034 C	-5.3987	Adder	-6.35
925611	AC1-036 C	0.0835	80/20	0.0835
926070	AC1-086 C	44.0310	80/20	44.0310

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933991	AD1-023 C	5.1111	80/20	5.1111
934521	AD1-076 C	17.8598	80/20	17.8598
936265	AD2-033 C	5.0333	80/20	5.0333
936361	AD2-046 C O1	4.6268	80/20	4.6268
936401	AD2-051 C O1	5.3076	80/20	5.3076
936485	AD2-063 C	6.4125	80/20	6.4125
938221	AE1-035 C	0.1994	80/20	0.1994
938771	AE1-103 C	1.5408	80/20	1.5408
939181	AE1-148 C	4.5436	80/20	4.5436
940481	AE2-033 C	28.5557	80/20	28.5557
940661	AE2-053 O1	1.6828	80/20	1.6828
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1034	80/20	0.1034
942451	AE2-258	1.0906	80/20	1.0906
942471	AE2-260 C O1	26.5335	80/20	26.5335
943171	AE2-346 C	0.8815	80/20	0.8815
943911	AF1-059	15.7430	80/20	15.7430
946011	AF1-266	23.9033	80/20	23.9033
946281	AF1-292 C	2.3063	80/20	2.3063
957521	AF2-046 C	11.4780	80/20	11.4780
959311	AF2-222 C	5.9580	80/20	5.9580
960081	AF2-299 C	3.8870	80/20	3.8870
961091	AF2-400 C	0.2397	80/20	0.2397
961681	AG1-008 C	11.5010	80/20	11.5010
961891	AG1-030 C	4.7403	80/20	4.7403
961931	AG1-036 C	0.8882	80/20	0.8882
961941	AG1-037 C	0.3148	80/20	0.3148
962331	AG1-082 C	1.2593	80/20	1.2593
962341	AG1-083 C	1.2593	80/20	1.2593
962351	AG1-084 C	1.0590	80/20	1.0590
962361	AG1-085 C	1.0590	80/20	1.0590
962571	AG1-106 C	12.2447	80/20	12.2447
963301	AG1-179 C	6.4075	80/20	6.4075
963311	AG1-180	3.1219	80/20	3.1219
963321	AG1-181 C O1	6.4516	80/20	6.4516
963361	AG1-185 O1	3.1214	80/20	3.1214
964111	AG1-272 C	0.9486	80/20	0.9486
964121	AG1-273 C	0.9486	80/20	0.9486
964131	AG1-274 C	0.9486	80/20	0.9486
964241	AG1-285 C O1	5.4765	80/20	5.4765
964491	AG1-312 C O1	10.1315	80/20	10.1315
964501	AG1-313 C O1	4.4867	80/20	4.4867
964801	AG1-343 C	4.3221	80/20	4.3221
965191	AG1-384 C	0.9486	80/20	0.9486
965291	AG1-394 C	1.4972	80/20	1.4972
965451	AG1-413 C O1	6.6178	80/20	6.6178
965591	AG1-427 C	5.1711	80/20	5.1711
965601	AG1-428 C O1	5.3491	80/20	5.3491
965691	AG1-437 C O1	4.4274	80/20	4.4274
965701	AG1-438 C O1	4.4274	80/20	4.4274
965721	AG1-440 C	4.6998	80/20	4.6998
965731	AG1-441 C	4.6998	80/20	4.6998
965741	AG1-442 O1	2.5826	80/20	2.5826

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965751	AG1-443 O1	2.5826	80/20	2.5826
965771	AG1-445	2.7154	80/20	2.7154
965781	AG1-446	2.7154	80/20	2.7154
966621	AG1-532 C	2.0990	80/20	2.0990
966751	AG1-546 C	14.0055	80/20	14.0055
966811	AG1-552 C	2.5287	80/20	2.5287
G-007A	G-007A	0.2973	Confirmed LTF	0.2973
VFT	VFT	0.7869	Confirmed LTF	0.7869
CALDERWOOD	CALDERWOOD	0.6541	Confirmed LTF	0.6541
PRAIRIE	PRAIRIE	2.2911	Confirmed LTF	2.2911
CHEOAH	CHEOAH	0.6702	Confirmed LTF	0.6702
CBM-N	CBM-N	0.1404	Confirmed LTF	0.1404
COTTONWOOD	COTTONWOOD	2.4423	Confirmed LTF	2.4423
HAMLET	HAMLET	1.4414	Confirmed LTF	1.4414
GIBSON	GIBSON	0.4062	Confirmed LTF	0.4062
BLUEG	BLUEG	1.2534	Confirmed LTF	1.2534
TRIMBLE	TRIMBLE	0.3979	Confirmed LTF	0.3979
CATAWBA	CATAWBA	0.6983	Confirmed LTF	0.6983

11.6.15 Index 15

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
169088906	314677	6BUCKING	DVP	314747	6BREMO	DVP	1	DVP_P1-2: LN 556-B	single	571.52	152.03	157.89	DC	33.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.6684	80/20	2.6684
313527	AB2-043 C	0.6826	80/20	0.6826
313719	3CHESTNUT	0.3600	80/20	0.3600
314429	3JTRSVLE	1.0076	80/20	1.0076
314572	3EMPORIA	0.1683	80/20	0.1683
314623	3WITAKRS	0.0667	80/20	0.0667
314677	6BUCKING	1.4768	80/20	1.4768
314704	3LAWRENC	0.1998	80/20	0.1998
315126	1ROARAP2	0.5063	80/20	0.5063
315128	1ROARAP4	0.4832	80/20	0.4832
315153	1CLOVER1	20.9369	80/20	20.9369
315154	1CLOVER2	20.7283	80/20	20.7283
315156	1HALLBR1	0.4996	80/20	0.4996
315158	1KERR 1	0.3755	80/20	0.3755
315159	1KERR 2	1.0513	80/20	1.0513
315160	1KERR 3	1.0513	80/20	1.0513
315161	1KERR 4	1.0513	80/20	1.0513
315162	1KERR 5	1.0513	80/20	1.0513
315163	1KERR 6	1.0513	80/20	1.0513
315164	1KERR 7	1.0513	80/20	1.0513
315266	1PLYWOOD A	1.3866	80/20	1.3866
315606	3AA2-053SOLA	0.5091	80/20	0.5091
315607	3AA1-063SOLA	0.4357	80/20	0.4357
316087	AB2-174 C	0.4407	80/20	0.4407
316118	AC1-105 C	6.9131	80/20	6.9131
316123	AC1-075 C	0.7898	80/20	0.7898
316129	AC1-054 C	5.1900	80/20	5.1900
316131	AB2-060 C	2.0201	80/20	2.0201
920591	AA2-165 C	0.0483	80/20	0.0483
923991	AB2-040 C O1	2.9062	80/20	2.9062
924301	AB2-077 C O1 (Suspended)	2.6962	80/20	2.6962
924311	AB2-078 C O1 (Suspended)	2.6962	80/20	2.6962
924321	AB2-079 C O1 (Suspended)	2.6962	80/20	2.6962
925611	AC1-036 C	0.4351	80/20	0.4351
925661	AC1-042 C	0.8262	80/20	0.8262
926023	AC1-080 C	0.2640	80/20	0.2640
926645	AC1-145 C	0.1552	80/20	0.1552
927145	AC1-208 C	2.9573	80/20	2.9573
927251	AC1-221 C	1.6710	80/20	1.6710

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927261	AC1-222 C	4.1067	80/20	4.1067
932511	AC2-071 C	1.4549	80/20	1.4549
932761	AC2-100 C	3.8455	80/20	3.8455
934311	AD1-055 C	2.8513	80/20	2.8513
934341	AD1-058 C	4.1889	80/20	4.1889
934615	AD1-087 C	13.0965	80/20	13.0965
934625	AD1-088 C	29.0477	80/20	29.0477
934991	AD1-131 C	1.3734	80/20	1.3734
935171	AD1-152 C O1	14.3851	80/20	14.3851
935221	AD1-157 C	0.6064	80/20	0.6064
936161	AD2-022 C O1	4.1004	80/20	4.1004
936171	AD2-023 C O1	2.3919	80/20	2.3919
936265	AD2-033 C	23.6348	80/20	23.6348
936361	AD2-046 C O1	9.3324	80/20	9.3324
936485	AD2-063 C	23.7834	80/20	23.7834
937481	AD2-202 C O1	3.8360	80/20	3.8360
938371	AE1-056 C	16.5711	80/20	16.5711
939181	AE1-148 C	9.3242	80/20	9.3242
939941	AE1-230 C	0.3727	80/20	0.3727
940661	AE2-053 O1	3.4534	80/20	3.4534
941791	AE2-182 C	4.7192	80/20	4.7192
941801	AE2-185 C	1.8637	80/20	1.8637
941821	AE2-187 C	1.8637	80/20	1.8637
942451	AE2-258	3.2276	80/20	3.2276
942461	AE2-259 C O1	30.1788	80/20	30.1788
942671	AE2-283 C	2.0501	80/20	2.0501
942751	AE2-291 C	6.7081	80/20	6.7081
942761	AE2-292 C O1	8.3523	80/20	8.3523
943901	AF1-058 C	2.3154	80/20	2.3154
943911	AF1-059	15.5565	80/20	15.5565
945081	AF1-173	0.7222	80/20	0.7222
945811	AF1-246 C O1	12.6239	80/20	12.6239
946281	AF1-292 C	0.6035	80/20	0.6035
946301	AF1-294 C	10.1788	80/20	10.1788
957481	AF2-042 C	90.1710	80/20	90.1710
958211	AF2-115 C	5.9876	80/20	5.9876
958801	AF2-171 C	35.7867	80/20	35.7867
959311	AF2-222 C	33.1870	80/20	33.1870
959751	AF2-266	15.0290	80/20	15.0290
960061	AF2-297 C	9.2616	80/20	9.2616
960081	AF2-299 C	1.0172	80/20	1.0172
961121	AF2-403	0.4142	80/20	0.4142
961791	AG1-021 C	4.7900	80/20	4.7900
961891	AG1-030 C	33.4611	80/20	33.4611
962041	AG1-048 C	29.9378	80/20	29.9378
962441	AG1-093 C O1	18.4350	80/20	18.4350
962491	AG1-098 C O1	26.7862	80/20	26.7862
962561	AG1-105 C O1	16.8312	80/20	16.8312
963171	AG1-166 C	4.7900	80/20	4.7900
963181	AG1-167 C	4.7900	80/20	4.7900
963191	AG1-168 C	4.7900	80/20	4.7900
963201	AG1-169 C	4.7900	80/20	4.7900

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963211	AG1-170 C	4.7900	80/20	4.7900
963271	AG1-176 C O1	37.8534	80/20	37.8534
963301	AG1-179 C	4.3337	80/20	4.3337
963311	AG1-180	2.1115	80/20	2.1115
963321	AG1-181 C O1	31.0660	80/20	31.0660
963361	AG1-185 O1	15.0305	80/20	15.0305
963601	AG1-209 C	0.1450	80/20	0.1450
963641	AG1-215 C	2.2354	80/20	2.2354
964111	AG1-272 C	4.9447	80/20	4.9447
964121	AG1-273 C	4.9447	80/20	4.9447
964131	AG1-274 C	4.9447	80/20	4.9447
964141	AG1-275 C	0.6212	80/20	0.6212
964151	AG1-276 C	0.6212	80/20	0.6212
964241	AG1-285 C O1	19.0492	80/20	19.0492
964261	AG1-287 C	1.7365	80/20	1.7365
964471	AG1-310 C	2.3287	80/20	2.3287
964501	AG1-313 C O1	1.4714	80/20	1.4714
964791	AG1-342 C	5.2388	80/20	5.2388
964821	AG1-345 C	1.9116	80/20	1.9116
964841	AG1-347 C	23.6846	80/20	23.6846
965191	AG1-384 C	4.9447	80/20	4.9447
965281	AG1-393 C	4.7900	80/20	4.7900
965451	AG1-413 C O1	6.5394	80/20	6.5394
965591	AG1-427 C	18.1810	80/20	18.1810
965601	AG1-428 C O1	3.6179	80/20	3.6179
965641	AG1-432 C O1	60.3576	80/20	60.3576
965721	AG1-440 C	6.4480	80/20	6.4480
965731	AG1-441 C	6.4480	80/20	6.4480
965771	AG1-445	3.7255	80/20	3.7255
965781	AG1-446	3.7255	80/20	3.7255
965831	AG1-451	10.0596	80/20	10.0596
966621	AG1-532 C	0.5493	80/20	0.5493
966691	AG1-539 C	3.5075	80/20	3.5075
966751	AG1-546 C	10.8417	80/20	10.8417
966761	AG1-547 C	1.6846	80/20	1.6846
966811	AG1-552 C	0.8039	80/20	0.8039
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	6.0358	80/20	6.0358
WEC	WEC	0.2939	Confirmed LTF	0.2939
LGEE	LGEE	0.6051	Confirmed LTF	0.6051
CPLE	CPLE	3.6248	Confirmed LTF	3.6248
CBM-W2	CBM-W2	13.4490	Confirmed LTF	13.4490
NY	NY	0.4020	Confirmed LTF	0.4020
TVA	TVA	2.5732	Confirmed LTF	2.5732
SIGE	SIGE	0.1956	Confirmed LTF	0.1956
CBM-S2	CBM-S2	41.5512	Confirmed LTF	41.5512
CBM-S1	CBM-S1	0.6380	Confirmed LTF	0.6380
MEC	MEC	1.7940	Confirmed LTF	1.7940
LAGN	LAGN	3.1955	Confirmed LTF	3.1955
AA2-074	AA2-074	2.3936	LTF	2.3936
CBM-W1	CBM-W1	12.2254	Confirmed LTF	12.2254

11.6.16 Index 16

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
169088980	314686	6CLOVER	DVP	314690	6BLACK WALNU	DVP	1	DVP_P1-2: LN 556-C	single	814.98	112.09	113.31	DC	9.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314333	6POWHATN	0.1312	80/20	0.1312
314429	3JTRSVLE	0.3330	80/20	0.3330
314677	6BUCKING	0.4426	80/20	0.4426
315153	1CLOVER1	46.6808	80/20	46.6808
315154	1CLOVER2	46.2156	80/20	46.2156
315191	1BEARGRDN G1	3.6167	80/20	3.6167
315192	1BEARGRDN G2	3.6167	80/20	3.6167
315193	1BEARGRDN S1	4.6771	80/20	4.6771
925611	AC1-036 C	0.0956	80/20	0.0956
926451	AC1-116 C	0.0478	80/20	0.0478
927251	AC1-221 C	-1.3299	Adder	-1.56
927261	AC1-222 C	-2.7426	Adder	-3.23
932511	AC2-071 C	0.4360	80/20	0.4360
933501	AC2-165 C	4.0288	80/20	4.0288
934311	AD1-055 C	-1.9043	Adder	-2.24
934341	AD1-058 C	-3.3337	Adder	-3.92
934625	AD1-088 C	37.5628	80/20	37.5628
935221	AD1-157 C	0.2184	80/20	0.2184
936265	AD2-033 C	4.4156	80/20	4.4156
938371	AE1-056 C	5.9678	80/20	5.9678
938561	AE1-075 C	0.1141	80/20	0.1141
938821	AE1-108 C O1	6.6821	80/20	6.6821
941011	AE2-092 C	6.6406	80/20	6.6406
941791	AE2-182 C	6.1026	80/20	6.1026
942461	AE2-259 C O1	12.7938	80/20	12.7938
943901	AF1-058 C	-1.5410	Adder	-1.81
945811	AF1-246 C O1	28.1476	80/20	28.1476
946291	AF1-293 C O1	9.9685	80/20	9.9685
946301	AF1-294 C	3.3642	80/20	3.3642
946591	AF1-323 C	2.0430	80/20	2.0430
957481	AF2-042 C	201.0540	80/20	201.0540
958211	AF2-115 C	1.9790	80/20	1.9790
958501	AF2-144 C	0.6149	80/20	0.6149
958801	AF2-171 C	11.7666	80/20	11.7666
959311	AF2-222 C	7.9260	80/20	7.9260
959531	AF2-244 C (Withdrawn : 01/06/2021)	0.5666	80/20	0.5666
959751	AF2-266	33.5085	80/20	33.5085
960111	AF2-302 C	0.7429	80/20	0.7429
961061	AF2-397 C	7.7259	80/20	7.7259
961791	AG1-021 C	1.5832	80/20	1.5832
961801	AG1-022 C	0.7429	80/20	0.7429

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961891	AG1-030 C	9.9432	80/20	9.9432
962041	AG1-048 C	9.8947	80/20	9.8947
962491	AG1-098 C O1	44.5095	80/20	44.5095
963171	AG1-166 C	1.5832	80/20	1.5832
963181	AG1-167 C	1.5832	80/20	1.5832
963191	AG1-168 C	1.5832	80/20	1.5832
963201	AG1-169 C	1.5832	80/20	1.5832
963211	AG1-170 C	1.5832	80/20	1.5832
963271	AG1-176 C O1	45.3442	80/20	45.3442
963321	AG1-181 C O1	6.0674	80/20	6.0674
963361	AG1-185 O1	2.9356	80/20	2.9356
963641	AG1-215 C	0.7388	80/20	0.7388
964111	AG1-272 C	1.0868	80/20	1.0868
964121	AG1-273 C	1.0868	80/20	1.0868
964131	AG1-274 C	1.0868	80/20	1.0868
964231	AG1-284 C O1	4.1950	80/20	4.1950
964821	AG1-345 C	0.6297	80/20	0.6297
964841	AG1-347 C	28.2369	80/20	28.2369
964931	AG1-357 C	80.4216	80/20	80.4216
965191	AG1-384 C	1.0868	80/20	1.0868
965281	AG1-393 C	1.5832	80/20	1.5832
965581	AG1-426	1.4558	80/20	1.4558
965641	AG1-432 C O1	25.5876	80/20	25.5876
965831	AG1-451	4.2646	80/20	4.2646
966791	AG1-550 O1	2.9092	80/20	2.9092
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	2.5588	80/20	2.5588
G-007A	G-007A	0.4507	Confirmed LTF	0.4507
VFT	VFT	1.1868	Confirmed LTF	1.1868
CALDERWOOD	CALDERWOOD	1.0959	Confirmed LTF	1.0959
PRAIRIE	PRAIRIE	3.8848	Confirmed LTF	3.8848
CHEOAH	CHEOAH	1.1221	Confirmed LTF	1.1221
CBM-N	CBM-N	0.2136	Confirmed LTF	0.2136
COTTONWOOD	COTTONWOOD	4.0551	Confirmed LTF	4.0551
HAMLET	HAMLET	2.1350	Confirmed LTF	2.1350
GIBSON	GIBSON	0.7005	Confirmed LTF	0.7005
BLUEG	BLUEG	2.1735	Confirmed LTF	2.1735
TRIMBLE	TRIMBLE	0.6906	Confirmed LTF	0.6906
CATAWBA	CATAWBA	1.1613	Confirmed LTF	1.1613

11.6.17 Index 17

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
169088976	314690	6BLACK WALNU	DVP	962560	AG1-105 TAP	DVP	1	DVP_P1-2: LN 556-C	single	814.98	120.69	121.91	DC	9.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314333	6POWHATN	0.1312	80/20	0.1312
314429	3JTRSVLE	0.3330	80/20	0.3330
314677	6BUCKING	0.4426	80/20	0.4426
315153	1CLOVER1	46.6808	80/20	46.6808
315154	1CLOVER2	46.2156	80/20	46.2156
315191	1BEARGRDN G1	3.6167	80/20	3.6167
315192	1BEARGRDN G2	3.6167	80/20	3.6167
315193	1BEARGRDN S1	4.6771	80/20	4.6771
925611	AC1-036 C	0.0956	80/20	0.0956
926451	AC1-116 C	0.0478	80/20	0.0478
927251	AC1-221 C	-1.3299	Adder	-1.56
927261	AC1-222 C	-2.7426	Adder	-3.23
932511	AC2-071 C	0.4360	80/20	0.4360
933501	AC2-165 C	4.0288	80/20	4.0288
934311	AD1-055 C	-1.9043	Adder	-2.24
934341	AD1-058 C	-3.3337	Adder	-3.92
934615	AD1-087 C	29.3393	80/20	29.3393
934625	AD1-088 C	37.5628	80/20	37.5628
935171	AD1-152 C O1	32.2262	80/20	32.2262
935221	AD1-157 C	0.2184	80/20	0.2184
936265	AD2-033 C	4.4156	80/20	4.4156
937481	AD2-202 C O1	8.5937	80/20	8.5937
938371	AE1-056 C	5.9678	80/20	5.9678
938561	AE1-075 C	0.1141	80/20	0.1141
938821	AE1-108 C O1	6.6821	80/20	6.6821
941011	AE2-092 C	6.6406	80/20	6.6406
941791	AE2-182 C	6.1026	80/20	6.1026
942461	AE2-259 C O1	12.7938	80/20	12.7938
943901	AF1-058 C	-1.5410	Adder	-1.81
945811	AF1-246 C O1	28.1476	80/20	28.1476
946291	AF1-293 C O1	9.9685	80/20	9.9685
946301	AF1-294 C	3.3642	80/20	3.3642
946591	AF1-323 C	2.0430	80/20	2.0430
957481	AF2-042 C	201.0540	80/20	201.0540
958211	AF2-115 C	1.9790	80/20	1.9790
958501	AF2-144 C	0.6149	80/20	0.6149
958801	AF2-171 C	11.7666	80/20	11.7666
959311	AF2-222 C	7.9260	80/20	7.9260
959531	AF2-244 C (Withdrawn : 01/06/2021)	0.5666	80/20	0.5666
959751	AF2-266	33.5085	80/20	33.5085
960111	AF2-302 C	0.7429	80/20	0.7429

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961061	AF2-397 C	7.7259	80/20	7.7259
961791	AG1-021 C	1.5832	80/20	1.5832
961801	AG1-022 C	0.7429	80/20	0.7429
961891	AG1-030 C	9.9432	80/20	9.9432
962041	AG1-048 C	9.8947	80/20	9.8947
962491	AG1-098 C O1	44.5095	80/20	44.5095
963171	AG1-166 C	1.5832	80/20	1.5832
963181	AG1-167 C	1.5832	80/20	1.5832
963191	AG1-168 C	1.5832	80/20	1.5832
963201	AG1-169 C	1.5832	80/20	1.5832
963211	AG1-170 C	1.5832	80/20	1.5832
963271	AG1-176 C O1	45.3442	80/20	45.3442
963321	AG1-181 C O1	6.0674	80/20	6.0674
963361	AG1-185 O1	2.9356	80/20	2.9356
963641	AG1-215 C	0.7388	80/20	0.7388
964111	AG1-272 C	1.0868	80/20	1.0868
964121	AG1-273 C	1.0868	80/20	1.0868
964131	AG1-274 C	1.0868	80/20	1.0868
964231	AG1-284 C O1	4.1950	80/20	4.1950
964821	AG1-345 C	0.6297	80/20	0.6297
964841	AG1-347 C	28.2369	80/20	28.2369
964931	AG1-357 C	80.4216	80/20	80.4216
965191	AG1-384 C	1.0868	80/20	1.0868
965281	AG1-393 C	1.5832	80/20	1.5832
965581	AG1-426	1.4558	80/20	1.4558
965641	AG1-432 C O1	25.5876	80/20	25.5876
965831	AG1-451	4.2646	80/20	4.2646
966791	AG1-550 O1	2.9092	80/20	2.9092
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	2.5588	80/20	2.5588
G-007A	G-007A	0.4507	Confirmed LTF	0.4507
VFT	VFT	1.1868	Confirmed LTF	1.1868
CALDERWOOD	CALDERWOOD	1.0959	Confirmed LTF	1.0959
PRAIRIE	PRAIRIE	3.8848	Confirmed LTF	3.8848
CHEOAH	CHEOAH	1.1221	Confirmed LTF	1.1221
CBM-N	CBM-N	0.2136	Confirmed LTF	0.2136
COTTONWOOD	COTTONWOOD	4.0551	Confirmed LTF	4.0551
HAMLET	HAMLET	2.1350	Confirmed LTF	2.1350
GIBSON	GIBSON	0.7005	Confirmed LTF	0.7005
BLUEG	BLUEG	2.1735	Confirmed LTF	2.1735
TRIMBLE	TRIMBLE	0.6906	Confirmed LTF	0.6906
CATAWBA	CATAWBA	1.1613	Confirmed LTF	1.1613

11.6.18 Index 18

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
169088885	314692	6FARMVIL	DVP	314677	6BUCKING	DVP	1	DVP_P1-2: LN 556-B	single	559.3	152.08	158.06	DC	33.47

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.6741	80/20	2.6741
313527	AB2-043 C	0.6830	80/20	0.6830
313719	3CHESTNUT	0.3610	80/20	0.3610
314429	3JTRSVLE	1.0080	80/20	1.0080
314572	3EMPORIA	0.1686	80/20	0.1686
314623	3WITAKRS	0.0669	80/20	0.0669
314704	3LAWRENC	0.2000	80/20	0.2000
315126	1ROARAP2	0.5074	80/20	0.5074
315128	1ROARAP4	0.4842	80/20	0.4842
315153	1CLOVER1	20.9467	80/20	20.9467
315154	1CLOVER2	20.7379	80/20	20.7379
315156	1HALLBR1	0.5007	80/20	0.5007
315158	1KERR 1	0.3758	80/20	0.3758
315159	1KERR 2	1.0523	80/20	1.0523
315160	1KERR 3	1.0523	80/20	1.0523
315161	1KERR 4	1.0523	80/20	1.0523
315162	1KERR 5	1.0523	80/20	1.0523
315163	1KERR 6	1.0523	80/20	1.0523
315164	1KERR 7	1.0523	80/20	1.0523
315266	1PLYWOOD A	1.3876	80/20	1.3876
315606	3AA2-053SOLA	0.5104	80/20	0.5104
315607	3AA1-063SOLA	0.4369	80/20	0.4369
316087	AB2-174 C	0.4416	80/20	0.4416
316118	AC1-105 C	6.9179	80/20	6.9179
316123	AC1-075 C	0.7907	80/20	0.7907
316129	AC1-054 C	5.1963	80/20	5.1963
316131	AB2-060 C	2.0213	80/20	2.0213
920591	AA2-165 C	0.0485	80/20	0.0485
923991	AB2-040 C O1	2.9124	80/20	2.9124
924301	AB2-077 C O1 (Suspended)	2.6978	80/20	2.6978
924311	AB2-078 C O1 (Suspended)	2.6978	80/20	2.6978
924321	AB2-079 C O1 (Suspended)	2.6978	80/20	2.6978
925611	AC1-036 C	0.4353	80/20	0.4353
925661	AC1-042 C	0.8285	80/20	0.8285
926023	AC1-080 C	0.2642	80/20	0.2642
926645	AC1-145 C	0.1556	80/20	0.1556
927145	AC1-208 C	2.9650	80/20	2.9650
927251	AC1-221 C	1.6730	80/20	1.6730
927261	AC1-222 C	4.1099	80/20	4.1099

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
932761	AC2-100 C	3.8502	80/20	3.8502
934311	AD1-055 C	2.8536	80/20	2.8536
934341	AD1-058 C	4.1940	80/20	4.1940
934615	AD1-087 C	13.1026	80/20	13.1026
934625	AD1-088 C	29.0577	80/20	29.0577
934991	AD1-131 C	1.3751	80/20	1.3751
935171	AD1-152 C O1	14.3918	80/20	14.3918
935221	AD1-157 C	0.6066	80/20	0.6066
936161	AD2-022 C O1	4.1088	80/20	4.1088
936171	AD2-023 C O1	2.3968	80/20	2.3968
936265	AD2-033 C	23.6457	80/20	23.6457
936361	AD2-046 C O1	9.3407	80/20	9.3407
936485	AD2-063 C	23.7960	80/20	23.7960
937481	AD2-202 C O1	3.8378	80/20	3.8378
938371	AE1-056 C	16.5765	80/20	16.5765
939181	AE1-148 C	9.3317	80/20	9.3317
939941	AE1-230 C	0.3738	80/20	0.3738
940661	AE2-053 O1	3.4562	80/20	3.4562
941791	AE2-182 C	4.7209	80/20	4.7209
941801	AE2-185 C	1.8688	80/20	1.8688
941821	AE2-187 C	1.8688	80/20	1.8688
942451	AE2-258	3.2296	80/20	3.2296
942461	AE2-259 C O1	30.1872	80/20	30.1872
942671	AE2-283 C	2.0556	80/20	2.0556
942751	AE2-291 C	6.7167	80/20	6.7167
942761	AE2-292 C O1	8.3629	80/20	8.3629
943901	AF1-058 C	2.3171	80/20	2.3171
943911	AF1-059	15.5704	80/20	15.5704
945081	AF1-173	0.7241	80/20	0.7241
945811	AF1-246 C O1	12.6298	80/20	12.6298
946281	AF1-292 C	0.6048	80/20	0.6048
946301	AF1-294 C	10.1827	80/20	10.1827
957481	AF2-042 C	90.2130	80/20	90.2130
958211	AF2-115 C	5.9898	80/20	5.9898
958801	AF2-171 C	35.7993	80/20	35.7993
959311	AF2-222 C	33.2020	80/20	33.2020
959751	AF2-266	15.0360	80/20	15.0360
960061	AF2-297 C	9.2683	80/20	9.2683
960081	AF2-299 C	1.0193	80/20	1.0193
961121	AF2-403	0.4153	80/20	0.4153
961791	AG1-021 C	4.7918	80/20	4.7918
961891	AG1-030 C	33.4746	80/20	33.4746
962041	AG1-048 C	29.9490	80/20	29.9490
962441	AG1-093 C O1	18.4478	80/20	18.4478
962491	AG1-098 C O1	26.7967	80/20	26.7967
962561	AG1-105 C O1	16.8396	80/20	16.8396
963171	AG1-166 C	4.7918	80/20	4.7918
963181	AG1-167 C	4.7918	80/20	4.7918
963191	AG1-168 C	4.7918	80/20	4.7918
963201	AG1-169 C	4.7918	80/20	4.7918
963211	AG1-170 C	4.7918	80/20	4.7918
963271	AG1-176 C O1	37.8660	80/20	37.8660

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963301	AG1-179 C	4.3384	80/20	4.3384
963311	AG1-180	2.1138	80/20	2.1138
963321	AG1-181 C O1	31.0801	80/20	31.0801
963361	AG1-185 O1	15.0374	80/20	15.0374
963601	AG1-209 C	0.1453	80/20	0.1453
963641	AG1-215 C	2.2362	80/20	2.2362
964111	AG1-272 C	4.9469	80/20	4.9469
964121	AG1-273 C	4.9469	80/20	4.9469
964131	AG1-274 C	4.9469	80/20	4.9469
964141	AG1-275 C	0.6229	80/20	0.6229
964151	AG1-276 C	0.6229	80/20	0.6229
964241	AG1-285 C O1	19.0605	80/20	19.0605
964261	AG1-287 C	1.7378	80/20	1.7378
964471	AG1-310 C	2.3305	80/20	2.3305
964501	AG1-313 C O1	1.4752	80/20	1.4752
964791	AG1-342 C	5.2424	80/20	5.2424
964821	AG1-345 C	1.9122	80/20	1.9122
964841	AG1-347 C	23.6925	80/20	23.6925
965191	AG1-384 C	4.9469	80/20	4.9469
965281	AG1-393 C	4.7918	80/20	4.7918
965451	AG1-413 C O1	6.5452	80/20	6.5452
965591	AG1-427 C	18.1909	80/20	18.1909
965601	AG1-428 C O1	3.6218	80/20	3.6218
965641	AG1-432 C O1	60.3744	80/20	60.3744
965721	AG1-440 C	6.4543	80/20	6.4543
965731	AG1-441 C	6.4543	80/20	6.4543
965771	AG1-445	3.7292	80/20	3.7292
965781	AG1-446	3.7292	80/20	3.7292
965831	AG1-451	10.0624	80/20	10.0624
966621	AG1-532 C	0.5504	80/20	0.5504
966691	AG1-539 C	3.5120	80/20	3.5120
966751	AG1-546 C	10.8553	80/20	10.8553
966761	AG1-547 C	1.6892	80/20	1.6892
966811	AG1-552 C	0.8056	80/20	0.8056
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	6.0374	80/20	6.0374
WEC	WEC	0.2983	Confirmed LTF	0.2983
LGEE	LGEE	0.6138	Confirmed LTF	0.6138
CPLE	CPLE	3.6343	Confirmed LTF	3.6343
CBM-W2	CBM-W2	13.5744	Confirmed LTF	13.5744
NY	NY	0.3943	Confirmed LTF	0.3943
TVA	TVA	2.5928	Confirmed LTF	2.5928
SIGE	SIGE	0.1956	Confirmed LTF	0.1956
CBM-S2	CBM-S2	41.6974	Confirmed LTF	41.6974
CBM-S1	CBM-S1	0.6433	Confirmed LTF	0.6433
MEC	MEC	1.8162	Confirmed LTF	1.8162
LAGN	LAGN	3.2200	Confirmed LTF	3.2200
AA2-074	AA2-074	2.3999	LTF	2.3999
CBM-W1	CBM-W1	12.4217	Confirmed LTF	12.4217

11.6.19 Index 19

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
169088912	314697	6SEDGE HILL	DVP	927250	AC1-221 TAP	DVP	1	DVP_P1-2: LN 556-C	single	674.92	137.62	140.77	DC	21.3

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
247284	05LEESVG	0.4591	80/20	0.4591
313527	AB2-043 C	0.6777	80/20	0.6777
314333	6POWHATN	0.1206	80/20	0.1206
314429	3JTRSVLE	0.6020	80/20	0.6020
314677	6BUCKING	0.3988	80/20	0.3988
314704	3LAWRENC	0.1701	80/20	0.1701
315153	1CLOVER1	35.6962	80/20	35.6962
315154	1CLOVER2	35.3404	80/20	35.3404
315156	1HALLBR1	1.0288	80/20	1.0288
315158	1KERR 1	0.3313	80/20	0.3313
315159	1KERR 2	0.9277	80/20	0.9277
315160	1KERR 3	0.9277	80/20	0.9277
315161	1KERR 4	0.9277	80/20	0.9277
315162	1KERR 5	0.9277	80/20	0.9277
315163	1KERR 6	0.9277	80/20	0.9277
315164	1KERR 7	0.9277	80/20	0.9277
315191	1BEARGRDN G1	3.3141	80/20	3.3141
315192	1BEARGRDN G2	3.3141	80/20	3.3141
315193	1BEARGRDN S1	4.2858	80/20	4.2858
315266	1PLYWOOD A	3.0479	80/20	3.0479
316118	AC1-105 C	14.6956	80/20	14.6956
316123	AC1-075 C	1.8835	80/20	1.8835
316129	AC1-054 C	4.0299	80/20	4.0299
316131	AB2-060 C	1.9554	80/20	1.9554
924301	AB2-077 C O1 (Suspended)	2.7590	80/20	2.7590
924311	AB2-078 C O1 (Suspended)	2.7590	80/20	2.7590
924321	AB2-079 C O1 (Suspended)	2.7590	80/20	2.7590
925611	AC1-036 C	0.3165	80/20	0.3165
925661	AC1-042 C	1.5979	80/20	1.5979
926023	AC1-080 C	0.6295	80/20	0.6295
926451	AC1-116 C	0.0446	80/20	0.0446
926645	AC1-145 C	0.3001	80/20	0.3001
927251	AC1-221 C	-2.4502	Adder	-2.88
927261	AC1-222 C	10.1051	80/20	10.1051
932511	AC2-071 C	0.3929	80/20	0.3929
933501	AC2-165 C	3.6987	80/20	3.6987
934311	AD1-055 C	7.0162	80/20	7.0162
934341	AD1-058 C	-6.1424	Adder	-7.23
934615	AD1-087 C	22.4303	80/20	22.4303

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934625	AD1-088 C	29.6903	80/20	29.6903
935171	AD1-152 C O1	24.6374	80/20	24.6374
935221	AD1-157 C	0.3412	80/20	0.3412
936265	AD2-033 C	18.1139	80/20	18.1139
936361	AD2-046 C O1	8.4650	80/20	8.4650
936485	AD2-063 C	20.6649	80/20	20.6649
937481	AD2-202 C O1	6.5700	80/20	6.5700
938371	AE1-056 C	9.3221	80/20	9.3221
938561	AE1-075 C	0.1048	80/20	0.1048
938821	AE1-108 C O1	7.2807	80/20	7.2807
939181	AE1-148 C	8.5007	80/20	8.5007
939941	AE1-230 C	0.7209	80/20	0.7209
940661	AE2-053 O1	3.1484	80/20	3.1484
941011	AE2-092 C	6.3234	80/20	6.3234
941791	AE2-182 C	4.8236	80/20	4.8236
941801	AE2-185 C	3.6043	80/20	3.6043
941821	AE2-187 C	3.6043	80/20	3.6043
942451	AE2-258	3.2048	80/20	3.2048
942461	AE2-259 C O1	14.7132	80/20	14.7132
942671	AE2-283 C	3.9648	80/20	3.9648
942751	AE2-291 C	15.6354	80/20	15.6354
942761	AE2-292 C O1	19.4676	80/20	19.4676
943901	AF1-058 C	5.7308	80/20	5.7308
943911	AF1-059	14.4227	80/20	14.4227
945081	AF1-173	1.3967	80/20	1.3967
945811	AF1-246 C O1	21.5242	80/20	21.5242
946291	AF1-293 C O1	9.4568	80/20	9.4568
946301	AF1-294 C	6.0812	80/20	6.0812
946591	AF1-323 C	2.4073	80/20	2.4073
957481	AF2-042 C	153.7440	80/20	153.7440
958211	AF2-115 C	3.5772	80/20	3.5772
958501	AF2-144 C	0.5649	80/20	0.5649
958801	AF2-171 C	21.4497	80/20	21.4497
959311	AF2-222 C	23.4030	80/20	23.4030
959531	AF2-244 C (Withdrawn : 01/06/2021)	0.5206	80/20	0.5206
959751	AF2-266	25.6235	80/20	25.6235
960061	AF2-297 C	22.9234	80/20	22.9234
960111	AF2-302 C	0.8754	80/20	0.8754
961061	AF2-397 C	7.1206	80/20	7.1206
961121	AF2-403	0.8010	80/20	0.8010
961791	AG1-021 C	2.8618	80/20	2.8618
961801	AG1-022 C	0.8754	80/20	0.8754
961891	AG1-030 C	21.3030	80/20	21.3030
962041	AG1-048 C	17.8860	80/20	17.8860
962441	AG1-093 C O1	39.1883	80/20	39.1883
962491	AG1-098 C O1	34.5765	80/20	34.5765
962561	AG1-105 C O1	31.8432	80/20	31.8432
963171	AG1-166 C	2.8618	80/20	2.8618
963181	AG1-167 C	2.8618	80/20	2.8618
963191	AG1-168 C	2.8618	80/20	2.8618
963201	AG1-169 C	2.8618	80/20	2.8618
963211	AG1-170 C	2.8618	80/20	2.8618

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963271	AG1-176 C O1	36.0621	80/20	36.0621
963301	AG1-179 C	3.8207	80/20	3.8207
963311	AG1-180	1.8616	80/20	1.8616
963321	AG1-181 C O1	23.4953	80/20	23.4953
963361	AG1-185 O1	11.3677	80/20	11.3677
963601	AG1-209 C	0.2803	80/20	0.2803
963641	AG1-215 C	1.3355	80/20	1.3355
964111	AG1-272 C	3.5975	80/20	3.5975
964121	AG1-273 C	3.5975	80/20	3.5975
964131	AG1-274 C	3.5975	80/20	3.5975
964141	AG1-275 C	1.2014	80/20	1.2014
964151	AG1-276 C	1.2014	80/20	1.2014
964231	AG1-284 C O1	3.9711	80/20	3.9711
964241	AG1-285 C O1	17.1705	80/20	17.1705
964251	AG1-286 C	0.4497	80/20	0.4497
964261	AG1-287 C	4.2981	80/20	4.2981
964471	AG1-310 C	5.7147	80/20	5.7147
964791	AG1-342 C	9.4188	80/20	9.4188
964821	AG1-345 C	1.1444	80/20	1.1444
964841	AG1-347 C	22.4655	80/20	22.4655
964931	AG1-357 C	61.4988	80/20	61.4988
965191	AG1-384 C	3.5975	80/20	3.5975
965281	AG1-393 C	2.8618	80/20	2.8618
965451	AG1-413 C O1	6.0628	80/20	6.0628
965581	AG1-426	1.5862	80/20	1.5862
965591	AG1-427 C	16.2855	80/20	16.2855
965601	AG1-428 C O1	3.1896	80/20	3.1896
965641	AG1-432 C O1	29.4264	80/20	29.4264
965721	AG1-440 C	5.4864	80/20	5.4864
965731	AG1-441 C	5.4864	80/20	5.4864
965771	AG1-445	3.1699	80/20	3.1699
965781	AG1-446	3.1699	80/20	3.1699
965831	AG1-451	4.9044	80/20	4.9044
966691	AG1-539 C	8.1754	80/20	8.1754
966751	AG1-546 C	8.2011	80/20	8.2011
966761	AG1-547 C	3.2579	80/20	3.2579
966791	AG1-550 O1	2.6947	80/20	2.6947
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	2.9426	80/20	2.9426
G-007A	G-007A	0.4891	Confirmed LTF	0.4891
VFT	VFT	1.2964	Confirmed LTF	1.2964
CALDERWOOD	CALDERWOOD	1.4443	Confirmed LTF	1.4443
PRAIRIE	PRAIRIE	4.6726	Confirmed LTF	4.6726
AC1-131	AC1-131	5.2830	LTF	5.2830
CHEOAH	CHEOAH	1.4865	Confirmed LTF	1.4865
CBM-N	CBM-N	0.2328	Confirmed LTF	0.2328
COTTONWOOD	COTTONWOOD	5.2395	Confirmed LTF	5.2395
HAMLET	HAMLET	3.2011	Confirmed LTF	3.2011
GIBSON	GIBSON	0.7912	Confirmed LTF	0.7912
BLUEG	BLUEG	2.4078	Confirmed LTF	2.4078
TRIMBLE	TRIMBLE	0.7618	Confirmed LTF	0.7618
CATAWBA	CATAWBA	1.6965	Confirmed LTF	1.6965

11.6.20 Index 20

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
163457193	314702	3KERR	DVP	304102	3GW KING TAP	CPL	1	DVP_P4-6: CAROLIN T122	breaker	199.0	133.35	143.11	DC	19.74

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.5797	50/50	0.5797
313853	3PONTONDP	0.4064	Adder	0.48
314713	3PAMPLIN	0.8873	Adder	1.04
315158	1KERR 1	0.8424	50/50	0.8424
315159	1KERR 2	2.3588	50/50	2.3588
315160	1KERR 3	2.3588	50/50	2.3588
315161	1KERR 4	2.3588	50/50	2.3588
315162	1KERR 5	2.3588	50/50	2.3588
315163	1KERR 6	2.3588	50/50	2.3588
315164	1KERR 7	2.3588	50/50	2.3588
316118	AC1-105 C	2.4862	Adder	2.92
316129	AC1-054 C	15.8416	50/50	15.8416
316131	AB2-060 C	1.6441	50/50	1.6441
924022	AB2-043 E O1	3.2854	50/50	3.2854
924162	AB2-060 E OP	4.9039	50/50	4.9039
924301	AB2-077 C O1 (Suspended)	2.3786	50/50	2.3786
924302	AB2-077 E O1 (Suspended)	1.5858	50/50	1.5858
924311	AB2-078 C O1 (Suspended)	2.3786	50/50	2.3786
924312	AB2-078 E O1 (Suspended)	1.5858	50/50	1.5858
924321	AB2-079 C O1 (Suspended)	2.3786	50/50	2.3786
924322	AB2-079 E O1 (Suspended)	1.5858	50/50	1.5858
925611	AC1-036 C	0.2090	50/50	0.2090
925612	AC1-036 E	0.7934	50/50	0.7934
925785	AC1-054 E	7.2978	50/50	7.2978
926274	AC1-105 E	1.2215	Adder	1.44
935222	AD1-157 E	0.5470	Adder	0.64
936265	AD2-033 C	12.6220	50/50	12.6220
936266	AD2-033 E	8.4146	50/50	8.4146
936361	AD2-046 C O1	18.0396	50/50	18.0396
936362	AD2-046 E O1	8.2956	50/50	8.2956
936485	AD2-063 C	16.0974	50/50	16.0974
936486	AD2-063 E	10.7316	50/50	10.7316
938371	AE1-056 C	3.5374	Adder	4.16
938372	AE1-056 E	1.9328	Adder	2.27
939181	AE1-148 C	17.4836	50/50	17.4836

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939182	AE1-148 E	11.6557	50/50	11.6557
940661	AE2-053 O1	6.4754	50/50	6.4754
942451	AE2-258	2.7410	50/50	2.7410
942461	AE2-259 C O1	3.7689	Adder	4.43
942462	AE2-259 E O1	2.5126	Adder	2.96
943911	AF1-059	10.7887	Adder	12.69
946301	AF1-294 C	2.5908	Adder	3.05
946302	AF1-294 E	1.7272	Adder	2.03
958211	AF2-115 C	1.5240	Adder	1.79
958212	AF2-115 E	1.0160	Adder	1.2
958801	AF2-171 C	9.1968	Adder	10.82
958802	AF2-171 E	6.1312	Adder	7.21
959311	AF2-222 C	14.9130	50/50	14.9130
959312	AF2-222 E	9.9917	50/50	9.9917
961791	AG1-021 C	0.6462	Adder	1.43
961792	AG1-021 E	0.4308	Adder	0.96
961891	AG1-030 C	11.8413	50/50	11.8413
961892	AG1-030 E	7.8942	50/50	7.8942
962041	AG1-048 C	4.0386	Adder	8.96
962042	AG1-048 E	2.6924	Adder	5.98
962441	AG1-093 C O1	3.5138	Adder	7.8
962442	AG1-093 E O1	1.0694	Adder	2.37
963171	AG1-166 C	0.6462	Adder	1.43
963172	AG1-166 E	0.4308	Adder	0.96
963181	AG1-167 C	0.6462	Adder	1.43
963182	AG1-167 E	0.4308	Adder	0.96
963191	AG1-168 C	0.6462	Adder	1.43
963192	AG1-168 E	0.4308	Adder	0.96
963201	AG1-169 C	0.6462	Adder	1.43
963202	AG1-169 E	0.4308	Adder	0.96
963211	AG1-170 C	0.6462	Adder	1.43
963212	AG1-170 E	0.4308	Adder	0.96
963301	AG1-179 C	1.5479	Adder	3.44
963311	AG1-180	0.7542	Adder	1.67
963321	AG1-181 C O1	16.1673	50/50	16.1673
963361	AG1-185 O1	7.8222	50/50	7.8222
963641	AG1-215 C	0.3016	Adder	0.67
963642	AG1-215 E	0.4523	Adder	1.0
964111	AG1-272 C	2.3755	50/50	2.3755
964112	AG1-272 E	0.7055	50/50	0.7055
964121	AG1-273 C	2.3755	50/50	2.3755
964122	AG1-273 E	0.7055	50/50	0.7055
964131	AG1-274 C	2.3755	50/50	2.3755
964132	AG1-274 E	0.7055	50/50	0.7055
964241	AG1-285 C O1	13.7527	50/50	13.7527
964242	AG1-285 E O1	9.1685	50/50	9.1685
964791	AG1-342 C	1.2895	Adder	2.86
964792	AG1-342 E	1.0132	Adder	2.25
964821	AG1-345 C	0.2594	Adder	0.58
964822	AG1-345 E	0.1729	Adder	0.38
965191	AG1-384 C	2.3755	50/50	2.3755
965192	AG1-384 E	0.7055	50/50	0.7055

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965281	AG1-393 C	0.6462	Adder	1.43
965282	AG1-393 E	0.4308	Adder	0.96
965451	AG1-413 C O1	2.4036	Adder	5.34
965452	AG1-413 E O1	1.6024	Adder	3.56
965591	AG1-427 C	12.9843	50/50	12.9843
965592	AG1-427 E	8.6745	50/50	8.6745
965601	AG1-428 C O1	1.2922	Adder	2.87
965602	AG1-428 E O1	0.8600	Adder	1.91
965641	AG1-432 C O1	3.9950	Adder	8.87
965642	AG1-432 E O1	2.6634	Adder	5.91
965721	AG1-440 C	16.0191	50/50	16.0191
965722	AG1-440 E	10.6794	50/50	10.6794
965731	AG1-441 C	16.0191	50/50	16.0191
965732	AG1-441 E	10.6794	50/50	10.6794
965771	AG1-445	9.2555	50/50	9.2555
965781	AG1-446	9.2555	50/50	9.2555
965831	AG1-451	0.6658	Adder	1.48
966751	AG1-546 C	34.7517	50/50	34.7517
966752	AG1-546 E	18.6468	50/50	18.6468
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	0.3995	Adder	0.89
966862	AG1-557 E O1 (Withdrawn : 12/14/2020)	0.2663	Adder	0.59
G-007A	G-007A	0.1654	Confirmed LTF	0.1654
VFT	VFT	0.4386	Confirmed LTF	0.4386
CALDERWOOD	CALDERWOOD	0.3713	Confirmed LTF	0.3713
PRAIRIE	PRAIRIE	1.2528	Confirmed LTF	1.2528
CHEOAH	CHEOAH	0.3809	Confirmed LTF	0.3809
CBM-N	CBM-N	0.0792	Confirmed LTF	0.0792
COTTONWOOD	COTTONWOOD	1.3629	Confirmed LTF	1.3629
HAMLET	HAMLET	0.8062	Confirmed LTF	0.8062
GIBSON	GIBSON	0.2184	Confirmed LTF	0.2184
BLUEG	BLUEG	0.6701	Confirmed LTF	0.6701
TRIMBLE	TRIMBLE	0.2126	Confirmed LTF	0.2126
CATAWBA	CATAWBA	0.4161	Confirmed LTF	0.4161

11.6.21 Index 21

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
169308917	314747	6BREMO	DVP	313867	6BREMOMDIST	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	124.09	127.42	DC	22.01

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	2.1780	80/20	2.1780
313527	AB2-043 C	0.4243	80/20	0.4243
314429	3JTRSVLE	0.6669	80/20	0.6669
314572	3EMPORIA	0.1382	80/20	0.1382
314677	6BUCKING	1.0571	80/20	1.0571
314704	3LAWRENC	0.1410	80/20	0.1410
315126	1ROARAP2	0.4085	80/20	0.4085
315128	1ROARAP4	0.3898	80/20	0.3898
315153	1CLOVER1	7.5116	80/20	7.5116
315154	1CLOVER2	7.4368	80/20	7.4368
315158	1KERR 1	0.2345	80/20	0.2345
315159	1KERR 2	0.6567	80/20	0.6567
315160	1KERR 3	0.6567	80/20	0.6567
315161	1KERR 4	0.6567	80/20	0.6567
315162	1KERR 5	0.6567	80/20	0.6567
315163	1KERR 6	0.6567	80/20	0.6567
315164	1KERR 7	0.6567	80/20	0.6567
315191	1BEARGRDN G1	18.4998	80/20	18.4998
315192	1BEARGRDN G2	18.4998	80/20	18.4998
315193	1BEARGRDN S1	23.9239	80/20	23.9239
315266	1PLYWOOD A	0.6737	80/20	0.6737
316087	AB2-174 C	0.3606	80/20	0.3606
316118	AC1-105 C	3.4200	80/20	3.4200
316123	AC1-075 C	0.3763	80/20	0.3763
316129	AC1-054 C	3.4710	80/20	3.4710
316131	AB2-060 C	1.2610	80/20	1.2610
923991	AB2-040 C O1	2.3720	80/20	2.3720
924301	AB2-077 C O1 (Suspended)	1.6661	80/20	1.6661
924311	AB2-078 C O1 (Suspended)	1.6661	80/20	1.6661
924321	AB2-079 C O1 (Suspended)	1.6661	80/20	1.6661
925611	AC1-036 C	0.2822	80/20	0.2822
926023	AC1-080 C	0.1258	80/20	0.1258
927251	AC1-221 C	0.7947	80/20	0.7947
927261	AC1-222 C	1.8844	80/20	1.8844
932511	AC2-071 C	1.0415	80/20	1.0415
932761	AC2-100 C	1.8288	80/20	1.8288
933501	AC2-165 C	34.9923	80/20	34.9923

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934311	AD1-055 C	1.3084	80/20	1.3084
934341	AD1-058 C	1.9921	80/20	1.9921
934615	AD1-087 C	4.7030	80/20	4.7030
934625	AD1-088 C	15.3924	80/20	15.3924
934991	AD1-131 C	0.6532	80/20	0.6532
935171	AD1-152 C O1	5.1658	80/20	5.1658
935221	AD1-157 C	0.4035	80/20	0.4035
936265	AD2-033 C	15.2365	80/20	15.2365
936361	AD2-046 C O1	5.8230	80/20	5.8230
936485	AD2-063 C	15.0849	80/20	15.0849
937481	AD2-202 C O1	1.3775	80/20	1.3775
938371	AE1-056 C	11.0262	80/20	11.0262
938821	AE1-108 C O1	11.0132	80/20	11.0132
939181	AE1-148 C	5.8169	80/20	5.8169
940661	AE2-053 O1	2.1544	80/20	2.1544
941791	AE2-182 C	2.5007	80/20	2.5007
942451	AE2-258	2.0064	80/20	2.0064
942461	AE2-259 C O1	20.3100	80/20	20.3100
942751	AE2-291 C	3.2791	80/20	3.2791
942761	AE2-292 C O1	4.0828	80/20	4.0828
943901	AF1-058 C	1.0548	80/20	1.0548
943911	AF1-059	10.2781	80/20	10.2781
945811	AF1-246 C O1	3.6616	80/20	3.6616
946281	AF1-292 C	0.4969	80/20	0.4969
946291	AF1-293 C O1	6.2287	80/20	6.2287
946301	AF1-294 C	6.7368	80/20	6.7368
946591	AF1-323 C	3.5356	80/20	3.5356
957481	AF2-042 C	26.1540	80/20	26.1540
958131	AF2-107 C	1.6496	80/20	1.6496
958211	AF2-115 C	3.9629	80/20	3.9629
958801	AF2-171 C	23.6781	80/20	23.6781
959311	AF2-222 C	21.6010	80/20	21.6010
959751	AF2-266	5.3920	80/20	5.3920
960061	AF2-297 C	4.2192	80/20	4.2192
960081	AF2-299 C	0.8375	80/20	0.8375
960111	AF2-302 C	1.2857	80/20	1.2857
961791	AG1-021 C	3.1703	80/20	3.1703
961801	AG1-022 C	1.2857	80/20	1.2857
961891	AG1-030 C	22.0131	80/20	22.0131
962041	AG1-048 C	19.8142	80/20	19.8142
962441	AG1-093 C O1	9.1200	80/20	9.1200
962491	AG1-098 C O1	12.3900	80/20	12.3900
962561	AG1-105 C O1	6.1674	80/20	6.1674
963171	AG1-166 C	3.1703	80/20	3.1703
963181	AG1-167 C	3.1703	80/20	3.1703
963191	AG1-168 C	3.1703	80/20	3.1703
963201	AG1-169 C	3.1703	80/20	3.1703
963211	AG1-170 C	3.1703	80/20	3.1703
963271	AG1-176 C O1	20.7171	80/20	20.7171
963301	AG1-179 C	2.9803	80/20	2.9803
963311	AG1-180	1.4521	80/20	1.4521
963321	AG1-181 C O1	20.0593	80/20	20.0593

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963361	AG1-185 O1	9.7052	80/20	9.7052
963641	AG1-215 C	1.4795	80/20	1.4795
964111	AG1-272 C	3.2072	80/20	3.2072
964121	AG1-273 C	3.2072	80/20	3.2072
964131	AG1-274 C	3.2072	80/20	3.2072
964231	AG1-284 C O1	2.9513	80/20	2.9513
964241	AG1-285 C O1	12.0195	80/20	12.0195
964261	AG1-287 C	0.7911	80/20	0.7911
964471	AG1-310 C	1.0720	80/20	1.0720
964791	AG1-342 C	2.7843	80/20	2.7843
964821	AG1-345 C	1.2648	80/20	1.2648
964841	AG1-347 C	12.9875	80/20	12.9875
964931	AG1-357 C	8.6556	80/20	8.6556
965191	AG1-384 C	3.2072	80/20	3.2072
965281	AG1-393 C	3.1703	80/20	3.1703
965451	AG1-413 C O1	4.3205	80/20	4.3205
965581	AG1-426	2.3994	80/20	2.3994
965591	AG1-427 C	11.4819	80/20	11.4819
965601	AG1-428 C O1	2.4880	80/20	2.4880
965641	AG1-432 C O1	40.6200	80/20	40.6200
965721	AG1-440 C	4.1121	80/20	4.1121
965731	AG1-441 C	4.1121	80/20	4.1121
965771	AG1-445	2.3759	80/20	2.3759
965781	AG1-446	2.3759	80/20	2.3759
965831	AG1-451	6.7700	80/20	6.7700
966361	AG1-505 C	4.9734	80/20	4.9734
966371	AG1-506 C	4.9734	80/20	4.9734
966621	AG1-532 C	0.4522	80/20	0.4522
966691	AG1-539 C	1.7146	80/20	1.7146
966751	AG1-546 C	7.3410	80/20	7.3410
966811	AG1-552 C	0.6485	80/20	0.6485
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	4.0620	80/20	4.0620
WEC	WEC	0.0699	Confirmed LTF	0.0699
LGEE	LGEE	0.1483	Confirmed LTF	0.1483
CPL	CPL	2.3396	Confirmed LTF	2.3396
CBM-W2	CBM-W2	5.8061	Confirmed LTF	5.8061
NY	NY	0.4076	Confirmed LTF	0.4076
TVA	TVA	1.2558	Confirmed LTF	1.2558
SIGE	SIGE	0.1120	Confirmed LTF	0.1120
CBM-S2	CBM-S2	25.9121	Confirmed LTF	25.9121
CBM-S1	CBM-S1	0.2953	Confirmed LTF	0.2953
MEC	MEC	0.5863	Confirmed LTF	0.5863
LAGN	LAGN	1.5645	Confirmed LTF	1.5645
AA2-074	AA2-074	1.5426	LTF	1.5426
CBM-W1	CBM-W1	2.5236	Confirmed LTF	2.5236

11.6.22 Index 22

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
169308934	314747	6BREMO	DVP	314744	3BREMO	DVP	1	DVP_P1-2: LN 2193	single	269.78	114.18	117.79	DC	9.75

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.1964	80/20	0.1964
314333	6POWHATN	0.2978	80/20	0.2978
314429	3JTRSVLE	0.2939	80/20	0.2939
314677	6BUCKING	0.4512	80/20	0.4512
315153	1CLOVER1	3.8255	80/20	3.8255
315154	1CLOVER2	3.7873	80/20	3.7873
315191	1BEARGRDN G1	7.8222	80/20	7.8222
315192	1BEARGRDN G2	7.8222	80/20	7.8222
315193	1BEARGRDN S1	10.1156	80/20	10.1156
316131	AB2-060 C	0.5816	80/20	0.5816
924301	AB2-077 C O1 (Suspended)	0.7721	80/20	0.7721
924311	AB2-078 C O1 (Suspended)	0.7721	80/20	0.7721
924321	AB2-079 C O1 (Suspended)	0.7721	80/20	0.7721
925611	AC1-036 C	0.1263	80/20	0.1263
932511	AC2-071 C	0.4445	80/20	0.4445
932854	AC2-112 C	-5.0776	Adder	-5.97
933501	AC2-165 C	9.0146	80/20	9.0146
934615	AD1-087 C	2.3943	80/20	2.3943
934625	AD1-088 C	7.0229	80/20	7.0229
935171	AD1-152 C O1	2.6299	80/20	2.6299
935221	AD1-157 C	0.1771	80/20	0.1771
936265	AD2-033 C	6.8523	80/20	6.8523
936361	AD2-046 C O1	2.8074	80/20	2.8074
936485	AD2-063 C	6.8715	80/20	6.8715
937481	AD2-202 C O1	0.7013	80/20	0.7013
938371	AE1-056 C	4.8384	80/20	4.8384
938561	AE1-075 C	0.2589	80/20	0.2589
939181	AE1-148 C	2.7983	80/20	2.7983
940661	AE2-053 O1	1.0364	80/20	1.0364
941791	AE2-182 C	1.1410	80/20	1.1410
942451	AE2-258	0.9286	80/20	0.9286
942461	AE2-259 C O1	8.8338	80/20	8.8338
943911	AF1-059	5.2100	80/20	5.2100
946301	AF1-294 C	2.9685	80/20	2.9685
957911	AF2-085	1.1020	80/20	1.1020
958211	AF2-115 C	1.7462	80/20	1.7462
958501	AF2-144 C	1.3951	80/20	1.3951
958801	AF2-171 C	10.4355	80/20	10.4355
959311	AF2-222 C	9.6430	80/20	9.6430

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959531	AF2-244 C (Withdrawn : 01/06/2021)	1.2856	80/20	1.2856
959751	AF2-266	2.7460	80/20	2.7460
961791	AG1-021 C	1.3969	80/20	1.3969
961891	AG1-030 C	9.7452	80/20	9.7452
962041	AG1-048 C	8.7308	80/20	8.7308
962491	AG1-098 C O1	5.8538	80/20	5.8538
962561	AG1-105 C O1	3.1146	80/20	3.1146
963171	AG1-166 C	1.3969	80/20	1.3969
963181	AG1-167 C	1.3969	80/20	1.3969
963191	AG1-168 C	1.3969	80/20	1.3969
963201	AG1-169 C	1.3969	80/20	1.3969
963211	AG1-170 C	1.3969	80/20	1.3969
963271	AG1-176 C O1	9.3799	80/20	9.3799
963321	AG1-181 C O1	9.0112	80/20	9.0112
963361	AG1-185 O1	4.3598	80/20	4.3598
963641	AG1-215 C	0.6519	80/20	0.6519
964111	AG1-272 C	1.4356	80/20	1.4356
964121	AG1-273 C	1.4356	80/20	1.4356
964131	AG1-274 C	1.4356	80/20	1.4356
964241	AG1-285 C O1	5.4983	80/20	5.4983
964791	AG1-342 C	1.2713	80/20	1.2713
964821	AG1-345 C	0.5574	80/20	0.5574
964841	AG1-347 C	5.8772	80/20	5.8772
965191	AG1-384 C	1.4356	80/20	1.4356
965281	AG1-393 C	1.3969	80/20	1.3969
965451	AG1-413 C O1	2.1901	80/20	2.1901
965591	AG1-427 C	5.2486	80/20	5.2486
965641	AG1-432 C O1	17.6676	80/20	17.6676
965831	AG1-451	2.9446	80/20	2.9446
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	1.7668	80/20	1.7668
CPLE	CPLE	1.1821	Confirmed LTF	1.1821
NY	NY	0.0879	Confirmed LTF	0.0879
PRAIRIE	PRAIRIE	0.5734	Confirmed LTF	0.5734
CBM-S2	CBM-S2	10.8576	Confirmed LTF	10.8576
GIBSON	GIBSON	0.1900	Confirmed LTF	0.1900
BLUEG	BLUEG	0.6562	Confirmed LTF	0.6562
TRIMBLE	TRIMBLE	0.2137	Confirmed LTF	0.2137
LAGN	LAGN	0.0263	Confirmed LTF	0.0263

11.6.23 Index 23

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
169308907	314765	6MTEAGLE	DVP	314749	6CHARLVL	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	124.6	127.63	DC	20.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1286	80/20	0.1286
315153	1CLOVER1	6.8555	80/20	6.8555
315154	1CLOVER2	6.7871	80/20	6.7871
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6056	80/20	0.6056
315160	1KERR 3	0.6056	80/20	0.6056
315161	1KERR 4	0.6056	80/20	0.6056
315162	1KERR 5	0.6056	80/20	0.6056
315163	1KERR 6	0.6056	80/20	0.6056
315164	1KERR 7	0.6056	80/20	0.6056
315191	1BEARGRDN G1	16.8015	80/20	16.8015
315192	1BEARGRDN G2	16.8015	80/20	16.8015
315193	1BEARGRDN S1	21.7276	80/20	21.7276
315266	1PLYWOOD A	0.6337	80/20	0.6337
316118	AC1-105 C	3.2095	80/20	3.2095
316123	AC1-075 C	0.3995	80/20	0.3995
316129	AC1-054 C	3.1893	80/20	3.1893
316131	AB2-060 C	1.1579	80/20	1.1579
924301	AB2-077 C O1 (Suspended)	1.5318	80/20	1.5318
924311	AB2-078 C O1 (Suspended)	1.5318	80/20	1.5318
924321	AB2-079 C O1 (Suspended)	1.5318	80/20	1.5318
925611	AC1-036 C	0.2579	80/20	0.2579
926023	AC1-080 C	0.1335	80/20	0.1335
926451	AC1-116 C	0.5713	80/20	0.5713
927251	AC1-221 C	0.7553	80/20	0.7553
927261	AC1-222 C	1.8201	80/20	1.8201
932511	AC2-071 C	0.9462	80/20	0.9462
932761	AC2-100 C	1.7381	80/20	1.7381
933501	AC2-165 C	31.7798	80/20	31.7798
934311	AD1-055 C	1.2637	80/20	1.2637
934341	AD1-058 C	1.8933	80/20	1.8933
934615	AD1-087 C	4.2927	80/20	4.2927
934625	AD1-088 C	14.0087	80/20	14.0087

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934991	AD1-131 C	0.6208	80/20	0.6208
935171	AD1-152 C O1	4.7150	80/20	4.7150
935221	AD1-157 C	0.3677	80/20	0.3677
936265	AD2-033 C	13.9363	80/20	13.9363
936361	AD2-046 C O1	5.3660	80/20	5.3660
936485	AD2-063 C	13.8249	80/20	13.8249
937481	AD2-202 C O1	1.2573	80/20	1.2573
938371	AE1-056 C	10.0469	80/20	10.0469
938821	AE1-108 C O1	34.7022	80/20	34.7022
939181	AE1-148 C	5.3595	80/20	5.3595
940661	AE2-053 O1	1.9850	80/20	1.9850
941011	AE2-092 C	28.7092	80/20	28.7092
941791	AE2-182 C	2.2759	80/20	2.2759
942451	AE2-258	1.8436	80/20	1.8436
942461	AE2-259 C O1	18.4818	80/20	18.4818
942751	AE2-291 C	3.6916	80/20	3.6916
942761	AE2-292 C O1	4.5964	80/20	4.5964
943901	AF1-058 C	0.9986	80/20	0.9986
943911	AF1-059	9.4111	80/20	9.4111
945811	AF1-246 C O1	3.3281	80/20	3.3281
946281	AF1-292 C	0.4501	80/20	0.4501
946291	AF1-293 C O1	46.3226	80/20	46.3226
946301	AF1-294 C	6.1424	80/20	6.1424
946591	AF1-323 C	11.1045	80/20	11.1045
957481	AF2-042 C	23.7720	80/20	23.7720
958131	AF2-107 C	5.0062	80/20	5.0062
958211	AF2-115 C	3.6132	80/20	3.6132
958801	AF2-171 C	21.5901	80/20	21.5901
959311	AF2-222 C	19.7350	80/20	19.7350
959751	AF2-266	4.9210	80/20	4.9210
960061	AF2-297 C	3.9946	80/20	3.9946
960081	AF2-299 C	0.7586	80/20	0.7586
960111	AF2-302 C	4.0380	80/20	4.0380
961061	AF2-397 C	49.3795	80/20	49.3795
961791	AG1-021 C	2.8906	80/20	2.8906
961801	AG1-022 C	4.0380	80/20	4.0380
961891	AG1-030 C	20.0853	80/20	20.0853
962041	AG1-048 C	18.0660	80/20	18.0660
962441	AG1-093 C O1	8.5588	80/20	8.5588
962491	AG1-098 C O1	11.2860	80/20	11.2860
962561	AG1-105 C O1	5.6484	80/20	5.6484
962741	AG1-123 C O1	3.4609	80/20	3.4609
962751	AG1-124 C O1	3.7955	80/20	3.7955
963171	AG1-166 C	2.8906	80/20	2.8906
963181	AG1-167 C	2.8906	80/20	2.8906
963191	AG1-168 C	2.8906	80/20	2.8906
963201	AG1-169 C	2.8906	80/20	2.8906
963211	AG1-170 C	2.8906	80/20	2.8906
963271	AG1-176 C O1	18.8522	80/20	18.8522
963301	AG1-179 C	2.7231	80/20	2.7231
963311	AG1-180	1.3268	80/20	1.3268
963321	AG1-181 C O1	18.3438	80/20	18.3438

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963361	AG1-185 O1	8.8752	80/20	8.8752
963641	AG1-215 C	1.3489	80/20	1.3489
964111	AG1-272 C	2.9313	80/20	2.9313
964121	AG1-273 C	2.9313	80/20	2.9313
964131	AG1-274 C	2.9313	80/20	2.9313
964231	AG1-284 C O1	20.2247	80/20	20.2247
964241	AG1-285 C O1	11.0228	80/20	11.0228
964261	AG1-287 C	0.7490	80/20	0.7490
964471	AG1-310 C	1.0445	80/20	1.0445
964791	AG1-342 C	2.5943	80/20	2.5943
964821	AG1-345 C	1.1533	80/20	1.1533
964841	AG1-347 C	11.8182	80/20	11.8182
964931	AG1-357 C	7.8312	80/20	7.8312
965191	AG1-384 C	2.9313	80/20	2.9313
965281	AG1-393 C	2.8906	80/20	2.8906
965451	AG1-413 C O1	3.9561	80/20	3.9561
965581	AG1-426	7.5604	80/20	7.5604
965591	AG1-427 C	10.5285	80/20	10.5285
965601	AG1-428 C O1	2.2733	80/20	2.2733
965641	AG1-432 C O1	36.9636	80/20	36.9636
965721	AG1-440 C	3.7881	80/20	3.7881
965731	AG1-441 C	3.7881	80/20	3.7881
965771	AG1-445	2.1887	80/20	2.1887
965781	AG1-446	2.1887	80/20	2.1887
965831	AG1-451	6.1606	80/20	6.1606
966251	AG1-494 C	1.8190	80/20	1.8190
966621	AG1-532 C	0.4096	80/20	0.4096
966691	AG1-539 C	1.9302	80/20	1.9302
966751	AG1-546 C	6.7407	80/20	6.7407
966791	AG1-550 O1	24.3684	80/20	24.3684
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.6964	80/20	3.6964
WEC	WEC	0.1332	Confirmed LTF	0.1332
LGEE	LGEE	0.2859	Confirmed LTF	0.2859
CPL	CPL	2.2666	Confirmed LTF	2.2666
CBM-W2	CBM-W2	7.4995	Confirmed LTF	7.4995
NY	NY	0.4413	Confirmed LTF	0.4413
TVA	TVA	1.5190	Confirmed LTF	1.5190
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.1835	Confirmed LTF	26.1835
CBM-S1	CBM-S1	0.3690	Confirmed LTF	0.3690
MEC	MEC	0.9010	Confirmed LTF	0.9010
LAGN	LAGN	1.8743	Confirmed LTF	1.8743
AA2-074	AA2-074	1.4958	LTF	1.4958
CBM-W1	CBM-W1	5.2575	Confirmed LTF	5.2575

11.6.24 Index 24

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
163457361	927250	AC1-221 TAP	DVP	304070	6PERSON230 T	CPL	1	DVP_P1-2: LN 556-C	single	718.0	141.33	144.29	DC	21.3

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
247284	05LEESVG	0.4591	80/20	0.4591
313527	AB2-043 C	0.6777	80/20	0.6777
314333	6POWHATN	0.1206	80/20	0.1206
314429	3JTRSVLE	0.6020	80/20	0.6020
314677	6BUCKING	0.3988	80/20	0.3988
314704	3LAWRENC	0.1701	80/20	0.1701
315153	1CLOVER1	35.6962	80/20	35.6962
315154	1CLOVER2	35.3404	80/20	35.3404
315156	1HALLBR1	1.0288	80/20	1.0288
315158	1KERR 1	0.3313	80/20	0.3313
315159	1KERR 2	0.9277	80/20	0.9277
315160	1KERR 3	0.9277	80/20	0.9277
315161	1KERR 4	0.9277	80/20	0.9277
315162	1KERR 5	0.9277	80/20	0.9277
315163	1KERR 6	0.9277	80/20	0.9277
315164	1KERR 7	0.9277	80/20	0.9277
315191	1BEARGRDN G1	3.3141	80/20	3.3141
315192	1BEARGRDN G2	3.3141	80/20	3.3141
315193	1BEARGRDN S1	4.2858	80/20	4.2858
315266	1PLYWOOD A	3.0479	80/20	3.0479
316118	AC1-105 C	14.6956	80/20	14.6956
316123	AC1-075 C	1.8835	80/20	1.8835
316129	AC1-054 C	4.0299	80/20	4.0299
316131	AB2-060 C	1.9554	80/20	1.9554
924301	AB2-077 C O1 (Suspended)	2.7590	80/20	2.7590
924311	AB2-078 C O1 (Suspended)	2.7590	80/20	2.7590
924321	AB2-079 C O1 (Suspended)	2.7590	80/20	2.7590
925611	AC1-036 C	0.3165	80/20	0.3165
925661	AC1-042 C	1.5979	80/20	1.5979
926023	AC1-080 C	0.6295	80/20	0.6295
926451	AC1-116 C	0.0446	80/20	0.0446
926645	AC1-145 C	0.3001	80/20	0.3001
927251	AC1-221 C	11.7174	80/20	11.7174
927261	AC1-222 C	10.1051	80/20	10.1051
932511	AC2-071 C	0.3929	80/20	0.3929
932761	AC2-100 C	26.9660	80/20	26.9660
933501	AC2-165 C	3.6987	80/20	3.6987
934311	AD1-055 C	7.0162	80/20	7.0162
934341	AD1-058 C	29.3737	80/20	29.3737

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
934615	AD1-087 C	22.4303	80/20	22.4303
934625	AD1-088 C	29.6903	80/20	29.6903
934991	AD1-131 C	9.6307	80/20	9.6307
935171	AD1-152 C O1	24.6374	80/20	24.6374
935221	AD1-157 C	0.3412	80/20	0.3412
936265	AD2-033 C	18.1139	80/20	18.1139
936361	AD2-046 C O1	8.4650	80/20	8.4650
936485	AD2-063 C	20.6649	80/20	20.6649
937481	AD2-202 C O1	6.5700	80/20	6.5700
938371	AE1-056 C	9.3221	80/20	9.3221
938561	AE1-075 C	0.1048	80/20	0.1048
938821	AE1-108 C O1	7.2807	80/20	7.2807
939181	AE1-148 C	8.5007	80/20	8.5007
939941	AE1-230 C	0.7209	80/20	0.7209
940661	AE2-053 O1	3.1484	80/20	3.1484
941011	AE2-092 C	6.3234	80/20	6.3234
941791	AE2-182 C	4.8236	80/20	4.8236
941801	AE2-185 C	3.6043	80/20	3.6043
941821	AE2-187 C	3.6043	80/20	3.6043
942451	AE2-258	3.2048	80/20	3.2048
942461	AE2-259 C O1	14.7132	80/20	14.7132
942671	AE2-283 C	3.9648	80/20	3.9648
942751	AE2-291 C	15.6354	80/20	15.6354
942761	AE2-292 C O1	19.4676	80/20	19.4676
943901	AF1-058 C	5.7308	80/20	5.7308
943911	AF1-059	14.4227	80/20	14.4227
945081	AF1-173	1.3967	80/20	1.3967
945811	AF1-246 C O1	21.5242	80/20	21.5242
946291	AF1-293 C O1	9.4568	80/20	9.4568
946301	AF1-294 C	6.0812	80/20	6.0812
946591	AF1-323 C	2.4073	80/20	2.4073
957481	AF2-042 C	153.7440	80/20	153.7440
958211	AF2-115 C	3.5772	80/20	3.5772
958501	AF2-144 C	0.5649	80/20	0.5649
958801	AF2-171 C	21.4497	80/20	21.4497
959311	AF2-222 C	23.4030	80/20	23.4030
959531	AF2-244 C (Withdrawn : 01/06/2021)	0.5206	80/20	0.5206
959751	AF2-266	25.6235	80/20	25.6235
960061	AF2-297 C	22.9234	80/20	22.9234
960111	AF2-302 C	0.8754	80/20	0.8754
961061	AF2-397 C	7.1206	80/20	7.1206
961121	AF2-403	0.8010	80/20	0.8010
961791	AG1-021 C	2.8618	80/20	2.8618
961801	AG1-022 C	0.8754	80/20	0.8754
961891	AG1-030 C	21.3030	80/20	21.3030
962041	AG1-048 C	17.8860	80/20	17.8860
962441	AG1-093 C O1	39.1883	80/20	39.1883
962491	AG1-098 C O1	34.5765	80/20	34.5765
962561	AG1-105 C O1	31.8432	80/20	31.8432
963171	AG1-166 C	2.8618	80/20	2.8618
963181	AG1-167 C	2.8618	80/20	2.8618
963191	AG1-168 C	2.8618	80/20	2.8618

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963201	AG1-169 C	2.8618	80/20	2.8618
963211	AG1-170 C	2.8618	80/20	2.8618
963271	AG1-176 C O1	36.0621	80/20	36.0621
963301	AG1-179 C	3.8207	80/20	3.8207
963311	AG1-180	1.8616	80/20	1.8616
963321	AG1-181 C O1	23.4953	80/20	23.4953
963361	AG1-185 O1	11.3677	80/20	11.3677
963601	AG1-209 C	0.2803	80/20	0.2803
963641	AG1-215 C	1.3355	80/20	1.3355
964111	AG1-272 C	3.5975	80/20	3.5975
964121	AG1-273 C	3.5975	80/20	3.5975
964131	AG1-274 C	3.5975	80/20	3.5975
964141	AG1-275 C	1.2014	80/20	1.2014
964151	AG1-276 C	1.2014	80/20	1.2014
964231	AG1-284 C O1	3.9711	80/20	3.9711
964241	AG1-285 C O1	17.1705	80/20	17.1705
964251	AG1-286 C	0.4497	80/20	0.4497
964261	AG1-287 C	4.2981	80/20	4.2981
964471	AG1-310 C	5.7147	80/20	5.7147
964791	AG1-342 C	9.4188	80/20	9.4188
964821	AG1-345 C	1.1444	80/20	1.1444
964841	AG1-347 C	22.4655	80/20	22.4655
964931	AG1-357 C	61.4988	80/20	61.4988
965191	AG1-384 C	3.5975	80/20	3.5975
965281	AG1-393 C	2.8618	80/20	2.8618
965451	AG1-413 C O1	6.0628	80/20	6.0628
965581	AG1-426	1.5862	80/20	1.5862
965591	AG1-427 C	16.2855	80/20	16.2855
965601	AG1-428 C O1	3.1896	80/20	3.1896
965641	AG1-432 C O1	29.4264	80/20	29.4264
965721	AG1-440 C	5.4864	80/20	5.4864
965731	AG1-441 C	5.4864	80/20	5.4864
965771	AG1-445	3.1699	80/20	3.1699
965781	AG1-446	3.1699	80/20	3.1699
965831	AG1-451	4.9044	80/20	4.9044
966691	AG1-539 C	8.1754	80/20	8.1754
966751	AG1-546 C	8.2011	80/20	8.2011
966761	AG1-547 C	3.2579	80/20	3.2579
966791	AG1-550 O1	2.6947	80/20	2.6947
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	2.9426	80/20	2.9426
G-007A	G-007A	0.4891	Confirmed LTF	0.4891
VFT	VFT	1.2964	Confirmed LTF	1.2964
CALDERWOOD	CALDERWOOD	1.4443	Confirmed LTF	1.4443
PRAIRIE	PRAIRIE	4.6726	Confirmed LTF	4.6726
AC1-131	AC1-131	5.2830	LTF	5.2830
CHEOAH	CHEOAH	1.4865	Confirmed LTF	1.4865
CBM-N	CBM-N	0.2328	Confirmed LTF	0.2328
COTTONWOOD	COTTONWOOD	5.2395	Confirmed LTF	5.2395
HAMLET	HAMLET	3.2011	Confirmed LTF	3.2011
GIBSON	GIBSON	0.7912	Confirmed LTF	0.7912
BLUEG	BLUEG	2.4078	Confirmed LTF	2.4078

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
TRIMBLE	TRIMBLE	0.7618	Confirmed LTF	0.7618
CATAWBA	CATAWBA	1.6965	Confirmed LTF	1.6965

11.6.25 Index 25

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
169527954	940480	AE2-033 TAP	DVP	314435	6SAPONY	DVP	1	DVP_P1-2: LN 2012-B	single	678.68	125.42	126.6	DC	8.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	15.3185	80/20	15.3185
313527	AB2-043 C	0.4291	80/20	0.4291
313719	3CHESTNUT	1.2940	80/20	1.2940
314572	3EMPORIA	1.0790	80/20	1.0790
314582	3KELFORD	0.2860	80/20	0.2860
314589	3MURPHYS	0.0711	80/20	0.0711
314623	3WITAKRS	0.2313	80/20	0.2313
314704	3LAWRENC	0.6280	80/20	0.6280
315115	1S HAMPT1	0.8782	80/20	0.8782
315126	1ROARAP2	2.2668	80/20	2.2668
315128	1ROARAP4	2.1631	80/20	2.1631
315131	1EDGECEMA (Deactivation : 22/04/2019)	9.7701	80/20	9.7701
315132	1EDGECEMB (Deactivation : 22/04/2019)	9.7701	80/20	9.7701
315136	1ROSEMG1	4.4511	80/20	4.4511
315137	1ROSEMS1	2.7601	80/20	2.7601
315138	1ROSEMG2	2.0861	80/20	2.0861
315139	1GASTONA	6.8717	80/20	6.8717
315141	1GASTONB	6.8717	80/20	6.8717
315158	1KERR 1	0.3731	80/20	0.3731
315159	1KERR 2	1.0448	80/20	1.0448
315160	1KERR 3	1.0448	80/20	1.0448
315161	1KERR 4	1.0448	80/20	1.0448
315162	1KERR 5	1.0448	80/20	1.0448
315163	1KERR 6	1.0448	80/20	1.0448
315164	1KERR 7	1.0448	80/20	1.0448
315601	1CONETOE2SOL	1.0909	80/20	1.0909
315606	3AA2-053SOLA	2.1945	80/20	2.1945
315607	3AA1-063SOLA	1.8768	80/20	1.8768
315608	3AA2-088SOLA	0.8801	80/20	0.8801
316020	AB2-059 C OP	1.7286	80/20	1.7286
316087	AB2-174 C	2.6395	80/20	2.6395
316096	AB2-100 C1	2.9779	80/20	2.9779
316098	AB2-100 C2	2.9779	80/20	2.9779
316103	AB2-015 C	4.6485	80/20	4.6485
316129	AC1-054 C	9.5395	80/20	9.5395
316131	AB2-060 C	1.2150	80/20	1.2150
316140	AB2-099 C (Suspended)	0.4047	80/20	0.4047
920591	AA2-165 C	0.1737	80/20	0.1737
922922	AB1-081 C OP	1.4667	80/20	1.4667
923991	AB2-040 C O1	16.6835	80/20	16.6835

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
924301	AB2-077 C O1 (Suspended)	1.7051	80/20	1.7051
924311	AB2-078 C O1 (Suspended)	1.7051	80/20	1.7051
924321	AB2-079 C O1 (Suspended)	1.7051	80/20	1.7051
925591	AC1-034 C	7.0969	80/20	7.0969
925611	AC1-036 C	0.1518	80/20	0.1518
926070	AC1-086 C	48.9803	80/20	48.9803
926201	AC1-098 C	6.6902	80/20	6.6902
926211	AC1-099 C	2.2419	80/20	2.2419
927024	AC1-189 C	6.2969	80/20	6.2969
927145	AC1-208 C	11.4146	80/20	11.4146
932631	AC2-084 C	9.5370	80/20	9.5370
934331	AD1-057 C O1	16.4879	80/20	16.4879
936265	AD2-033 C	9.2032	80/20	9.2032
936361	AD2-046 C O1	8.5154	80/20	8.5154
936401	AD2-051 C O1	20.4894	80/20	20.4894
936485	AD2-063 C	11.8413	80/20	11.8413
939181	AE1-148 C	8.3651	80/20	8.3651
940481	AE2-033 C	65.5067	80/20	65.5067
940571	AE2-044 C	4.6483	80/20	4.6483
940661	AE2-053 O1	3.0982	80/20	3.0982
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1105	80/20	0.1105
942451	AE2-258	2.0290	80/20	2.0290
942471	AE2-260 C O1	48.3266	80/20	48.3266
943171	AE2-346 C	0.9713	80/20	0.9713
943911	AF1-059	27.9754	80/20	27.9754
944141	AF1-082	2.9882	80/20	2.9882
946011	AF1-266	54.8342	80/20	54.8342
946281	AF1-292 C	4.0275	80/20	4.0275
957521	AF2-046 C	13.4830	80/20	13.4830
957861	AF2-080 C	5.7191	80/20	5.7191
958801	AF2-171 C	7.6545	80/20	7.6545
959311	AF2-222 C	10.7980	80/20	10.7980
960081	AF2-299 C	6.7880	80/20	6.7880
961091	AF2-400 C	0.2510	80/20	0.2510
961671	AG1-007 C	1.0801	80/20	1.0801
961681	AG1-008 C	13.5100	80/20	13.5100
961891	AG1-030 C	8.4618	80/20	8.4618
961931	AG1-036 C	1.0106	80/20	1.0106
961941	AG1-037 C	0.3469	80/20	0.3469
962331	AG1-082 C	1.3876	80/20	1.3876
962341	AG1-083 C	1.3876	80/20	1.3876
962351	AG1-084 C	1.1314	80/20	1.1314
962361	AG1-085 C	1.1314	80/20	1.1314
962571	AG1-106 C	13.6210	80/20	13.6210
963301	AG1-179 C	11.3024	80/20	11.3024
963311	AG1-180	5.5068	80/20	5.5068
963321	AG1-181 C O1	11.7820	80/20	11.7820
963361	AG1-185 O1	5.7005	80/20	5.7005
964111	AG1-272 C	1.7253	80/20	1.7253

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
964121	AG1-273 C	1.7253	80/20	1.7253
964131	AG1-274 C	1.7253	80/20	1.7253
964241	AG1-285 C O1	10.1363	80/20	10.1363
964501	AG1-313 C O1	6.0082	80/20	6.0082
964791	AG1-342 C	2.2725	80/20	2.2725
964801	AG1-343 C	5.3025	80/20	5.3025
964821	AG1-345 C	0.4070	80/20	0.4070
965191	AG1-384 C	1.7253	80/20	1.7253
965291	AG1-394 C	1.8476	80/20	1.8476
965451	AG1-413 C O1	11.7598	80/20	11.7598
965591	AG1-427 C	9.5665	80/20	9.5665
965601	AG1-428 C O1	9.4354	80/20	9.4354
965711	AG1-439 C O1	19.5690	80/20	19.5690
965721	AG1-440 C	8.0280	80/20	8.0280
965731	AG1-441 C	8.0280	80/20	8.0280
965761	AG1-444 O1	10.4368	80/20	10.4368
965771	AG1-445	4.6384	80/20	4.6384
965781	AG1-446	4.6384	80/20	4.6384
966621	AG1-532 C	3.6655	80/20	3.6655
966751	AG1-546 C	21.6599	80/20	21.6599
966811	AG1-552 C	3.5991	80/20	3.5991
WEC	WEC	0.2734	Confirmed LTF	0.2734
LGEE	LGEE	0.5623	Confirmed LTF	0.5623
CPL	CPL	3.0904	Confirmed LTF	3.0904
CBM-W2	CBM-W2	11.8272	Confirmed LTF	11.8272
NY	NY	0.3489	Confirmed LTF	0.3489
TVA	TVA	2.2204	Confirmed LTF	2.2204
SIGE	SIGE	0.1774	Confirmed LTF	0.1774
CBM-S2	CBM-S2	34.2223	Confirmed LTF	34.2223
CBM-S1	CBM-S1	0.5548	Confirmed LTF	0.5548
MEC	MEC	1.6271	Confirmed LTF	1.6271
LAGN	LAGN	2.7615	Confirmed LTF	2.7615
AA2-074	AA2-074	2.0412	LTF	2.0412
CBM-W1	CBM-W1	11.4684	Confirmed LTF	11.4684

11.6.26 Index 26

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
169836767	961060	AF2-397 TAP	DVP	966790	AG1-550 TAP	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	128.17	131.2	DC	20.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1287	80/20	0.1287
315153	1CLOVER1	6.8569	80/20	6.8569
315154	1CLOVER2	6.7885	80/20	6.7885
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6058	80/20	0.6058
315160	1KERR 3	0.6058	80/20	0.6058
315161	1KERR 4	0.6058	80/20	0.6058
315162	1KERR 5	0.6058	80/20	0.6058
315163	1KERR 6	0.6058	80/20	0.6058
315164	1KERR 7	0.6058	80/20	0.6058
315191	1BEARGRDN G1	16.8024	80/20	16.8024
315192	1BEARGRDN G2	16.8024	80/20	16.8024
315193	1BEARGRDN S1	21.7287	80/20	21.7287
315266	1PLYWOOD A	0.6338	80/20	0.6338
316118	AC1-105 C	3.2102	80/20	3.2102
316123	AC1-075 C	0.3997	80/20	0.3997
316129	AC1-054 C	3.1902	80/20	3.1902
316131	AB2-060 C	1.1581	80/20	1.1581
924301	AB2-077 C O1 (Suspended)	1.5320	80/20	1.5320
924311	AB2-078 C O1 (Suspended)	1.5320	80/20	1.5320
924321	AB2-079 C O1 (Suspended)	1.5320	80/20	1.5320
925611	AC1-036 C	0.2580	80/20	0.2580
926023	AC1-080 C	0.1336	80/20	0.1336
927251	AC1-221 C	0.7557	80/20	0.7557
927261	AC1-222 C	1.8205	80/20	1.8205
932511	AC2-071 C	0.9463	80/20	0.9463
932761	AC2-100 C	1.7391	80/20	1.7391
933501	AC2-165 C	31.7815	80/20	31.7815
934311	AD1-055 C	1.2640	80/20	1.2640
934341	AD1-058 C	1.8944	80/20	1.8944
934615	AD1-087 C	4.2935	80/20	4.2935
934625	AD1-088 C	14.0108	80/20	14.0108
934991	AD1-131 C	0.6211	80/20	0.6211

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
935171	AD1-152 C O1	4.7160	80/20	4.7160
935221	AD1-157 C	0.3677	80/20	0.3677
936265	AD2-033 C	13.9386	80/20	13.9386
936361	AD2-046 C O1	5.3677	80/20	5.3677
936485	AD2-063 C	13.8276	80/20	13.8276
937481	AD2-202 C O1	1.2576	80/20	1.2576
938371	AE1-056 C	10.0480	80/20	10.0480
938821	AE1-108 C O1	34.7050	80/20	34.7050
939181	AE1-148 C	5.3606	80/20	5.3606
940661	AE2-053 O1	1.9854	80/20	1.9854
941011	AE2-092 C	28.7117	80/20	28.7117
941791	AE2-182 C	2.2763	80/20	2.2763
942451	AE2-258	1.8439	80/20	1.8439
942461	AE2-259 C O1	18.4836	80/20	18.4836
942751	AE2-291 C	3.6928	80/20	3.6928
942761	AE2-292 C O1	4.5979	80/20	4.5979
943901	AF1-058 C	0.9989	80/20	0.9989
943911	AF1-059	9.4131	80/20	9.4131
945811	AF1-246 C O1	3.3289	80/20	3.3289
946281	AF1-292 C	0.4503	80/20	0.4503
946291	AF1-293 C O1	46.3247	80/20	46.3247
946301	AF1-294 C	6.1432	80/20	6.1432
946591	AF1-323 C	11.1052	80/20	11.1052
957481	AF2-042 C	23.7780	80/20	23.7780
958131	AF2-107 C	5.0071	80/20	5.0071
958211	AF2-115 C	3.6137	80/20	3.6137
958801	AF2-171 C	21.5919	80/20	21.5919
959311	AF2-222 C	19.7380	80/20	19.7380
959751	AF2-266	4.9220	80/20	4.9220
960061	AF2-297 C	3.9955	80/20	3.9955
960081	AF2-299 C	0.7590	80/20	0.7590
960111	AF2-302 C	4.0382	80/20	4.0382
961061	AF2-397 C	49.3810	80/20	49.3810
961791	AG1-021 C	2.8909	80/20	2.8909
961801	AG1-022 C	4.0382	80/20	4.0382
961891	AG1-030 C	20.0871	80/20	20.0871
962041	AG1-048 C	18.0682	80/20	18.0682
962441	AG1-093 C O1	8.5606	80/20	8.5606
962491	AG1-098 C O1	11.2875	80/20	11.2875
962561	AG1-105 C O1	5.6502	80/20	5.6502
962741	AG1-123 C O1	3.4622	80/20	3.4622
962751	AG1-124 C O1	3.7973	80/20	3.7973
963171	AG1-166 C	2.8909	80/20	2.8909
963181	AG1-167 C	2.8909	80/20	2.8909
963191	AG1-168 C	2.8909	80/20	2.8909
963201	AG1-169 C	2.8909	80/20	2.8909
963211	AG1-170 C	2.8909	80/20	2.8909
963271	AG1-176 C O1	18.8540	80/20	18.8540
963301	AG1-179 C	2.7241	80/20	2.7241
963311	AG1-180	1.3273	80/20	1.3273
963321	AG1-181 C O1	18.3458	80/20	18.3458
963361	AG1-185 O1	8.8762	80/20	8.8762

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963641	AG1-215 C	1.3491	80/20	1.3491
964111	AG1-272 C	2.9318	80/20	2.9318
964121	AG1-273 C	2.9318	80/20	2.9318
964131	AG1-274 C	2.9318	80/20	2.9318
964231	AG1-284 C O1	20.2255	80/20	20.2255
964241	AG1-285 C O1	11.0250	80/20	11.0250
964261	AG1-287 C	0.7492	80/20	0.7492
964471	AG1-310 C	1.0449	80/20	1.0449
964791	AG1-342 C	2.5948	80/20	2.5948
964821	AG1-345 C	1.1534	80/20	1.1534
964841	AG1-347 C	11.8194	80/20	11.8194
964931	AG1-357 C	7.8348	80/20	7.8348
965191	AG1-384 C	2.9318	80/20	2.9318
965281	AG1-393 C	2.8909	80/20	2.8909
965451	AG1-413 C O1	3.9569	80/20	3.9569
965581	AG1-426	7.5610	80/20	7.5610
965591	AG1-427 C	10.5299	80/20	10.5299
965601	AG1-428 C O1	2.2741	80/20	2.2741
965641	AG1-432 C O1	36.9672	80/20	36.9672
965721	AG1-440 C	3.7895	80/20	3.7895
965731	AG1-441 C	3.7895	80/20	3.7895
965771	AG1-445	2.1895	80/20	2.1895
965781	AG1-446	2.1895	80/20	2.1895
965831	AG1-451	6.1612	80/20	6.1612
966251	AG1-494 C	1.8194	80/20	1.8194
966621	AG1-532 C	0.4099	80/20	0.4099
966691	AG1-539 C	1.9309	80/20	1.9309
966751	AG1-546 C	6.7436	80/20	6.7436
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.6967	80/20	3.6967
WEC	WEC	0.1342	Confirmed LTF	0.1342
LGEE	LGEE	0.2878	Confirmed LTF	0.2878
CPL	CPL	2.2686	Confirmed LTF	2.2686
CBM-W2	CBM-W2	7.5264	Confirmed LTF	7.5264
NY	NY	0.4396	Confirmed LTF	0.4396
TVA	TVA	1.5232	Confirmed LTF	1.5232
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.2148	Confirmed LTF	26.2148
CBM-S1	CBM-S1	0.3701	Confirmed LTF	0.3701
MEC	MEC	0.9057	Confirmed LTF	0.9057
LAGN	LAGN	1.8795	Confirmed LTF	1.8795
AA2-074	AA2-074	1.4972	LTF	1.4972
CBM-W1	CBM-W1	5.2996	Confirmed LTF	5.2996

11.6.27 Index 27

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
169088956	962560	AG1-105 TAP	DVP	314697	6SEGE HILL	DVP	1	DVP_P1-2: LN 556-C	single	814.98	120.69	121.91	DC	9.94

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314333	6POWHATN	0.1312	80/20	0.1312
314429	3JTRSVLE	0.3330	80/20	0.3330
314677	6BUCKING	0.4426	80/20	0.4426
315153	1CLOVER1	46.6808	80/20	46.6808
315154	1CLOVER2	46.2156	80/20	46.2156
315191	1BEARGRDN G1	3.6167	80/20	3.6167
315192	1BEARGRDN G2	3.6167	80/20	3.6167
315193	1BEARGRDN S1	4.6771	80/20	4.6771
925611	AC1-036 C	0.0956	80/20	0.0956
926451	AC1-116 C	0.0478	80/20	0.0478
927251	AC1-221 C	-1.3299	Adder	-1.56
927261	AC1-222 C	-2.7426	Adder	-3.23
932511	AC2-071 C	0.4360	80/20	0.4360
933501	AC2-165 C	4.0288	80/20	4.0288
934311	AD1-055 C	-1.9043	Adder	-2.24
934341	AD1-058 C	-3.3337	Adder	-3.92
934615	AD1-087 C	29.3393	80/20	29.3393
934625	AD1-088 C	37.5628	80/20	37.5628
935171	AD1-152 C O1	32.2262	80/20	32.2262
935221	AD1-157 C	0.2184	80/20	0.2184
936265	AD2-033 C	4.4156	80/20	4.4156
937481	AD2-202 C O1	8.5937	80/20	8.5937
938371	AE1-056 C	5.9678	80/20	5.9678
938561	AE1-075 C	0.1141	80/20	0.1141
938821	AE1-108 C O1	6.6821	80/20	6.6821
941011	AE2-092 C	6.6406	80/20	6.6406
941791	AE2-182 C	6.1026	80/20	6.1026
942461	AE2-259 C O1	12.7938	80/20	12.7938
943901	AF1-058 C	-1.5410	Adder	-1.81
945811	AF1-246 C O1	28.1476	80/20	28.1476
946291	AF1-293 C O1	9.9685	80/20	9.9685
946301	AF1-294 C	3.3642	80/20	3.3642
946591	AF1-323 C	2.0430	80/20	2.0430
957481	AF2-042 C	201.0540	80/20	201.0540
958211	AF2-115 C	1.9790	80/20	1.9790
958501	AF2-144 C	0.6149	80/20	0.6149
958801	AF2-171 C	11.7666	80/20	11.7666
959311	AF2-222 C	7.9260	80/20	7.9260
959531	AF2-244 C (Withdrawn : 01/06/2021)	0.5666	80/20	0.5666
959751	AF2-266	33.5085	80/20	33.5085
960111	AF2-302 C	0.7429	80/20	0.7429

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961061	AF2-397 C	7.7259	80/20	7.7259
961791	AG1-021 C	1.5832	80/20	1.5832
961801	AG1-022 C	0.7429	80/20	0.7429
961891	AG1-030 C	9.9432	80/20	9.9432
962041	AG1-048 C	9.8947	80/20	9.8947
962491	AG1-098 C O1	44.5095	80/20	44.5095
962561	AG1-105 C O1	41.8428	80/20	41.8428
963171	AG1-166 C	1.5832	80/20	1.5832
963181	AG1-167 C	1.5832	80/20	1.5832
963191	AG1-168 C	1.5832	80/20	1.5832
963201	AG1-169 C	1.5832	80/20	1.5832
963211	AG1-170 C	1.5832	80/20	1.5832
963271	AG1-176 C O1	45.3442	80/20	45.3442
963321	AG1-181 C O1	6.0674	80/20	6.0674
963361	AG1-185 O1	2.9356	80/20	2.9356
963641	AG1-215 C	0.7388	80/20	0.7388
964111	AG1-272 C	1.0868	80/20	1.0868
964121	AG1-273 C	1.0868	80/20	1.0868
964131	AG1-274 C	1.0868	80/20	1.0868
964231	AG1-284 C O1	4.1950	80/20	4.1950
964821	AG1-345 C	0.6297	80/20	0.6297
964841	AG1-347 C	28.2369	80/20	28.2369
964931	AG1-357 C	80.4216	80/20	80.4216
965191	AG1-384 C	1.0868	80/20	1.0868
965281	AG1-393 C	1.5832	80/20	1.5832
965581	AG1-426	1.4558	80/20	1.4558
965641	AG1-432 C O1	25.5876	80/20	25.5876
965831	AG1-451	4.2646	80/20	4.2646
966791	AG1-550 O1	2.9092	80/20	2.9092
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	2.5588	80/20	2.5588
G-007A	G-007A	0.4507	Confirmed LTF	0.4507
VFT	VFT	1.1868	Confirmed LTF	1.1868
CALDERWOOD	CALDERWOOD	1.0959	Confirmed LTF	1.0959
PRAIRIE	PRAIRIE	3.8848	Confirmed LTF	3.8848
CHEOAH	CHEOAH	1.1221	Confirmed LTF	1.1221
CBM-N	CBM-N	0.2136	Confirmed LTF	0.2136
COTTONWOOD	COTTONWOOD	4.0551	Confirmed LTF	4.0551
HAMLET	HAMLET	2.1350	Confirmed LTF	2.1350
GIBSON	GIBSON	0.7005	Confirmed LTF	0.7005
BLUEG	BLUEG	2.1735	Confirmed LTF	2.1735
TRIMBLE	TRIMBLE	0.6906	Confirmed LTF	0.6906
CATAWBA	CATAWBA	1.1613	Confirmed LTF	1.1613

11.6.28 Index 28

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
169836777	966790	AG1-550 TAP	DVP	314765	6MTEAGLE	DVP	1	314333 6POWHATN 230 933500 AC2-165 TAP 230 1	single	661.76	128.14	131.17	DC	20.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313527	AB2-043 C	0.3899	80/20	0.3899
314429	3JTRSVLE	0.6081	80/20	0.6081
314572	3EMPORIA	0.1253	80/20	0.1253
314677	6BUCKING	0.9605	80/20	0.9605
314704	3LAWRENC	0.1287	80/20	0.1287
315153	1CLOVER1	6.8569	80/20	6.8569
315154	1CLOVER2	6.7885	80/20	6.7885
315158	1KERR 1	0.2163	80/20	0.2163
315159	1KERR 2	0.6058	80/20	0.6058
315160	1KERR 3	0.6058	80/20	0.6058
315161	1KERR 4	0.6058	80/20	0.6058
315162	1KERR 5	0.6058	80/20	0.6058
315163	1KERR 6	0.6058	80/20	0.6058
315164	1KERR 7	0.6058	80/20	0.6058
315191	1BEARGRDN G1	16.8024	80/20	16.8024
315192	1BEARGRDN G2	16.8024	80/20	16.8024
315193	1BEARGRDN S1	21.7287	80/20	21.7287
315266	1PLYWOOD A	0.6338	80/20	0.6338
316118	AC1-105 C	3.2102	80/20	3.2102
316123	AC1-075 C	0.3997	80/20	0.3997
316129	AC1-054 C	3.1902	80/20	3.1902
316131	AB2-060 C	1.1581	80/20	1.1581
924301	AB2-077 C O1 (Suspended)	1.5320	80/20	1.5320
924311	AB2-078 C O1 (Suspended)	1.5320	80/20	1.5320
924321	AB2-079 C O1 (Suspended)	1.5320	80/20	1.5320
925611	AC1-036 C	0.2580	80/20	0.2580
926023	AC1-080 C	0.1336	80/20	0.1336
927251	AC1-221 C	0.7557	80/20	0.7557
927261	AC1-222 C	1.8205	80/20	1.8205
932511	AC2-071 C	0.9463	80/20	0.9463
932761	AC2-100 C	1.7391	80/20	1.7391
933501	AC2-165 C	31.7815	80/20	31.7815
934311	AD1-055 C	1.2640	80/20	1.2640
934341	AD1-058 C	1.8944	80/20	1.8944
934615	AD1-087 C	4.2935	80/20	4.2935
934625	AD1-088 C	14.0108	80/20	14.0108
934991	AD1-131 C	0.6211	80/20	0.6211

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
935171	AD1-152 C O1	4.7160	80/20	4.7160
935221	AD1-157 C	0.3677	80/20	0.3677
936265	AD2-033 C	13.9386	80/20	13.9386
936361	AD2-046 C O1	5.3677	80/20	5.3677
936485	AD2-063 C	13.8276	80/20	13.8276
937481	AD2-202 C O1	1.2576	80/20	1.2576
938371	AE1-056 C	10.0480	80/20	10.0480
938821	AE1-108 C O1	34.7050	80/20	34.7050
939181	AE1-148 C	5.3606	80/20	5.3606
940661	AE2-053 O1	1.9854	80/20	1.9854
941011	AE2-092 C	28.7117	80/20	28.7117
941791	AE2-182 C	2.2763	80/20	2.2763
942451	AE2-258	1.8439	80/20	1.8439
942461	AE2-259 C O1	18.4836	80/20	18.4836
942751	AE2-291 C	3.6928	80/20	3.6928
942761	AE2-292 C O1	4.5979	80/20	4.5979
943901	AF1-058 C	0.9989	80/20	0.9989
943911	AF1-059	9.4131	80/20	9.4131
945811	AF1-246 C O1	3.3289	80/20	3.3289
946281	AF1-292 C	0.4503	80/20	0.4503
946291	AF1-293 C O1	46.3247	80/20	46.3247
946301	AF1-294 C	6.1432	80/20	6.1432
946591	AF1-323 C	11.1052	80/20	11.1052
957481	AF2-042 C	23.7780	80/20	23.7780
958131	AF2-107 C	5.0071	80/20	5.0071
958211	AF2-115 C	3.6137	80/20	3.6137
958801	AF2-171 C	21.5919	80/20	21.5919
959311	AF2-222 C	19.7380	80/20	19.7380
959751	AF2-266	4.9220	80/20	4.9220
960061	AF2-297 C	3.9955	80/20	3.9955
960081	AF2-299 C	0.7590	80/20	0.7590
960111	AF2-302 C	4.0382	80/20	4.0382
961061	AF2-397 C	49.3810	80/20	49.3810
961791	AG1-021 C	2.8909	80/20	2.8909
961801	AG1-022 C	4.0382	80/20	4.0382
961891	AG1-030 C	20.0871	80/20	20.0871
962041	AG1-048 C	18.0682	80/20	18.0682
962441	AG1-093 C O1	8.5606	80/20	8.5606
962491	AG1-098 C O1	11.2875	80/20	11.2875
962561	AG1-105 C O1	5.6502	80/20	5.6502
962741	AG1-123 C O1	3.4622	80/20	3.4622
962751	AG1-124 C O1	3.7973	80/20	3.7973
963171	AG1-166 C	2.8909	80/20	2.8909
963181	AG1-167 C	2.8909	80/20	2.8909
963191	AG1-168 C	2.8909	80/20	2.8909
963201	AG1-169 C	2.8909	80/20	2.8909
963211	AG1-170 C	2.8909	80/20	2.8909
963271	AG1-176 C O1	18.8540	80/20	18.8540
963301	AG1-179 C	2.7241	80/20	2.7241
963311	AG1-180	1.3273	80/20	1.3273
963321	AG1-181 C O1	18.3458	80/20	18.3458
963361	AG1-185 O1	8.8762	80/20	8.8762

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963641	AG1-215 C	1.3491	80/20	1.3491
964111	AG1-272 C	2.9318	80/20	2.9318
964121	AG1-273 C	2.9318	80/20	2.9318
964131	AG1-274 C	2.9318	80/20	2.9318
964231	AG1-284 C O1	20.2255	80/20	20.2255
964241	AG1-285 C O1	11.0250	80/20	11.0250
964261	AG1-287 C	0.7492	80/20	0.7492
964471	AG1-310 C	1.0449	80/20	1.0449
964791	AG1-342 C	2.5948	80/20	2.5948
964821	AG1-345 C	1.1534	80/20	1.1534
964841	AG1-347 C	11.8194	80/20	11.8194
964931	AG1-357 C	7.8348	80/20	7.8348
965191	AG1-384 C	2.9318	80/20	2.9318
965281	AG1-393 C	2.8909	80/20	2.8909
965451	AG1-413 C O1	3.9569	80/20	3.9569
965581	AG1-426	7.5610	80/20	7.5610
965591	AG1-427 C	10.5299	80/20	10.5299
965601	AG1-428 C O1	2.2741	80/20	2.2741
965641	AG1-432 C O1	36.9672	80/20	36.9672
965721	AG1-440 C	3.7895	80/20	3.7895
965731	AG1-441 C	3.7895	80/20	3.7895
965771	AG1-445	2.1895	80/20	2.1895
965781	AG1-446	2.1895	80/20	2.1895
965831	AG1-451	6.1612	80/20	6.1612
966251	AG1-494 C	1.8194	80/20	1.8194
966621	AG1-532 C	0.4099	80/20	0.4099
966691	AG1-539 C	1.9309	80/20	1.9309
966751	AG1-546 C	6.7436	80/20	6.7436
966791	AG1-550 O1	24.3694	80/20	24.3694
966861	AG1-557 C O1 (Withdrawn : 12/14/2020)	3.6967	80/20	3.6967
WEC	WEC	0.1342	Confirmed LTF	0.1342
LGEE	LGEE	0.2878	Confirmed LTF	0.2878
CPL	CPL	2.2686	Confirmed LTF	2.2686
CBM-W2	CBM-W2	7.5264	Confirmed LTF	7.5264
NY	NY	0.4396	Confirmed LTF	0.4396
TVA	TVA	1.5232	Confirmed LTF	1.5232
SIGE	SIGE	0.1431	Confirmed LTF	0.1431
CBM-S2	CBM-S2	26.2148	Confirmed LTF	26.2148
CBM-S1	CBM-S1	0.3701	Confirmed LTF	0.3701
MEC	MEC	0.9057	Confirmed LTF	0.9057
LAGN	LAGN	1.8795	Confirmed LTF	1.8795
AA2-074	AA2-074	1.4972	LTF	1.4972
CBM-W1	CBM-W1	5.2996	Confirmed LTF	5.2996

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
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
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
AB2-040	Brink 115kV	Engineering and Procurement
AB2-043	Chase City 115kV	Under Construction
AB2-059	Benson-Dunbar 115kV	Partially in Service - Under Construction
AB2-060	Chase City-Lunenburg 115kV	In Service
AB2-077	Buggs Island-Chase City 115kV	Suspended
AB2-078	Buggs Island-Chase City 115kV	Suspended
AB2-079	Buggs Island-Chase City 115kV	Suspended
AB2-099	Ahoskie 34.5kV	Suspended
AB2-100	Clubhouse-Lakeview 230kV	Under Construction
AB2-169	Pantago-Five Points 115kV	Partially in Service - Under Construction
AB2-174	Emporia-Trego 115kV	In Service
AC1-034	Heartsease DP - Mayo Dunbar 115kV	Engineering and Procurement
AC1-036	Twittys Creek 34.5kV	Partially in Service - Under Construction
AC1-042	Altavista-Mt. Airy 69kV	Engineering and Procurement
AC1-054	Kerr Dam–Eatons Ferry 115 kV	Engineering and Procurement
AC1-075	Perth-Hickory Grove 115kV	Engineering and Procurement
AC1-080	Perth-Hickory Grove 115kV	Engineering and Procurement
AC1-083	Smith Mountain-Bearskin 138kV	Active
AC1-086	Thelma 230kV	Active
AC1-098	Dawson-South Justice 115kV	Engineering and Procurement
AC1-099	Dawson-South Justice 115kV	Engineering and Procurement
AC1-105	Halifax-Mt. Laurel 115kV	Engineering and Procurement
AC1-116	Mount Eagle 34.5kV	Engineering and Procurement
AC1-131	PJM-CPL	Confirmed
AC1-145	Gretna DP 69 kV	Engineering and Procurement
AC1-189	Chinquapin-Everetts 230kV	Active

Queue Number	Project Name	Status
AC1-208	Cox-Whitakers 115kV	Engineering and Procurement
AC1-221	Halifax-Person 230kV	Engineering and Procurement
AC1-222	Crystal Hill-Halifax 115kV	Engineering and Procurement
AC2-071	Buckingham 35kV	Engineering and Procurement
AC2-084	Dawson-South Justice 115kV	Active
AC2-100	Halifax-Person 230kV	Engineering and Procurement
AC2-112	Stuarts Draft-Waynesboro 115kV	Engineering and Procurement
AC2-165	Bremo-Powhatan 230kV	Engineering and Procurement
AD1-017	Smith Mountain-Bearskin 138 kV	Active
AD1-023	Cashie-Trowbridge 230 kV	Active
AD1-055	Crystal Hill-Halifax 115 kV	Engineering and Procurement
AD1-057	Hornertown-Hathaway 230 kV	Active
AD1-058	Halifax-Person 230 kV	Engineering and Procurement
AD1-076	Trowbridge 230 kV	Active
AD1-087	Clover-Sedge Hill 230 kV	Active
AD1-088	Briery-Clover 230 kV	Active
AD1-131	Sedge Hill-Person 230 kV	Engineering and Procurement
AD1-152	Clover-Sedge Hill 230 kV	Active
AD1-157	South Creek 34.5 kV	Engineering and Procurement
AD2-022	East Danville-Roxborough 230 kV	Active
AD2-023	E. Danville-Roxborough 230 kV	Active
AD2-033	Chase City-Lunenburg 115 kV	Active
AD2-046	Boydton DP-Kerr Dam 115 kV	Active
AD2-051	Earleys – Northampton 230kV	Active
AD2-063	Central-Chase City 115kV	Active
AD2-202	Clover-Sedge Hill 230kV	Active
AE1-035	Earleys 230 kV	Partially in Service - Under Construction
AE1-056	Red House-South Creek 115 kV	Active
AE1-075	Powhatan 34.5 kV	Engineering and Procurement
AE1-103	Holland-Union Camp 115 kV	Active
AE1-108	Bremo-Scottsville 138 kV	Active
AE1-148	Kerr Dam-Ridge Rd 115 kV	Active
AE1-230	Shockoe 69 kV	Active
AE1-250	Smith Mountain-E. Danville 138 kV	Active
AE2-033	Clubhouse-Sappony 230 kV	Active
AE2-040	Sappony 34.5 kV	Active
AE2-044	Anaconda-Dunbar 115 kV	Active
AE2-053	Kerr Dam-Ridge Road 115 kV	Active
AE2-092	Kidds Store-Sherwood 115 kV	Active
AE2-151	Earleys 34.5kV	Withdrawn
AE2-182	Briery-Clover 230 kV	Active
AE2-185	Gladys DP-Stonemill Switching Station 69 kV	Active
AE2-187	Shockoe DP-Chatham 69 kV	Active
AE2-258	Chase City 115 kV	Active
AE2-259	Curdsville-Willis Mtn 115 kV	Active
AE2-260	Clubhouse 230 kV	Active
AE2-283	Gladys-Stone Mill 69 kV	Active
AE2-291	Grit DP-Perth 115 kV	Active
AE2-292	Grit DP-Perth 115 kV	Active
AE2-346	Ahoskie 34.5 kV	Active
AF1-058	Welco 34.5 kV	Engineering and Procurement
AF1-059	Brodnax-South Hill 115 kV	Active

Queue Number	Project Name	Status
AF1-082	Heartsease-Mayo Dunbar DP	Active
AF1-173	Gretna DP-Shockoe DP 69 kV	Active
AF1-246	Clover-Rawlings 500 kV	Active
AF1-266	Clubhouse-Sapony 230 kV	Active
AF1-292	Fields 34.5kV	Active
AF1-293	Kidds Store-Fort Union 115 kV	Active
AF1-294	Jetersville-Ponton 115 kV	Active
AF1-323	Scottsville-Colleen 138 kV	Active
AF2-042	Clover-Rawlings 500 kV	Active
AF2-046	Tunis-Mapleton 115 kV	Active
AF2-080	Chinquapin-Everetts 230 kV	Active
AF2-085	Midlothian 34.5 kV	Engineering and Procurement
AF2-107	Clifford 138 kV	Active
AF2-115	Jetersville-Ponton 115 kV	Active
AF2-144	Powhatan 34.5 kV	Active
AF2-171	Madisonville 115 kV	Active
AF2-222	Madisonville DP-Twitty's Creek 115 kV	Active
AF2-242	Wharton 115 kV	Active
AF2-244	Powhatan 34.5 kV	Withdrawn
AF2-266	Clover 230 kV	Active
AF2-297	Sedge Hill 115 kV	Active
AF2-299	Fields 34.5 kV	Active
AF2-302	Scottsville-Colleen 138 kV	Active
AF2-397	Fork Union-Mt. Eagle 230 kV	Active
AF2-400	Franklin 13.2 kV	Engineering and Procurement
AF2-403	Shockoe DP-Chatham 69 kV	Active
AG1-007	Tar River 12.5 kV	Active
AG1-008	Tunis-Mapleton 115 kV	Active
AG1-021	Jetersville-Ponton 115 kV	Active
AG1-022	Scottsville-Colleen 138 kV	Active
AG1-030	Victoria DP-Martin DP 115 kV	Active
AG1-036	Tunis 34.5 kV	Active
AG1-037	Earlys 34.5 kV	Active
AG1-048	Jetersville-Ponton 115 kV	Active
AG1-082	Ahoskie 34.5 kV	Active
AG1-083	Ahoskie 34.5 kV	Active
AG1-084	Earlys 34.5 kV	Active
AG1-085	Earlys 34.5	Active
AG1-093	Halifax-Chase City 115 kV	Active
AG1-098	Briery-Clover 230 kV	Active
AG1-105	Clover-Sedge Hill 230 kV	Active
AG1-106	Thelma 230 kV	Active
AG1-123	Amherst-Riverville138 kV	Active
AG1-124	Gladstone 138 kV	Active
AG1-166	Lone Pine 115 kV	Active
AG1-167	Lone Pine 115 kV	Active
AG1-168	Lone Pine 115 kV	Active
AG1-169	Lone Pine 115 kV	Active
AG1-170	Lone Pine 115 kV	Active
AG1-176	Briery-Clover 230 kV	Active
AG1-179	Brunswick 69 kV	Active
AG1-180	Brunswick 69 kV	Active

Queue Number	Project Name	Status
AG1-181	Pamplin-Chase City 115 kV	Active
AG1-185	Pamplin-Chase City 115 kV	Active
AG1-209	Gretna 12.5 kV	Active
AG1-215	Fort Pickett 13.2 kV	Active
AG1-272	Twitty's Creek 115 kV	Active
AG1-273	Twitty's Creek 115 kV	Active
AG1-274	Twitty's Creek 115 kV	Active
AG1-275	Gladys DP-Stone Mill 69 kV	Active
AG1-276	Gladys DP-Stone Mill 69 kV	Active
AG1-284	Bremo-Cunningham DP 115 kV	Active
AG1-285	Chase City-Central 115 kV	Active
AG1-286	Johnson Mountain 138 kV	Active
AG1-287	South Boston 12.5 kV	Active
AG1-310	Crystal Hill-Perth 115 kV	Active
AG1-312	Earleys-Cashie 230 kV	Active
AG1-313	Jackson DP-Occoneechee 115 kV	Active
AG1-342	Dryburg 115 kV	Active
AG1-343	Boykins-Murphy 115 kV	Active
AG1-345	Crewe 12.5 kV	Active
AG1-347	Briery DP-Clover 230 kV	Active
AG1-357	Clover-Rawlings 500 kV	Active
AG1-384	Twitty's Creek 115 kV	Active
AG1-393	Fort Pickett DP 34.5 kV	Active
AG1-394	Boykins 34.5 kV	Active
AG1-413	South Hill-Bordnax 115 kV	Active
AG1-426	Bremo-Scottsville 138 kV	Active
AG1-427	Chase City-Drakes Branch 115 kV	Active
AG1-428	Danieltown 69 kV	Active
AG1-432	Curdsville DP-Willis Mt. 115 kV	Active
AG1-437	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
AG1-446	Palmer Springs 115 kV	Active
AG1-451	Curdsville DP-Willis Mt. 115 kV	Active
AG1-494	Boxwood-Riverville 138 kV	Active
AG1-505	Rawlings-Clover 500 kV	Active
AG1-506	Rawlings-Clover 500 kV	Active
AG1-532	Fields 34.5 kV	Active
AG1-539	Grit DP-Perth 115 kV	Active
AG1-546	Ebony-Elams Road 115 kV	Active
AG1-547	Mount Airy-Chatham 69 kV	Active
AG1-550	Mount Eagle-Fork Union 230 kV	Active
AG1-551	Parme 12.5 kV	Active
AG1-552	Carolina 13.2 kV	Active
AG1-557	Curdsville DP 115 kV	Withdrawn
V4-068	Murphy's 34.5kV	In Service

Queue Number	Project Name	Status
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_P4-2: 102802	CONTINGENCY 'DVP_P4-2: 102802' /* CAROLINA 115 KV OPEN BRANCH FROM BUS 313722 TO BUS 314559 CKT 1 /* 3OCCONEECHEE115.00 - 3CAROLNA 115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314571 CKT 1 /* 3CAROLNA 115.00 - 3EATON F 115.00 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 BRANCH FROM BUS 314559 TO BUS 314600 CKT 1 /* 3CAROLNA 115.00 - 3PLHITP 115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314561 CKT 1 /* 3CAROLNA 115.00 - 6CAROLNA 230.00 END
DVP_P1-2: LN 90	CONTINGENCY 'DVP_P1-2: LN 90' OPEN BRANCH FROM BUS 314265 TO BUS 314584 CKT 1 /* 3FIVEFORKSDP115.00 - 3LITTLTN 115.00 OPEN BRANCH FROM BUS 314265 TO BUS 314673 CKT 1 /* 3FIVEFORKSDP115.00 - 3PALMERSPRNG115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314585 CKT 1 /* 3CAROLNA 115.00 - 3L GASTN 115.00 OPEN BRANCH FROM BUS 314584 TO BUS 314585 CKT 1 /* 3LITTLTN 115.00 - 3L GASTN 115.00 OPEN BUS 314265 /* ISLAND: 3FIVEFORKSDP115.00 OPEN BUS 314584 /* ISLAND: 3LITTLTN 115.00 OPEN BUS 314585 /* ISLAND: 3L GASTN 115.00 END
DVP_P1-2: LN 130	CONTINGENCY 'DVP_P1-2: LN 130' OPEN BRANCH FROM BUS 314559 TO BUS 314600 CKT 1 /* 3CAROLNA 115.00 - 3PLHITP 115.00 OPEN BRANCH FROM BUS 314595 TO BUS 314600 CKT 1 /* 3PL HILL 115.00 - 3PLHITP 115.00 OPEN BRANCH FROM BUS 314600 TO BUS 314615 CKT 1 /* 3PLHITP 115.00 - 3SKIPPERS 115.00 OPEN BUS 314595 /* ISLAND: 3PL HILL 115.00 OPEN BUS 314600 /* ISLAND: 3PLHITP 115.00 END

Contingency Name	Contingency Definition
DVP_P2-2: BREMO B1	CONTINGENCY 'DVP_P2-2: BREMO B1' /* BREMO 230 KV OPEN BRANCH FROM BUS 314326 TO BUS 314747 CKT 1 /* 6BEARGRDN 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 314326 TO BUS 315191 CKT 1 /* 6BEARGRDN 230.00 - 1BEARGRDN G118.000 OPEN BUS 315191 /* ISLAND: 1BEARGRDN G118.000 OPEN BRANCH FROM BUS 314326 TO BUS 314747 CKT 2 /* 6BEARGRDN 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 314326 TO BUS 315192 CKT 1 /* 6BEARGRDN 230.00 - 1BEARGRDN G218.000 OPEN BRANCH FROM BUS 314326 TO BUS 315193 CKT 1 /* 6BEARGRDN 230.00 - 1BEARGRDN S122.000 OPEN BUS 315192 /* ISLAND: 1BEARGRDN G218.000 OPEN BUS 315193 /* ISLAND: 1BEARGRDN S122.000 OPEN BRANCH FROM BUS 314677 TO BUS 314747 CKT 1 /* 6BUCKING 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 313868 TO BUS 314747 CKT 1 /* 6CARTERV 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 313867 TO BUS 314747 CKT 1 /* 6BREMODIST 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 314744 TO BUS 314747 CKT 1 /* 3BREMO 115.00 - 6BREMO 230.00 OPEN BUS 314747 /* 6BREMO 230.00 KV OPEN BUS 314326 /* ISLAND: 6BEARGRDN 230.00 END
DVP_P1-3: 6SEEDGE HILL-TX#1	CONTINGENCY 'DVP_P1-3: 6SEEDGE HILL-TX#1' OPEN BRANCH FROM BUS 314696 TO BUS 314697 CKT 1 /* 3SEEDGE HILL 115.00 - 6SEEDGE HILL 230.00 END
314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1	CONTINGENCY '314765 6MTEAGLE 230 966790 AG1-550 TAP 230 1' OPEN BRANCH FROM BUS 314765 TO BUS 966790 CKT 1 END
314333 6POWHATN 230 933500 AC2-165 TAP 230 1	CONTINGENCY '314333 6POWHATN 230 933500 AC2-165 TAP 230 1' OPEN BRANCH FROM BUS 314333 TO BUS 933500 CKT 1 END
DVP_P1-2: LN 1045	CONTINGENCY 'DVP_P1-2: LN 1045' OPEN BRANCH FROM BUS 313898 TO BUS 314267 CKT 1 /* 3BUTCHER CRK115.00 - 3CHASCTY2 115.00 END
DVP_P1-2: LN 2201	CONTINGENCY 'DVP_P1-2: LN 2201' OPEN BRANCH FROM BUS 313725 TO BUS 314563 CKT 1 /* 6DRY BREAD 230.00 - 6CLUBHSE 230.00 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 45	CONTINGENCY 'DVP_P1-2: LN 45' OPEN BUS 304099 /* ISLAND: 3WARREN TAP 115.00 OPEN BUS 304100 /* ISLAND: 3HEND
314266 6NORTHAMPTON 230 936400 AD2-051 TAP 230 1	CONTINGENCY '314266 6NORTHAMPTON 230 936400 AD2-051 TAP 230 1' OPEN BRANCH FROM BUS 314266 TO BUS 936400 CKT 1 END
DVP_P1-3: 6SEEDGE HILL-TX#2	CONTINGENCY 'DVP_P1-3: 6SEEDGE HILL-TX#2' OPEN BRANCH FROM BUS 314696 TO BUS 314697 CKT 2 /* 3SEEDGE HILL 115.00 - 6SEEDGE HILL 230.00 END
DVP_P1-2: LN 238-A	CONTINGENCY 'DVP_P1-2: LN 238-A' OPEN BRANCH FROM BUS 314282 TO BUS 314435 CKT 1 /* 6CARSON 230.00 - 6SAPONY 230.00 OPEN BRANCH FROM BUS 314435 TO BUS 940480 CKT 1 /* 6SAPONY 230.00 - AE2- 033 TAP 230.00 OPEN BUS 314435 /* ISLAND: 6SAPONY 230.00 OPEN BUS 923852 /* ISLAND: AB2-025 E 230.00 END
DVP_P1-2: LN 158	CONTINGENCY 'DVP_P1-2: LN 158' OPEN BRANCH FROM BUS 313755 TO BUS 314701 CKT 1 /* 3FLAT CREEK 115.00 - 3LONEPN 115.00 OPEN BRANCH FROM BUS 313755 TO BUS 314707 CKT 1 /* 3FLAT CREEK 115.00 - 3MORAN 115.00 OPEN BRANCH FROM BUS 314519 TO BUS 314701 CKT 1 /* 3LONEPINE_1 115.00 - 3LONEPN 115.00 OPEN BRANCH FROM BUS 314691 TO BUS 314707 CKT 1 /* 3FARMVIL 115.00 - 3MORAN 115.00 OPEN BUS 313755 /* ISLAND: 3FLAT CREEK 115.00 OPEN BUS 314519 /* ISLAND: 3LONEPINE_1 115.00 OPEN BUS 314707 /* ISLAND: 3MORAN 115.00 END
DVP_P1-2: LN 2056-A	CONTINGENCY 'DVP_P1-2: LN 2056-A' OPEN BRANCH FROM BUS 313845 TO BUS 934330 CKT 1 /* 6HATHAWAY 230.00 - AD1-057 TAP 230.00 END

Contingency Name	Contingency Definition
DVP_P4-6: CAROLIN T122	CONTINGENCY 'DVP_P4-6: CAROLIN T122' /* CAROLINA 115 KV OPEN BRANCH FROM BUS 314559 TO BUS 315126 CKT 1 /* 3CAROLNA 115.00 - 1ROARAP2 14.400 OPEN BRANCH FROM BUS 314559 TO BUS 315128 CKT 1 /* 3CAROLNA 115.00 - 1ROARAP4 14.400 OPEN BUS 315126 /* ISLAND: 1ROARAP2 14.400 OPEN BUS 315128 /* ISLAND: 1ROARAP4 14.400 OPEN BRANCH FROM BUS 314559 TO BUS 314571 CKT 1 /* 3CAROLNA 115.00 - 3EATON F 115.00 OPEN BRANCH FROM BUS 313722 TO BUS 314559 CKT 1 /* 3OCCONEECHEE115.00 - 3CAROLNA 115.00 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 BRANCH FROM BUS 314559 TO BUS 314578 CKT 1 /* 3CAROLNA 115.00 - 3HORNRTN 115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314585 CKT 1 /* 3CAROLNA 115.00 - 3L GASTN 115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314600 CKT 1 /* 3CAROLNA 115.00 - 3PLHITP 115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314561 CKT 1 /* 3CAROLNA 115.00 - 6CAROLNA 230.00 OPEN BUS 314559 /* 3CAROLNA 115.00 KV OPEN BUS 314835 /* ISLAND: 3CAROL_1 115.00 END
AEP_P2-1_242520 05J.FERR 500 242514 05J.FERR 765 1	CONTINGENCY 'AEP_P2-1_242520 05J.FERR 500 242514 05J.FERR 765 1' OPEN BRANCH FROM BUS 242520 TO BUS 242514 CKT 1 END
DVP_P1-2: LN 298	CONTINGENCY 'DVP_P1-2: LN 298' OPEN BRANCH FROM BUS 314677 TO BUS 314692 CKT 1 /* 6BUCKING 230.00 - 6FARMVIL 230.00 OPEN BRANCH FROM BUS 314677 TO BUS 314747 CKT 1 /* 6BUCKING 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 314691 TO BUS 314692 CKT 2 /* 3FARMVIL 115.00 - 6FARMVIL 230.00 OPEN BUS 314677 /* ISLAND: 6BUCKING 230.00 OPEN BUS 924032 /* ISLAND: AB2-045 E 230.00 OPEN BUS 932511 /* ISLAND: AC2-071 C 230.00 OPEN BUS 932512 /* ISLAND: AC2-071 E 230.00 END
AEP_P2-1_242520 05J.FERR 500 306719 8ANTIOCH 500 1	CONTINGENCY 'AEP_P2-1_242520 05J.FERR 500 306719 8ANTIOCH 500 1' OPEN BRANCH FROM BUS 242520 TO BUS 306719 CKT 1 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 2027	CONTINGENCY 'DVP_P1-2: LN 2027' OPEN BRANCH FROM BUS 313868 TO BUS 314747 CKT 1 /* 6CARTERV 230.00 - 6BREMO 230.00 OPEN BRANCH FROM BUS 313868 TO BUS 933500 CKT 1 /* 6CARTERV 230.00 - AC2-165 TAP 230.00 OPEN BRANCH FROM BUS 314310 TO BUS 314322 CKT 1 /* 6JUDES F 230.00 - 6MDLTHAN 230.00 OPEN BRANCH FROM BUS 314310 TO BUS 314333 CKT 1 /* 6JUDES F 230.00 - 6POWHATN 230.00 OPEN BRANCH FROM BUS 314333 TO BUS 933500 CKT 1 /* 6POWHATN 230.00 - AC2-165 TAP 230.00 OPEN BUS 313868 /* ISLAND: 6CARTERV 230.00 OPEN BUS 314310 /* ISLAND: 6JUDES F 230.00 OPEN BUS 314333 /* ISLAND: 6POWHATN 230.00 OPEN BUS 923862 /* ISLAND: AB2-026 E 230.00 OPEN BUS 938561 /* ISLAND: AE1-075 C 230.00 OPEN BUS 938562 /* ISLAND: AE1-075 E 230.00 OPEN BUS 933500 /* ISLAND: AC2-165 TAP 230.00 OPEN BUS 933501 /* ISLAND: AC2-165 C 230.00 OPEN BUS 933502 /* ISLAND: AC2-165 E 230.00 END
DVP_P1-2: LN 68-A	CONTINGENCY 'DVP_P1-2: LN 68-A' OPEN BRANCH FROM BUS 313737 TO BUS 314527 CKT 1 /* 3COPELD DP 115.00 - 3HOLLAND 115.00 OPEN BRANCH FROM BUS 313737 TO BUS 961850 CKT 1 /* 3COPELD DP 115.00 - 3SUFFOLK 115.00 OPEN BRANCH FROM BUS 314527 TO BUS 938770 CKT 1 /* 3HOLLAND 115.00 - AE1-103 TAP 115.00 OPEN BUS 313737 /* ISLAND: 3COPELD DP 115.00 OPEN BUS 314527 /* ISLAND: 3HOLLAND 115.00 END
Base Case	
AEP_P1-3_#1377_05J.FERR 765_1	CONTINGENCY 'AEP_P1-3_#1377_05J.FERR 765_1' OPEN BRANCH FROM BUS 242514 TO BUS 242520 CKT 1 / 242514 05J.FERR 765 242520 05J.FERR 500 1 OPEN BRANCH FROM BUS 242520 TO BUS 306719 CKT 1 / 242520 05J.FERR 500 306719 8ANTIOCH 500 1 END
314435 6SAPONY 230 940480 AE2-033 TAP 230 1	CONTINGENCY '314435 6SAPONY 230 940480 AE2-033 TAP 230 1' OPEN BRANCH FROM BUS 314435 TO BUS 940480 CKT 1 END
DVP_P1-2: LN 556-D	CONTINGENCY 'DVP_P1-2: LN 556-D' OPEN BRANCH FROM BUS 966360 TO BUS 314936 CKT 1 /* AG1-055 TAP 500.00 - 8RAWLINGS 500.00 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 556-B	CONTINGENCY 'DVP_P1-2: LN 556-B' OPEN BRANCH FROM BUS 945810 TO BUS 964930 CKT 1 /* AF1-246 TAP 500.00 - AG1-357 TAP 500.00 END
DVP_P1-2: LN 556-C	CONTINGENCY 'DVP_P1-2: LN 556-C' OPEN BRANCH FROM BUS 964930 TO BUS 966360 CKT 1 /* AG1-357 TAP 500.00 - AG1-055 TAP 500.00 END
DVP_P1-2: LN 2193	CONTINGENCY 'DVP_P1-2: LN 2193' OPEN BRANCH FROM BUS 313707 TO BUS 313867 CKT 1 /* 6FORK UNION 230.00 - 6BREMIST 230.00 OPEN BRANCH FROM BUS 313867 TO BUS 314747 CKT 1 /* 6BREMIST 230.00 - 6BREMIST 230.00 OPEN BUS 313867 /* ISLAND: 6BREMIST 230.00 END
DVP_P1-2: LN 235-A	CONTINGENCY 'DVP_P1-2: LN 235-A' OPEN BRANCH FROM BUS 313802 TO BUS 314268 CKT 1 /* 6PRINCE EDW 230.00 - 6BRIERY 230.00 OPEN BRANCH FROM BUS 313802 TO BUS 314692 CKT 1 /* 6PRINCE EDW 230.00 - 6FARMVIL 230.00 OPEN BRANCH FROM BUS 314268 TO BUS 964840 CKT 1 /* 6BRIERY 230.00 - AG1- 347 TAP 230.00 OPEN BRANCH FROM BUS 314691 TO BUS 314692 CKT 1 /* 3FARMVIL 115.00 - 6FARMVIL 230.00 OPEN BUS 313802 /* ISLAND: 6PRINCE EDW 230.00 OPEN BUS 314268 /* ISLAND: 6BRIERY 230.00 END

Contingency Name	Contingency Definition
DVP_P7-1: LN 22-90	CONTINGENCY 'DVP_P7-1: LN 22-90' /*. OPEN BRANCH FROM BUS 314559 TO BUS 314571 CKT 1 /* 3CAROLNA 115.00 - 3EATON F 115.00 OPEN BRANCH FROM BUS 314571 TO BUS 316125 CKT 1 /* 3EATON F 115.00 - AC1-054 TAP 115.00 OPEN BRANCH FROM BUS 314702 TO BUS 316125 CKT 1 /* 3KERR 115.00 - AC1-054 TAP 115.00 OPEN BUS 314571 /* ISLAND: 3EATON F 115.00 OPEN BUS 316125 /* ISLAND: AC1-054 TAP 115.00 OPEN BUS 316126 /* ISLAND: AC1-054 MAIN115.00 OPEN BUS 316127 /* ISLAND: AC1-054 COL222.860 OPEN BUS 316128 /* ISLAND: AC1-054 COL122.860 OPEN BUS 316129 /* ISLAND: AC1-054 C 0.3850 OPEN BUS 925785 /* ISLAND: AC1-054 E 0.3850 OPEN BRANCH FROM BUS 314265 TO BUS 314584 CKT 1 /* 3FIVEFORKSDP115.00 - 3LITTLTN 115.00 OPEN BRANCH FROM BUS 314265 TO BUS 314673 CKT 1 /* 3FIVEFORKSDP115.00 - 3PALMERSPRNG115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314585 CKT 1 /* 3CAROLNA 115.00 - 3L GASTN 115.00 OPEN BRANCH FROM BUS 314584 TO BUS 314585 CKT 1 /* 3LITTLTN 115.00 - 3L GASTN 115.00 OPEN BUS 314265 /* ISLAND: 3FIVEFORKSDP115.00 OPEN BUS 314584 /* ISLAND: 3LITTLTN 115.00 OPEN BUS 314585 /* ISLAND: 3L GASTN 115.00 END
DVP_P1-2: LN 2012-B	CONTINGENCY 'DVP_P1-2: LN 2012-B' OPEN BRANCH FROM BUS 936400 TO BUS 314569 CKT 1 /* 6NORTHAMPTON230.00 - AD2-051 TAP 230.00 END
DVP_P1-2: LN 2028-B	CONTINGENCY 'DVP_P1-2: LN 2028-B' OPEN BRANCH FROM BUS 966790 TO BUS 314765 CKT 1 /* AF2-397 TAP 230.00 - 6MTEAGLE 230.00 OPEN BRANCH FROM BUS 314749 TO BUS 314765 CKT 1 /* 6CHARLVL 230.00 - 6MTEAGLE 230.00 OPEN BUS 314765 /* ISLAND: 6MTEAGLE 230.00 OPEN BUS 926451 /* ISLAND: AC1-116 C 230.00 OPEN BUS 926452 /* ISLAND: AC1-116 E 230.00 END

Contingency Name	Contingency Definition
DVP_P4-2: 13002	CONTINGENCY 'DVP_P4-2: 13002' /* CAROLINA 115 KV OPEN BRANCH FROM BUS 314559 TO BUS 314600 CKT 1 /* 3CAROLNA 115.00 - 3PLHITP 115.00 OPEN BRANCH FROM BUS 314595 TO BUS 314600 CKT 1 /* 3PL HILL 115.00 - 3PLHITP 115.00 OPEN BRANCH FROM BUS 314600 TO BUS 314615 CKT 1 /* 3PLHITP 115.00 - 3SKIPPERS 115.00 OPEN BUS 314595 /* ISLAND: 3PL HILL 115.00 OPEN BUS 314600 /* ISLAND: 3PLHITP 115.00 OPEN BRANCH FROM BUS 314559 TO BUS 314571 CKT 1 /* 3CAROLNA 115.00 - 3EATON F 115.00 OPEN BRANCH FROM BUS 313722 TO BUS 314559 CKT 1 /* 3OCCONEECHEE115.00 - 3CAROLNA 115.00 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 BRANCH FROM BUS 314559 TO BUS 314561 CKT 1 /* 3CAROLNA 115.00 - 6CAROLNA 230.00 END

12 Short Circuit Analysis

The following Breakers are overdutied:

None.

12.1 System Reinforcements - Short Circuit

No short circuit impacts were identified for this project.

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